

Draft for Secretarial Review

Environmental Assessment/Regulatory Impact Review/
Initial Regulatory Flexibility Act

for

Amendment 60 to the Bering Sea/Aleutian Islands FMP

Amendment 58 to the Gulf of Alaska FMP

Amendment 10 to the Bering Sea/Aleutian Islands Crab FMP

Analysis of Proposed License Limitation Amendment Package

July 23, 1999



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Abbreviations

ACC	Alaska Crab Coalition (ACC)
ADF&G	Alaska Department of Fish and Game
AI	Aleutian Islands Groundfish Management Area
BO	biological opinion
BQP	Base Qualifying Period
BS	Bering Sea Groundfish Management Area
BSA	Bering Sea and Aleutian Islands
CDP	Community Development Plan
CDQ	Community Development Quota
CFEC	Commercial Fishing Entry Commission
CG	Central Gulf Groundfish Management Area
CG+WY	Central Gulf and West Yakutat License Area
CP	catcher processor
CRP	Comprehensive Rationalization Program
CV	catcher vessel
CVOA	Catcher Vessel Operational Area
DSR	demersal shelf rockfish
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EIS	Environmental Impact Study found to have no significant impact (FONSI)
EO-12866	Executive Order – 12866
EQP	Endorsement Qualifying Period
ESA	Endangered Species Act
FFP	Federal Fishing Permit
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
FWS	U.S. Fish and Wildlife Service
GC	General Counsel
GCM	Groundfish and Crab Moratorium
GHL	Guideline Harvest Levels
GOA	Gulf of Alaska
H&G	headed and gutted
IFQ	Individual Fishing Quota
IRFA	Initial Regulatory Flexibility Analysis
IRIU	Improved Retention / Improved Utilization
LLP	License Limitation Program
LOA	length overall

MLOA	maximum length overall
MMPA	Marine Mammal Protection Act
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
MSY	maximum sustainable yield
mt	metric ton(s)
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
nmi	nautical mile
NOAA	National Oceanic and Atmospheric Administration
NPFMC	North Pacific Fishery Management Council
OY	optimum yield
PSC	Prohibited Species Catch
R ²	correlation of determination
RAM	the Restricted Access Management Division of NMFS
RFA	Regulatory Flexibility Act
RIR	Regulatory Impact Review
rwt	round weight
SAFLLA	Supplemental Analysis of Final License Limitation Alternative for the Groundfish Fisheries of the Bering Sea and Aleutian Islands and Gulf of Alaska and the King and Tanner Crab Fisheries of the Bering Sea and Aleutian Islands
SEO	Southeast Outside Groundfish Management Area
SOC	Secretary of Commerce
StD	standard deviation
TAC	Total Allowable Catch
U.S.C.	United States Code
USCG	U.S. Coast Guard
WG	Western Gulf Groundfish Management Area
WY	West Yakutat Groundfish Management Area

Executive Summary

The North Pacific Fishery Management Council (NPFMC or Council) approved License Limitation Programs (LLPs) for its Groundfish and Crab Fishery Management Plans (FMPs) on June 17, 1995. The U.S. Secretary of Commerce (SOC) approved the proposed rule implementing the Groundfish and Crab LLPs on September 12, 1997. The final rule was approved on October 1, 1998. Fishing under the final LLPs is expected to begin in January 2000.

Since the approval of the proposed rule for LLPs, members of industry have reviewed the programs and have requested that the Council revise several of the provisions and qualification criteria. In December 1997, the Council began discussions of amendments to the LLP, including changes in the basic eligibility criteria for crab, in the form of additional recent participation criteria. In February 1998, after further discussions and review of preliminary analyses, the Council initiated analysis of an amendment package containing six Proposed Actions to change the Crab and Groundfish LLPs. These changes focus primarily on further capacity reductions and transferability restrictions for the groundfish and crab fisheries.

This document examines the impacts of each of the proposed actions considered by the Council in Chapters 3 through 9, and describes the Council's preferred alternatives in Chapter 10. This document also constitutes an Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis (EA/RIR/IRFA) for amendments to the affected FMPs.

Summary of the Status Quo for Groundfish

Under the current North Pacific Fishery Management Council (NPFMC) Groundfish License Limitation Program (LLP), a single type of groundfish license will be issued. The Groundfish LLP restricts access to groundfish fisheries in the Exclusive Economic Zone (EEZ) off the coast of Alaska and does not restrict access to waters of the State of Alaska. Area endorsements will be issued for the following management areas: Aleutian Islands (AI), Bering Sea (BS), Western Gulf (WG), Central Gulf and West Yakutat (CG+WY), and Southeast outside (SEO). The endorsements will be contained under one of the following General License areas: Gulf of Alaska (GOA), Bering Sea and Aleutian Islands (BSA), or both the GOA and BSA (GOA/BSA) and would not be severable from the licenses.

Licenses will be issued to the owners of record as of June 17, 1995, of the qualified vessels. The owners on June 17, 1995, must have been persons eligible to document a fishing vessel under Chapter 121, Title 46, of the United States Code (U.S.C.). In cases in which the vessel was sold on or before June 17, 1995, and the disposition of the fishing rights was not mentioned in the contract, the catch history would go with the vessel to the new owner. If the transfer occurred after June 17, 1995, the fishing rights would stay with the seller of the vessel unless the contract specified otherwise.

Licenses and endorsements will be designated as Catcher Vessel (CV) or Catcher Processor (CP), and with one of three vessel length designations. In the SEO, an additional designation allowing the use of legal fixed gear only will be assigned, regardless of the gear used to qualify for the endorsement. CP or CV designations will be determined on the basis of the activities of the vessel during the period from January 1, 1994, through June 17, 1995, or the most recent year of participation during the EQP. Vessel length classes will be based on the length overall (LOA of the vessel as of June 17, 1995, provided that the vessel conforms with the provisions of the "20% upgrade" and "Maximum LOA" (MLOA) rules defined in the Groundfish and Crab Moratorium (GCM) [NPFMC, 1992].

A total of 2,435 vessels are projected to qualify for licenses under the Groundfish LLP. Of these, 1,793 listed Alaska and 642 listed other states as the state of residence in the most recent vessel documentation data from the Commercial Fishery Entry Commission (CFEC).

Three full years have passed since the Council approved the proposed rule for the Groundfish LLP. Since that time the number of vessels participating in the fisheries has remained relatively stable. There were

1,701 vessels with documented landings in 1995. The total number of vessels remained relatively constant over the next 3 years, dropping by 100 to 1,599 in 1996 and increasing to 1,689 in 1997. There were 486 vessels that participated in 1998 (on or before February 7). Although the number of participants in almost all vessel classes appears relatively stable over the years, for some classes it is apparent that there has been considerable movement in and out of the fishery. For many of the vessel classes there has been a downward trend in the number of participating qualifiers. This downward trend is not wholly unexpected — the same phenomenon was documented in the analyses examining the Sablefish and Halibut Individual Fishing Quota (IFQ) Program [NPFMC, 1992] and the GCM.

Summary of the Status Quo for Crab

Provisions of the NPFMC's Crab LLP are generally similar to the provisions of the Groundfish LLP. The major difference between the two is the type of endorsements that will be issued. In the Crab LLP endorsements will be issued for crab fisheries on a species and area basis.

The Crab LLP restricts access to the BSA king and tanner crab fisheries in the EEZ. The program does not restrict access within waters of the State of Alaska, nor does it affect crab fisheries that are not managed by the BSA king and tanner crab Fisheries Management Plan (FMP).

For General Licenses, the Base Qualifying Period (BQP) is January 1, 1988 through June 27, 1992, with the additional provision that any vessel that had crossed over to crab from groundfish (by December 31, 1994) under the moratorium would also qualify for a General License. Vessels meeting these requirements would receive endorsements on the basis of landings in the January 1, 1992, through December 31, 1994, EQP, except for vessels that engaged in the Bristol Bay red king crab fishery, which will use January 1, 1991 through December 31, 1994 as the EQP. Vessels in the Norton Sound king crab fisheries and Pribilof area king crab fisheries will be exempt from the requirements of the BQP, but must have made landings between January 1, 1993, and December 31, 1994, to qualify for a general license and endorsement.

The crab BQP selected by the Council is the same as the BQP chosen for groundfish. This qualification period was selected for both fisheries because it reflects the moratorium years and the Council's long-published control date. A 4-month extension of the moratorium was included in the Council's BQP to match the cutoff date announced early in its Comprehensive Rationalization Program (CRP) deliberations which continued from 1992 through 1995. The three most recent years a fishery was open were used for the EQP. Use of the most recent years for endorsement qualification was selected because those years reflect a fishery's current fleet and participants.

Under the original qualifying criteria, 365 vessels are projected to qualify for crab licenses in areas excluding Norton Sound. Of the total projected qualifiers, Alaskans currently own 125 vessels and 240 are currently owned by residents of other states.

Participation declined from 349 vessels in 1995 to 299 in 1996 and 282 in 1997. Through February 7, 1998, 219 vessels had participated. The lower number in 1998 probably reflects the fact that only a few weeks of the fishing year had passed. Throughout the recent period a total of 410 unique vessels have participated: 19 vessels as catcher processors and 391 as catcher vessels.

The largest decline appears for seine combination catcher vessels. The number of participants reported in the data dropped from 70 in 1995 to 7 in 1997. The numbers of participants in other vessel classes varied within a much narrower range. The number of Alaskan residents participating in the crab fisheries has declined throughout the period, while the number of participating residents of other states fell in 1996 and then rose in 1997.

Summary of Proposed Action 1: Restrict Transfers of Non-Federally Permitted Vessels

This action would make the license and the vessel that qualified for the Groundfish LLP, but had not obtained a federal fishing permit (FFP) at any point from the general or endorsement qualifying periods through October 9, 1998 a non-severable package. Under the proposed action, persons who had purchased fishing histories through February 7, 1998 would be allowed to receive any licenses for which that fishing history qualified. However, any licenses or fishing histories transferred after February 7, 1998 would not be allowed unless the vessel originally assigned to the license is transferred with the license.

The Council also voted to allow lost or destroyed vessels to be replaced subject to the LLP replacement and upgrade provisions. The license could then be transferred but only with the replacement vessel.

Recent developments have caused the analysis of Proposed Action 1 to be changed significantly from the Initial Draft for Council Review submitted in May 1998. On June 4, 1998, NMFS notified the NPFMC that changes to the proposed rule would be implemented in the final rule. One of the changes significantly alters the meaning of a “license transfer” under the Groundfish and Crab LLPs. The final rule will remove requirements that a license be assigned to a specific vessel. This change implies that under the final rule a transfer will not be considered to have taken place if the license is used on one vessel and subsequently on another vessel. The proposed rule implied that a vessel would be specified on the license and that an NMFS-approved license transfer would have to occur in order to use the license on a different vessel. NMFS is developing a discussion paper (to be presented in October) explaining its reasoning and outlining options for changing the regulations so that the vessel is indicated on the license.

NMFS changes in the final rule clearly have implications on the transferability of licenses. Therefore, the analysis of the proposed action looks at transferability under six different cases defined as follows:

- Definition 1: The status quo as defined by the proposed rule. Vessels will be specified on the license. (Status Quo – PR).
- Definition 2: Proposed Action 1 as originally configured, with no license transfers allowed in cases in which an FFP had not been obtained. In all cases vessels will be specified on licenses. (Proposed Action 1 – PR).
- Definition 3: Proposed Action 1, with the option that in cases in which an FFP had not been obtained, transfers would be allowed, but only if the vessel originally assigned to the license is transferred with the license. In all cases, vessels will be specified on licenses. (Proposed Option – PR).
- Definition 4: The status quo as defined by the final rule. Vessels will not be specified on the license. (Status Quo – FR).
- Definition 5: Proposed Action 1 as originally configured, with no license transfers allowed in cases in which an FFP had not been obtained. In all cases vessels will not be specified on the licenses. (Proposed Action 1 – FR).
- Definition 6: Proposed Action 1, with the option that in cases in which an FFP had not been obtained, transfers would be allowed, but only if the vessel originally assigned to the license is transferred with the license. In such cases, licenses would specify the vessel, but in all other cases, vessels would not be specified on the licenses. (Proposed Option – FR).

The Federal Fishing Permit (FFP) history of each of the 2,435 vessels projected to qualify under the Groundfish LLP was examined for the years 1988–October 9, 1998. A total of 1,988 vessels were found to have obtained FFPs during the years of the LLP qualifying period (QVOWFFP). Of the 447 vessels projected to qualify that were not federally permitted (QVOXFFP), nearly 90 percent are currently owned by residents of Alaska, and all but 7 are 58' LOA or less, as judged by their vessel classes. The Alaskan QVOXFFP represents about 25 percent of all Alaskan-owned vessels projected to qualify under the Groundfish LLP.

Under both the final rule and the proposed rule, the proposed action and the proposed option were not judged to create significantly positive outcomes. The impacts that are relatively certain to occur are: (1) the negative financial consequences for QVOXFFP, and (2) the complications the action may bring to the implementation and administrative process.

Impacts on catch and catch capacity has the potential to be minimally positive if higher license prices result because of the constraint on supply. Because 1995 mean catch levels for QVOWFFP were higher than for QVOXFFP, there is some chance that overall catch capacity could be affected positively. However, if prices for licenses increase, some vessels that might have chosen to fish in federal waters may instead choose to fish only in state waters. This potential could increase the effort on groundfish in state waters, at least minimally.

Under the final rule, Proposed Action 1 - FR appears to be less restrictive for QVOXFFP than Proposed Option 1 - FR, in that QVOXFFP would be allowed to enter into partnerships and joint ventures under Proposed Action 1 - FR. Under the proposed rule, Proposed Action 1 - PR appears to be more restrictive for QVOXFFP than Proposed Option 1 - PR, in that QVOXFFP would, at least, be able to transfer licenses if vessels were also transferred. Under the proposed rule all partnerships and joint ventures would have been subject to NMFS review, and were therefore not considered a significant issue.

The Council selected, as their preferred alternative, to restrict the transfers of groundfish licenses earned on vessels that never held a Federal Fisheries permit prior to October 9, 1998 (the date of final Council action). In these cases, the license may only be transferred if the vessel listed on the license is transferred along with the license.

Summary of Proposed Action 2: Add Trawl and Non-Trawl Gear Designations to the Groundfish LLP

Proposed Action 2 would add trawl gear, non-trawl gear, or all gear designations to the Groundfish LLP. The designations would be based on all gears used by the qualifying vessel during the original qualification periods, regardless of area. Additionally, Proposed Action 2 would allow qualifying vessels to augment their gear designations by showing that they have made a significant financial commitment to use any additional gear types in the groundfish fisheries either by:

- Having made a legal landing through February 7, 1998, with the additional gear type, or
- Documenting a significant investment toward the conversion of a vessel or the deployment of the additional gear type through February 7, 1998, and making a landing with the new gear type by December 31, 1998. A significant investment was defined as a minimum purchase of \$100,000 worth of equipment specific to trawling or having acquired groundline, hooks or pots, and hauling equipment for the purpose of prosecuting the fixed gear fisheries on or by February 7, 1998.

Overall, Proposed Action 2 appears to create positive impacts for the groundfish fisheries. Gear designations will reduce the potential that additional trawl effort will be brought into the fisheries. The positive benefits to the fishery as a whole probably will be offset to some degree by lower prices for individual licenses that do not allow use of trawl gear.

The Council selected the option that would add trawl, non-trawl, or both gear designations to groundfish licenses. Section 10.2 of this document describes how each of those designations can be earned, and provides estimates of the number of licenses and endorsements that are expected to be issued. In general, it appears that about 2,300 vessels would qualify for non-trawl endorsements, and about 360 vessels would be allowed to use trawl gear.

Summary of Proposed Action 3: Rescind the Community Development Quota Vessel Exemption

The Council made exemptions for four categories of vessels from the requirements of the LLP, including an exemption for Community Development Quota (CDQ) groups. The specific language designating CDQ vessels as eligible for exemption in the proposed rule is as follows:

A catcher vessel or catcher/processor vessel that does not exceed 125 ft (38.1 m) LOA, and that was, after November 18, 1992, specifically constructed for and used exclusively in accordance with a CDQ approved by the Secretary of Commerce under subpart C of this part, and is designed and equipped to meet specific needs that are described in the CDQ.

The Council voted to rescind the exemption for CDQ vessels (exemption iv), but would allow any vessels that CDQ groups have previously built within an existing Community Development Plan (CDP) to continue to be used.

The CDQ vessel exemption was initially established as a part of the GCM, which was developed in 1992 prior to the implementation of the first pollock CDQ programs. At the time there was a great deal of uncertainty about how the CDQ program would operate. With the CDQ program established as a permanent fixture in the fisheries of the North Pacific, and the demonstrated ability of CDQ groups to form mutually beneficial partnerships with industry, there does not appear to be a need to maintain the CDQ exemption in the crab and Groundfish LLPs.

The Council voted to rescind the CDQ vessel exemption, but grandfathered any vessels that were currently being built or operating in an existing CDQ program.

Summary of Proposed Action 4: Clarify the Council's Intent on the Transfer of Catch History

The Council took no action on this amendment which would have clarified the Council's intent that catch history transfers be recognized, except those occurring after June 17, 1995, and where the owner of the vessel at that time was unable to document a vessel under Chapter 121, Title 46, U.S.C.

The proposed action would rewrite the language in the plan amendment and modify the regulations to indicate that the license-qualifying fishing history of vessels whose owners were unable to document their vessels on June 17, 1995, would be extinguished. The change in the language would clarify the Council's intent and ensure that the fishing history of any vessel whose owner was ineligible to document a vessel on June 17, 1995, would not be used to qualify for a license.

The analysis also notes that some persons who are eligible to document a vessel in the U.S. may and do concurrently own and operate fishing vessels in other countries. Many vessels that have been fishing under the flags of other countries may in fact be U.S.-owned, and may have been U.S.-owned as of June 17, 1995, and therefore would not be affected by the proposed action.

NOAA GC has advised the Council that Proposed Action 4 may violate foreign reciprocity agreements listed in the Magnuson-Stevens Act, and would likely be unable to withstand legal challenge. Therefore, the Council decided not to proceed with the proposed action.

Summary of Proposed Action 5: Require Recent Participation in Crab Fisheries

Proposed Action 5 would require recent participation in the BSA king and tanner crab fisheries in order to qualify for a license under the Crab LLP. The recent participation period would involve 1 or more years (from 1995 through February 7, 1998). The recent participation requirement would apply to the general license only; if a vessel satisfies the recent participation criteria chosen, it would receive its original license and all of the species/area endorsements for which it qualified under the original criteria. No new species/area endorsements could be earned during the recent qualification.

The specific alternatives addressed are as follows:

Alternative 1: Status quo

Alternative 2: Require participation in 1996

Alternative 3: Require participation in both 1995 and 1996

Alternative 4: Require participation in both 1996 and 1997

Alternative 5: Require participation in the two calendar years from 1997 through February 7, 1998

Alternative 6: Require participation in all three calendar years from 1995 through 1997

Alternative 7: Require participation in all three calendar years from 1996 through February 7, 1998

Alternative 8: Require participation in all four calendar years from 1995 through February 7, 1998

Alternative 9 (Council's Preferred Alternative): Require participation at least once between 1996 and February 7, 1998

Alternative 10: Require participation at least once between 1995 and February 7, 1998

Alternative 11: Require participation in any 2 of the 4 calendar years from 1995 through February 7, 1998

The Council selected Alternative 9 as its preferred alternative. The Council also included the following four exemptions to this requirement:

1. Vessels with only a Norton Sound Endorsement
2. All vessels that are < 60' LOA and are qualified under the original LLP
3. Vessels that made landings in the Bering Sea and Aleutian Islands crab fishery in 1998, on or before February 7, 1998, and for which the owner acquires license limitation rights from a vessel that meets the general qualification period (GQP) and endorsement qualification period (EQP) landings requirements. The owner must have acquired these rights or entered into a contract to acquire the rights by 8:36 a.m. Pacific time on October 10, 1998.
4. A vessel that was lost or destroyed and which made a landing (or its replacement vessel) in the Bering Sea and Aleutian Islands crab fishery from the time it left the fishery and January 1, 2000, would be deemed to have met the recent participation criteria and would be issued the general license and all species/area endorsements earned under the original crab LLP.

The Council also stated its intent regarding the combining of catch histories. Their intent was that the catch history of a vessel that qualified under the original crab LLP, but did not meet the recent participation requirement and the catch history of a second vessel that did not qualify under the original crab LLP but had recent crab participation, could not be combined after 8:36 a.m. Pacific time on October 10, 1998 and qualify a vessel where neither was qualified before. The cutoff time applies to either acquiring of the actual catch history rights or entering into a contract to acquire those catch history rights. The Council understood that allowing these histories to be combined would render the recent qualification requirement ineffective. There are enough recent catch histories available to allow all 365 vessels to continue operating in the fishery.

Additional information on the number of vessels expected to qualify for the crab LLP program is presented in Chapter 10.4. The number of vessels listed in chapter 10 (298), are different from those presented in Chapter 7, as a result of the updates to the crab LLP database.

Summary of Proposed Action 6: Allow Limited Processing for Catcher Vessels

Proposed Action 6 will change the Groundfish LLP to allow limited processing for vessels < 60' LOA with CV designations. These vessels will be allowed to process up to 1 mt round weight per day in either

the Bering Sea and Aleutian Islands or the Gulf of Alaska under the Council's preferred alternative. This option falls within the range considered under Alternative 3.

In addition to the status quo, which prohibits processing, two specific alternatives involving processing limits are included in this analysis. The three alternatives considered under Proposed Action 6 are:

Alternative 1: Maintain the Status Quo

Alternative 2: Allow limited processing of bycatch amounts up to directed fishing standards, by vessels with CV designations.

Alternative 3: Allow limited processing up to 5 mt round weight (rwt) per day for vessels less than (<) 60' LOA with CV designations, and up to 18 mt rwt per day for vessels greater than or equal to (\geq) 60' LOA with CV designations. This option will allow the Council to select any option within the range analyzed.

Overall, Proposed Action 6 appears to have the potential to create moderately negative to moderately positive impacts on the groundfish fishery. The impacts vary by sector, with the existing H&G Trawl CP and Longline CP fleet likely to be adversely affected by competition from additional vessels with processing capacity. A clear economic rationale that would lead active trawl vessels to upgrade was not readily apparent. In fact, such a conversion may impede the catching capability of a Trawl CV and result in lower net income. Underutilized trawl vessels may be able to take advantage of some niche opportunities. Larger fixed-gear vessels, particularly pot boats, may be able to accommodate the required processing equipment without adversely affecting their catch rates. However, constraints on the number of crew that can be accommodated on most of these vessels, and their modest catch rates, minimize the potential benefits of limited processing. Smaller fixed-gear vessels may be able to add processing equipment and utilize it not only in the groundfish fisheries, but also in salmon fisheries in which they are also likely to participate.

The processing upper limits of 5 mt rwt and 18 mt rwt imposed by Alternative 3 do not appear to be very effective in limiting the amount processed by fixed-gear vessels, since few are catching that much currently. However, the Council's preferred alternative of 1 mt round weight for vessels < 60' LOA would be effective.

The upper limits in Alternative 3 would likely have been more effective in restricting the amounts processed by upgraded trawl vessels. On the other hand, limiting processing to bycatch only would have reduced the reasons for vessels to upgrade, particularly for fixed-gear vessels with few target fisheries other than Pacific cod.

Overall, it is unknown how many vessels would undertake the investment necessary to engage in limited processing as proposed in Action 6. The fact that relatively few vessels have made these conversions in the past, and the potentially negative catch capacity consequences, suggest that there will be minimal impact on fishery resources if Proposed Action 6 is implemented.

The Council voted to allow catcher vessels < 60' LOA to process up to 1 mt, round weight, of fish per day. This provision applies to both the Gulf of Alaska and Bering Sea and Aleutian Islands. Additional information can be found in Section 10.5.

Environmental Assessment

An environmental assessment (EA) is required by the National Environmental Policy Act (NEPA) to determine whether the action considered will significantly impact the human environment. An Environmental Impact Statement (EIS) must be prepared if the proposed action may reasonably be expected to:

- 1) Jeopardize the productive capability of the target resource species or any related stocks that may be affected by the action;

- 2) Allow substantial damage to the ocean and coastal habitats;
- 3) Have a substantial adverse impact on public health or safety;
- 4) Affect adversely an endangered or threatened species or a marine mammal population; or
- 5) Result in cumulative effects that could have a substantial adverse effect on the target resource species or any related stocks that may be affected by the action.

An EA is sufficient as the environmental assessment document if the action is found to have no significant impact (FONSI) on the human environment.

Finding of No Significant Impact (FONSI)

Implementing the Council's preferred license limitation alternatives is not expected to significantly affect the quality of the human environment. Preparation of an Environmental Impact Statement (EIS) on the final action is not required by Section 102(2)(c) of National Environmental Policy Act (NEPA) or its implementing regulations.

1 Introduction

The North Pacific Fishery Management Council (NPFMC or Council) approved License Limitation Programs (LLPs) for its Groundfish and Crab Fishery Management Plans (FMPs) on June 17, 1995. The U.S. Secretary of Commerce (SOC) approved the proposed rule implementing the Groundfish and Crab LLPs on September 12, 1997. The final rule was approved on October 1, 1998. Fishing under the final LLPs is expected to begin in January 2000.

Since the approval of the proposed rule for LLPs, members of industry have reviewed the programs and have requested that the Council revise several of the provisions and qualification criteria. In December 1997, the Council began discussions of amendments to the LLP, including changes in the basic eligibility criteria for crab, in the form of additional recent participation criteria. In February 1998, after further discussions and review of preliminary analyses, the Council initiated analysis of an amendment package containing several potential LLP changes. These changes focus primarily on further capacity reductions and transferability restrictions for the groundfish and crab fisheries in question.

This document examines the impacts of the proposed revisions and constitutes an Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis (EA/RIR/IRFA) for amendments to the affected FMPs.

1.1 Proposed Revisions to the License Limitation Programs

The following proposals are included in the amendment package:

1. Prohibit transfer of licenses and fishing histories from vessels that qualified for the Groundfish LLP, but which had not obtained a federal groundfish permit during either the General Qualifying Period (GQP) or Endorsement Qualifying Period (EQP). Transfers of fishing histories of such vessels through February 7, 1998, would be recognized. An option is included to allow transfers if the vessel originally assigned to the license is transferred with the license.
2. Prohibit licenses and fishing histories earned by vessels employing non-trawl gear to be used on vessels employing trawl gear, and prohibit fishing histories earned by vessels employing trawl gear to be used on non-trawl gear vessels. This proposal has the effect of adding trawl and non-trawl designations to groundfish licenses based on gears used during the years 1988-1995. Persons who can demonstrate significant financial commitment to apply the fishing history of a non-trawl vessel to a trawl operation (and the reverse) through February 7, 1998, would be considered eligible for the additional gear if:
 - A landing was made with the new gear on or before February 7, 1998, or
 - A significant investment can be documented to convert the vessel to deploy the gear through February 7, 1998.
3. Rescind the exemption that would allow Community Development Quota (CDQ) groups to use vessels that would not otherwise qualify for licenses. CDQ groups that have previously built, purchased, or used such vessels within an existing Community Development Plan (CDP), would be allowed to continue to use such vessels.
4. Clarify the Council's intent on the recognition of transfers of catch history from vessels that were owned by persons unable to document vessels on June 17, 1995.
5. Require recent participation (1995-1998) in the Bering Sea and Aleutian Islands (BSA) king and tanner crab fisheries as an additional criterion for a license. The recent participation requirement would apply to the general license only. If a vessel satisfies the recent participation criterion chosen, it would receive its original license and species/area endorsements—new species/area endorsements

could not be earned during the recent participation period. The status quo and the following eight recent participation period alternatives will be explicitly examined:

- Alternative 1: Status quo
- Alternative 2: Require participation in 1996
- Alternative 3: Require participation in both 1995 and 1996
- Alternative 4: Require participation in both 1996 and 1997
- Alternative 5: Require participation in the two calendar years from 1997 through February 7, 1998
- Alternative 6: Require participation in all three calendar years from 1995 through 1997
- Alternative 7: Require participation in all three calendar years from 1996 through February 7, 1998
- Alternative 8: Require participation in all four calendar years from 1995 through February 7, 1998
- Alternative 9: Require participation at least once between 1996 and February 7, 1998
- Alternative 10: Require participation at least once between 1995 and February 7, 1998
- Alternative 11: Require participation in any 2 of the 4 calendar years from 1995 through February 7, 1998

Under all of the alternatives the Council included options to allow exemptions for lost or destroyed vessels, vessels < 60' LOA, vessels under construction, and vessels that participated in 1998.

- 6) Allow limited processing for vessels with Catcher Vessel (CV) designations. In addition to the status quo, which prohibits processing, two alternatives processing limits are included. The three alternatives considered under Proposed Action 6 are:
 - Alternative 1: The status quo
 - Alternative 2: Allow limited processing of bycatch amount of any groundfish up to directed fishing standards, by vessels with CV designations
 - Alternative 3: Allow limited processing up to 5 mt round weight (rwt) per day for vessels less than (<) 60' LOA with CV designations, and up to 18 mt rwt per day for vessels greater than or equal to (≥) 60' LOA with CV designations.

1.2 Previous Documents and Analyses Regarding the LLP

In taking its action to approve the LPPs for groundfish and crab, the Council, together with representatives of the industry and the National Marine Fisheries Service (NMFS) reviewed and commented on several documents prepared by NPFMC staff and contractors. These documents are listed below with their printing dates, and should be considered as background for the current analysis. All are included by reference.

- NPFMC.*Environmental Assessment/Regulatory Impact Review (EA/RIR)*. September 18, 1994.
- NPFMC.*Environmental Assessment/Regulatory Impact Review (EA/RIR)*, Appendix VII. November 18, 1994.
- NPFMC.*Environmental Assessment/Regulatory Impact Review (EA/RIR)*, Appendix VIII. November 18, 1994.
- NPFMC and NMFS Alaska Fisheries Science Center.*Environmental Assessment/Regulatory Impact Review (EA/RIR) for Amendment 46 to the BSAI FMP, Pacific Cod Allocations*. August 7, 1996.

- NPFMC. *Supplemental Analysis of Proposed License Limitation Alternative for Groundfish and Crab Fisheries off Alaska*. March 9, 1995.
- NPFMC. *Implementation Plan for License Limitation Alternatives*. January 20, 1995.
- Impact Assessment, Inc. *Sector Description and Preliminary Social Impact Assessment of the North Pacific Fishery Management Council Regulatory Changes in the Groundfish and Crab Fisheries of the Gulf of Alaska and Bering Sea/Aleutian Islands*. Prepared for the NPFMC. October 21, 1994.
- Impact Assessment, Inc. *Final Social Impact Assessment (Bridging Document) for License Limitation Alternatives for Groundfish and Crab Fisheries*. March 1, 1995.
- NPFMC. *Supplemental Analysis of Final License Limitation Alternative for the Groundfish Fisheries of the Bering Sea/Aleutian Islands and Gulf of Alaska and the Crab Fisheries of the Bering Sea/Aleutian Islands*. June 2, 1995.
- NPFMC. *Supplemental Analysis of Final License Limitation Alternative for the Groundfish Fisheries of the Bering Sea/Aleutian Islands and Gulf of Alaska and the King and Tanner Crab Fisheries of the Bering Sea/Aleutian Islands*. (SAFFLA), Draft for Secretarial Review. May 27, 1997.
- “Proposed Rule: Fisheries of the Exclusive Economic Zone Off Alaska; License Limitation Program; Community Development Quota Program.” Federal Register, August 15, 1997, pp. 43865-43898.

1.2.1 Changes From the Draft for Council Review

This document replaces entirely the Draft for Council Review version of the Analysis of Proposed License Limitation Amendment Package printed on May 28, 1998. This version, the Draft for Public Review, contains significant revisions.

Significant revisions resulted because of a notice to the Council from the Regional Director of NMFS regarding changes in the Final Rule containing the regulations for the LLP. In this notice NMFS indicates that licenses will not specify vessels. This implies that using the license first on one vessel and then another vessel will not constitute a transfer of the license, and will not need to be approved by NMFS. This has significant implications for Council actions that involve transferability, in particular Proposed Action 1, which would create non-transferable licenses for vessel owners who had not obtained federal fishing permits in the past. Additionally, the Council asked that an option to allow limited transfers, in which both the vessel and the license change ownership, be added to the analysis of Proposed Action 1. As a result of the combination of the changes in the Final Rule and the additional option, the entire analysis of Proposed Action 1 has been rewritten.

Because the Final Rule was not published as of the date of the completion of this version of the analysis, other changes that may be found in the Final Rule have not been included. Except within the analysis of Proposed Action 1 in Chapter 3, this draft refers to the Proposed Rule for LLP.

Other significant changes from the Draft for Council Review and the Draft for Public review are noted in the following bulleted items.

- NOAA General Counsel has provided an opinion regarding the Council’s intent as discussed in Chapter 6 which discusses Proposed Action 4 which clarifies the Council’s intent on the transfer of catch history. This opinion is included in full in Appendix D, and, and is referenced and discussed in the analysis.
- The analysis of Proposed Action 5 in Chapter 7, which would require recent participation in the crab fisheries in order to receive a license has several important changes. These are as follows:
 - Options to allow exemptions for lost or destroyed vessels, vessels < 60' LOA, vessels under construction, and vessels that participated in 1998 have been added to the analysis.
 - The discussion of interim permits has been significantly enhanced.

- Two additional alternatives have been explicitly analyzed. They would a) require participation in 1996, or b) require participation in at least one of the four years from January 1, 1995, through February 7, 1998.
- The additional alternatives resulted in a renumbering of the alternatives that were included in the Draft for Council Review. Alternatives 2 – 8 in the Draft for Council Review are Alternatives 3 – 9 in the Draft for Public Review. Alternative 9 in the Draft for Council Review is now Alternatives 11. The newly added alternative requiring participation in 1996 is now Alternative 2. Finally the newly added alternative requiring participation in at least one of the four years from January 1, 1995, through February 7, 1998, is Alternative 11.
- The analysis of Proposed Action 6 has been significantly revised. A section, which in the Draft for Review discussed somewhat quantitatively the potential candidate for vessel upgrades has been changed to a much qualitative discussion. A new section that discussion that examines impacts of the proposed action on other processors has been added.

1.3 Standards for the Assessment of Proposals

This analysis compares the impacts of the proposed changes to the LLPs against the no-action alternative, or status quo. If the Council takes no action on the proposals, then the Groundfish and Crab LLPs will be implemented according to the regulations in the final rule.

Because the final rule had not yet been approved when this analysis was being written, this document uses the proposed rule in determining the status quo, along with the best available data. This information has been used to generate projections of the numbers of qualifying vessels, the endorsements, length and processing designations they are projected to receive, and estimates of catching capacities of various components of the fisheries. Similar projections are developed for each of the proposed changes. The two sets of projections are compared for each of the proposals, independent of the other proposals. The Council's Problem Statement for the Comprehensive Rationalization Program (CRP) is used as the guideline for the comparison.

In addition, all proposals are evaluated with respect to Executive Order 12866 (EO-12866) signed by President Bill Clinton in June 1994, the Regulatory Flexibility Act (RFA), National Environmental Protection Act (NEPA) guidelines, and the National Standards and the Section 303(b)(6) Standards for Limited Entry Program included in the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA or Magnuson-Stevens Act).

1.3.1 The Comprehensive Rationalization Program Problem Statement

The NPFMC viewed the LLPs as the first steps in fulfilling its commitment to develop comprehensive and rational management programs for the fisheries in and off Alaska. The Council's Comprehensive Rationalization Program (CRP) Problem Statement developed in 1992 has been used for the analysis presented in this report as a basis for determining the effectiveness of the LLP and for assessing the effectiveness of the proposed changes to the LLP. The Problem Statement for the CRP is shown below:

Problem Statement

Expansion of the domestic fleet harvesting fish within the Exclusive Economic Zone (EEZ) off Alaska, in excess of that needed to harvest the optimum yield efficiently, has made compliance with the Magnuson-Stevens Act, National Standards and achievement of the Council's comprehensive goals, adopted December 7, 1984, more difficult under current management regimes. In striving to achieve its comprehensive goals, the Council is committed to: (1) assure the long-term health and productivity of fish stocks, and other living marine resources of the North Pacific and Bering Sea ecosystem, (2) support the stability, economic well-being and diversity of the seafood industry, and provide for the economic and social needs of the

communities dependent upon that industry, and (3) efficiently manage the resources within its jurisdiction to reduce bycatch, minimize waste, and improve utilization of fish resources in order to provide the maximum benefit to the present and future generations of fishermen, associated fishing industry sectors, communities, consumers, and the nation as a whole.

The Council's overriding concern is to maintain the health of the marine ecosystem to ensure the long-term conservation and abundance of the groundfish and crab resources. In addition, the Council must address the competing and oftentimes conflicting needs of the domestic fisheries that have developed rapidly under open access, fisheries which have become over-capitalized and mismatched to the finite fishery resources available. Symptomatic of the intense pressures within the over-capitalized groundfish and crab fisheries under the Council jurisdiction off Alaska are the following problems:

1. Harvesting capacity in excess of that required to harvest the available resource.
2. Allocation and preemption conflicts between and within industry sectors, such as with inshore and offshore components.
3. Preemption conflicts between gear types.
4. Gear conflicts within fisheries where there is overcrowding of fishing gear due to excessive participation and surplus fishing effort on limited grounds.
5. Dead-loss such as with ghost fishing by lost or discarded gear.
6. Bycatch loss of groundfish, crab, herring, salmon, and other non-target species, including bycatch which is not landed for regulatory reasons.
7. Economic loss and waste associated with discard mortality of target species harvested but not retained for economic reasons.
8. Concerns regarding vessel and crew safety that are often compromised in the race for fish.
9. Economic instability within various sectors of the fishing industry, and in fishing communities, caused by short and unpredictable fishing seasons, or preemption, which denies access to fisheries resources.
10. Inability to provide for long-term, stable fisheries based economies in small economically disadvantaged adjacent coastal communities.
11. Reduction in ability to provide a quality product to consumers at a competitive price, and thus maintain the competitiveness of seafood products from the EEZ off Alaska on the world market.
12. Possible impacts on marine mammals and seabirds, and marine habitat.
13. Inability to achieve long-term sustainable economic benefits to the Nation.
14. A complex enforcement regimen for fishermen and management alike which inhibits the achievement of the Council's comprehensive goals.

1.4 Document Overview

This document is organized into nine chapters, including this introduction. Chapter 2 documents the existing conditions in the affected groundfish and crab fisheries, summarizes the current LLP regulations, and projects the numbers of qualified vessels and catching capacities of various components of the fisheries. The next six chapters (Chapters 3 through 8) each focus on one of the proposed revisions to the LLP programs. Each of these chapters examines the implications of the proposed changes and compares projections of qualified vessels and catch capacity against the status quo. Each chapter also provides a comparison between the status quo and the proposed changes with respect to the Council's CRP problem statement. Chapter 9 contains a summary of the analyses. Chapter 10 contains a summary of the Council's preferred alternatives. Finally, Chapter 11 contains the Environmental Assessment and sections documenting adherence to the MSFCMA, NEPA, RFA, and EO-12866.

2 Summary of the Status Quo

This chapter provides an overview of the current Groundfish and Crab LLPs, as well as a summary of catch and participation in the affected fisheries. These summaries represent an assessment of the status quo against which the proposed revisions to the LLP will be compared. The chapter is divided into two sections. Section 2.1 provides an overview of the status quo for the groundfish fisheries, and Section 2.2 provides an overview of the status quo for the affected crab fisheries.

2.1 Overview of the Status Quo for Groundfish

The overview of the status quo for the groundfish fisheries consists of four subsections. Subsection 2.1.1 describes the provisions of the Groundfish LLP as approved by the Council in 1995. Subsection 2.1.2 reviews the projected qualifiers under the current provisions of the LLP. Subsection 2.1.3 examines recent participation in the groundfish fisheries from 1995 through February 7, 1998, and includes separate discussions of the total number of vessels participating, catches by vessel class, and the recent participation of Groundfish LLP qualifiers. Finally, Subsection 2.1.4 provides a brief discussion of moratorium and fishing rights transfers as they might affect the groundfish fishery and a brief discussion of the proposed changes to the Groundfish LLP.

2.1.1 Provisions of the Groundfish LLP

This section provides an overview of the elements of the Groundfish LLP as currently defined. The text is adapted from Chapter 3 of the Supplemental Analysis of Final License Limitation Alternatives (SAFLLA). Some provisions of the Groundfish LLP are excluded from this summary because they were deemed not relevant for the current analysis.

2.1.1.1 Groundfish License Classes

Under the current Groundfish LLP, a single type of groundfish license will be issued. During deliberations in 1994 and 1995, the Council considered an option that would grant two types of licenses. One type would have been issued if a more stringent qualifying criterion was met, and a second type of license would be issued for meeting a less stringent criterion. The first type of license would have given the recipients more rights than the second license. For example, the Council discussed making the first license transferable, although the second license could not be transferred. After deliberation, the Council concluded that a single qualification criterion and license was the preferred alternative. Selection of this alternative was justified because it was the most direct method of implementing the program, there was overwhelming public testimony in support of a single class of license, and the other alternative proposed at the time would have allowed many more vessels into the program. It was the Council's desire to construct a license program that was effective, but as straightforward as possible, with a requirement for some level of recent participation.

2.1.1.2 The Nature of Groundfish Licenses

The Groundfish LLP restricts access to groundfish fisheries in the EEZ off the coast of Alaska; the LLP does not restrict access to waters of the State of Alaska. Area endorsements will be issued for the following management areas: Aleutian Islands (AI), Bering Sea (BS), Western Gulf (WG), Central Gulf and West Yakutat (CG+WY), and Southeast outside (SEO). The endorsement will be contained under one of the following General License areas: Gulf of Alaska (GOA), BSA, or both GOA and BSA (GOA/BSA).

The General License and its endorsement would not be severable. The Council did not want vessels that qualify for both the GOA and BSA to be able to use the GOA license on one vessel and the BSA license on a second vessel. The Council felt that severable licenses/endorsements could allow more vessels to fish under the license program than there were licenses issued. The Council also was concerned that allowing endorsements to be separated from the General License could cause the current nature of the fleet to change. The Council's intent was to keep vessels operating in a consistent manner.

For purposes of license limitation, the Council chose to redesignate the West Yakutat area (140° to 147° W. longitude) as part of the Central Gulf rather than leaving it in its traditional place in the Eastern Gulf. This change was based on the composition of the fleets in those areas. Vessels fishing the West Yakutat area tended to have more fishing history in and ties to the Central Gulf than the Eastern Gulf. These vessels were often larger than the typical vessels fishing east of 140° W. longitude. Also, they were often homeported in Central Gulf communities.

Endorsements for the SEO subarea will restrict qualifiers to the use of non-trawl gear, regardless of the gear used during the qualifying period. Fixed-gear sablefish, which is managed under an IFQ program, and demersal shelf rockfish (DSR) in waters east of 140° W. longitude, are not included in the Groundfish LLP. The State of Alaska indicated that it intended to initiate a separate license program for DSR, which it currently manages with trip limits. This endorsement designation was selected in response to concerns raised by residents of Southeast Alaska. The SEO area was viewed as a unique fishery that supported many small fixed-gear vessels.

2.1.1.3 Groundfish License Recipients

Under the current LLP, licenses will be issued to the owners of record as of June 17, 1995, of the qualified vessels. The owners on June 17, 1995, must have been persons eligible to document a fishing vessel under Chapter 121, Title 46, of the United States Code (U.S.C.).¹ In cases in which the vessel was sold on or before June 17, 1995, and the disposition of the fishing rights was not mentioned in the contract, the catch history would go with the vessel to the new owner. If the transfer occurred after June 17, 1995, the fishing rights would stay with the seller of the vessel unless the contract specified otherwise. If at the time of issuance there is a dispute concerning the fishing history or license qualification, NMFS will not issue the license until a settlement is reached between the parties involved.

The Council wished to issue licenses to current vessel owners as of June 17, 1995, in order to minimize disruption in the fishery. Issuing licenses to the current owner, as opposed to the owner at the time qualifying landings were made, generally results in a one-vessel/one-license allocation. This practice was seen as a means to limit the number of licenses that would be issued. It also would reward the individuals that were participating in the fishery at the time of final action, as opposed to individuals who already had left the fishery.

2.1.1.4 Groundfish License Designations

Under the current LLP, licenses and endorsements will be designated as Catcher Vessel (CV) or Catcher Processor (CP), and with one of three vessel length designations; < 60', ≥ 60' but < 125', or ≥ 125' length overall (LOA). In the SEO, an additional designation allowing the use of legal fixed gear only will be assigned, regardless of the gear used to qualify for the endorsement. CP or CV designations will be determined on the basis of the activities of the vessel during the period from January 1, 1994, through June 17, 1995 or the most recent year of participation during the EQP (See Section 2.1.1.5). Vessel length

¹ This section of the U.S.C. deals with vessel documentation. Specifically, it requires that for a vessel to be documented in the U.S. as a fishing vessel, it must have been originally built in the U.S., and must have at least 50 percent U.S. ownership.

classes will be based on the LOA of the vessel as of June 17, 1995, provided that the vessel conforms with the provisions of the “20% upgrade” and “Maximum LOA” (MLOA) rules defined in the Groundfish and Crab Moratorium (GCM).²

The Council felt that catcher vessel/catcher processor designations and vessel length categories were important to the groundfish license program. These categories were viewed as mechanisms to prevent unnecessary and undue movement of capital between groups of vessels. License designations were also felt to aid the Council's attempts to prevent preemption between vessel classes and provide a foundation for future steps in the CRP process.

2.1.1.5 Groundfish Qualifying Periods

For General Licenses, the Base Qualifying Period (BQP) is January 1, 1988, through June 27, 1992, with the additional provision that any vessel that had “crossed over” to groundfish from crab under the provisions of the GCM by June 17, 1995, would also qualify for a General Groundfish License. For vessels under 60' using pot or jig gear, the BQP extends through December 31, 1994. Under the latter provision, license recipients must choose one area endorsement if qualified for multiple endorsements. Vessels that qualify as “crossover” vessels or because of the extended BQP would be allowed to use any legal gear to harvest groundfish. Vessels under 60' that qualify through both the extended BQP and the “crossover” provisions, will be given the choice of schemes to determine their specific endorsements.

The Council selected a BQP that was similar to the GCM qualification period.³ Vessels under 60' LOA, using pot/jig gear, were given until December 31, 1994, to qualify. The Council granted this extension because it wished to promote the use of gear types it considers to have low discards. The addition of this group of harvesters to the qualified fleet was seen by the Council as having little impact on the overall catching power.

For Area Endorsements, the qualifying period is January 1, 1992, through June 17, 1995.

The Council selected January 1, 1992, through June 17, 1995, as the EQP. These dates were chosen to represent present participation in the groundfish fisheries, as required in Section 303(b)(6)(A) of the Magnuson-Stevens Act. The EQP provided vessel owners currently involved in groundfish fisheries the opportunity to earn endorsements for areas they in which currently fish. Qualification is predicated on the vessel meeting the criterion of historical dependence, by having made landings in the BQP.

Vessels must have fished in the same FMP area during the BQP and EQP to receive a general license and subarea endorsements. The only exception to this rule is for vessels that fished only the GOA in the BQP and only the BSA in the EQP, or vice versa. These vessels would be granted a general license and endorsements for the areas they fished during the EQP. Vessels that crossed over from crab to groundfish

² The “20% rule” from the GCM regulations defines allowable length overall in the following terms:

Maximum LOA with respect to a vessel means the greatest LOA of that vessel or its replacement that may qualify it to use a moratorium permit to catch and retain moratorium crab species or conduct directed fishing for moratorium groundfish species during the moratorium, except as provided at § 676.4(d). The maximum LOA of a vessel with moratorium qualification will be determined by the Regional Director as follows:

- (1) For a vessel with moratorium qualification that is less than 125 ft LOA, the maximum LOA will be equal to 1.2 times the vessel's original qualifying length or 125 ft, whichever is less; and
- (2) For a vessel with moratorium qualification that is equal to or greater than 125 ft, the maximum LOA will be equal to the vessel's original qualifying length.

Original qualifying length with respect to a vessel means the LOA of the vessel on or before June 24, 1992.

Length overall of a vessel (from 50 CFR § 672.2 & § 675.2) means the horizontal distance, rounded to the nearest foot.

³ The BQP was extended approximately 4 months to June 27, 1992 (as opposed to February 9, 1992, in the GCM), to make it consistent with the Council's published cutoff date for qualification under the CRP. The published CRP control date was actually June 24, 1992, but the week-ending date for Weekly Production Reports submitted by processors to NMFS was June 27, so the date was modified to reflect the best available data.

were determined to have qualified in the BSA during the BQP. A complete listing of potential BQP and EQP participation patterns and the resulting potential endorsement areas is provided in Table 1.

Table 1: Determination of Groundfish Endorsement Eligibility

Participation in the Base Qualifying Period	Participation in the Endorsement Qualifying Period	Endorsement Eligibility
BSA Groundfish or Crab	BSA Groundfish	BSA
BSA Groundfish or Crab	BSA and GOA Groundfish	BSA
BSA Groundfish or Crab	GOA Groundfish	GOA
GOA Groundfish	GOA Groundfish	GOA
GOA Groundfish	BSA and GOA Groundfish	GOA
GOA Groundfish	BSA Groundfish	BSA
BSA Groundfish or Crab and GOA Groundfish	BSA Groundfish	BSA
BSA Groundfish or Crab and GOA Groundfish	GOA Groundfish	GOA
BSA Groundfish or Crab and GOA Groundfish	BSA and GOA Groundfish	BSA & GOA
Vessel is < 60' and no base period landings	BSA and/or GOA Groundfish with pot and/or jig gear.	One FMP Subarea Only
Vessel is < 60' with BSA crab landings	BSA and/or GOA Groundfish with pot and/or jig gear.	Choice (See note)
Note: These vessels may choose to qualify under the rules for crab crossover vessels or as pot/jig vessels. Choosing to qualify as crab crossover vessels will mean that they qualify for only BSA or GOA, but not both. Choosing to qualify as pot/jig vessels will mean selecting a single subarea endorsement.		

2.1.1.6 Landings Requirements for General Groundfish License Qualification

One landing of any groundfish species included in the license program in the BQP (including catch from state waters), or qualified moratorium crossover vessels that had crossed over from crab by June 17, 1995.

2.1.1.7 Landings Requirements for Groundfish Endorsement Qualification

The Council felt that significant differences exist between the fisheries in the GOA and BSA areas. Because of these differences, it was decided that the endorsement qualification criteria should change for the different fleets in the fisheries and for the areas in which they participate.

2.1.1.7.1 Groundfish Endorsements in the Bering Sea and Aleutian Islands

FMP subarea endorsements would be issued for the Bering Sea and/or Aleutian Islands subareas if a vessel made at least one landing in the subarea during the EQP and the vessel qualified for a general license in the BSA. In the BSA, the fleet was viewed as an industrialized fishery that was fairly stable in its participation patterns. These vessels were typically not impacted by the minimum-landings requirements that were analyzed.

2.1.1.7.2 Groundfish Endorsements in the Gulf of Alaska

For all vessels < 60' in all GOA endorsement areas, an endorsement will be issued if the vessel made at least one landing in the area during the endorsement period (January 1, 1992, through June 17, 1995).

For the CG+WY and SEO endorsement areas, all vessels $\geq 60'$ but $< 125'$ LOA that made at least 1 landing in an area in any 2 of the 4 endorsement calendar years⁴ **OR** 4 landings between January 1, 1995, and June 17, 1995, would receive an endorsement for the area. For all vessels $\geq 125'$ LOA, endorsements will be issued to vessels that made at least 1 landing in an area in any 2 of the 4 endorsement calendar years.

For the Western Gulf area, all catcher vessels $< 125'$ that made at least 1 landing between January 1, 1992, and June 17, 1995, will receive an endorsement. Catcher processor vessels that are $\geq 60'$ but $< 125'$ LOA must have made 1 landing of a qualifying species in the Western Gulf in any 2 of the 4 endorsement calendar years⁴ **OR** 4 landings between January 1, 1995, and June 17, 1995, in order to receive an endorsement. Catcher processors $\geq 125'$ LOA must have made a landing of a qualifying species in 2 of the 4 EQP calendar years.⁴

The Council determined that the GOA fleet generally comprised smaller vessels with more varied participation patterns. The vessels in this fleet, many under 60', were seen as relying on the GOA groundfish stocks, often in addition to other fisheries, to complete their annual fishing cycle. The Western GOA was seen as a special case because it is similar to the BSAI in both geographic location and the nature of the fisheries. Often Western GOA vessels fish both the Western Gulf and the BSA, and therefore were seen as needing the flexibility to qualify with one EQP landing.

2.1.1.8 Exemptions to the Groundfish LLP

The Council exempted three categories of vessels from the LLP. Unlike vessels exempted in the moratorium, any exempt vessel that qualifies for a license would receive that license. The Council viewed these exemptions as a mechanism to allow entry-level vessels in the groundfish fishery. The following exemptions are included in the LLP:

1. Vessels that were exempted from the GCM would also be exempt from the LLP ($< 26'$ in the GOA and $< 32'$ in the BSAI);
2. Vessels in the BSA $< 60'$ that are using jig gear;
3. Vessels $< 125'$ obtained under an approved CDQ plan to participate in both CDQ and non-CDQ target fisheries will be allowed to continue to fish both fisheries without a license. If the vessel is sold outside the CDQ plan, the vessel will no longer be exempt from the rules of the LLP.

2.1.1.9 Who May Purchase Groundfish Licenses

Licenses may be transferred only to persons eligible to document a fishery vessel under Chapter 121, Title 46, of the U.S.C. Leasing of groundfish licenses will not be allowed. Allowing leasing of licenses was seen to have the potential of creating loopholes in the program and created the possibility that vessels using different gear types could trade licenses back and forth when their respective fisheries were closed.

2.1.1.10 Vessel/License Linkages in the Groundfish LLP

Licenses may be transferred without a vessel. That is, subject to license designations, vessel upgrade provisions, and the no-leasing restriction, licenses may be applied to vessels other than the one to which the license was originally issued. Licenses may be applied to vessels shorter than the MLOA, regardless of vessel length class designations. In other words, downgrades in vessel classes are allowed. Vessels also will be allowed to downgrade from catcher processor to catcher vessel. This means that a license for a vessel designated as a catcher processor in the $\geq 125'$ LOA class could be used on any vessel, provided

⁴ The four endorsement calendar years are defined as 1992, 1993, 1994, and 1995 (through June 17, 1995).

that it does not exceed the MLOA. A catcher vessel license could be used on any catcher vessel that is under the MLOA for the original qualifying vessel.

The Council did not wish to discourage vessel owners from downgrading. Restrictions on vessel length and processing capacity were included in the program to alleviate the problems associated with capital stuffing. This phenomenon has often been associated with license limitation programs in the past. Vessel owners tended to increase the harvesting capacity of their vessel through capital expenditures that increase length, horsepower, or other input usage, rather than bring another vessel into the fleet. Allowing owners to substitute smaller vessels for larger vessels was viewed as being within the program's objectives because it would probably reduce the harvesting power of the vessel to which the license was applied and provide fishermen more flexibility in acquiring a new vessels.

2.1.1.11 Separability of Licenses and Endorsements

Area endorsements are not separable and shall remain as a single package that includes the assigned catcher vessel/catcher processor and vessel length class designations. Crab and groundfish licenses that initially are issued to a person for an individual vessel are not separable and shall remain as a block for a period of 3 years, after which time the Council may review whether or not the groundfish and crab licenses should remain non-severable.

2.1.1.12 Vessel Replacement and Upgrades in the Groundfish LLP

Vessels may be replaced or upgraded within the bounds of the vessel length designations and the MLOA Rule as defined in the GCM. The rule defines the greatest allowable LOA of a vessel (or its replacement) under which the vessel may use a GCM qualification to participate in the affected fisheries. The MLOA of a vessel will be determined by the Regional Director as follows:

- For a vessel < 125'LOA with moratorium qualification, the MLOA will be equal to 1.2 times the vessel's original qualifying length or 125', whichever is less; and
- For a vessel ≥ 125' with moratorium qualification, the MLOA will be equal to the vessel's original qualifying length.

2.1.1.13 Vessel Designation Limits in the Groundfish LLP

A vessel that qualifies for multiple designations, (both as a catcher vessel and as a catcher processor) will be able to participate under any designation for which it qualifies. Catcher vessel/catcher processor designations will be based on activities during the period January 1, 1994, through June 17, 1995, or the most recent year of participation during the EQP. If a vessel qualifies only as a catcher processor, it may select a one-time (permanent) conversion to catcher vessel, although a catcher processor may operate in either mode. If a vessel qualifies as a catcher vessel only, it is restricted to operate as a catcher vessel. These provisions are consistent with the Council's license downgrading policies.

2.1.2 Projected Groundfish Qualifiers Under the Groundfish LLP

A total of 2,435 vessels are projected to qualify for licenses under the Groundfish LLP. Of these, 1,793 listed Alaska 642 listed other states as the state of residence in the most recent vessel documentation data from the State of Alaska's Commercial Fishery Entry Commission (CFEC).

Table 2 summarizes the projected qualifying vessels as reflected in the data currently available. The main part of the table contains three sections showing the number of qualified vessels according to the general license area (under the categories “Both BSA and GOA,” “BSA Only,” and “GOA Only”). Within each general license area there are rows showing the number of vessels that are projected to receive CV designations and CP designations. The third row for each general license area shows the total of **all** vessels (CV + CP) receiving general licenses for the area. The bottom three rows of the table combine qualifying vessels from the three general license types to show the total number of vessels projected to receive catcher vessel designations, catcher processor designations, and the total of all general licenses. Columns in the table show the most recent known states of residence of the vessel owners, broken down by length designations.

Overall, the numbers in the table agree with projections made in the SAFLLA. There are minor differences in the number of vessels projected for each length and owner class. These differences occur because this analysis uses more recent vessel-documentation information.

Table 2: Projected General Licenses Under Original Criteria

General License Area	Designation	Alaska				Other States				Grand Total
		0'-59'	60'-124'	125'+	Total	0'-59'	60'-124'	125' +	Total	
Both BSA and GOA	CV	64	46	1	111	23	108	27	158	269
	CP	1	5	11	17	1	25	36	62	79
	All	65	51	12	128	24	133	63	220	348
BSA Only	CV	32	12	1	45	7	60	26	93	138
	CP		1	2	3		7	52	59	62
	All	32	13	3	48	7	67	78	152	200
GOA Only	CV	1,523	90	1	1,614	231	35	1	267	1,881
	CP	2	1		3		3		3	6
	All	1,525	91	1	1,617	231	38	1	270	1887
Catcher Vessel Total		1,619	148	3	1,770	261	203	54	518	2,288
Catcher Processor Total		3	7	13	23	1	35	88	124	147
All Licensed Vessels		1,622	155	16	1,793	262	238	142	642	2,435
Source: NPFMC License Qualification Database. Vessel Classes determined using Alaska Department of Fish and Game (ADF&G) and CFEC Fish Tickets, Blend Data and Observer Data from NMFS.										
Note: The numbers in this table reflect the most recent data available, and do not take into consideration any transfers of fishing histories or moratorium qualifications. Furthermore, the number of actual licenses issued will not be determined until the program is implemented. Because of the nature of the available data and of the implementation process for the LLP, it is likely that the projections overstate the number of licenses that will be issued.										

Table 3 summarizes the number of endorsements that are projected to be issued to qualifying vessels under the Groundfish LLP. Each of the five endorsement areas are shown in three row sections, one each for CVs, CPs, and all endorsements. The columns reflect the most recent length and vessel owner information. In addition to the five endorsement areas, the table contains subtotals of the total number of endorsements for the GOA and the BSA, and for CVs, and CPs in all areas. A total of 3,609 endorsements is projected, 2,841 in the GOA and 768 in the BSA. Catcher vessels are projected to receive 3,194 endorsements, although vessels designated CP are expected to receive 415 endorsements.

Table 3: Projected Groundfish Area Endorsements Under Original Criteria

Endorsement Area	Designation	ALASKA				OTHER				Grand Total
		0'-59'	60'-124'	125'+	Total	0'-59'	60'-124'	125'+	Total	
Southeast Outside Endorsements	CV	849	24		873	138	16		154	1,027
	CP	2	1		3	1	10	3	14	17
	All	851	25	0	876	139	26	3	168	1,044
Central Gulf and West Yakutat Endorsements	CV	900	117		1,017	164	103	10	277	1,294
	CP	3	6	10	19	1	27	22	50	69
	All	903	123	10	1,036	165	130	32	327	1,363
Western Gulf Endorsements	CV	146	44	2	192	41	112	28	181	373
	CP	1	3	9	13	1	17	30	48	61
	All	147	47	11	205	42	129	58	229	434
Gulf of Alaska Endorsement Totals	CV	1,895	185	2	2,082	343	231	38	612	2,694
	CP	6	10	19	35	3	54	55	112	147
	All	1,901	195	21	2,117	346	285	93	724	2,841
Aleutian Islands Endorsements	CV	7	9		16	7	54	24	85	101
	CP		5	12	17	1	25	86	112	129
	All	7	14	12	33	8	79	110	197	230
Bering Sea Endorsements	CV	96	57	2	155	30	162	52	244	399
	CP	1	6	13	20	1	32	86	119	139
	All	97	63	15	175	31	194	138	363	538
Bering Sea and Aleutian Islands Endorsements	CV	103	66	2	171	37	216	76	329	500
	CP	1	11	25	37	2	57	172	231	268
	All	104	77	27	208	39	273	248	560	768
All Catcher Vessels		1,998	251	4	2,253	380	447	114	941	3,194
All Catcher Processors		7	21	44	72	5	111	227	343	415
Total of All Endorsements		2,005	272	48	2,325	385	558	341	1,284	3,609

Source: NPFMC License Qualification Database. Vessel classes determined using ADF&G and CFEC Fish Tickets, Blend Data and Observer Data from NMFS.

Notes:

1. The numbers in this table reflect the most recent data available, and do not take into consideration any transfers of fishing histories or moratorium qualifications. Furthermore, the number of actual licenses issued will not be determined until the program is implemented. Because of the nature of the available data and of the implementation process for the LLP, it is likely that the projections overstate the number of licenses that will be issued.
2. Vessels that would be required to choose a single endorsement because they qualified under the pot-and-jig exemption were assumed to choose Bering Sea endorsements over Gulf endorsements and Central Gulf endorsements over Eastern Gulf endorsements.

2.1.2.1 Projected Groundfish LLP Qualifiers by Vessel Class

Many of the tables that appear in other parts of this analysis provide information about the Groundfish LLP in terms of vessel classes. These vessel classes, which reflect the fishing and processing activities that vessels have undertaken in the past, originally were developed by Council Staff for use in the Bridging Document mentioned on Page 2. In that document, more than 30 different vessel types were discussed. The present analysis aggregates these types into 16 classes for groundfish. Because the 16 classes group the vessels by activity, they more accurately reflect the potential catch and capacity of the qualifying vessels.

The basis for the vessel classification used in this analysis is an assumption that vessels of similar length and activity types have similar levels of harvesting capacity and operating costs. Furthermore, these vessels require different levels of capital investment. Once that investment is made, as demonstrated by activities in landings documents, it can be assumed that that type of activity is possible thereafter. Thus in this analysis a vessel that has had landings with trawl gear in the past is considered a trawler, even if it currently is using only fixed gear. Similarly, a vessel that has acted as a catcher processor is assumed to be a catcher processor thereafter, even if it does not regularly operate in that manner.

The classification system assumes that of the gear types, the greatest initial investment is required for trawling, followed by pot gear, and finally by longline gear and jig gear. Vessels that use pots for crab but longlines for groundfish are considered to be pot harvesters. Only those vessels > 58' LOA⁵ that have used longline gear to the exclusion of other gear are classified as longline vessels. For vessels < 58' LOA, the classification system is generally based on the type of salmon fishing activity the vessel has undertaken or in which it is allowed to participate. Thus all vessels between 45' and 58' are classified as seine vessels. If they also have participated in trawling, they have been classified as Seiner/Trawlers. Otherwise, if they have used only fixed gear, they have been classified as Other Seine CPs. Vessels < 45' LOA are classified as 1 of 2 types of fixed-gear vessels, with a split at 32' LOA consistent with the length limit for Bristol Bay Gillnet vessels.

As for gear types, different types of processing require different levels of investment. For trawl catcher processors, the classification system is based on the kind of product produced. If a vessel has produced surimi in the past, it is assumed to be a Surimi Trawler. If a vessel has never produced surimi, but has produced fillets, then it is assumed to be a Fillet Trawler. All other trawler processors are capable only of processing fish into headed-and-gutted products, including kiriti, and are classified as Headed-and-Gutted (H&G) Trawlers. The analysis also differentiates Longline CPs, which never have used pot gear, and Other Fixed-gear CPs.

⁵The length of salmon seine vessels is limited to no longer than 58' LOA.

Table 4 summarizes the vessels that are projected to receive groundfish licenses under the LLP. Numbers of vessels are presented in rows by vessel class in alphabetical order. The columns show vessel owners' most recent states of residence and the projected vessel length designations.

Table 4: Qualifying Vessels Under Original Criteria by Vessel Class and Length Designation

Vessel Class	ALASKA				OTHER				Grand Total
	0'-59'	60'-124'	125'+	Total	0'-59'	60'-124'	125'+	Total	
Fillet Trawl CPs			1	1			15	15	16
Fixed-gear CVs < 32'	325			325	29			29	354
Fixed-gear CVs 33' – 45'	640			640	83	1		84	724
H&G Trawl CPs		4	7	11		18	23	41	52
Longline CPs	3	3	4	10		21	10	31	41
Longline CVs	2	21		23	5	30		35	58
Other and Unclassified CVs	5		1	6	1			1	7
Other Fixed-gear CPs		1	1	2		9	19	28	30
Other Seine CVs	545			545	119			119	664
Pot CVs 125'+			2	2			23	23	25
Pot CVs 60'- 124'	2	80		82		62		62	144
Seiner/Trawler CVs	100			100	25			25	125
Surimi Trawl CPs							24	24	24
Trawl CVs 125'+							28	28	28
Trawl CVs 60'–89'		30		30		37		37	67
Trawl CVs 90'–124'		16		16		60		60	76
Grand Total	1,622	155	16	1,793	262	238	142	642	2,435
Source: NPFMC License Qualification Database. Vessel classes determined using ADF&G and CFEC Fish Tickets, Blend Data and Observer Data from NMFS.									
Note: Other and Unclassified CVs are primarily vessels that have used “dredging” gear in the harvest of shellfish.									

By far, the largest number of qualified vessels fall into 3 classes of vessels > 58': the Other Seine CVs and the 2 classes of Fixed-gear CVs. The 3 classes combined account for 1,743 qualified vessels; of these, residents of Alaska own 87 percent. These 3 classes account for 84 percent of the Alaskan-owned vessels, but only 36 percent of the vessels owned by resident of other states. If the Seiner/Trawler CV classes are added in, nearly 90 percent of the Alaskan-owned vessels are counted. Residents of other states, primarily Washington and Oregon, account for the majority of all of the other vessel classes, with the exception of the class of pot vessels 60' – 124' LOA.

Table 5 summarizes the projected number of general licenses by LLP area and CV/CP designations. The table demonstrates an important feature inherent in the use of vessel classes. Not all vessels classified into one of the catcher processor classes are projected to receive CP license designations. Six vessels classified as H&G Trawl CPs by virtue of their processing activities after the LLP qualifying period will receive CV designations. Additionally, five Longline CPs and six Other Fixed-gear CPs are projected to receive CV rather than CP designations. These anomalies result from the fact that the LLP will base CV/CP designations on activities through June 17, 1995, although the vessel classification system uses the most recent information as well as data from previous years.

Table 5: Projected General Licenses and CV/CP Designations by Vessel Class

Vessel Class	BSA & GOA			BSA			GOA			Total
	CVs	CPs	All	CVs	CPs	All	CVs	CPs	All	
Fillet Trawl CPs		16	16							16
Fixed-gear CVs < 32'	16		16	20		20	318		318	354
Fixed-gear CVs 33'-45'	21		21	2		2	701		701	724
H&G Trawl CPs	5	41	46	1	2	3		3	3	52
Longline CPs	3	31	34		3	3	2	2	4	41
Longline CVs 60'+	33		33				25		25	58
Other & Unclassified CVs				1		1	6		6	7
Other Fixed-gear CPs	1	20	21	5	3	8		1	1	30
Other Seine CVs	71	1	72	8		8	584		584	664
Pot CVs 125'+	6		6	17		17	2		2	25
Pot CVs 60'-124'	39		39	39		39	66		66	144
Seiner/Trawler CVs	20		20	7		7	98		98	125
Surimi Trawl CPs		24	24							24
Trawl CVs 125'+	23		23	4		4	1		1	28
Trawl CVs 60'-89'	43		43				24		24	67
Trawl CVs 90'-124'	61		61	10		10	5		5	76
Grand Total	342	133	475	114	8	122	1,832	6	1,838	2,435
Source: NPFMC License Qualification Database. Vessel classes determined using ADF&G and CFEC Fish Tickets, Blend Data and Observer Data from NMFS.										

Table 6 summarizes the projected number of endorsements in each vessel class under the Groundfish LLP. Interestingly, the Bering Sea is the only endorsement area in which all classes are represented. Table 6 also includes a column showing the average number of area endorsements per vessel for each class. Longline CPs, Trawl CVs 125' +, Fillet Trawl CPs, H&G Trawl CPs, and Longline CVs all are projected to receive on average more than 2.5 endorsements per vessel. The average of all vessels is just 1.48 endorsements per license. The smallest vessels, the Fixed-gear CVs < 32 and Fixed-gear CVs 33' - 45' receive fewer than 1.2 endorsements per vessel. Generally, these vessels have groundfish participation only in the Central and Eastern areas of the GOA. Pot CVs 125' + also are projected to receive fewer than 1.2 endorsements per vessel, most of these in the Bering Sea.

Table 6: Projected Endorsements by Vessel Class Under the Original Criteria

Vessel Class	Southeast Outside	C. Gulf & W. Yakutat	Western Gulf	Aleutian Islands	Bering Sea	Total	Areas per License
Fillet Trawl CPs	3	6	6	16	16	47	2.94
Fixed-gear CVs < 32'	183	146	23		31	383	1.08
Fixed-gear CVs 33'- 45'	413	375	44	1	20	853	1.18
H&G Trawl CPs	2	32	32	36	48	150	2.88
Longline CPs	11	33	21	35	37	137	3.34
Longline CVs 60'+	21	45	37	24	27	154	2.66
Other & Unclassified CVs	6	3			1	10	1.43
Other Fixed-gear CPs	1	5	8	22	27	63	2.10
Other Seine CVs	348	446	61	14	52	921	1.39
Pot CVs 125'+			5		24	29	1.16
Pot CVs 60'-124'	19	74	33	8	77	211	1.47
Seiner/Trawler CVs	34	89	57		24	204	1.63
Surimi Trawl CPs			3	24	24	51	2.13
Trawl CVs 125'+		10	24	22	27	83	2.96
Trawl CVs 60'-89'	3	58	31	7	33	132	1.97
Trawl CVs 90'-124'		41	49	21	70	181	2.38
Grand Total	1044	1363	434	230	538	3609	1.48

Source: NPFMC License Qualification Database. Vessel classes determined using ADF&G and CFEC Fish Tickets, Blend Data and Observer Data from NMFS.

2.1.3 Recent Participation, Catch, and LLP Qualifier Activity

This subsection examines participation and catch of all groundfish vessels from January 1, 1995, through February 7, 1998, as well as the recent participation of projected groundfish license qualifying vessels.

2.1.3.1 Participation in the Groundfish Fisheries

Three full years have passed since the Council approved the proposed rule for the Groundfish LLP. Since that time the number of vessels participating in the fisheries has remained relatively stable. Table 7 summarizes the number of participants in the groundfish fisheries off the coast of Alaska for the period 1995-1998. Landing data through February 7, 1998 are included.⁶ A vessel is counted as a participant if one or more landing records⁷ were submitted.

There were 1,701 vessels with documented landings in 1995. The total number of vessels remained relatively constant over the next 3 years, dropping by 100 to 1,599 in 1996 and increasing back up to 1,689 in 1997. Through February 7, 1998, 486 vessels participated. Although the numbers of participants in almost all vessel classes over the years appear relatively stable, for some classes it is apparent that there is considerable movement in and out of the fishery. A total of 795 different Fixed-gear CVs 33'–45' has participated over the study period, but no more than 509 participated in any given year. Similarly, numbers of Other Seine CVs ranged within between 345 and 366, but a total of 511 unique vessels participated. These differences at least partially explain the 2,526 unique participants for the study period.

⁶ The Council chose February 7, 1998, as the cutoff date for participation.

⁷ Fish tickets from CFEC and ADFG were used to determine participation by catcher vessels delivering to shore-based processors. NMFS Observer Data was used to determine participation by catcher vessels delivering offshore. Blend data from NMFS was used to determine participation by catcher processors.

Table 7: Participating Groundfish Vessels by Vessel Class from 1995 through 1998.

Vessel Class	1995	1996	1997	1998	Total
Fillet Trawl CPs	14	15	16	14	16
Fixed-gear CVs < 32'	200	189	235	17	439
Fixed-gear CVs 33'-45'	509	470	504	109	795
H&G Trawl CPs	46	46	42	29	50
Longline CPs	36	34	32	19	38
Longline CVs 60'+	52	47	39	3	58
Other & Unclassified CVs	20	31	34	2	80
Other Fixed-gear CPs	17	21	23	3	24
Other Seine CVs	365	345	366	70	511
Pot CVs 125'+	27	22	21	6	37
Pot CVs 60'-124'	140	116	112	33	172
Seiner/Trawler CVs	89	87	88	57	107
Surimi Trawl CPs	24	22	19	20	24
Trawl CVs 125'+	28	26	28	19	28
Trawl CVs 60'-89'	60	53	56	39	66
Trawl CVs 90'-124'	74	75	74	46	81
Grand Total	1,701	1,599	1,689	486	2,526

Source: Fish tickets from CFEC and ADFG were used to determine participation by catcher vessels delivering to shore-based processors. NMFS Observer Data was used to determine participation by catcher vessels delivering offshore. Blend data from NMFS was used to determine participation by catcher processors.

2.1.3.2 Groundfish Catch by Vessel Class in 1995

One of the stated objectives of the Groundfish LLP was to limit the catching capacity of the groundfish fleet. Catch capacity is very difficult to measure, primarily because levels of effort and catch for participating vessels vary significantly. This analysis examines the catching capacity in the groundfish fleet by examining the best available estimates of catch by individual vessels within each vessel class. To develop a comprehensive and reasonably accurate estimate of catch by individual vessels, fish-ticket, blend and observer data have been combined and edited. This process did not allow for the inclusion of prohibited species catch and, because of the aggregation process, specification of target fisheries was not possible.

Figures 1 through 15 illustrate distribution of catches by vessel class and the potential for capacity increases. The figures are ordered by gear and vessel size, with trawl vessels in the Figures 1 through 7 (from smaller to larger vessels) and fixed-gear vessels in Figures 8-15. In each figure the vessels are sorted from low catch to high. Metric tons are shown along the y-axis, and percentiles along the x-axis. The three highest catches are not shown in order to ensure confidentiality. However, both the x-axis and the y-axis reflect the range of the entire distribution. The scale of the y-axis varies for each class.

The figures demonstrate how well catches within a particular vessel class fit common perceptions of the distributions of catch. The catch of Trawl Vessels 125+ shown in Figure 4 is a good example of a common perception of catch within a class. A few vessels experience bad years, perhaps because of vessel breakdowns. Catch then rises quickly to a level at which most vessels operate. At the high end of the distribution there are always a few highliners.

Figure 12, which shows the catch of pot vessels 60' -125'LOA, demonstrates a catch pattern that may be more typical than atypical. In this class, 72 percent of the vessels with reported landings caught less than the mean catch of the class. This distribution probably indicates that most of the vessels with landings were not targeting groundfish for much of their fishing year. It is in vessel classes with these types of distributions that latent capacity can be exploited most easily through license transfers or vessel upgrades.

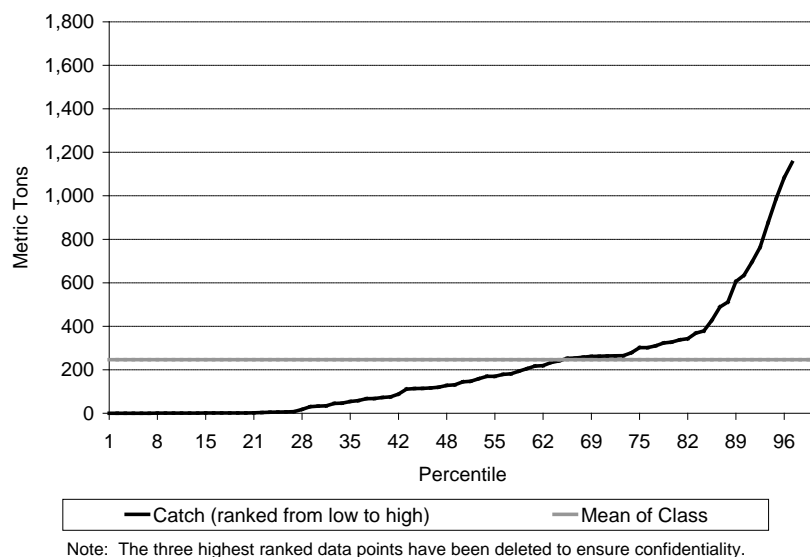
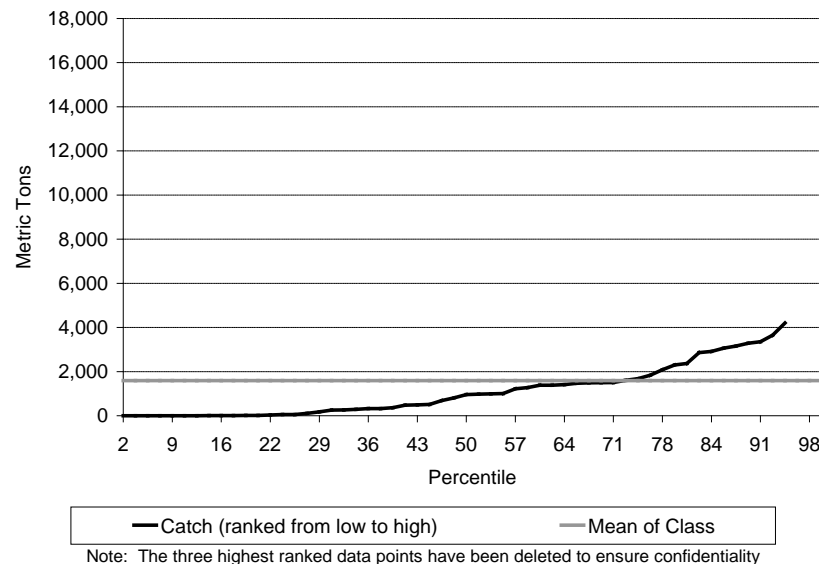
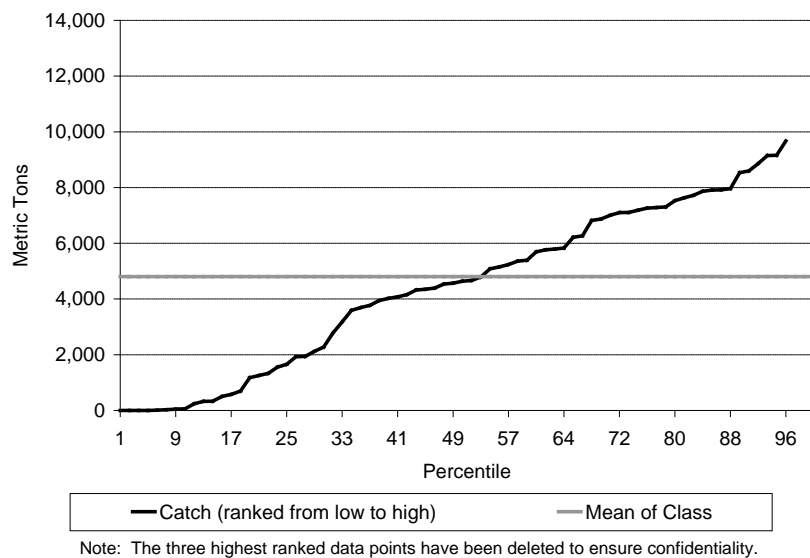
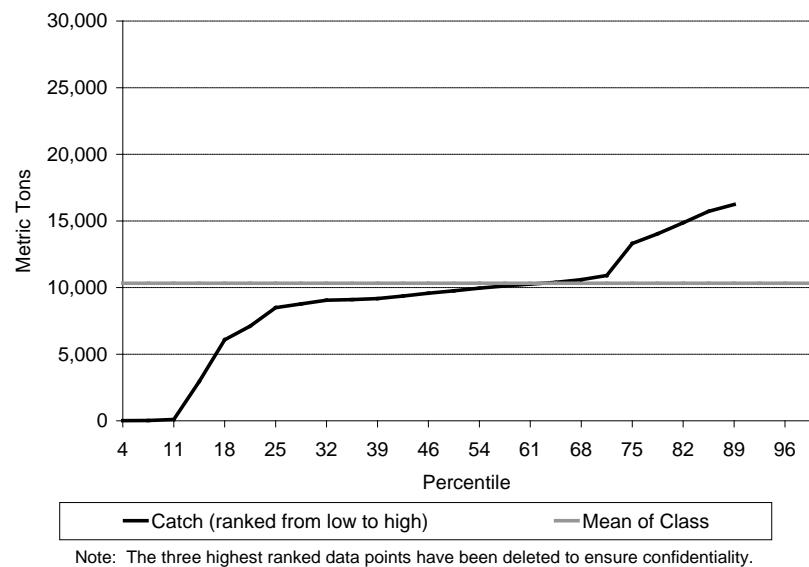
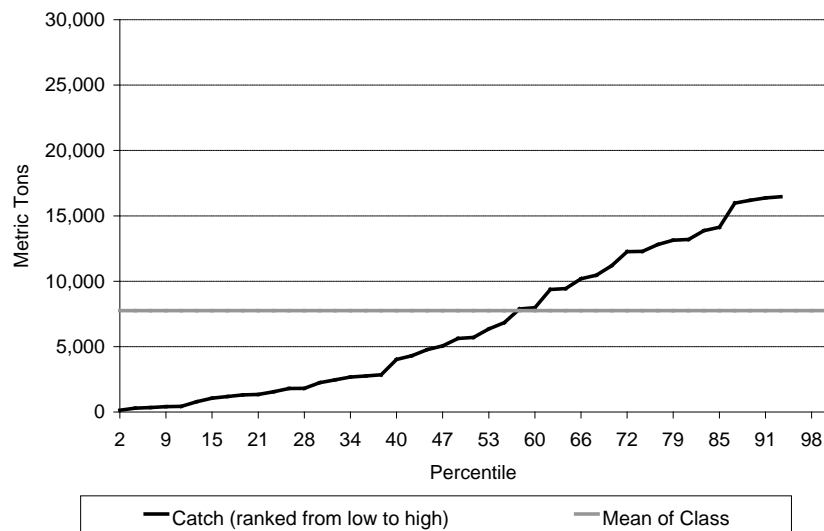
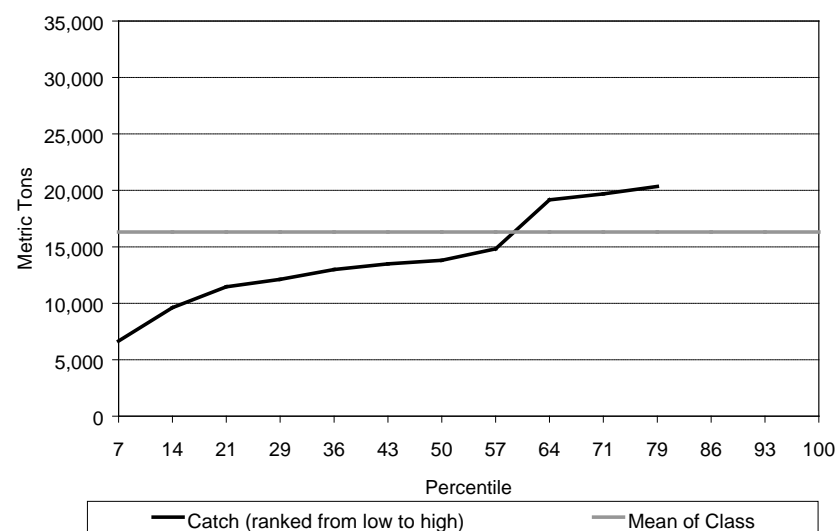
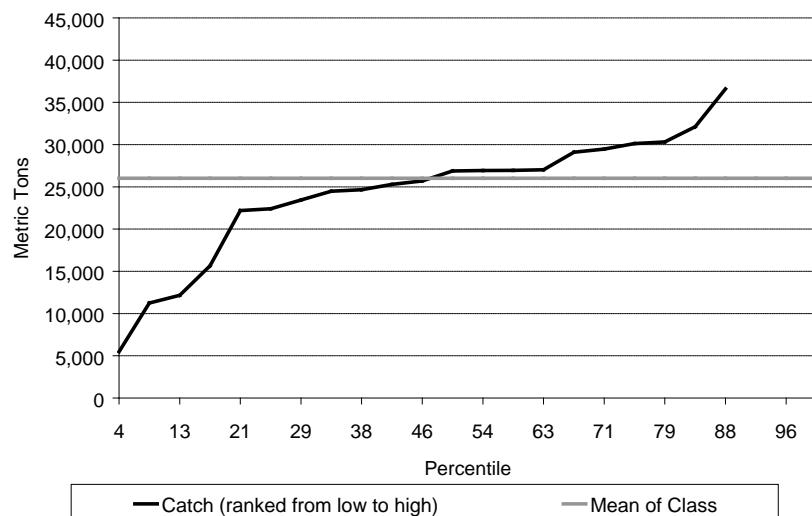
Figure 1: Ranked Catch of Seiner/Trawlers**Figure 2: Ranked Catch of Trawl CVs 60'- 89'****Figure 3: Ranked Catch of Trawl CVs 90'-124'****Figure 4: Ranked Catch of Trawl CVs 125'+**

Figure 5: Ranked Catch of H&G Trawl CPs

Note: The three highest ranked data points have been deleted to ensure confidentiality.

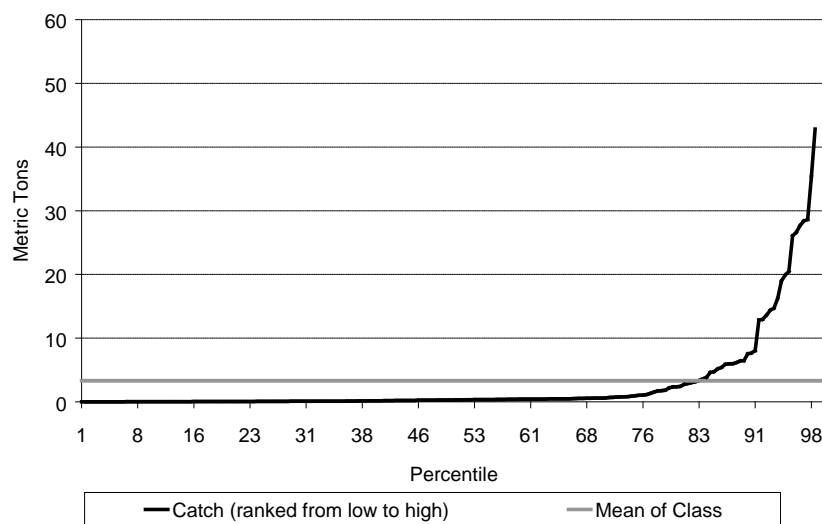
Figure 6: Ranked Catch of Fillet Trawl CPs

Note: The three highest ranked data points have been deleted to ensure confidentiality.

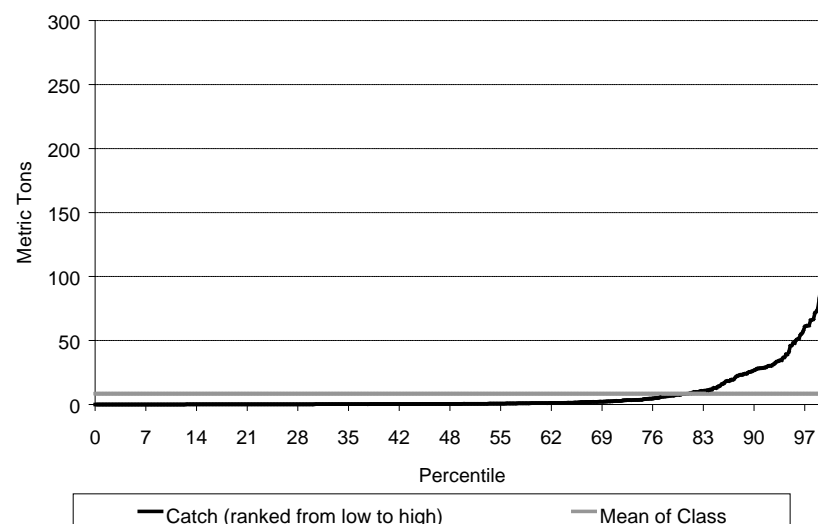
Figure 7: Ranked Catch of Surimi Trawl CPs

Note: The three highest ranked data points have been deleted to ensure confidentiality.

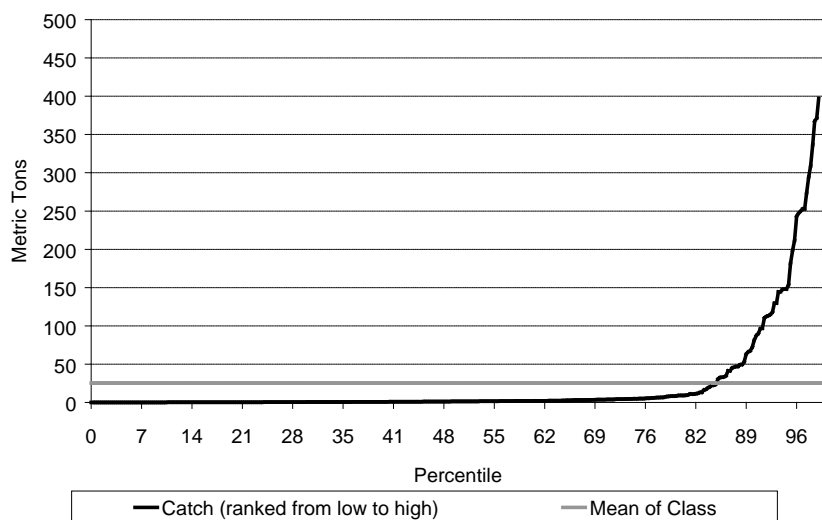
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Figure 8: Ranked Catch of Fixed-gear CVs < 32'

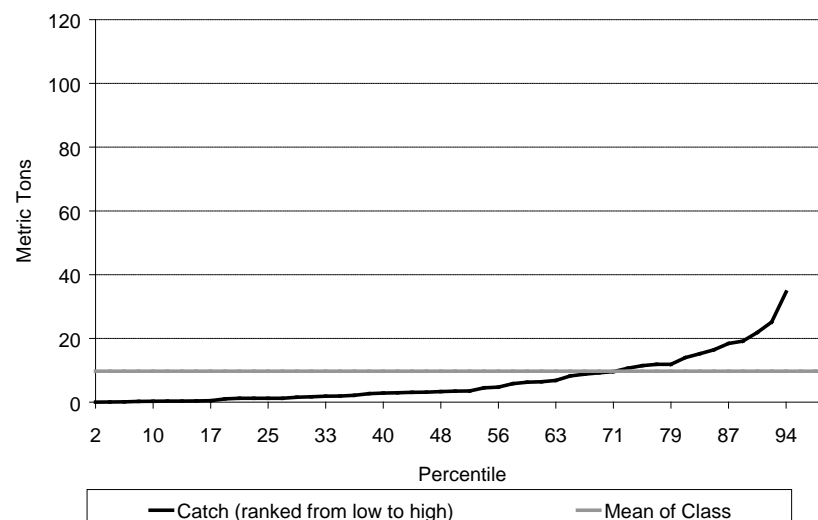
Note: The three highest ranked data points have been deleted to ensure confidentiality.

Figure 9: Ranked Catch of Fixed-gear CVs 33' - 45'

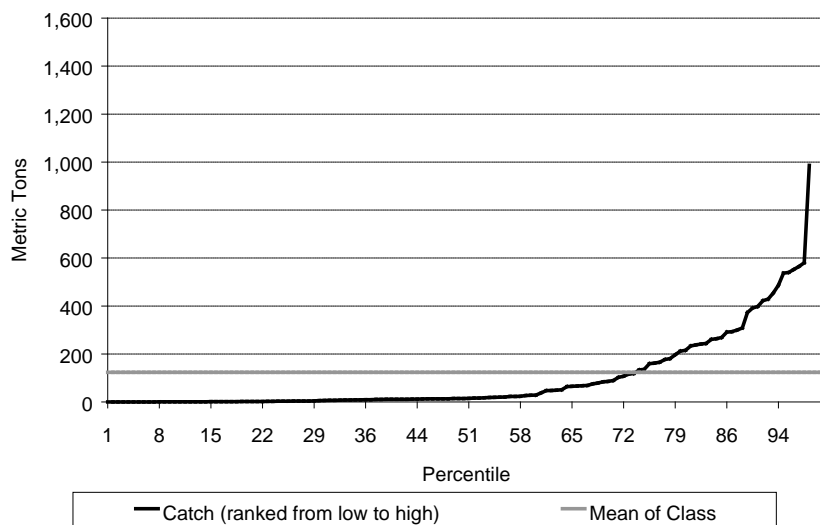
Note: The three highest ranked data points have been deleted to ensure confidentiality.

Figure 10: Ranked Catch of Other Seine CVs

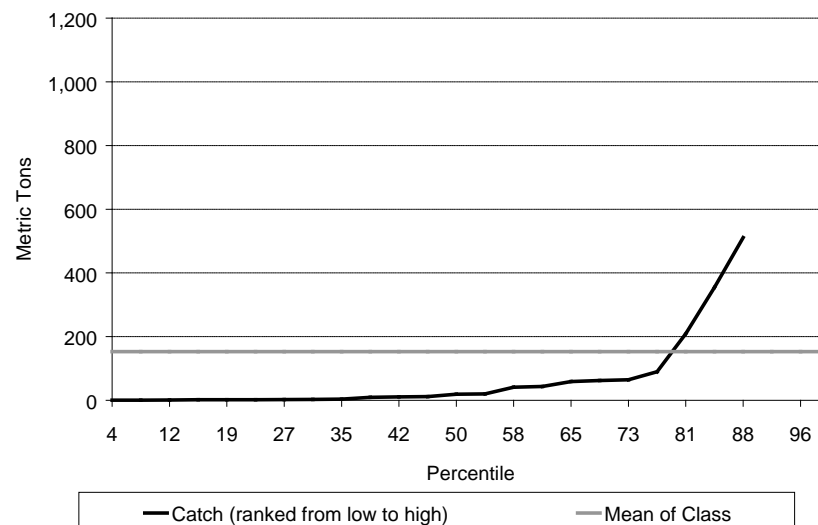
Note: The three highest ranked data points have been deleted to ensure confidentiality.

Figure 11: Ranked Catch of Longline CVs 60'-124'

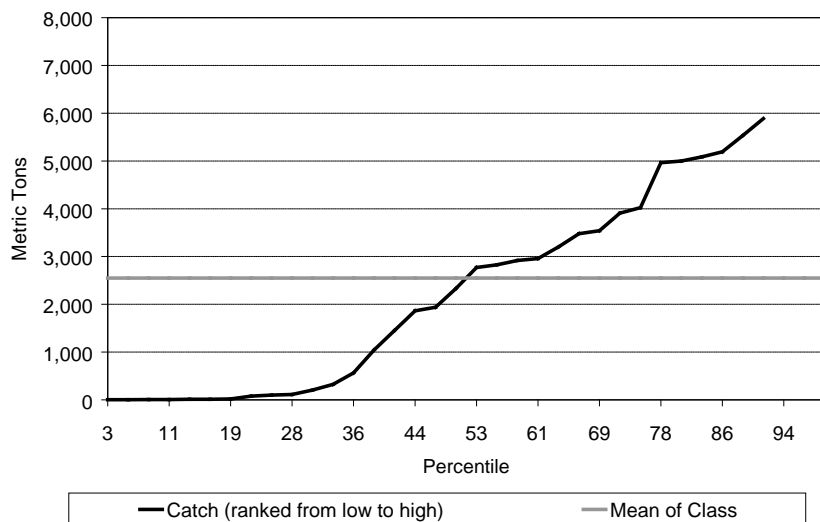
Note: The three highest ranked data points have been deleted to ensure confidentiality.

Figure 12: Ranked Catch of Pot CVs 60'-124'

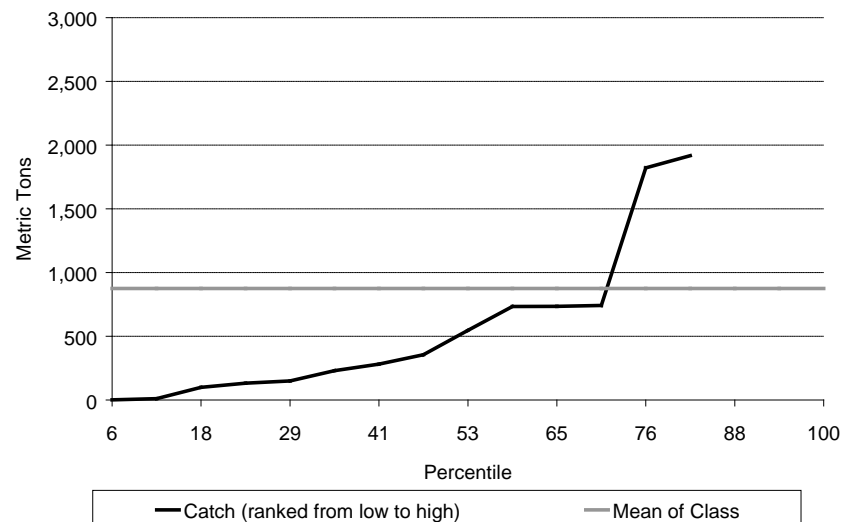
Note: The three highest ranked data points have been deleted to ensure confidentiality.

Figure 13: Ranked Catch of Pot CVs 125'+

Note: The three highest ranked data points have been deleted to ensure confidentiality.

Figure 14: Ranked Catch of Longline CPs

Note: The three highest ranked data points have been deleted to ensure confidentiality.

Figure 15: Ranked Catch of Other Fixed-gear CPs

Note: The three highest ranked data points have been deleted to ensure confidentiality.

Table 8 shows the estimated catch for 1995 by vessel class for all North Pacific groundfish as developed in this analysis. The 1,701 vessels are estimated to have harvested 2.1 million tons of groundfish of all species in the GOA and BSA. A comparison of mean and median⁸ catches by vessel class is useful for insights into potential catch capacity of each vessel class. If the median catch level is significantly lower than the mean catch,⁹ then vessels at the lower end of the distribution are not contributing significantly to the total catch of the class. Thus, vessels at the lower ends of the distributions of the two Fixed-gear CV classes, the Other Seine CV class, the Other and Unclassified CV class, and (to a lesser degree) the Pot CV classes, were not currently making significant catches relative to other members in their classes. The same information can be ascertained by looking at the standard deviation as a percent of the mean.¹⁰ If this percentage is quite high—approaching 200 percent, for example—vessels at the high end of the distribution are catching significantly greater amounts than vessels at the lower end. Potential capacity relative to existing catch is likely to be greatest within these classes.

Table 8: Estimated Catch by Vessel Class for all North Pacific Groundfish in 1995

Vessel Class	Vessels	Total Catch (mt)	Mean Catch (mt)	Percentile of Mean (%)	Median Catch (mt)	Standard Deviation as a % of the mean
Fillet Trawl CPs	14	228,391.2	16,313.7	64	14,862.9	39
Fixed-gear CVs < 32'	200	663.1	3.3	83	0.3	261
Fixed-gear CVs 33'–45'	509	4,345.8	8.5	81	0.7	277
H&G Trawl CPs	46	356,616.0	7,752.5	57	5,685.3	83
Longline CPs	36	91,824.8	2,550.7	53	1,961.4	91
Longline CVs 60'+	52	506.3	9.7	73	5.3	177
Other and Unclassified CVs	20	32.2	1.6	85	0.6	212
Other Fixed-gear CPs	17	14,866.0	874.5	76	503.6	105
Other Seine CVs	365	9,249.9	25.3	85	1.5	285
Pot CVs 125'+	27	4,123.5	152.7	81	17.1	190
Pot CVs 60'-124'	140	17,322.5	123.7	74	16.0	192
Seiner/Trawler CVs	89	21,911.6	246.2	65	152.5	136
Surimi Trawl CPs	24	624,215.0	26,009.0	50	26,956.2	33
Trawl CVs 125'+	28	289,088.4	10,324.6	64	9,881.5	56
Trawl CVs 60'- 89'	60	95,541.3	1,592.4	72	625.5	181
Trawl CVs 90'-124'	74	355,606.9	4,805.5	54	4,899.5	66
Grand Total	1,701	2,114,304.4	1,243.0	87	2.3	347
Source Data: 1995 Fish tickets from CFEC, 1995 Blend Data from NMFS, and 1995 Observer Data.						

Another way to look at potential capacity is to assume a hypothetical situation in which vessels at the lower end of the distribution increase their catches up to the current mean harvest level of the existing fleet while catches of vessels above the mean remain constant. Potential causes of such increases might include the transfer of the license to a new owner who wishes to focus on groundfish, or downturns in other fisheries in which the current owner presumably is focusing effort.

Table 9 demonstrates the effect of this hypothetical situation in terms of potential catch increases based on 1995 catch estimates. For example, in 1995 the 8 Fillet Trawl CP vessels that caught less than the mean had a total actual catch of 94,985 mt. If each of those vessels had caught 16,314 mt (the mean

⁸ The median catch of a class of vessels is the catch of the one vessel that is in the mid-point of the distribution of ranked catches. The median is also known as the catch of the 50th percentile.

⁹ Another way of stating this is “if the percentile of the mean is significantly higher than 50.”

¹⁰ This is also known as the Coefficient of Variation.

harvest for the class), their combined catch would have been 130,509 mt, a difference of 35,525 mt, or a 16 percent increase, over 1995. Similarly, if the same scenario was used for Fixed-gear CVs < 32' the catch of the class would increase by 73 percent. Overall, the difference in potential catch and the 1995 total catch under such a scenario is estimated to be 522,692 mt, an increase of 25 percent over the 1995 total harvest. Total catch under the hypothetical situation, having increased by more than 500,000 mt, probably would exceed the Total Allowable Catch (TAC) for many fisheries. If total catch under the hypothetical potential catch scenario is adjusted downward to equal the actual 1995 total, and presumably not to exceed TACs, the distribution of catch across vessel classes will be impacted. This hypothetical situation is shown in the two rightmost columns of the table. Catch in the Fillet Trawl CP, Surimi Trawl CP, and Trawl 125' + vessel classes would decrease relative to 1995 totals, but catches in the other classes would increase.

Table 9: Potential Catch Using Mean Catch Levels as an Estimator

Vessel Class	Vessel Count		1995 Estimated Catch			Hypothetical Scenarios				
	All	Catch < mean	Total catch of class (mt)	Mean catch of class (mt)	Total catch of vessels < mean (mt)	Potential catch of vessels < mean (mt)	Potential total catch of class (mt)	Potential percent change	Adjusted potential catch of class (mt)	Adjusted potential percent change
Fillet Trawl CPs	14	8	228,391	16,314	94,985	130,509	263,916	16	211,604	-7
Fixed Gear CVs < 32'	200	165	663	3	66	547	1,144	73	918	38
Fixed Gear CVs 33' - 45'	509	411	4,346	9	440	3,509	7,415	71	5,945	37
H&G Trawl CPs	46	26	356,616	7,753	68,138	201,566	490,043	37	392,909	10
Longline CPs	36	18	91,825	2,551	10,077	45,912	127,660	39	102,356	11
Longline CVs 60'+	52	37	506	10	112	360	754	49	605	19
Other & Unclassified CVs	20	16	32	2	5	26	53	63	42	31
Other Fixed Gear CPs	17	12	14,866	874	4,017	10,494	21,343	44	17,112	15
Other Seine CVs	365	311	9,250	25	718	7,881	16,413	77	13,160	42
Pot CVs 125'+	27	20	4,123	153	447	3,054	6,731	63	5,396	31
Pot CVs 60'-124'	140	103	17,322	124	2,080	12,744	27,987	62	22,440	30
Seiner/Trawler CVs	89	57	21,912	246	4,026	14,033	31,919	46	25,592	17
Surimi Trawl CPs	24	11	624,215	26,009	212,705	286,099	697,608	12	559,332	-10
Trawl CVs 125'+	28	17	289,088	10,325	119,866	175,518	344,741	19	276,408	-4
Trawl CVs 60'- 89'	60	41	95,541	1,592	21,839	65,287	138,989	45	111,439	17
Trawl CVs 90'-124'	74	40	355,607	4,805	87,546	192,220	460,281	29	369,046	4
Grand Total	1,701	1,293	2,114,304	1,243	627,067	1,149,760	2,636,997	25	2,114,304	0

Source Data: 1995 Fish tickets from CFEC, 1995 Blend Data from NMFS, and 1995 Observer Data.

Notes:

1. Potential catch results from multiplying the 1995 mean catch of the class by the number vessels catching less than the mean. Vessels catching more than the mean are assumed to catch at the same levels.
2. Adjusted potential catch results by adjusting the potential total catch of all classes downward by 25 percent, so that the total equals the 1995 total catch.

The estimates of potential catch provide insights regarding the effectiveness of new limits on the licensed vessels as proposed by the Council. For example, if proposed actions will tend to prevent the kind of capacity increases described in the hypothetical scenario above, potential redistribution of catch resulting from capacity increases will be less likely to occur.

2.1.3.3 Groundfish Qualifying Vessels Among Recent Participants

The Groundfish LLP as currently configured is projected to issue licenses to the owners of 2,435 vessels. Historically, participation has rarely exceeded 2,000 vessels in any given year. Since 1991, the number has dropped from 1,936 to the current levels of approximately 1700 vessels. Table 10 shows the projected number of qualifying vessels among recent participants for 1995-1998. Overall 1,579 of the 2,435 vessels projected to qualify have participated since 1995. Although only 3 full years of data are available since the Council first approved the LLP, it appears that for many of the vessel classes there is a downward trend in the number of participating qualifiers. This downward trend is not wholly unexpected. The same general phenomenon was documented in analyses examining the Sablefish and Halibut IFQ Program [NPFMC, 1992] and the GCM [NPFMC, 1992]. As time passes the number of participating vessels from previous years declines.

Table 10: Projected Number of Qualifying Vessels Among Recent Participants

Vessel Class	1995		1996		1997		1998		All Vessels	
	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ
Fillet Trawl CPs	14	0	15	0	16	0	14	0	16	0
Fixed-gear CVs < 32'	101	99	69	120	66	169	11	6	135	304
Fixed-gear CVs 33'-45'	388	121	328	142	326	178	84	25	494	301
H&G Trawl CPs	45	1	45	1	40	2	28	1	47	3
Longline CPs	33	3	32	2	29	3	17	2	34	4
Longline CVs 60'+	43	9	38	9	32	7	2	1	45	13
Other and Unclassified CVs	3	17	4	27	4	30	0	2	4	76
Other Fixed-gear CPs	13	4	15	6	17	6	3	0	17	7
Other Seine CVs	304	61	268	77	274	92	55	15	365	146
Pot CVs 125'+	20	7	15	7	15	6	5	1	24	13
Pot CVs 60'-124'	114	26	90	26	84	28	25	8	124	48
Seiner/Trawler CVs	84	5	81	6	79	9	54	3	93	14
Surimi Trawl CPs	24	0	22	0	19	0	20	0	24	0
Trawl CVs 125'+	28	0	26	0	28	0	19	0	28	0
Trawl CVs 60'-89'	55	5	46	7	48	8	33	6	55	11
Trawl CVs 90'-124'	70	4	72	3	68	6	43	3	74	7
Grand Total	1,339	362	1,166	433	1,145	544	413	73	1,579	947

Source: NPFMC License Qualification Database, Fish tickets from CFEC and ADF&G, Blend and Observer Data from NMFS.

2.1.4 Impacts of Moratorium and Fishing Rights Transfers

Since 1996 the GCM on new vessels entering the fisheries has been in effect. As in the LLP, GCM qualifications may be transferred to other vessels, provided that the length of the new vessel is the same or less than the MLOA of the originally qualifying vessel. As noted in Section 2.1.1.3, the LLP also allows the transfers of fishing histories, with or without the vessel.

Transfers of GCM qualifications and LLP qualifying fishing histories complicate projections of the number of participating vessels that might qualify for licenses under the LLP. For example, a newly participating vessel that does not appear to qualify for a license may have purchased a vessel's fishing history as well as a GCM qualification. The Restricted Access Management Division (RAM) of NMFS has tracked GCM transfers since the program was initiated in 1996. However, there is no official way to track transfers of fishing histories because these occur in strictly private transactions that are not reported to NMFS. If fishing histories and GCM qualifications are routinely transferred together with the sale of vessels, then tracking projected qualifiers is relatively straightforward. If, however, fishing histories are

transferred or retained independently of vessel sales or transfers of GCM qualifications, then the accuracy of projections decreases.

Brokers and attorneys who deal with vessel sales, transfers of permits, GCM qualifications, and fishing histories were contacted to ascertain the kinds of transfers occurring in the industry. In general there was a consensus that nearly every transfer of a vessel or CGM qualification also transferred the fishing history. Therefore, this analysis assumes that the moratorium transfer database is a reasonable indicator of transfers of GCM qualifications, as documented by RAM are reasonable indicators of transfers of LLP qualifying fishing histories.

2.1.4.1 Moratorium Qualification Prices

Brokers were asked about the prices paid for GCM qualifications and for the accompanying fishing histories. According to the brokers, calculations of prices for GCM qualifications generally are based on a rule-of-thumb rate of \$1,000 per foot of the qualifying vessel. Thus a GCM qualification for a vessel of 100' LOA might have sold for \$100,000 in 1996. Prices for GCM have declined somewhat recently because the moratorium is expected to expire by the year 2000. Prices for smaller vessels without crab qualifications were lower, perhaps as low as \$500 per foot. Prices for much larger vessels with crab qualifications sold at a higher rate per foot.

Although prices tend to be consistent with the rule of thumb, brokers and members of the industry felt that this price is generally based on the marginal revenue that could be expected from the purchase of the GCM qualification. Thus if a particular GCM qualification allowed the buyer to fish in the crab fishery and to use all potential gears in the groundfish fishery, it would sell for a higher price than a GCM qualification of the same MLOA, with fewer potential fisheries.

Generally, brokers could differentiate between the prices paid for GCM qualification and for fishing history. Transfer prices of fishing histories of vessels with significant participation have been higher than for vessels of the same length with lesser catch histories. There were reports that the fishing history of one vessel of approximately 100' LOA sold for \$1 million. Using the rule of thumb for the GCM qualification, the amount paid for moratorium rights in this instance would have been only \$100,000, and therefore the value of the fishing history would have been approximately \$900,000. Many brokers and members of the industry felt that the premium paid for this vessel's history was based on the buyer's belief that the fishing history would be directly applicable not only to the LLP, but also to the allocation of IFQ shares. More recently brokers and members of the industry have been discounting the possibility that fishing history from the past, particularly for the years prior to 1996, will be applicable to any future allocation of IFQs. Therefore the value of older fishing histories appears to be diminishing.

In general, brokers and industry members indicated that they tend to think that "fully loaded" license qualifications will sell for higher prices than GCM qualifications. In this case, a "fully loaded" license qualification would at least have trawl history in the BSA. The primary reason given is the fact that the GCM qualifications have a limited duration. That is, they allow holders to fish only until the date on which LLPs are in place. Qualifying fishing histories for the LPPs provide access for an indefinite and presumably longer period, and therefore should generate a stream of revenue over a longer period.

However, because of the endorsements and designations included in the LLPs, some license packages probably will be less valuable than their corresponding GCMs. As an example, assume a vessel fished with longline gear only in the SEO subarea in January of both 1992 and 1993 for Pacific cod, but had no other groundfish activity, either before or after. The GCM of that vessel would allow the owner to fish in both the BSA and the GOA with any legal gear for groundfish. The groundfish license that would result from that same history would only allow the user to fish non-trawl gear in the SEO subarea. Therefore, the selling price of this LLP history could, in theory, be less than the selling price of its GCM qualification.

Formal economic estimates of the value of specific license packages would be based on the difference in net revenue that could be generated with and without the license package. A more complete discussion of the value of licenses can be found beginning on page 79 of the Council's "EA/RIR for License Limitation Alternatives," dated September 18, 1994. The EA/RIR notes that unless the expected profits in the fisheries are anticipated to increase with the LLP programs, then the combined value of the vessel and the license theoretically is equal to the value of the vessel alone in the absence of a license program. Thus, while licenses take on value, it is possible that the value of the vessel alone has declined.

2.1.4.2 Analysis of the GCM Transfer Data

From 1996 through March 12, 1998, a total of 245 GCM transfers occurred involving the GCM qualifications of 221 vessels. Of these, 69 appear to have been simple cases of a moratorium qualification transfer accompanying the sale of a vessel to a new owner. Since 1996, 132 transfers of GCM qualifications of one vessel to a different vessel have occurred. The remaining 44 transfers appear to have been more complex, involving moratorium qualifications that have had multiple transfers. In other words, the qualification has been transferred from the original owner to another, and then to a third or a fourth owner, or, in several cases, from the original owner to another and then back to the original owner.

Of the 221 CGM qualifications involved in the transfers, 166 involved vessels that are projected to qualify for groundfish licenses. Projections of the impacts on the Groundfish LLP assume that the entire fishing history of the transferring vessel accompanies the sale of the moratorium qualification. The analysis also assumes that fishing histories cannot be combined to produce a license qualification under the original qualifying criteria. In other words, no new groundfish licenses are created by the transfer process. Transfers do, however, have the potential to decrease the number of vessels that are able to fish at any given time, through the stacking of multiple fishing histories onto a single vessel.

Table 11 describes the projected impact of GCM transfers on the numbers of CV/CP designations, assuming that fishing histories accompanied all moratorium transfers. The information in the table shows these impacts by the vessel length classes of the receiving vessel. A total of 47 vessels that were not projected to receive licenses under the original Groundfish LLP appear to have received license qualifications through transfer (Rows 1 and 2 of the table). The remaining 119 vessels that purchased moratorium qualifications were projected to receive licenses prior to the transfer. Eighteen of the transfers that went to originally qualified groundfish vessels did not appear to involve qualifying groundfish fishing histories (Rows 3 and 4). The rest of the transfers involving groundfish vessels—101 in total—appear to have resulted in multiple licenses being assigned to single vessels. Assuming that fishing histories accompanied all moratorium transfers, 2,334 vessels would be projected to receive licenses, rather than the 2,435 projected to qualify as shown in Table 2.

Table 11: Projected Impact of GCM Transfers on CV/CP Designations for Groundfish

Impact of the Transfer	License Length Designation			Total
	0'– 59'	60'– 124'	125' +	
CV license qualification transferred to previously unlicensed	29	8	3	40
CP license qualification transferred to previously unlicensed	1	3	3	7
Originally a CV qualifier, transfer did not involve groundfish	10	7		17
Originally a CP qualifier, transfer did not involve groundfish	1			1
Originally a CV, transfer results in multiple CV licenses	54	21	3	78
Originally a CP, transfer results in multiple CP licenses	3	2	15	20
Originally a CV, after transfer has both CV/CP designations		1		1
Originally a CP, after transfer has both CV/CP designations	1	1		2
All moratorium transfers affecting groundfish licenses	99	43	24	166

2.2 Overview of the Status Quo for Crab

This section is organized along the same lines as the Section 2.1. Subsection 2.2.1 describes the provisions of the Crab LLP as it is currently defined. Subsection 2.2.3 examine recent participation in the number of vessels, catch by vessel class, and participation by LLP qualifiers. Finally, Subsection 2.2.5 discusses the impact on the Crab LLP of GCM qualification transfers.

2.2.1 Provisions of the Crab LLP

Provisions of the Crab LLP are generally similar to the provisions of the Groundfish LLP. The major difference between the two is the type of endorsements that will be issued. In the Crab LLP, endorsement will be issued for crab fisheries on a Species-Area basis. This subsection discusses those provisions of the Crab LLP that are significantly different from the Groundfish LLP provisions.

2.2.1.1 The Nature of Crab Licenses

The Crab LLP restricts access to the BSA king and tanner crab fisheries in the EEZ. The program does not restrict access within waters of the State of Alaska, nor does it affect crab fisheries that are not managed by the BSA king and tanner crab FMP.

The Crab LLP will issue General Licenses and Endorsements for each species/area combination, as shown in Table 12.

Table 12: Species Area Endorsements in the Crab LLP

Pribilof red and Pribilof blue king crab	Adak red king crab
<i>C. opilio</i> and <i>C. bairdi</i> (BSA tanner crab)	Bristol Bay red king crab
St. Matthew blue king crab	Dutch Harbor brown king crab
Adak brown king crab	Norton Sound red and blue summer king crab

Eight crab species/area endorsement combinations were chosen by the Council. The Council selected them to provide flexibility within the industry while controlling effort (especially in the smaller fisheries). Flexibility was viewed as important because of declining opportunities open to crab fishers. Providing crabbers with more opportunities when stocks are fluctuating provides a better chance to make a living.

The Council also felt that it was important to control effort, especially in the smaller crab fisheries. Therefore, the Council combined those crab fisheries with similar participation histories to create endorsement groups. Pribilof red and blue king crab fisheries were combined into a single endorsement to allow vessels fishing this area to have greater flexibility. Consideration was given to adding St. Matthew blue king crab into this endorsement. However, the Council felt that if at some point in the future this fishery did not open concurrently with the Pribilof fisheries, too much effort could flow in the fishery. Therefore, St. Matthew blue king crab was included as a separate endorsement. *C. opilio* and *C. bairdi* crab species were combined by the Council into a single endorsement. The Council selected this option to provide greater flexibility to the tanner crab fishers.

2.2.1.2 Crab License Qualifying Periods

For General Licenses, the BQP is January 1, 1988, through June 27, 1992, with the additional provision that any vessel that had crossed over to crab from groundfish by December 31, 1994, under the proposed moratorium would also qualify for a General License. Vessels meeting these requirements would receive endorsements on the basis of landings in the EQP of January 1, 1992, through December 31, 1994, except vessels fishing for Bristol Bay red king crab, which will use January 1, 1991 through December 31, 1994 as the EQP. Vessels in the Norton Sound king crab fisheries and Pribilof king crab fisheries will be

exempt from the requirements of the BQP, but must have made landings between January 1, 1993, and December 31, 1994, to qualify for a general license and endorsement.

The crab BQP selected by the Council is the same as the BQP chosen for groundfish. This qualification period was selected for both fisheries because it reflects the moratorium years and the Council's long-published Control Date. A 4-month extension of the moratorium was included in the Council's BQP to match the cutoff date announced early in its Comprehensive Rationalization deliberations.

The 3 most recent years a fishery was open were used for the EQP. Using the most recent years for endorsement qualification was selected because these years reflect a fishery's current fleet and participants. The Council felt endorsement periods that reach too far back in time may not adequately achieve this goal. In addition, two fisheries have only been open since 1993. For these fisheries (Norton Sound¹¹ summer king crab and Pribilof red king crab), the BQP requirements have been waived, but landings must have been made in 1993 or 1994 to qualify for a general license and endorsement.

2.2.1.3 Minimum Landings Criteria for Crab Licenses

To receive a red or blue king crab species/area endorsement, a vessel must have made at least one landing in the fishery during the EQP. To receive a brown king crab species/area endorsement, a vessel must have made at least three landings in the brown king crab fishery during the EQP of January 1, 1992, through December 31, 1994. To receive a combined *C. opilio*/*C. bairdi* crab species/area endorsement, a vessel must have made at least three landings of *C. opilio* or *C. bairdi* during the EQP.

The minimum landings requirements were selected based on the structure of the individual fisheries. Brown king crab seasons generally last longer than the red or blue crab seasons. To qualify for an Adak brown king crab endorsement, vessels are only required to make 3 landings over a 3-year period.

C. opilio and *C. bairdi* fisheries had relatively high numbers of landings per vessel during the EQP. These fisheries traditionally have not opened concurrently so vessels would have the opportunity to fish both. Vessels fishing *C. opilio* during the EQP averaged 10.2 landings per year. The average number of landings per year in the *C. bairdi* fishery was slightly lower at 6.0.

Many of the red and blue king crab fisheries have shorter seasons. The Bristol Bay red king crab fishery was open for 7 days during 1991 and 1992. In 1993, the season lasted 9 days. Because of the short seasons during the 3 endorsement qualifying years, the vessels that participated averaged only 1.1 landings per year.

2.2.2 Projected Qualifiers Under the Original Crab LLP Criteria

Under the original qualifying criteria, 365 vessels are projected to qualify for crab licenses in areas excluding Norton Sound. The top portion of Table 13 (above the double lines) shows the qualifying vessels by their CV/CP designations. Also included are the vessel owners' states of residence and the length class designations. Of the total projected qualifiers, Alaskans currently own 125 vessels, and residents of other states own 240. The lower portion of Table 13 (below the double lines) shows the number of species/area endorsements projected under the original Crab LLP criteria. The numbers of vessels shown in individual cells of these tables may vary slightly from those found in the SAFLLA. These changes reflect the most recent vessel documentation data for vessel lengths and residence.

¹¹ The Norton Sound crab licenses are not affected by the proposed changes to the Crab LLP and have therefore been excluded from this analysis.

Table 13: Qualifying Crab Vessels and Endorsements Under Original Criteria

Owner's Residence	Alaska				Other States				All Vessels			
Designations	0'-59'	60'-124'	125'+	Total	0'-59'	60'-124'	125'+	Total	0'-59'	60'-124'	125'+	Total
All Catcher Vessels	11	96	17	124	3	146	65	214	14	242	82	338
All Catcher Processors			1	1		1	25	26	0	1	26	27
Grand Total	11	96	18	125	3	147	90	240	14	243	108	365
Endorsements	0'-59'	60'-124'	125'+	Total	0'-59'	60'-124'	125'+	Total	0'-59'	60'-124'	125'+	Total
BSA Tanner Crab												
Catcher Vessels	2	81	16	99		134	63	197	2	215	79	296
Catcher Processors			1	1		1	25	26		1	26	27
Total BSA Tanner	2	81	17	100		135	88	223	2	216	105	323
Adak Brown												
Catcher Vessels		3	2	5		10	7	17		13	9	22
Catcher Processors							5	5			5	5
Total Adak Brown		3	2	5		10	12	22		13	14	27
Adak Red												
Catcher Vessels		7	2	9		15	6	21		22	8	30
Catcher Processors							1	1			1	1
Total Adak Red		7	2	9		15	7	22		22	9	31
Bristol Bay Red												
Catcher Vessels	3	90	15	108	1	139	62	202	4	229	77	310
Catcher Processors			1	1			25	25			26	26
Total B.Bay Red	3	90	16	109	1	139	87	227	4	229	103	336
Dutch Harbor Brown												
Catcher Vessels		1	2	3		7	7	14		8	9	17
Catcher Processors							4	4			4	4
Total D.Harbor Brown		1	2	3		7	11	18		8	13	21
Pribilof Blue/Red												
Catcher Vessels	9	48	5	62	3	71	31	105	12	119	36	167
Catcher Processors							8	8			8	8
Total Prib. Blue/Red	9	48	5	62	3	71	39	113	12	119	44	175
St. Matthew Blue/Red												
Catcher Vessels		42	12	54		92	43	135		134	55	189
Catcher Processors							12	12			12	12
Total St. M. Blue/Red		42	12	54		92	55	147		134	67	201

Sources: NPFMC Crab License Qualification database and CFEC Vessel Registration data.

Notes:

1. Vessels qualifying for Norton Sound licenses and endorsements are not affected by this analysis and therefore are not included in this table.
2. Owner and length class data reflect the most recent documentation information available about the vessels. This accounts for the small variations between these tables and the tables presented in the SAFLLA.

Table 14 shows the projected number of qualifying crab vessels and their anticipated processing designations in terms of vessel classes. The remaining sections of this analysis will focus on these vessel classes rather than on the simple length and processing designations because it is believed the vessel classes provide more information about the full spectrum of a given vessel's activities in all fisheries over time.

The vessel classes are based on the vessel types introduced in the Bridging Document and the crab groundfish vessel classes discussed earlier in Section 2.1.2. For crab, several of the vessel classes have been merged to protect confidentiality. The three types of factory trawl classes (surimi, fillet, and H&G) have been aggregated into a single class. These boats are classified as factory trawlers because they have operated as such in the past. This does not imply that they are using trawl gear for crab harvests or that they are processing crab. In fact, of the seven factory trawl vessels that are projected to qualify, only two would receive processing designations.

The Fixed-gear CP class contains all vessels that have processed either crab or groundfish using fixed gear. As shown in Table 14, 44 of these vessels are projected to receive licenses, but only 25 are projected to receive CP designations. All 13 vessels > 58' that are projected to qualify have been classified as Seine Combination CVs. Two trawl vessel classes were combined to create the Trawl CV 59'-124' class. One of the 57 vessels projected to qualify is 59' LOA and thus is technically too long to be a seine vessel. All of these vessels have trawl experience in the past, and thus they are classified as trawlers.

Table 14: Projected Crab Licenses and Designations by Vessel Class

Crab Vessel Descriptions	Crab Catcher Vessels				Crab Catcher Processor				Grand Total
	0'-59'	60'-124'	125'+	Total	0'-59'	60'-124'	125'+	Total	
Factory Trawler		3	2	5		1	1	2	7
Fixed-gear CPs		9	10	19			25	25	44
Pot CVs 125'+			56	56					56
Pot CVs 60'-124'		174		174					174
Seine Combination CVs	13			13					13
Trawl CVs 125'+			14	14					14
Trawl CVs 59'-124'	1	56		57					57
Grand Total	14	242	82	338	0	1	26	27	365

Table 15 shows the projected number of species area endorsements by vessel class under the original criteria for qualification.

Table 15: Qualifying Crab Vessels with Endorsements by Vessel Class

Crab Vessel Classes	BSA Tanner	Adak Brown	Adak Red	Bristol Bay Red	Dutch Harbor Brown	Prib. Blue/ Red	St.Mtw. Blue/ Red	Total Endorsements	Total Unique Vessels
Factory Trawler	6		2	5		2	2	17	7
Fixed-gear CPs	43	7	3	42	5	15	25	140	44
Pot CVs 125'+	54	7	5	55	7	27	43	198	56
Pot CVs 60'-124'	153	12	18	163	8	96	106	556	174
Seine Combination CVs	2			4		11		17	13
Trawl CVs 125'+	14	1	1	12	1	6	5	40	14
Trawl CVs 59'-124'	51		2	55		18	20	146	57
Grand Total	323	27	31	336	21	175	201	1114	365

2.2.3 Recent Participation, Catch, and Crab LLP Qualifier Activity

This subsection provides an overview of recent participation in the Crab fisheries from 1995 through February 7, 1998. Three general components of recent participation are discussed: the total number of vessels, catch by vessel class, and participation by Crab LLP qualifiers.

2.2.3.1 Vessels With Landings in the Crab Fisheries, 1995-1998

Table 16 shows the number of participating vessels from January 1, 1995, through February 1998 by vessel class. Participation data for 1995-1997 are taken from fish tickets supplied by CFEC and ADF&G. In-season catch monitoring records supplied by ADF&G were used for 1998. Recent CP participation data came from ADF&G shellfish observer reports. In the table, the "CP" and "CV" columns indicate the operations of given vessel in the year, and do not indicate whether the vessels will receive that designation. Participation declined from 349 vessels in 1995 to 282 in 1997. Through February 7, 1998, 219 vessels had participated. The lower number in 1998 probably reflects the fact that only a few weeks of the fishing year had passed. Throughout the recent period a total of 410 unique vessels had participated; 19 vessels as CPs, and 391 as CVs. The data indicate that number of vessels acting as catcher processors fell from 17 in 1995 to 11 in 1997. A total of 19 different vessels have acted as catcher processors over the recent participation period. The largest decline in any given class appears in the Seine Combination CV class, where the number of participants dropped from 70 in 1995 to 7 in 1997. The other vessel classes varied within narrower range.

Table 16: Participation in BSA Crab Fisheries by Vessel Class, 1995-1998

Vessel Class	1995			1996			1997			1998			1995-1998		
	CPs	CVs	All	CPs	CVs	All	CPs	CVs	All	CPs	CVs	All	CPs	CVs	All
Factory Trawler	2	6	8	1	3	4	1	4	5	1	1	2	2	6	8
Fixed-gear CPs	15	15	30	13	16	29	10	16	26	8	15	23	17	16	33
Pot CVs 125'+	0	47	47	0	47	47	0	46	46	0	46	46	0	52	52
Pot CVs 60'-124'	0	143	143	0	138	138	0	137	137	0	119	119	0	148	148
Seine Combination CVs	0	70	70	0	49	49	0	7	7	0	6	6	0	96	96
Trawl CVs 125'+	0	13	13	0	8	8	0	16	16	0	7	7	0	17	17
Trawl CVs 60'-124'	0	38	38	0	25	25	0	45	45	0	16	16	0	56	56
Grand Total	17	332	349	14	286	300	11	271	282	9	210	219	19	391	410

Note: Information presented in this table does not include participation in the Norton Sound king crab fisheries.

Table 17 shows recent participation in the crab fisheries by vessel class and indicates whether the vessel's owner is currently a resident of Alaska. The number of Alaskan residents participating in the crab fisheries declined throughout the period, while the number of participating residents of other states fell in 1996 and then rose in 1997. Most of the decline in Alaskan residents is accounted for by the decline in the number of participating Seine Combination CVs, which dropped from 63 in 1995 to 7 in 1997. The greatest variation for residents of other states appears in the Trawl CV 60' -124'vessel class.

Table 17: Participation in BSA Crab Fisheries by Vessel Class by Owners' State, 1995-1998

Vessel Class	1995			1996			1997			1998			1995-1998		
	AK	OT	All	AK	OT	All	AK	OT	All	AK	OT	All	AK	OT	All
Factory Trawler	1	7	8	1	3	4	1	4	5	1	1	2	1	7	8
Fixed-gear CPs	5	25	30	5	23	28	5	21	26	5	18	23	5	28	33
Pot CVs 125'+	9	38	47	9	38	47	9	37	46	9	37	46	9	43	52
Pot CVs 60'-124'	57	86	143	57	81	138	57	80	137	44	75	119	61	87	148
Seine Combination CVs	63	7	70	47	2	49	7	0	7	1	5	6	83	13	96
Trawl CVs 125'+	0	13	13	0	8	8	1	15	16	1	6	7	1	16	17
Trawl CVs 60'-124'	9	29	38	8	17	25	10	35	45	5	11	16	13	43	56
Grand Total	144	205	349	127	172	299	90	192	282	66	153	219	173	237	410

Notes:

1. "AK" indicates that participating vessels are currently owned by an Alaskan residents.
2. "OT" indicates that participating vessels are currently owned by residents from other states.
3. The information provided in this table does not include participation in the Norton Sound king crab fisheries.

2.2.3.2 Crab Catch by Vessel Class in 1995

Summaries of catch by vessel class based on 1995 CFEC fish-ticket data are shown in Figure 16 through Figure 22. The figures also demonstrate differences between the crab fleet and the groundfish fleet. These figures have the same general format as similar figures for groundfish shown on pages 19-22. The only major difference in the formats of the two sets of figures is in the y-axis, which shows pounds (in thousands of pounds) rather than tons. The black line shows the ranked catch of vessels in the class, and the gray horizontal line shows the mean catch of the class. The catches of the three highest-ranked vessels are not shown in order to protect confidentiality. In each class the mean catch is well above the x-axis.

The distribution of catch by vessel class in the crab fisheries is much different overall than was demonstrated in the groundfish fisheries. In general the distribution of catch for crab vessels follows the commonly perceived distribution of catch: that there are a few vessels with low catches, most vessels with catches around the mean, and a few highliners at the high end of the distribution.

Only three classes (all trawl classes) contain a significant numbers of vessels with catches close to zero. The fact that the ranked catch distributions for the vessels do not exhibit exponential increases in catch is an indicator that the low ends of the distribution contribute appreciably to the overall catching capacity of the fleet. If the number of participating vessels is reduced, even from the lower ends of the distribution, then it can be expected that the chance of reducing the catching capacity will be greater.

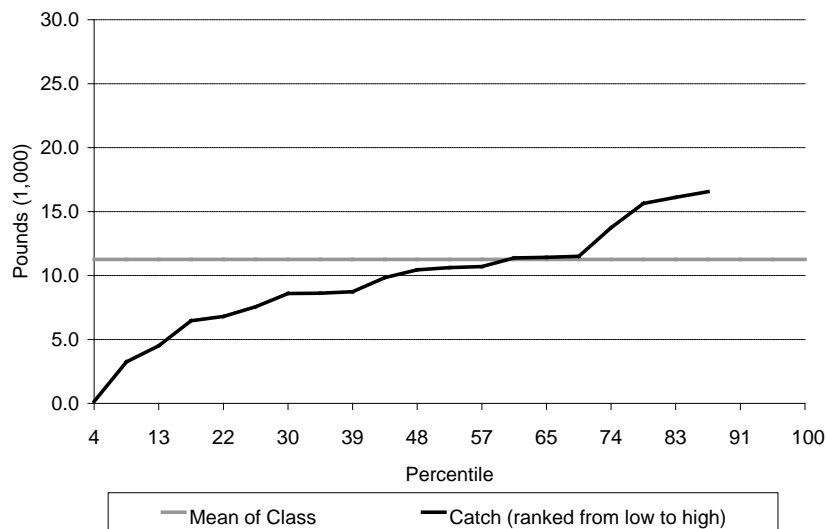
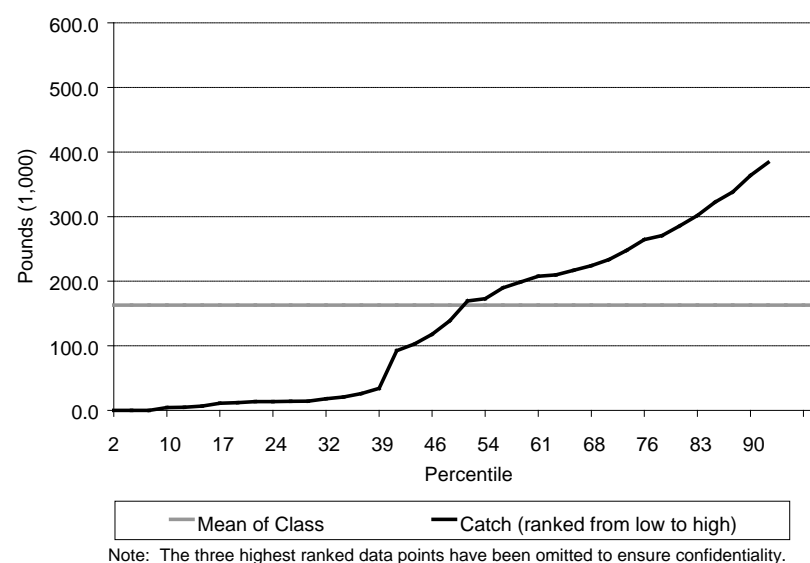
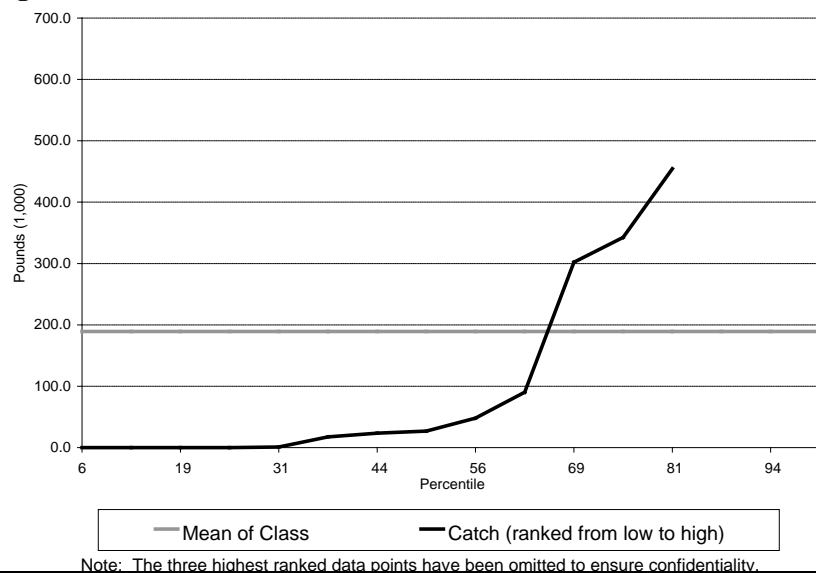
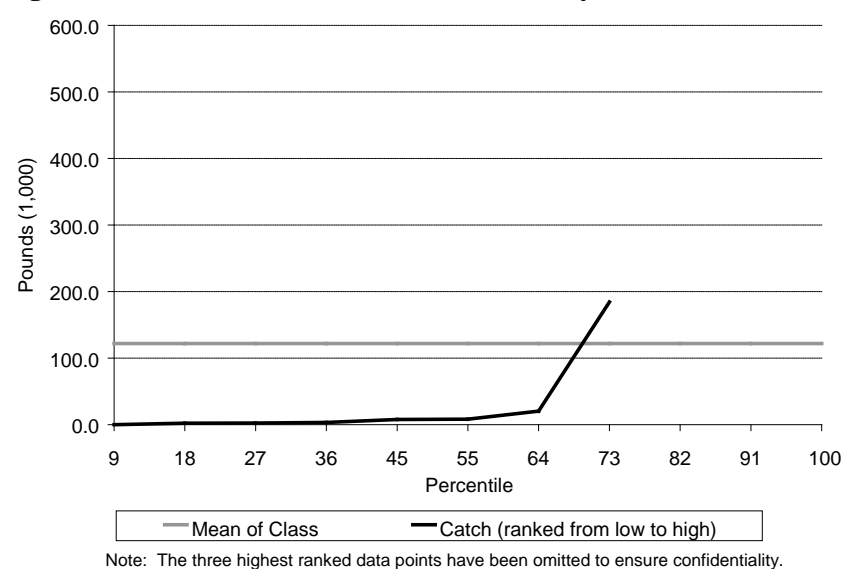
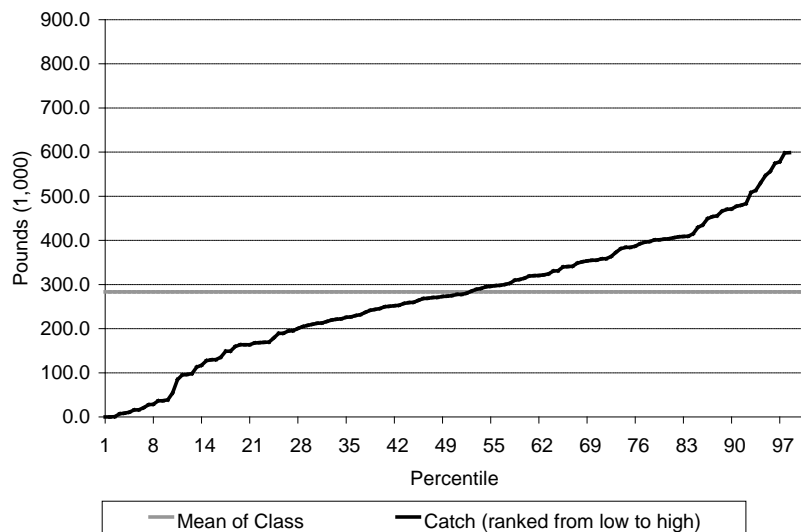
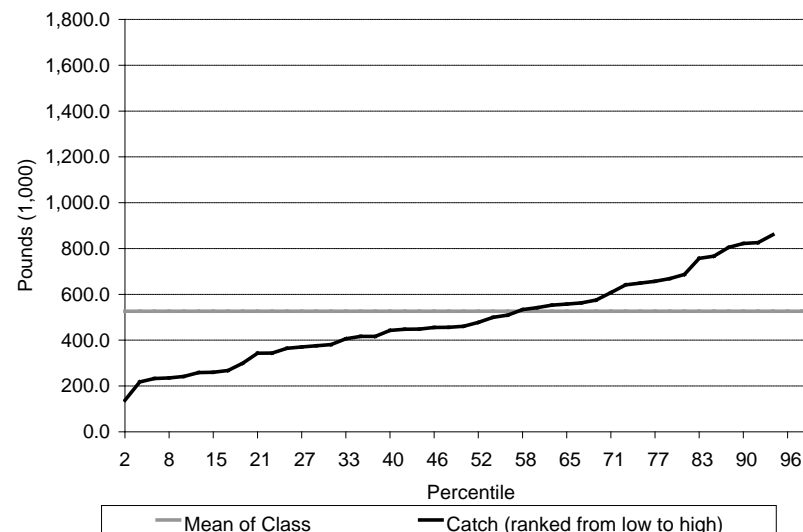
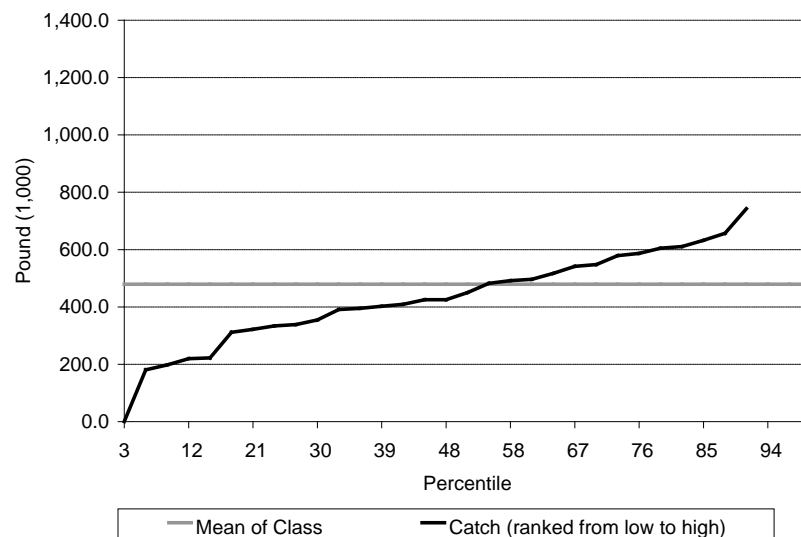
Figure 16: 1995 Ranked Crab Catch of Seine Combination CVs**Figure 17: 1995 Ranked Crab Catch of Trawl CVs 60'-124'****Figure 18: 1995 Ranked Crab Catch of Trawl CVs 125'+****Figure 19: 1995 Ranked Crab Catch of Factory Trawlers**

Figure 20: 1995 Ranked Crab Catch of Pot CVs 60'-124'

Note: The three highest ranked data points have been omitted to ensure confidentiality.

Figure 21: 1995 Ranked Crab Catch of Pot CVs 125'+

Note: The three highest ranked data points have been omitted to ensure confidentiality.

Figure 22: 1995 Ranked Crab Catch of Fixed-gear CPs

Note: The three highest ranked data points have been omitted to ensure confidentiality.

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Table 18 shows the estimated catch by vessel class for 1995. Unlike the groundfish fishery, the crab fishery does not appear to have large numbers of casual participants. This is made evident by looking at the standard deviation (StD) as a percent of the mean.¹² Recall that in Table 8, showing 1995 groundfish catches, there were several classes where the StD approached 200 percent of the mean catch for the class. In the crab fisheries, only the Factory Trawler and Trawl CV 125' + classes have percentages larger than 100 percent. This means that it is more likely that all vessels within the various classes, even those in the lower ends of the distribution are contributing to fleet capacity. This point is also made evident by the relative proximity of the catches at the median and mean catch levels for each vessel class and for the fleet as a whole. In the crab fisheries 53% of the vessels catch less than the overall mean of 294,717 lbs, while 47% catch more. In the groundfish fisheries, 87% of the participating vessels caught less than overall mean in 1995. Overall, the crab fisheries and crab catches are much more homogenous than was seen in the groundfish fisheries.

Table 18: Estimated Catch by Vessel Class for BSA King and Tanner Crab in 1995

Vessel Class	Vessels	Total Catch (lbs)	Mean Catch (lbs)	Percentile of Mean (%)	Median Catch (lbs)	Standard Deviation as a % of the mean
Factory Trawler	11	1,341,141	121,922	64	17,101	145%
Other Fixed-gear CP	33	15,809,598	479,079	52	441,623	48%
Pot CV 125'+	48	25,250,960	526,062	56	462,327	48%
Pot CV from 60' to 124'	146	41,353,604	283,244	52	277,342	54%
Seine Combination CV	23	259,046	11,263	57	10,227	53%
Trawl CV 125'+	16	3,028,791	189,299	63	15,174	126%
Trawl CV from 60' - 124'	41	6,676,974	162,853	49	132,509	92%
All Vessel Total	318	93,720,114	294,717	53	275,001	78%
Source Data: 1995 Fish tickets from CFEC.						
Notes: Does not include Norton Sound King Crab Catch.						

Catches within vessel classes in the crab fishery are more homogeneous than was found in the groundfish fishery, indicating that actions proposed by the Council that might change the number of licensed vessels will have more direct and quantifiable implications on the overall catch capacity of the fleet. In the groundfish fishery there were literally hundreds of vessels with only incidental catches. In the crab fishery that is clearly not the case. The difference is largely due to regulatory differences that allow vessels that catch incidental amounts of groundfish in non-groundfish fisheries to land those fish, while in the groundfish fisheries, vessels are prohibited from landing non-groundfish species. Thus, in the Crab LLP only vessels that targeted crab will receive licenses.

Table 19 demonstrates potential capacity increases using a hypothetical situation where the catch of vessels, which in 1995 were below the class means, are increased. Potential causes of such increases might include; the transfer of the license to a new owner who wishes to focus on crab, or downturns in other fisheries in which the current low-catch vessels are presumably focusing. As mentioned above, there are many fewer participating vessels (both in numbers and on a percentage basis) with catches below the mean in the crab fisheries than in groundfish. Table 19 includes hypothetical scenarios in which inactive vessels, are assigned 1995 mean catch levels. The resulting totals are then adjusted downward proportionately to equal the 1995 total catch. The hypothetical situations show potential harvest re-distributions that could result under the LLP with the existing licensed capacity.

The table contains a row of numbers indicating the column numbers. The first three columns of the table show vessel counts of: 1) all 1995 participants, 2) 1995 participants that caught less than the mean, and 3) the total number of LLP qualifiers. Column 4 shows the total catch (1,000 lbs) of vessels that in 1995

¹² The standard deviation as a percent of the mean is also known as the coefficient of variation.

harvested less than the mean of their vessel class. In 1995, the total catch of vessels harvesting less than the mean was approximately 30 percent of the total crab harvest. The next three columns in the table (columns 5-7) show the potential catch of these vessels if they had harvested at the mean catch level of their vessel class in 1995. Under this hypothetical situation, the total catch of the fleet would increase by 23 percent. Column 8 adjusts this total back down to 1995 catch levels, keeping the proportion of catch in each class the same as in the unadjusted hypothetical situation. Column 9 shows the resulting percentage change in each class — for example, Factory Trawlers, in which 7 of the 11 vessels caught less than the mean, would experience a 31 percent increase under the adjusted hypothetical situation. Similarly the two Trawl CV classes would see increases from 14 percent to 27 percent. The gains of the trawl vessels would be offset by decreases to the other vessel classes.

The last two columns of the table further adjust the hypothetical scenario by assuming that all vessels catching above the 1995 mean are LLP qualified, and then assigning 1995 mean harvests by class to each remaining LLP qualified vessel. The resulting total was then adjusted downward proportionately to equal the 1995 total — column 10 shows the hypothetical-adjusted catches and column 11 shows the percentage change from 1995. These last two columns are indicators of potential capacity increases that could occur within the licensed fleet. The classes with the highest percentage increase are the classes that, at least by this measure, appear to have the greatest amount of latent capacity. Thus it appears that vessels in the Trawl CV 60' to 124' class, with a 25 percent increase over 1995 catch, have the greatest amount of latent capacity, followed by the Other Fixed-gear CP class, with a 6 percent increase.

Table 19: Potential Crab Catch Using Mean Catch Levels as an Estimator

Vessel Description	Vessel Counts			Total catch of vessels < mean (1,000 lbs)	Hypothetical Scenarios: Potential catches if vessels catching less than average increase catch to equal the 1995 mean.						
					Includes all vessels active in 1995					Includes only qualified vessels	
	1995	Less than mean	LLP Q		Unadjusted Total (1,000 lbs)			Adjusted to equal 1995 total (1,000 lbs)			
					Potential catch of vessels < mean	Potential total catch of class	Percent change from 1995	Adjusted total catch of class	Percent change from 1995	Adjusted total catch of class	Percent change from 1995
Column number	1	2	3	4	5	6	7	8	9	10	11
Factory Trawler	11	7	7	45	853	2,150	60%	1,755	31%	1,164	-13%
Other Fixed-gear CP	33	17	44	5,382	8,144	18,572	17%	15,160	-4%	16,694	6%
Pot CV 125'+	48	27	56	9,766	14,204	29,689	18%	24,234	-4%	23,734	-6%
Pot CV from 60' to 124'	146	76	174	12,789	21,527	50,091	21%	40,888	-1%	40,626	-2%
Seine Combination CV	23	13	13	96	146	309	19%	252	-3%	138	-47%
Trawl CV 125'+	16	10	14	207	1,893	4,715	56%	3,848	27%	3,036	0%
Trawl CV from 60' to 124'	41	20	57	646	3,257	9,288	39%	7,582	14%	8,328	25%
All Vessel Total	318	170	365	28,930	50,024	114,814	23%	93,720	0%	93,720	0%
Notes:											
1. The 1995 class means and class total catches are shown in the previous table.											
2. The column labeled LLP Q shows the number of qualifiers under the crab LLP.											
3. Potential catch (columns 5 – 7) results from multiplying the 1995 mean catch of the class by the number vessels catching less than the mean. Vessels catching more than the mean are assumed to catch at the same levels.											
4. Adjusted potential catch with 1995 (columns 8, 9) results by adjusting the potential total catch of all classes downward by 25%, so that the total equals the 1995 total catch.											
5. Adjusted potential catch with only the number of vessels qualified to participate (columns 10,11) results by assuming that all vessels catching above the 1995 mean are LLP qualified, and then assigning 1995 mean harvests by class to each remaining LLP qualified vessel. The resulting total was then adjusted downward proportionately to equal the 1995 total.											

2.2.4 Recent Participation by Qualifiers under the Crab LLP

Table 20 shows the recent participation by vessels that are projected to qualify for crab licenses. Over the recent participation period, 293 of the 365 projected qualifiers have participated. Of the three full years 1995-1997, participation by qualifying vessels was lowest in 1996 when only 239 vessels projected to qualify participated. In all but the Seine Combination CV class, the number of qualifiers greatly exceeds the number of vessels that are not projected to qualify for crab licenses. Of the 77 non-qualifying vessels participating in 1995, 62 were in the Seine Combination CV class.

Table 20: Participation by Vessels Projected as Qualified and Non-Qualified, 1995-1998

Vessel Class	1995			1996			1997			1998			1995-1998		
	Q	NQ	All	Q	NQ	All	Q	NQ	All	Q	NQ	All	Q	NQ	All
Factory Trawler	6	2	8	4	0	4	5	0	5	2	0	2	6	2	8
Fixed-gear CP	30	0	30	27	1	28	25	1	26	22	1	23	32	1	33
Pot CV 125'+	45	2	47	43	4	47	42	4	46	40	6	46	46	6	52
Pot CV from 60' to 124'	138	5	143	132	6	138	130	7	137	115	4	119	140	8	148
Seine Combination CV	8	62	70	1	48	49	2	5	7	0	6	6	8	88	96
Trawl CV 125'+	10	3	13	7	1	8	13	3	16	6	1	7	13	4	17
Trawl CV from 60' to 124'	35	3	38	25	0	25	41	4	45	14	2	16	48	8	56
Grand Total	272	77	349	239	60	299	258	24	282	199	20	219	293	117	410
Notes:															
1. Q indicates that the participating vessel is qualified under the original criteria.															
2. NQ indicates that the participating vessel is qualified under the original criteria.															
3. Does not include participation in the Norton Sound King Crab Fisheries.															

Table 21 shows the number of vessels in each vessel class that are projected to qualify, but which have no record of participation in the years 1995-1998. In each year non-participating qualifiers from states other than Alaska out-number non-participating qualifiers from Alaska. However in the right-most column showing the number with no participation in any recent year, Alaskan outnumber residents of other states. Recall that from Table 13 that the total number of Alaskan qualifiers was 125 compared to 240 from other states. Thus, non-participation of Alaskan residents is relatively higher than the non-participation rate of residents from other states.

Table 21: Qualified Vessels That Did Not Participate, 1995-1998

Vessel Class	1995			1996			1997			1998			1995-1998		
	AK	OT	ALL	AK	OT	ALL	AK	OT	ALL	AK	OT	ALL	AK	OT	ALL
Factory Trawler		1	1		3	3		2	2		5	5		1	1
Fixed-gear CP	1	13	14	1	16	17	1	18	19	1	21	22	1	11	12
Pot CV 125'+	6	6	12	6	8	14	6	9	15	6	11	17	6	5	11
Pot CV from 60' to 124'	25	10	35	27	14	41	28	15	43	40	18	58	24	9	33
Seine Combination CV	4	1	5	9	3	12	8	3	11	10	3	13	4	1	5
Trawl CV 125'+		4	4		7	7		1	1		8	8		1	1
Trawl CV from 60' to 124'	7	15	22	7	25	32	7	9	16	11	32	43	5	4	9
Grand Total	43	50	93	50	76	126	50	57	107	68	98	166	40	32	72
Notes:															
1. AK indicates that the non-participating qualifying vessel is owned by an Alaskan.															
2. OT indicates that the non-participating qualifying vessel is owned by a resident of a State other than Alaska.															
3. The table does not include participation in the Norton Sound King Crab Fisheries.															

2.2.5 The Impact of Moratorium Transfers on Crab Licenses

Of the 221 moratorium qualifications involved in the transfers, 51 involve vessels that are projected to qualify for crab licenses. In order to project the specific impact on the crab LLP, the analysis assumes that the entire fishing history of the transferring vessel accompanied the sale of the moratorium qualification. Further, we assume that fishing histories cannot be combined to produce a license qualification. In other words, new crab licenses are not created through the transfer process under the original qualifying criteria. Transfers do however, have the potentials to decrease the number of vessels that are able to fish at any given time.

Table 22 describes the projected impact of moratorium and fishing-history transfers on the numbers of CV/CP designations assuming that fishing histories accompanied all moratorium transfers. The information in the table shows these impacts by the vessel length classes of the receiving vessel. A total of 15 vessels that were not projected to receive licenses under the original Crab LLP, appear to have received license qualifications via transfer. The remaining 36 vessels that purchased moratorium qualifications were projected to receive licenses prior to the transfer. Four of the transfers that went to originally qualified crab vessels did not involve qualifying crab fishing histories. The rest of the transfers involving crab vessels, 32 in total, appear to result in multiple licenses assigned to a single vessel. Assuming that fishing histories accompanied all moratorium transfers, then 333 vessels would be projected to receive crab licenses, rather than the 365 projected to qualify shown in Table 12.

Table 22: Projected Impact of Moratorium on CV/CP Designations for Crab

Impact of the Transfer	License Length Designation			Total
	0' – 59'	60' – 124'	125' +	
CV license qualification transferred to previously unlicensed	1	7	5	13
CV license qualification transferred to previously unlicensed		1	1	2
Originally a CV qualifier, transfer did not involve groundfish		3		3
Originally a CP qualifier, transfer did not involve groundfish			1	1
Originally a CV, transfer results in multiple CV licenses	1	16	10	27
Originally a CP, transfer results in multiple CP licenses			2	2
Originally a CV, after transfer has both CV/CP designations		2	1	3
All moratorium transfers affecting groundfish licenses	2	29	20	51

3 Proposed Action 1: Restrict Transfers of Non-federally Permitted Vessels

This chapter examines a proposed change to the Groundfish LLP that would disallow transfers of licenses from vessels that qualified for the Groundfish LLP, but had not obtained a federal groundfish permit at any point during either the GQP or EQP.

Under the Groundfish LLP as originally specified, all vessels that made landings of groundfish species¹³ were eligible to qualify for groundfish licenses regardless of whether they fished in state or federal waters. However, the FMP for groundfish does not authorize the NPFMC to create limited entry programs in State of Alaska waters (which extend 3 miles from shore). Therefore, the Groundfish LLP will be applied only to federal waters. This means that vessels fishing in state waters only will not be required to have a license under the Groundfish LLP to participate.

For a vessel to have legally participated in groundfish fisheries in federal waters during the LLP qualifying period, the vessel would have been required to have obtained a Federal Fishing Permit (FFP) from NMFS. Vessels fishing in state waters only were not required to have obtained an FFP. Many vessels that did not have FFPs, and therefore presumably participated only in state waters, will qualify for groundfish licenses. If these vessel owners have no plans to participate in federal waters, they would be able to sell their licenses to other vessel owners and continue to fish in state waters. The proposed action is intended to address this issue.

Recent developments have caused this chapter to be changed significantly from the Initial Draft for Council Review submitted in May 1998. On June 4, 1998, in a letter to Clarence Pautzke, Executive Director of the NPFMC, NMFS notified the NPFMC that changes to the proposed rule would be implemented in the final rule. One of the changes significantly alters the meaning of a “license transfer” under the Groundfish and Crab LLPs. The final rule will remove requirements that a license be assigned to a specific vessel. This change implies that under the final rule a transfer will not be considered to have taken place if the license is used on one vessel and subsequently on another vessel. A transfer will be considered to have taken place only if the owner of the license changes. The final rule retains prohibitions against leasing licenses, but there are no provisions that the owner of the vessel must be the same as the owner of the license. Prior to these changes, the proposed rule indicated that a vessel would be specified on the license and that, in order for a different vessel to use the license, a NMFS-approved license transfer would have to occur, even if the owner of both vessels and the license has remained unchanged.

These changes to the rule were discussed at the Council meeting on June 14, 1998. Members of the Council expressed some displeasure at the changes, and have asked NMFS to develop a discussion paper explaining its reasoning and outlining options for changing the regulations so that the vessel is indicated on the license. That paper will be presented to Council at its meeting in October 1998. At that time the Council may request that changes be made to the regulations. It appears likely that the Council will request that NMFS change the final rule so that it more closely resembles that proposed rule when it is eventually implemented and prevents multiple vessels from fishing a license in a given year.

In addition to changes to the rule enacted by NMFS, the Council added a significant new option to Proposed Action 1 at the June meeting. This option would allow vessel owners who had never acquired a federal fishing permit to transfer their licenses, but only if the vessel to which the license was originally assigned is transferred with the license.

¹³ Two groundfish fisheries were excluded from the Groundfish LLP: sablefish managed under the IFQ Program, and DSR harvested eastward of 140° W. longitude.

Given these changes, it was determined, in consultation with NPFMC and NMFS staff, that this chapter should examine the proposed action and the new optional configuration with respect to both the proposed rule and to the final rule. Therefore, transferability of licenses will be reviewed under the following program definitions:

Definition 1: The status quo as defined by the proposed rule (Status Quo – PR) Vessels will be specified on the license. (Status Quo – PR).

Definition 2: Proposed Action 1 as originally configured, with no license transfers allowed in cases in which an FFP had not been obtained. In all cases vessels will be specified on licenses. (Proposed Action 1 – PR).

Definition 3: Proposed Action 1, with the option that in cases in which an FFP had not been obtained, transfers would be allowed, but only if the vessel originally assigned to the license is transferred with the license. In all cases, vessels will be specified on licenses. (Proposed Option – PR).

Definition 4: The status quo as defined by the final rule. Vessels will not be specified on the license. (Status Quo – FR).

Definition 5: Proposed Action 1 as originally configured, with no license transfers allowed in cases in which an FFP had not been obtained. In all cases vessels will not be specified on the licenses. (Proposed Action 1 – FR).

Definition 6: Proposed Action 1, with the option that in cases in which an FFP had not been obtained, transfers would be allowed, but only if the vessel originally assigned to the license is transferred with the license. In such cases, licenses would specify the vessel, but in all other cases, vessels would not be specified on the licenses. (Proposed Option – FR).

In summary, the structure of this chapter has been revised significantly. Section 3.1 quantitatively examines the participation and catch of vessels and owners directly affected by the proposed actions. Section 3.2 presents a qualitative assessment of the provisions and impacts under the six different programs, any one of which might be eventually implemented. Section 3.4 summarizes these findings and compares the proposed actions and options against the Council's CRP Problem Statement.

The following key acronyms relevant to the program designations are used throughout this chapter:

FFP	Federal Fishing Permit
QVOWFFP	Qualified Vessels Owners With (W) Federal Fishing Permits. The vessels of these persons are projected to qualify for licenses and operated with a FFP at some point during the license qualifying years.
QVOXFFP	Qualified Vessels Owners Without (X) Federal Fishing Permits. The vessels of these persons are projected to qualify for licenses, but never operated with a FFP during the license qualifying years.

3.1 Affected Vessels and Owners

This section quantifies the vessels and license holders that would be directly affected by Proposed Action 1 or the Proposed Option. These vessels and license holders are the same regardless of whether or not vessels are specified on the licenses.

The FFP history of each of the 2,435 vessels projected to qualify under the Groundfish LLP was examined for the years 1988–1995. Table 23 shows the vessels by vessel class, permit status and the vessel owner's residence. A total of 1,928 vessels were found to have obtained FFPs during the years of the LLP qualifying period (QVOWFFP). Of the 507 vessels projected to qualify that were not federally

permitted (QVOXFFP), nearly 90 percent are currently owned by residents of Alaska, and all but 7 are 58' LOA or less, as judged by their vessel classes. The 450 Alaskan QVOXFFP represent 25 percent of all of the Alaskan-owned vessels projected to qualify under the Groundfish LLP.

Table 23: Qualified Vessels by Vessel Class and Federal Permit Status Prior to 1996

Vessel Class	QVOWFFP			QVOXFFP			All Vessels
	Alaska	Other	Total	Alaska	Other	Total	
Fillet Trawl CPs	1	15	16				16
Fixed-gear CVs <32'	128	13	141	197	16	213	354
Fixed-gear CVs 33' - 45'	514	65	579	126	19	145	724
H&G Trawl CPs	11	41	52				52
Longline CPs	10	31	41				41
Longline CVs 60'+	22	35	57	1		1	58
Other & Unclassified CVs	4	1	5	2		2	7
Other Fixed-gear CPs	2	28	30				30
Other Seine CVs	438	104	542	107	15	122	664
Pot CVs 125'+	2	21	23		2	2	25
Pot CVs 60'-124'	80	60	140	2	2	4	144
Seiner/Trawler CVs	85	22	107	15	3	18	125
Surimi Trawl CPs		24	24				24
Trawl CVs 125'+		28	28				28
Trawl CVs 60'-89'	30	37	67				67
Trawl CVs 90'-124'	16	60	76				76
All Vessels	1,343	585	1,928	450	57	507	2,435

3.1.1 Activity of Qualified Vessels Since 1995

Table 24 summarizes the recent participation of QVOXFFP. The table also indicates whether these recent participants have acquired an FFP during the years 1996-1998. In 1995 a total of 102 QVOXFFP participated in the groundfish fisheries. Of these, 24 have obtained an FFP since the beginning of 1996. The number of participating QVOXFFP dropped to 86 in 1996 and then to 74 in 1997. Since 1995 and through February 7, 1998, a total of 155 different QVOXFFP have participated. Of those, 37 obtained FFPs during 1996-1998, but 118 have not held an FFP since 1988.

Table 24: Recent Participation of Non-FFP Qualifiers by 1996-1998 Federal Fishing Permit Status

Vessel Class	1995			1996			1997			1998			1995-1998		
	FFP 96-98	No FFP	All	FFP 96-98	No FFP	All	FFP 96-98	No FFP	All	FFP 96-98	No FFP	All	FFP 96-98	No FFP	All
Fixed-gear CVs < 32'	5	34	39	4	24	28	3	17	20				5	51	56
Fixed-gear CVs 33' - 45'	10	34	44	11	28	39	10	24	34				20	49	69
Other & Unclassified CVs	1		1	1		1	1		1				1		1
Other Seine CVs	3	7	10	4	8	12	3	11	14	1	1	2	5	13	18
Pot CVs 125'+	2		2	2		2	1		1	1		1	2		2
Pot CVs 60'-124'	3	1	4	1		1	1		1				3	1	4
Seiner/Trawler CVs		2	2	1	2	3	1	2	3				1	4	5
Grand Total	24	78	102	24	62	86	20	54	74	2	1	3	37	118	155
Notes:															
1. "FFP 96-98" indicates that the participating QVOXFFP obtained an FFP during the years 1996-1998.															
2. "No FFP" indicates that the participating QVOXFFP has not obtained an FFP from 1988-1998.															
3. "All" is the total number of QVOXFFP participating during the year.															

Table 25 compares the 1995-groundfish catch of qualifying vessels by their vessel class and federal permit status. The table aggregates catches of the two seine vessel classes with the catches of unclassified vessels, and combines the catches of the two pot vessel classes. The two fixed-gear CV classes are unaltered. The table tests the null hypothesis (H_0) that catches¹⁴ of QVOWFFP were greater than the catches of QVOXFFP. With the exception of Pot Catcher vessels, the H_0 can be rejected at the 97.5 percent confidence level. In general, the mean 1995 catches of qualifying vessels that had not obtained FFPs prior to 1996 are significantly less than the mean 1995 catches of vessels that had obtained a permit.

Table 25: Comparison of 1995 Catch by Qualifying Vessels and Federal Permit Status

Vessel Class	FFP Prior to 1996	Vessels	Total Catch (mt)	Mean Catch (mt)	Mean catch (log mt)	Variance of observations (log mt)	Comparison of Means (log mt): $H_0: \bar{x} - \bar{y} = 0$	
							t-Statistic	P (T<=t) one-tail
Fixed-gear CVs < 32'	QVOWFFP	62	457.18	7.37	-1.0296	4.5734	-2.1443	0.0174
	QVOXFFP	39	110.64	2.84	-0.0448	5.8068	H_0 is rejected, means are different	
Fixed-gear CVs 33' – 45'	QVOWFFP	344	3,764.15	10.94	-1.3445	5.8609	-4.0551	0.0001
	QVOXFFP	44	239.92	5.45	0.2245	5.6784	H_0 is rejected, means are different	
All Seine Vessels	QVOWFFP	378	30,513.36	80.72	-0.6511	2.6054	-4.3798	0.0004
	QVOXFFP	13	20.50	1.58	1.4893	8.1641	H_0 is rejected, means are different	
Pot CVs	QVOWFFP	128	20,776.16	162.31	0.7441	4.3365	-2.6275	0.0292
	QVOXFFP	5	27.48	5.50	3.2550	5.8782	H_0 cannot be rejected at the 0.025 level	
All vessels in affected classes	QVOWFFP	912	55,510.85	60.87	-1.0341	1.1550	-9.0547	0.0000
	QVOXFFP	101	398.53	3.95	4.9861	7.8147	H_0 is rejected, means are different	

Note: Hypothesis testing was done on the natural logarithm of catch by using student's t-tests assuming unequal variances. As discussed in Chapter 2, the catches of these vessel classes tends to be skewed toward zero, and because no catch is less than zero, the distribution is not normal. The log transformation results in approximately normal distributions of the observations. The formula for calculating the t-statistic is: $t' = \frac{\bar{x} - \bar{y}}{\sqrt{\frac{V_x}{m} + \frac{V_y}{n}}}$ where $\bar{x} - \bar{y}$ is the difference in mean catches of QVOXFFP and QVOWFFP within the vessel classes, V_x and V_y are the variances of the observations of QVOXFFP and QVOWFFP within each class, and m and n are the numbers of observation of QVOXFFP and QVOWFFP within each class.

3.1.2 Summary of Findings of the Quantitative Assessment

The following bullets summarize the findings presented in the analysis of the Proposed Action 1 (in Tables 23 through 25) with respect to the proposed rule.

- There are 507 QVOXFFP. Of these, 450 are from Alaska and 57 are from other states.
- There are 1,928 QVOWFFP. Of these, 1,343 are from Alaska and 585 are from other states.
- 155 of the 507 QVOXFFP have participated in recently, 37 of which have recently obtained FFPs.

¹⁴ Catches of the different vessel classes and in general are not normally distributed. This was discussed in Chapter 2 and depicted in the figures provided in that chapter. For the mean comparisons to be statistically valid, they should be performed on normal distributions. Transforming catch observations by taking the natural logarithms converts the distributions so that they are approximately normal. Hypothesis testing was conducted on the transformed catches using t-tests assuming unequal variances.

- All but 5 of the QVOXFFP vessels are less than 58' LOA. The remaining 502 vessels are from the two Fixed-gear CV classes, the two Seine CV classes, and from the Other and Unclassified CV class.
- A total of 1,874 vessels are projected to qualify in these 5 classes; 1,616 are residents of Alaska.
- As shown in Table 10, 1,091 of the 1,874 qualifying vessels in these five classes have participated in recent years, and 783 have not participated. However, no more than 880 of these vessels in these 5 classes participated in any given year. Of those that never participated, 352 were QVOXFFP.
- The catch of QVOWFFP in these five classes was significantly greater than the catch QVOXFFP.

3.2 Qualitative Assessment of the Proposed Action and Option

This section of the analysis provides a qualitative assessment of the potential impacts of Proposed Action 1 and the Proposed Option compared to the status quo as envisioned under the proposed rule and as envisioned under the final rule. The section includes an overview of the differences between the proposed and final rule with respect to transfers. The overview is followed by a qualitative comparison of the six potential programs, one of which might eventually be implemented. The qualitative assessment is followed by a subsection that incorporated the quantitative findings from Section 3.1.

3.2.1 Overview of Transferability in the Proposed Rule and in the Final Rule

Under the proposed rule (Status Quo – PR) applicants would have been required to submit to NMFS the name of the vessel to which the license would be applied. Although not specifically described in the proposed rule, it was assumed that these vessels would be specified on the license, and that in order to change the specified vessel, a NMFS-approved transfer would have to occur [LePore, 1998]. Changes in the ownership of the license would also require a NMFS-approved transfer. Although leases of licenses are specifically prohibited, the owner of the license is not required to be aboard the vessel, nor is it required that the owner of the license and the owner of the vessel be the same person. Therefore, in this analysis it has been assumed that it would be legal to form partnerships or joint ventures between license holders and other vessel owners, provided that such agreements did not constitute a “lease.”

If such arrangements resulted in a change in the name of the vessel specified on the license, then the arrangement would be considered a transfer, and it would be necessary to have NMFS approval. It was assumed that NMFS would require that documentation showing that such arrangement be submitted to NMFS so that NMFS could determine whether or not the arrangement constituted a lease. Although specific standards for lease determinations under the LLP would be developed over time, NMFS-RAM has made lease determinations regarding the issuance of IFQs. In doing so, NMFS-RAM has built a body of rulings that differentiate leases and other arrangements. In general, if an arrangement does not call itself a lease, does not use terms such as lessor or lessee, does not specify a fixed fee, and the owner of the license does not relinquish all rights and privileges provided by the license, then it is not likely that NMFS would be able to determine that the arrangement is a lease [Hines, 1998].

It was expected that under the proposed rule the requirement that such arrangements be approved by NMFS would be a sufficient barrier and few would be enacted. Certainly the time required for NMFS to make the determination would result in few vessel specification changes occurring.

Non-transferability is not defined under the proposed rule as it existed, because all licenses were transferable. Proposed Action 1 (Proposed Action 1 – FR) would create non-transferable licenses and presumably would have been applied to all actions that required NMFS-approved transfers. Under the proposed rule, a non-transferable license would not allow existing owners to change the assigned vessel, nor would it allow changes in ownership. Under the Proposed Option (Proposed Option – FR), licenses

could be transferred, but only if the assigned vessel is transferred with the license. In other words, the owner of the license could be changed, but the vessel assigned to the license could not change.

Under the final rule (Status Quo – FR), vessels will not be identified on the license. Multiple vessels will be allowed to use a single license provided that no more than one vessel is using the license at any given time. Under the final rule a license transfer will be necessary only when the owner of the license wishes to sell the license. Under the final rule, it will not be necessary to gain NMFS approval when license owners and vessel owners enter into joint venture or partnership agreements involving the license, provided that such agreements do not constitute a lease. The fact that NMFS will not require documentation of such arrangements before other vessels use the license supports the inference that relatively more arrangements of this nature will be enacted under the final rule than under the proposed rule.

Non-transferability is not defined under the final rule, but presumably would apply only to changes in license status that require a NMFS-approved transfer. Therefore, non-transferability—as envisioned in Proposed Action 1 (Proposed Action 1 – FR)—would apply only to changes made to the ownership of the license. It is assumed that a non-transferable licenses under the final rule may be applied to different vessels in different time periods, and that owners of non-transferable licenses would be allowed to enter into partnerships or joint venture agreements provided that such agreements do not constitute a lease. Under the Proposed Option (Proposed Option – FR), affected licenses would include a specified vessel. Under Proposed Option – FR, transfers would be allowed, but only if transfer of the vessel accompanies the transfer of the license. Partnerships and joint venture arrangements that would assign a different vessel to the license would not be allowed.

3.2.2 Provisions of Proposed Action1 and the Proposed Option

This section examines the anticipated provisions with respect to transferability of the six versions of the Groundfish LLP: (1) Status Quo – PR, (2) Proposed Action 1 – PR, (3) Proposed Option 1 – PR, (4) Status Quo – FR, (5) Proposed Action 1 – FR, and (6) Proposed Option 1 – FR. The review of the provision follows a nine-item logical sequence that shows how various groups will be affected by the proposed action or the proposed option. For each item in the sequence, the effects of the six program versions are discussed. The logical sequence is presented in Table 26, which spans several pages.

Table 26: Logical Sequence of Provisions Under Six Versions of the Groundfish LLP

Item	Program	Provisions of the Program
1.	Status Quo – PR	Does not restrict entry for vessels fishing only in state waters, and therefore all licensed vessel owners as well as non-licensed vessel owners may fish in state waters.
	Proposed Action – PR	
	Proposed Option – PR	
	Status Quo – FR	
	Proposed Action – FR	
2.	Proposed Option – FR	Allows all original license recipients to fish in federal waters if they obtain an FFP prior to fishing federal waters.
	Status Quo – PR	
	Proposed Action – PR	
	Proposed Option – PR	
	Status Quo – FR	
	Proposed Action – FR	
	Proposed Option – FR	

3.	Status Quo – PR	Because the Council's decision to study the proposed action occurred more than 2 1/2 years after its original action on the LLP, it is possible that QVOXFFP would be allowed to assign the vessel of their choice to the license if they are the owner of the vessel and the vessel satisfies the license designations.
	Proposed Action – PR	
	Proposed Option – PR	
	Status Quo – FR	
	Proposed Action – FR	
4.	Proposed Option – FR	QVOXFFP would be allowed to transfer their licenses to other owners and still participate in state waters. QVOXFFP would not be allowed to transfer their licenses to other owners. QVOXFFP would be allowed to transfer their licenses to other owners provided that the vessel originally assigned to the license is transferred with the license. Following the transfer they would be allowed to participate in state waters with a different vessel. QVOXFFP would be allowed to transfer their licenses to other owners and still participate in state waters. QVOXFFP would not be allowed to transfer their licenses to other owners. QVOXFFP would be allowed to transfer their licenses to other owners provided that the vessel originally assigned to the license is transferred with the license. Following the transfer they would be allowed to participate in state waters with a different vessel.
	Status Quo – PR	
	Proposed Action – PR	
	Proposed Option – PR	
	Status Quo – FR	
	Proposed Action – FR	
5.	Proposed Option – FR	QVOXFFP would be allowed to assign different vessels of their own to their license in subsequent time periods. Such an assignation would constitute a transfer and would require NMFS approval. Following the transfer they would be allowed to participate in state waters with the original or any other vessel. QVOXFFP would not be allowed to assign different vessels of their own to their license in subsequent time periods. QVOXFFP would be allowed to assign different vessels of their own to their license in subsequent time periods. Such an assignation will not constitute a transfer and will not require NMFS approval or knowledge. Following the assignation they would be allowed to participate in state water with the original or any other vessel. QVOXFFP would not be allowed to assign different vessels to their license in subsequent time periods.
	Status Quo – PR	
	Proposed Action – PR	
	Proposed Option – PR	
	Status Quo – FR	
	Proposed Action – FR	
	Proposed Option – FR	

6.	Status Quo – PR	If the originally assigned vessel is sold to another person, or if the originally assigned vessel is lost, then the QVOXFFP can assign a different vessel to the license, and the licensee may continue to participate in the groundfish fisheries in federal waters.
	Proposed Action – PR	If the vessel originally assigned the license is sold to another person or is lost, then the license will terminate.
	Proposed Option – PR	If the vessel originally assigned the license is sold to another person or is lost, then the license will terminate.
	Status Quo – FR	If the vessel originally assigned the license is sold to another person or is lost, then the QVOXFFP can assign a different vessel to the license and the licensee may continue to participate in the groundfish fisheries in federal water.
	Proposed Action – FR	
	Proposed Option – FR	If the vessel originally assigned the license is sold to another person or is lost, then the license will terminate.
7.	Status Quo – PR	QVOXFFP would be allowed to enter into partnerships or joint venture agreements that assign vessels owned by other persons to their license in subsequent time periods. Such agreements and assignments would constitute a transfer and would require NMFS approval. Partnership and joint venture documents would be submitted to NMFS to verify that the arrangements did not constitute a lease.
	Proposed Action – PR	QVOXFFP would not be allowed to enter into partnerships or joint venture agreements that assign different vessels to their license in subsequent time periods.
	Proposed Option – PR	
	Status Quo – FR	QVOXFFP would be allowed to enter into partnerships or joint venture agreements that assign vessels owned by other persons to their license in subsequent time periods. Such agreements and assignments would not constitute a transfer and would require not NMFS approval. NMFS would have no cause to be aware of the existence of such agreements.
	Proposed Action – FR	
	Proposed Option – FR	QVOXFFP would not be allowed to enter into partnerships or joint venture agreements that assign different vessels to their license in subsequent time periods.
8.	Status Quo – PR	If the QVOXFFP dies, then the successors in interest will be able to sell the license, assign a different vessel to the license, and enter into partnerships or joint venture agreements.
	Proposed Action – PR	If the QVOXFFP dies, then the license will terminate. The successors in interest will have no claims to the license.
	Proposed Option – PR	If the QVOXFFP dies, then the successors in interest will be able to sell the license provided that the license is accompanied by the vessel originally assigned to the license.
	Status Quo – FR	If the QVOXFFP dies, then the successors in interest will be able to sell the license, assign a different vessel to the license, and enter into partnerships or joint venture agreements.
	Proposed Action – FR	If the QVOXFFP dies, then the license will terminate. The successors in interest will have no claims to the license.
	Proposed Option – FR	If the QVOXFFP dies then the successors in interest will be able to sell the license provided that the license is accompanied by the vessel originally assigned to the license.

9.	Status Quo – PR	Potential entrants into the groundfish fisheries would be able to: (a) participate freely in state waters without a groundfish license, (b) purchase groundfish licenses from any license owner, or (c) enter into NMFS-approved partnerships or joint ventures that assign their vessel to any license.
	Proposed Action – PR	Potential entrants into the groundfish fisheries would be able to: (a) participate freely in state waters without a groundfish license, (b) purchase groundfish licenses from QVOWFFP, or (c) enter into NMFS-approved partnerships or joint ventures that assign their vessel to licenses owned by QVOWFFP.
	Proposed Option – PR	Potential entrants into the groundfish fisheries would be able to: (a) participate freely in state waters without a groundfish license, (b) purchase groundfish licenses from QVOWFFP, (c) enter into NMFS-approved partnerships or joint ventures that assign their vessel to licenses owned by QVOWFFP, or (d) purchase licenses from QVOXFFP provided that the vessel originally assigned to the license is transferred with the license.
	Status Quo – FR	Potential entrants into the groundfish fisheries would be able to: (a) participate freely in state waters without a groundfish license, (b) purchase groundfish licenses from any license owner, or (c) enter into partnerships or joint ventures that assign their vessel to any license without NMFS approval.
	Proposed Action – FR	Potential entrants into the groundfish fisheries would be able to: (a) participate freely in state waters without a groundfish license, (b) purchase from groundfish licenses from QVOWFFP, or (c) enter into partnerships or joint ventures that assign their vessel to licenses owned by QVOWFFP without NMFS approval.
	Proposed Option – FR	Potential entrants into the groundfish fisheries would be able to: (a) participate freely in state waters without a groundfish license, (b) purchase groundfish licenses from QVOWFFP, (c) enter into partnerships or joint ventures that assign their vessel to licenses owned by QVOWFFP without NMFS approval, or (d) purchase licenses from QVOXFFP provided that the vessel originally assigned to the license is transferred with the license.

3.2.3 Impacts of Proposed Action 1 and the Proposed Option

The potential impacts of the various versions of the Groundfish LLP discussed in this section depend not only on the provisions of the program, but also on the number of projected license recipients, the license designations they are projected to receive, their participation patterns, and their catch histories. Because the proposed actions deal with the question of transferability, the demand for access to licenses and the degrees to which the different programs would change the supply of licenses relative to the quantity demanded are key elements of the potential impact of the proposed action.

The supply of licenses is a function of the number of licenses that may potentially be placed on the market and of the price that license holders are willing to accept to provide access to those licenses through sale, partnership, or joint venture. The prices license holder may be willing to accept are unknown and will not be quantified in this analysis. However, the number of licenses available is directly affected by the proposed actions and the provisions of each of the programs and is a known quantity. For example, there are 2,435 licenses available under Status Quo – PR and Status Quo – FR.

The demand for access to licenses, whether by purchase, partnership, or joint venture, is dependent on the number of potential entrants and their willingness to pay. Potential entrants are defined as persons who are potentially interested in accessing licenses. Included among potential entrants are persons who receive licenses initially, but who may wish to gain access to additional licenses and endorsements. The number of potential entrants is unknown, but the analysis assumes that the number of potential entrants is constant regardless of the program. Also unknown is the amount potential entrants might be willing to pay to access licenses. The willingness to pay is liable to change under each of the programs because the intrinsic value of the privileges the license grants changes under each program. Given that the number of potential entrants is unknown and the willingness to pay for access to licenses is unknown, the demand for licenses is also unknown.

Because there are few known parameters and many unknown parameters, it is not possible within the scope of this analysis to provide estimates of changes in market prices for licenses under the various programs. However, there is sufficient information to infer the likely direction of changes that may occur. For example, if it is assumed that the number of potential entrants is constant, the proportion of potential entrants to suppliers changes under the different programs. If all other program provisions are the same, then the directional change of the proportion indicates the directional change of potential market clearing price for licenses. For example, the number of licenses available for sale, partnerships, or joint ventures under Status Quo – FR appears to be greater than the number of licenses available under Status Quo – PR. The fact that the number of licenses increases while the number of potential entrants stays the same means that the proportion of entrants to suppliers drops, and therefore it is reasonable to assume that the market clearing price for access to licenses will drop as well.

The following table discusses potential impacts using both the quantitative assessment of affected vessels from Section 3.1 and the logical sequence of program provisions from Table 26. As discussed above, the impacts described in this section are generally directional in nature. The table addresses three types of impacts under each of the six identified programs. The three types of impact discussed are:

1. Catch capacity
2. Directional changes in the potential prices for licenses
3. Change in the ability of license holder to realize financial gains from providing access to licenses

Table 27: Impacts of the Six Program Versions on Catch Capacity and License Value

Item	Program	Impacts of the Program as Drawn from Provisions
1.	Status Quo – PR	<p>As described in Table 26, many options are available to potential entrants into the groundfish fisheries. There are 2,435 potential sources of licenses: 1,028 QVOWFFP and 507 QVOXFFP.</p> <p>In theory, the potential catch of new entrants is no less and no greater than the potential catch of existing participants. In practice, however, new entrants probably would increase the total catching capacity for the following reasons:</p> <p>(a) Having purchased a license, they would have incentives to recoup the purchase price by actively fishing. Currently inactive license recipients may not feel these incentives.</p> <p>(b) Less active owners who presumably have had relatively small catches are more likely to accept lower prices for their licenses and therefore are more likely to transfer licenses.</p>

Item	Program	Impacts of the Program as Drawn from Provisions
	Proposed Action – PR	<p>Relative to Status Quo – PR, potential entrants will have fewer sources of licenses. Licenses from the 507 QVOXFFP will be unavailable to potential entrants.</p> <p>In theory, catch capacity relative to status quo will be affected in the short term only to the extent that those potential entrants are unable to access licenses from QVOWFFP. For each potential entrant that is rendered unable to access licenses under Proposed Action – PR, the catch capacity difference is the difference between the potential entrant's catch capacity in state and federal waters and the potential entrant's catch capacity in state waters alone. In the long term, as licenses of QVOXFFP are terminated because of death of the owner or loss of the vessel, catch capacity will be reduced on a permanent basis.</p> <p>In practice, it may be less likely that potential entrants who are unable to access licenses will choose to participate only in state waters. Therefore, actual impacts to catch capacity may be greater than theoretical impacts.</p> <p>The potential theoretical and practical impacts on catch capacity notwithstanding, the fact that the number of licenses available under either the Status Quo – PR or under Proposed Action 1 - PR exceeds the number of participants in recent years supports the conclusion that overall impacts on catch capacity in the short term are likely to be minimal. Similarly, long-term reductions in catch capacity due to the eventual termination of the 507 QVOFFP licenses is also relatively small—all but 5 of the affected vessels are less than 60'LOA.</p>
	Proposed Option – PR	<p>Relative to Status Quo – PR, potential entrants will have fewer sources of licenses. Relative to Proposed Action 1 - PR, potential entrants will have a higher number of sources of licenses. Additionally, because licenses will only be terminated upon the loss of the vessel, and not upon the death of the license recipient, the long-term reduction in catch capacity will be shifted farther into the future.</p> <p>Overall, it appears that the impact on potential catch capacity will be between that of the Status Quo – PR and Proposed Action 1 - PR.</p>
	Status Quo – FR	<p>Because the final rule does not require vessels to be officially assigned to licenses, the potential for partnerships and joint ventures is greater under the Status Quo - FR than under the Status Quo – PR. Assuming that such arrangements would result in higher potential catch capacity for each license, the potential catch capacity is greater under Status Quo – FR than under Status Quo – PR. How much greater this potential capacity is, is an empirical question that cannot be addressed in the scope of this analysis.</p>

Item	Program	Impacts of the Program as Drawn from Provisions
	Proposed Action – FR	Potential entrants would not be able to purchase licenses outright from the 507 QVOXFFP, but they would be allowed to enter into partnerships or joint ventures with QVOXFFP. Potential entrants also could access the licenses of the 1,928 QVOWFFP. In the long term, with the death of QVOXFFP, catch capacity will be reduced. Because all but 5 of the QVOXFFP own vessels < 60', long-term capacity reductions will be relatively small. Overall potential catch capacity would be less under Proposed Action 1 – FR than under Status Quo – FR, but greater than under Proposed Action 1 - PR.
	Proposed Option – FR	Potential entrants would be able to purchase licenses outright from the 507 QVOXFFP, but only if they also purchase the vessel assigned to the license. Potential entrants would not be allowed to enter into partnerships or joint ventures with QVOXFFP. However, they can access the licenses of the 1,928 QVOWFFP by purchase or other non-lease arrangements. In the long term, with the retirement of vessels assigned to the licenses of QVOXFFP, catch capacity will be reduced. Because all but 5 of the QVOXFFP own vessels < 60' , long-term capacity reductions will be relatively small. Overall potential catch capacity would be less under Proposed Option 1 – FR than under Status Quo – FR and less than the catch capacity under Proposed Action 1 – FR, but greater than the catch capacity under Proposed Option 1 - PR.
2.	Status Quo – PR	The number of potential entrants is unknown, and therefore the demand for licenses relative to the potential number of licenses is also unknown. The analysis assumes that regardless of the program, the number of persons who are potentially interested in accessing licenses is constant. This assumption does not imply that demand for licenses is constant and the value of licenses is unchanged.
	Proposed Action – PR	The number of potential entrants relative to the potential number of licenses available for sale would increase, implying that QVOWFFP could receive higher prices for their licenses. QVOXFFP will not be able to sell, and therefore the prices for their licenses equal zero.
	Proposed Option – PR	The number of potential entrants relative to the potential number of licenses available for sale would increase; therefore, QVOWFFP could receive higher prices for their licenses. Price increases probably will be smaller than under Proposed Action 1 - PR because some buyers may wish to buy from QVOXFFP. QVOXFFP will be able to sell their license and originally assigned vessel together. Prices for the combination may be less than under Status Quo – PR because buyers would be forced to purchase both a license and a vessel even if they only need a license. On the other hand, prices for the combination may be higher than under the Status Quo – PR because there are fewer potential uses for vessels without licenses.

Item	Program	Impacts of the Program as Drawn from Provisions
	Status Quo – FR	The intrinsic value of the license for the owner is greater than under Status Quo – PR because there are more possibilities for the owner to receive value from the license (the license can be assigned to other vessels, and partnerships and joint venture agreements are much easier to enact). However, the sales price of licenses may not fully reflect this higher intrinsic value because potential entrants have other options to access licenses through partnerships and joint ventures.
	Proposed Action – FR	Relative to Status Quo – FR, there will be fewer licenses for sale, but there probably would be more licenses openly available for partnerships and joint ventures (from QVOXFFP). Therefore, sales prices may be slightly higher than under Status Quo – FR, and partnership and joint venture terms may be slightly lower.
	Proposed Option – FR	The intrinsic value of licenses for QVOXFFP is likely to be smaller under this program than under <u>any</u> of the other five programs. This likelihood results because the QVOXFFP will not be able to assign different vessels to the license or enter into partnerships or joint venture agreements, while all other licenses (QVOWFFP) will have those abilities. Furthermore, because the QVOXFFP licenses must be transferred with the originally assigned vessel, a greater amount of capital will be involved in the transaction. Thus, sales prices may tend to be lower relative to the value of the license and vessel sold separately under Status Quo – FR. On the other hand, because a vessel without a license will have potentially fewer uses, the price difference relative to Status Quo – FR may be negligible.
3.	Status Quo – PR	QVOXFFP will be able to realize a financial gain if they choose to forego fishing in federal waters.
	Proposed Action – PR	QVOXFFP will not be able to realize a financial gain if they choose to forego fishing in federal waters. Because most of the QVOXFFP are from Alaska, this may be a concern to fishers and decision-makers. Price paid to QVOWFFP may be higher because fewer license are available for sale. Because most of the QVOWFFP in the affected vessel classes are from Alaska, the potential price increases to Alaskan QVOWFFP may offset unrealized gains for Alaskan QVOXFFP.
	Proposed Option – PR	QVOXFFP will be able to realize a financial gain if they choose to forego fishing in federal waters, but only if they sell both the license and the vessel that was originally assigned to the license. The financial gains to QVOXFFP relative to Status Quo – PR may higher or may be lower for reasons discussed above.
	Status Quo – FR	QVOXFFP will be able to realize a financial gain if they choose to forego fishing in federal waters. These gains are likely to be greater under Status Quo – FR than under Status Quo – PR.
	Proposed Action – FR	QVOXFFP will be able to realize a financial gain if they choose to forego fishing in federal waters and enter into a partnership or joint venture with their license. This financial gain is likely to be less than under Status Quo – FR. Because QVOXFFP licenses will terminate upon the owner's death, younger recipients potentially will be able to realize greater financial gains from partnerships and joint ventures than will older recipients.

Item	Program	Impacts of the Program as Drawn from Provisions
	Proposed Option – FR	QVOXFFP will be able to realize a financial gain if they choose to forego fishing in federal waters, but only if they sell both the license and the vessel that was originally assigned to the license. Financial gains to QVOXFFP are likely to be less than under Proposed Action 1 – FR or under Status Quo – FR.

3.3 Grandfather Rights

When the Council approved the Groundfish LLP in 1995, it indicated that transfers of fishing histories would be accepted provided that they were documented and uncontested. It is likely that some of the fishing histories of QVOXFFP already have been transferred. Therefore, the Council may wish to recognize those transfers and issue licenses to the current owner of the fishing history, even if the license is rendered non-transferable by the proposed action. The Council also may wish to indicate its preference regarding the transferability of licenses in such cases. It is likely that the purchaser of the fishing history paid the seller an amount based on the fact the license would be transferable in the future. If instead they receive a non-transferable license, they may perceive an injustice has been done.

An examination of the GCM transfer database showed that the GCM qualifications of two vessels that had not obtained an FFP prior to 1996 were transferred to new vessels prior to February 7, 1998. In addition, because not all vessels that qualified for the GCM have gone through the application process to obtain GCM qualifications, it is possible that other vessels among those affected by the proposed action have been sold and are not included in the GCM transfer database.

The Council may also wish to consider extending the period within which a person may have obtained an FFP, and therefore would receive a transferable license. As discussed in Section 3.1.1, extending the period through February 7, 1998, would result in 37 fewer QVOXFFP.

It is also possible that some of the QVOXFFP have bought and sold vessels since the qualifying period. Therefore, it may also be reasonable for the Council to allow the license recipients to specify the vessel that is initially assigned to the license under the proposed option and the final rule. (If the final rule is eventually changed to require specification of vessels on licenses, then this point would also apply to Proposed Action 1.)

3.4 Proposed Action 1 and the CRP Problem Statement

The CRP Problem Statement shown on page 4, delineated 14 issues the Council hoped to address with the LLP. Table 28 provides a qualitative assessment of Proposed Action 1 – FR and Proposed Option 1 - FR, relative to each of the 14 issues. The main column lists the problems and contains explanatory comments concerning the projected impact relative to status quo. The projected impact to the status quo is shown in the right-hand column. The projected impact reflects the analysts' best judgment of the impact at one of seven levels:

1. Negative
2. Moderately negative
3. Minimally negative
4. Neutral
5. Minimally positive
6. Moderately positive
7. Positive

Table 28: Impact of Proposed Actions Relative to Status Quo-FR and the CRP Problem Statement

Problem	Impact Relative to Status Quo
1. Harvesting capacity in excess of that required to harvest the available resource Comment: <i>Proposed Action 1 - FR is more likely to reduce overall harvest capacity (than to increase catch) relative to Status Quo – FR. Proposed Option 1 - FR is likely to reduce harvest capacity more than Proposed Action 1 - FR. In either case, however, reductions in harvest capacity are not expected to be significant.</i>	Minimally Positive
2. Allocation and preemption conflicts between and within industry sectors, such as with inshore and offshore components	Neutral
3. Preemption conflicts between gear types	Neutral
4. Gear conflicts within fisheries where there is overcrowding of fishing gear due to excessive participation and surplus fishing effort on limited grounds Comment: <i>Both Proposed Action 1 - FR and Proposed Option 1 - FR have at least some minimal likelihood of increasing total effort in state waters, which could lead to additional crowding, because they create the possibility that fewer licenses for federal waters will be available for purchase.</i>	Minimally Negative
5. Dead-loss such as with ghost fishing by lost or discarded gear	Neutral
6. Bycatch loss of groundfish, crab, herring, salmon, and other non-target species, including bycatch that is not landed for regulatory reasons	Neutral
7. Economic loss and waste associated with discard mortality of target species harvested, but not retained for economic reasons	Neutral
8. Concerns regarding vessel and crew safety that are often compromised in the race for fish	Neutral
9. Economic instability within various sectors of the fishing industry and in fishing communities that is caused by short and unpredictable fishing seasons, or by preemption which denies access to fisheries resources	Neutral
10. Inability to provide for long-term, stable, fisheries-based economies in small, economically disadvantaged adjacent coastal communities Comment: <i>Both Proposed Action 1 - FR and Proposed Option 1 - FR may reduce the amount of financial gain that QVOXFFP are able to realize. However, they are also likely to increase the amount of financial gain that QVOWFFP are able to realize. The offsetting direction of the impacts implies that the overall impacts on financial gains will be neutral.</i>	Neutral
11. Reduction in ability to provide a quality product to consumers at a competitive price, and thus maintain the competitiveness of seafood products from the EEZ off Alaska on the world market	Neutral
12. Possible impacts on marine mammals and seabirds, and marine habitat Comment: <i>Both Proposed Action 1 - FR and Proposed Option 1 - FR have at least some minimal likelihood of increasing total effort in state waters, which are likely to be frequented by marine mammals.</i>	Minimally Negative
13. Inability to achieve long-term sustainable economic benefits to the nation	Neutral
14. A complex enforcement regimen for fishermen and management alike, which inhibits the achievement of the Council's comprehensive goals Comment: <i>Proposed Action 1 - FR will create two classes of licenses and, therefore, will complicate the implementation and administration of the program. Because there would be a negative financial impact to those who will receive non-transferable licenses, appeals could increase and acceptance of the program could decrease. Proposed Option 1 - FR will create even more administrative complexity because it also requires the vessel name on the license.</i>	Moderately Negative

3.5 Overall Conclusions Regarding the Proposed Actions

Under both the final rule and the proposed rule, the proposed action and the proposed option were not judged to create significantly positive outcomes. The only impacts that appear relatively certain to occur are: (1) the negative financial consequences for those qualifiers who will not be able to transfer their licenses or who face limited transferability, and (2) the complications the action may bring to the implementation and administrative process.

Impacts on catch and on catch capacity have the potential to be minimally positive if higher license prices result because of the constraint on supply. Because 1995 mean catch levels for QVOWFFP were higher than for QVOXFFP, there is some chance that overall catch capacity could be affected positively. However, if prices for licenses increase, some vessels that might have chosen to fish in federal waters might instead choose to fish only in state waters. This potential could increase the effort on groundfish in state waters, at least minimally.

Under the final rule, Proposed Action 1 - FR appears to be less restrictive for QVOXFFP than Proposed Option 1 - FR, in that QVOXFFP would be allowed to enter into partnerships and joint ventures under Proposed Action 1 - FR. Under the proposed rule, Proposed Action 1 - PR appears to be more restrictive for QVOXFFP than Proposed Option 1 - PR, in that QVOXFFP would, at least, be able to transfer licenses if vessels were also transferred. Under the proposed rule all partnerships and joint ventures would have been subject to NMFS review, and were therefore not considered a significant issue.

4 Proposed Action 2: Add Trawl and Non-Trawl Gear Designations to the Groundfish LLP

Proposed Action 2 would add trawl gear, non-trawl gear, or all gear designations to the Groundfish LLP. The designations would be based on all gears used by the qualifying vessel during the original qualification periods, regardless of area. Additionally, Proposed Action 2 would allow qualifying vessels to augment their gear designations by showing that they have made a significant financial commitment to use any additional gear types in the groundfish fisheries either by:

- Having made a legal landing on or before February 7, 1998 with the additional gear type, or
- Documenting a significant investment toward the conversion of a vessel or the deployment of the additional gear type on or before February 7, 1998.

4.1 Overview

The language of Proposed Action 2 has been adapted from the language approved by the Council at its February 1998 meeting, to conform to the existing Groundfish and Crab LLPs. The adaptation involves using Gear Designations as the vehicle to prohibit vessels from employing a gear with which that vessel has had no history. The use of Gear Designations is similar to the use of CV/CP designations to prohibit CVs that had no history of operation as a processor from operating as processors or from transferring their licenses to vessels that would operate as processors. The actual language approved by the Council at the February 1998 meeting is shown below:

Prohibit licenses and fishing histories earned by vessels employing non-trawl gear to be used on vessels employing trawl gear and licenses and fishing histories earned by vessels employing trawl gear to be used on non-trawl gear vessels (i.e., if a vessel never used trawl gear during the original qualification periods, that license could not be converted for using trawl gear, and vice-versa).

- (a) Grandfather rights only to persons who can demonstrate significant financial commitment to apply a non-trawl license or fishing history to a trawl operation (and the reverse) through February 7, 1998, with the following suboptions:
- (i) has made a landing with trawl gear (or the reverse, non-trawl) on or before February 7, 1998;
 - (ii) has made a significant investment in conversion of a vessel to deploy trawl (or the reverse, non-trawl) gear on or before February 7, 1998.

4.1.1 Concerns of the Council and the Fishing Industry

Since the proposed Groundfish LLP was approved in 1995, some members of the Council and the fishing industry have become concerned that the LLP would allow vessels that have never used trawl gear to employ trawl gear. There is also concern that vessels that qualified by virtue of landings with fixed gear would be able to upgrade their vessels or to transfer their licenses to other vessels just entering the fishery. The new vessels could then employ whichever gear they wished.

The concerns of the Council and industry began when several trawl vessels 60' – 125' purchased GCM qualifications of vessels that previously had used only fixed gear. The newly entering vessels proceeded to participate in the groundfish fisheries in the GOA and BSA. According to members of the industry, the newly entering vessels are coming up from the Pacific states of Washington, Oregon, and California, where they have been participating over the last several years.

4.1.2 Regulatory Issues Affecting the Trawl/Non-Trawl Issue

In addition to the fact that the LLP does not specifically prevent the use of any legal gear by any qualifying vessel, there are other regulatory factors that add to the Council and industry concerns. These factors are:

- The Groundfish LLP does not extend into state waters.
- The Groundfish LLP will issue licenses to vessels participating in the Sablefish and Halibut IFQ Programs.

The LLP does, however, already contain restrictions that could mitigate the concerns of industry and the Council. These restrictions are:

- Endorsements in the SEO subarea may not be used for trawling.
- Vessels that qualify for both groundfish and crab licenses will receive both licenses as a non-severable package.
- Length class designations and the “20% rule” restrict unlimited length increases in qualifying vessels.

4.1.2.1 The Groundfish LLP and State Waters

Because the jurisdiction of the NFPMC does not extend into state waters, the Groundfish LLP does not restrict entry into the fisheries within state waters. This same issue was also discussed in Chapter 3 as a problem addressed by Proposed Action 1. Under the status quo, any vessel that qualifies for a license is free to transfer that license to another vessel and still continue to fish in state waters. Even if Proposed Action 1 is approved by the Council, there would still be a large number of currently inactive vessels in almost all vessel classes that could potentially transfer their licenses and still operate in state waters if they chose to reenter the fisheries.

4.1.2.2 The Groundfish LLP and the Sablefish and Halibut IFQ Programs

The Sablefish and Halibut IFQ Programs mandate that participating vessels retain and land any Pacific cod and/or rockfish taken as incidental catch up to the directed fishing limits for those species. To accommodate these requirements, the Groundfish LLP allows any vessel operating in the IFQ programs to retain and land Pacific cod and rockfish up to directed fishing limits without being required to have a groundfish license and appropriate endorsements. At the same time, the Groundfish LLP will issue licenses to any vessel that made sufficient landings of groundfish during the qualifying period, even if those groundfish were landed during fisheries targeting on sablefish or halibut. Thus, many vessels that are now operating under an IFQ system will receive groundfish licenses, even though they are exempt from the Groundfish LLP, if they wish to land only bycatch amounts of Pacific cod and rockfish. If owners of such vessels wish to target IFQ species only, they would be free to sell their licenses and to continue to operate as they have in the past.

4.1.2.3 Trawl Prohibition for Southeast Outside Endorsements

The Groundfish LLP currently prohibits trawling by vessels in the SEO subarea, and therefore Proposed Action 2 will have no affect on the gears allowed in that area. If Proposed Action 2 is approved, then all SEO Endorsements will include a non-trawl designation.

4.1.2.4 Non-Severability of License Packages

Vessels that would qualify for both crab and groundfish licenses will receive their license as a non-severable package. Therefore, even though a qualifying vessel may be inactive in groundfish, if it is active in the crab fishery it may be less willing to sell than other inactive groundfish qualifiers.

4.1.2.5 Vessel Length Class Designations

The vessel length class designations and the “20% rule” strictly limit the length of vessel that can use a given license. Few, if any, vessels that are < 50' LOA have been able to successfully participate in the groundfish fisheries as trawlers. Thus, it is unlikely that any license in which the qualifying vessel was < 50' LOA would ever be employed with trawl gear.

4.1.2.6 Data Issues

In landings data, information regarding gear has never been given a high priority in terms of error checking and quality control. Regulators and database managers have placed much more emphasis on information showing species, catch, areas, and other vessel data. Therefore, it is likely that there are errors in the gear information presented in this section of the analysis. These concerns notwithstanding, fishery analysts typically have accepted the landings data as correct. However, there are isolated instances of gear being reported from vessels that probably would not be able to use that gear type, based on the information in vessel registration files. In these cases, the gear information has been accepted, but has not necessarily been used to assign a vessel to a particular vessel class.¹⁵ It should also be noted that information in the vessel registration files, particularly the vessel length data in those files, is known to contain errors that can lead to erroneous vessel classifications.

4.1.2.7 Implementation Issues

The nature of the proposed action, with its extended designation qualifying period, implies that vessels that have purchased license qualification fishing histories from other qualifying vessels would be able to combine the recent fishing histories of both vessels for the purpose of determination of gear designations. It should be noted that the proposed action does not allow combination of fishing histories to create licenses in situations in which none would have been issued otherwise. However, the potential to combine gear use history imposes some additional steps into the decision making process. Table 29 discusses possible options for addressing these implementation concerns.

Table 29: Options for the Determination of Gear Designations Under Combined Fishing Histories

Scenario	Licenses	Gear Designation Options
A previously unqualified vessel purchases the license qualification fishing history of another vessel and participates in the groundfish fishery through February 7, 1998	One	Combine the gear history of the two vessels and issue a single gear designation.
A previously qualified vessel purchases the license qualification fishing history of another vessel and participates in the groundfish fishery through February 7, 1998	Two	1. Keep the gear histories of the two vessels separate and issue potentially different gear designations to each. 2. Combine the gear histories of the two vessels and issue the same gear designation to each.
	One Non-Severable Package	3. Combine the gear histories of the two vessels and issue a single gear designation to be used on the two licenses, which will be treated as a non-severable package.
	Owner's Choice	4. Allow the owner of the qualifications the choice between options 1 and 3 above.

¹⁵ Some exceptions have been made, particularly when vessels with registered lengths < 45' show landings with trawl gear. For those cases the analysts have used judgement as to whether to assign the vessel to a non-trawl category and assume the gear information in the landings data was incorrect or to assign the vessel to a trawl category.

4.2 Analysis of the Impacts of Proposed Action 2

The analysis of the impacts of Proposed Action 2 examines potential capacity increases under the status quo and compares that to potential capacity increases under Proposed Action 2. The analysis of the status quo quantifies the number of vessels, which could potentially use trawl gear. However, no attempt has been made to estimate capacity increases.

The analysis of Proposed Action 2 does the following:

1. Quantifies the number of gear designations of each type that would be issued based on landings from January 1, 1988, through June 17, 1995, and provides an estimate of the resulting potential capacity
2. Quantifies the number of gear designations of each type that would be issued based on landings from January 1, 1988, through February 7, 1998, and provides an estimate of the resulting potential capacity
3. Provides a qualitative indication of the number of vessels that might have acquired fishing histories from qualifying vessels and used them to participated in fisheries in recent years

4.2.1 Activity of Qualified Vessels Since 1995

The possibility for the license qualification of any given vessel to migrate from a non-trawling vessel to a trawl vessel will depend on the type of vessel that originally qualified and the activities in which it has engaged. It is unlikely that any vessel or the license of any vessel in either of the Fixed-gear CV classes will be used to trawl. These vessels are not large enough to function effectively as trawlers in the North Pacific. There is also little chance that vessels that receive endorsements only in the SEO will be able to use trawl gear. Furthermore, vessels that have used trawl gear at some point in their histories are already considered trawl vessels and presumably are not contributing to the problem addressed by the proposed action. Therefore, the only vessels that might be considered potential candidates for upgrades to trawling are those that have never participated as trawlers, would receive endorsements in areas other than the SEO, and are large enough to support trawling activities.

Table 30 shows recent fishing activities of vessels that are projected to qualify for groundfish licenses. The table has been developed to highlight the vessels that are the most likely candidates for upgrades to trawl vessels. In the table, shaded cells denote vessels that are judged less likely to upgrade, for the reasons stated above. Of the 2,435 vessels that are projected to receive groundfish licenses, 767 are considered possible candidates for upgrades and are shown in unshaded cells (ignoring SEO only, Both, and Trawl categories). Bolded cells show the vessels deemed the most likely candidates for upgrades under the status quo. There are 102 of these prime candidate vessels, which are discussed in more detail in the following paragraphs. The following bullets paragraphs focus on the non-shaded vessels in the table:

- It is not likely that active vessels in the Longline CP class will choose to physically upgrade or to participate only in state waters because these vessels are highly specialized and highly capitalized. Seven vessels in this class have not participated recently. These vessels may be considered potential upgrade candidates and therefore are shown with a bolded typeface.
- The 51 vessels in the Longline CV 60' + class (unshaded, bold typeface) may all be considered prime candidate for upgrades; 10 of the vessels have not participated in groundfish fisheries since 1995, and the remaining 41 are all IFQ holders.
- Little is known about the 4 candidate vessels in the Other and Unclassified Vessel class. Four of these vessels appear to qualify for licenses, and one would receive both groundfish and crab licenses. However, because the ADF&G numbers of these vessels have never appeared in the CFEC vessel registration files, there is some question about their qualifications.

- Of the 30 vessels in the Other Fixed-gear CP class, 26 are projected to receive crab licenses, 2 have not recently participated, and 1 is a non-IFQ-holder actively fishing with non-trawl gear. The 2 non-participating vessels and the IFQ holder may be more likely to upgrade than the others in the class. (These 3 vessels are shown in bold in the table).
- The 480 candidate vessels in the Other Seine CV class are considered only marginally large enough to participate as trawl vessels. Because of their size, they are not considered prime upgrade candidates and therefore are not shown in bold. Although they are not prime upgrade candidates, they are abundant, and there probably would be a large number of qualifiers that would be willing to either participate in state waters or only in their IFQ fisheries.
- All 25 of the vessels in the Pot CV 125' + class are also projected to receive crab licenses. Although these vessels may choose to upgrade to trawling, the fact that they will receive licenses for both programs indicates they are reasonably active and probably committed to remain pot vessels.
- The same arguments can be made for the 97 candidate vessels in the Pot CV 60' -124' class that participated in both crab and groundfish fisheries. However, the remaining 41 vessels (shown in bold) may be considered prime candidate for upgrades, particularly those that operate in the IFQ fisheries.

Table 30: Activity of Qualified Vessels Since 1995

Vessel Class	SEO Only	Crab and G'fish	DNP	Non-Trawl	IFQ Holders				Both	Trawl	Total
					DNP	Non-Trawl	Both	Trawl			
Fillet Trawl CPs									2	14	16
Fixed-gear CVs < 32'	173		85	32	15	49					354
Fixed-gear CVs 33'-45'	319		62	62	39	241	1				724
H&G Trawl CPs		7	4	3		4	2		2	30	52
Longline CPs		1	7	6		27					41
Longline CVs 60'+	7		10		1	40					58
Other & Unclassified CVs	3	1	1	1		1					7
Other Fixed-gear CPs		26	2	1		1					30
Other Seine CVs	184	2	162	33	22	261					664
Pot CVs 125'+		25									25
Pot CVs 60'-124'	6	97	4	2	1	34					144
Seiner/Trawler CVs	20	10	19	5		19	28	2	10	12	125
Surimi Trawl CPs										24	24
Trawl CVs 125'+		12								16	28
Trawl CVs 60'-89'	1	12	8		1	11	16	3	2	13	67
Trawl CVs 90'-124'		41					3		2	30	76
Unshaded Total		152	184	43	24	364					767
Grand Total	713	234	364	145	79	688	50	5	18	139	2,435

Notes:

- Shaded cells denote licenses that are less likely to be transferred to owners wishing to upgrade to trawl vessels.
- "SEO Only" denotes vessels that are projected to receive endorsement only for the SEO subarea.
- "Crab and G'fish" denotes vessels that are projected to receive licenses for both crab and groundfish.
- "DNP" denotes vessels that have not participated during the years 1995-1998.
- "Non-trawl" denotes vessels that have participated with non-trawl gear at least once during the years 1995-1998.
- "Trawl" denotes vessels that have participated with trawl gear at least once during the years 1995-1998.
- "Both" denotes vessels that have participated with both gears at least once during the years 1995-1998.
- "IFQ holders" denotes vessels that have participated in IFQ fisheries at least once during the years 1995-1998.
- Cells with bolded numbers denote vessels that are judged most likely to upgrade under the status quo.

Under the status quo a total of 388 vessels have been classified as trawl vessels, but it should be reiterated that the vessel classification system places a vessel in a trawl category if it had any reported trawl landings in the past, regardless of recent operating status. If the 102 prime candidate vessels are included as trawl vessels, then an estimated total of 490 of the qualifying vessels would potentially use trawl gear under the status quo. This number should be regarded as somewhat speculative, given the nature of the data and methods used.

4.2.2 Catch Capacity Differences

The proposed action results from the presumption that catch capacity of trawl vessels is greater than the catch capacity of non-trawl vessels. Total catch in 1995 by the different vessel classes in the groundfish fleet was discussed in some detail in Chapter 2. This section of the analysis compares the mean catch levels of the candidate vessel classes discussed in the previous section against the mean catch levels of the types of vessel to which they would probably upgrade.

Table 31 lists the six types of vessels that were judged to be candidates for upgrades, as discussed above. These vessels, along with the numbers of prime candidates and their mean catch levels from 1995, are shown in the four columns on the left. The two columns on the right show the vessel classes to which these vessels would probably upgrade and the mean catch from 1995 for those vessel classes. Comparisons of mean catch levels between the original vessel class and the upgrade vessel class were conducted. In each case the difference in the means was significant.¹⁶

Table 31: Mean Catch Comparison of Original and Upgrade Vessels

Original Vessel Class	Upgrade Candidates		1995 Mean Catch (mt)	Upgrade Vessel Class	1995 Mean Catch (mt)
	Prime	All			
Longline CPs	7	41	2,550.7	H&G Trawl CPs	7,752.5
Longline CVs 60'+	51	58	9.7	Trawl CVs 60'-89'	1,592.4
Other Fixed-gear CPs	3	30	874.5	H&G Trawl CPs	7,752.5
Other Seine CVs	0	664	25.3	Seiner/Trawler CVs	246.2
Pot CVs 125'+	0	25	152.7	Trawl CVs 125'+	10,324.6
Pot CVs 60'-124'	41	144	123.7	Trawl CVs 60'-89'	1,592.4

Note: The Pot CVs 60' -124' upgrade path was set to Trawl CVs 60'- 89' because their mean length was < 90' LOA.

It is unrealistic to expect that under the status quo all of the candidate vessel would upgrade to the vessel class indicated. It is even unlikely that all of the prime candidate vessels would upgrade. Therefore, the analysis does not speculate on the total potential for capacity increases. It is sufficient to indicate that if any of the candidate vessels were to upgrade, then the capacity of the fleet probably would increase.

¹⁶Comparisons of means were conducted using students' t-tests assuming unequal variances. The formula for calculating the t-statistic is: $t' = \frac{\bar{x} - \bar{y}}{\sqrt{\frac{V_x}{m} + \frac{V_y}{n}}}$ where $\bar{x} - \bar{y}$ is the difference in 1995 mean catches of the original

vessel class and the upgrade vessel class, V_x and V_y are the variances of the 1995 catch observations in each class, and m and n are the numbers of observation within each class. In each comparison, the p-value of the t-statistic was less than 0.0000. Because the distributions of catches within each of the classes are not necessarily normal, t-tests were also conducted on the log of catch and on the square root of catch. Under each transformation and each comparison, the p-values was less than 0.0000. Therefore, the null hypothesis that the mean catches are the same in the original and upgrade classes can be rejected.

4.3 Impacts of Gear Designations

If the Council approves Proposed Action 2, gear designations would be assigned to each vessel based on harvesting activities during the qualifying period. Three types of designations would be assigned, Trawl Gear, Non-Trawl Gear, and All Gears, based on landings data during the qualifying period from January 1, 1988, through June 17, 1995.¹⁷ Table 32 shows the number of qualifiers that would be assigned the different gear designations on the basis of data for the qualifying period.¹⁸ The table also shows the changes in gear designations that would occur using landings through February 7, 1998. On the basis of the information presented in the table, it appears that a total of 373 (135+225-11+24=373) vessels would be allowed to use trawl gear if gear designations were implemented. Of these, 249 (225+24=249) would be allowed to use both trawl or non-trawl gear.

The layout of the table highlights some of the potential errors in the data. For example, 3 vessels apparently have been classified in the Fixed-gear CV < 32' class on the basis of length information in the registration files for vessels that have reported landings with trawl gear. As mentioned above, it is unlikely that a vessel this size has operated with trawl gear. Similarly, 4 vessels in the Fixed-gear CV 33'–45' class have reported trawl landings. These data in particular should be examined in more detail if the gear designations are approved.

Table 32: Projected Gear Designations of Qualifying Vessels

Vessel Class	Gear Designations Based on Participation January 1, 1988 through June 17, 1995			Changes in Gear Designations if Period is Extended through February 7, 1998			Grand Total
	Non-Trawl	Trawl	Both	Non-Trawl	Trawl	Both	
Fillet Trawl CPs		7	9	-	(1)	1	16
Fixed-gear CVs < 32'	351	2	1	-	-	-	354
Fixed-gear CVs 33' - 45'	720		4	(1)	-	1	724
H&G Trawl CPs	4	28	20	(3)	(2)	5	52
Longline CPs	39		2	-	-	-	41
Longline CVs 60'+	57		1	-	-	-	58
Other & Unclassified CVs	7			-	-	-	7
Other Fixed-gear CPs	27		3	-	-	-	30
Other Seine CVs	659	1	4	-	(1)	1	664
Pot CVs 125'+	25			-	-	-	25
Pot CVs 60'-124'	141	1	2	-	(1)	1	144
Seiner/Trawler CVs	32	20	73	(2)	(1)	3	125
Surimi Trawl CPs		14	10	-	-	-	24
Trawl CVs 125'+	3	18	7	(3)	-	3	28
Trawl CVs 60'-89'	6	15	46	(2)	-	2	67
Trawl CVs 90'-124'	4	29	43	(2)	(5)	7	76
Grand Total	2075	135	225	(13)	(11)	24	2,435

¹⁷ It should be reiterated that it is likely that there are some isolated errors in the gear data available. Because just one incorrect gear entry will change the apparent designation, the information provided in the tables should be used with caution.

¹⁸ Vessels projected to qualify for SEO endorsement only were assigned Non-trawl-gear designation regardless of the gears used.

4.3.1 Groundfish and Crab Moratorium Transfers

In Chapter 2 it was shown that a total of 47 vessels that did not appear to qualify on the basis of their own fishing history have purchased GCM qualifications. Table 33 shows the gear designations these vessels would be projected to receive, assuming that with the purchase of the GCM qualification they also received the transferring vessel's license qualifying catch history. Of the 47 vessels, 10 would receive designations allowing them to trawl or to use both gears. Of these 10, five represent upgrades resulting from the combination of the new and old vessels. Adding these 5 to the 373 trawl designations from Table 32 results in a total of 378 vessels that would receive designations allowing them to trawl.

Table 33: Projected Gear Designations of Vessels That Purchased GCM Qualifications

Vessel Class	Non-Trawl	Trawl	Both	Grand Total	Upgrade
Fixed-gear CVs < 32'	2			2	
Fixed-gear CVs 33'-45'	11			11	
Longline CPs	1			1	
Other Fixed-gear CPs	2			2	
Other Seine CVs	13		1	14	
Pot CVs 125'+	4			4	
Pot CVs 60'-124'	3			3	
Seiner/Trawler CVs			2	2	1
Trawl CVs 125'+	1			1	
Trawl CVs 60'-89'		1	3	4	2
Trawl CVs 90'-124'			3	3	2
Grand Total	37	1	9	47	5
Notes:					
1. "Upgrade" denotes that the combination of the catch histories that will result in an upgraded gear designations.					
2. The single Trawl CV 125' + vessel participated as a trawler prior to 1995, but does not appear to qualify for a groundfish license on the basis of its catch history—nor has it used trawl gear in recent years. With the purchase of its GCM qualification it would also receive a groundfish license with a Non-trawl designation.					

4.3.2 Impacts on License Prices

The proposed action probably would have an impact on prices that buyers would pay for licenses. As an example, assume there are two vessels that qualify for licenses and endorsements in the WG, AI, and BS. Further assume that Vessel A is a Longline CP and Vessel B is an H&G CP that also uses pot gear for Pacific cod. Under the status quo, both would receive identical license packages, as shown in the top four rows of Table 34. Assuming that buyers ignore the actual catch history of the vessels and purchase licenses solely on the basis of the endorsement and designation package, it is likely that both licenses would sell for the same price. Under the proposed action, Vessel A would receive a license with a Non-trawl Gear designation, and Vessel B would receive an All Gear designation. The license package for each vessel is shown in the lower four rows of Table 34.

Table 34: Hypothetical Example Demonstrating Potential Price Effects of Proposed Action 2

HYPOTHETICAL EXAMPLE UNDER THE STATUS QUO				
Vessel	CV/CP Designation	Length Class Designation	Endorsements	
Vessel A	CP	60' –125' : MLOA = 125'	WG, AI, BS	
Vessel B	CP	60' –125' : MLOA = 125'	WG, AI, BS	
HYPOTHETICAL EXAMPLE UNDER THE PROPOSED ACTION				
Vessel	CV/CP Designation	Length Class Designation	Endorsements	Gear Designations
Vessel A	CP	60' –125' : MLOA = 125'	WG, AI, BS	Non-trawl Gears
Vessel B	CP	60' –125' : MLOA = 125'	WG, AI, BS	All Gears

Under the proposed action, it is likely that the license for Vessel A would bring less on the market than the license for Vessel B. This discrepancy results from the fact that the license for Vessel B allows the owner to do everything that Vessel A can do and more, because Vessel B is also allowed to trawl. Thus, although the gear designations would ultimately restrict the capacity of the fleet at a lower level than the status quo, they are also likely to result in lower license prices for those licenses that had the potential to upgrade under the status quo.

4.4 Summary and Conclusions

Under the status quo, the analysis indicates that a total of 388 vessels among the projected qualifiers have used trawl gear in the past. An additional 102 vessels were considered prime candidates to upgrade to trawling from non-trawl gears. The analysis also indicated that although these prime candidates appear to be more likely to upgrade than other vessels, there is no way to identify, with any certainty, which of them might upgrade. However, if vessels did upgrade, the difference in mean catch levels for the original vessel class and the upgraded class could be significant. It can be concluded that a potential for increases in catch capacity as vessels switch from non-trawl to trawl gear exists under the status quo.

Under Proposed Action 2, gear designations would be assigned to vessels on the basis of gears used in the past. The analysis indicates that a total of 378 vessels would be projected to receive designations that would allow them to use trawl gear, assuming that any gears used through February 7, 1998, were counted and that the GCM transfers are an accurate reflection of transfers for license qualification catch histories.

Given that the proposed action would place an absolute limit on the number of vessels that could trawl in the future, the proposed action is likely to have a positive impact on overall catch capacity. However, as discussed in Subsection 4.3.2, there probably would be a trade-off, with an expectation of lower license prices for those vessels that could no longer upgrade.

4.4.1 Proposed Action 2 and the CRP Problem Statement

The CRP Problem Statement shown on page 4, delineated 14 issues the Council hoped to address with the LLP. Table 35 provides a qualitative assessment of Proposed Action compared to the status quo, relative to each of the 14 issues. See Section 3.4 for a listing of the 7 levels of potential impact.

Table 35: Impact of Proposed Action 2 Relative to Status Quo and the CRP Problem Statement

Problem	Impact Relative to Status Quo
1. Harvesting capacity in excess of that required to harvest the available resource Comment: <i>The proposed action will eliminate the possibility that vessels that have no history of trawling will be able to upgrade, reducing the overall potential capacity of the groundfish fleet.</i>	Positive
2. Allocation and preemption conflicts between and within industry sectors, such as with inshore and offshore components	Neutral
3. Preemption conflicts between gear types Comment: <i>The proposed action will preclude <u>further</u> preemption conflicts that could have developed with an influx of trawl vessels into the groundfish fishery. Preemption conflicts that currently exist will be unaffected.</i>	Positive

Problem	Impact Relative to Status Quo
<p>4. Gear conflicts within fisheries in which there is overcrowding of fishing gear due to excessive participation and surplus fishing effort on limited grounds</p> <p>Comment: <i>The potential impact of the proposed action is considered positive for the same reasons as stated for Problem 3.</i></p>	Positive
Dead-loss, such as with ghost fishing by lost or discarded gear	Neutral
<p>5. Bycatch loss of groundfish, crab, herring, salmon, and other non-target species, including bycatch that is not landed for regulatory reasons.</p> <p>Comment: To the extent that trawl gear causes more of the problems than non-trawl gear.</p>	Moderately Positive
<p>6. Economic loss and waste associated with discard mortality of target species harvested but not retained for economic reasons.</p> <p>Comment: <i>The potential impact of the proposed action is considered neutral because of the Improved Retention/Improved Utilization (IRIU) initiative discussed in Chapter 8.</i></p>	Neutral
<p>7. Concerns regarding vessel and crew safety that are often compromised in the race for fish.</p> <p>Comment: To the extent that fewer trawl vessels would be participating in the fisheries.</p>	Moderately Positive
<p>8. Economic instability within various sectors of the fishing industry, and in fishing communities caused by short and unpredictable fishing seasons, or preemption, which denies access to fisheries resources.</p> <p>Comment: <i>The potential impact of the proposed action is considered moderately positive to the extent that additional trawl vessels would have caused economic instability.</i></p>	Moderately Positive
9. Inability to provide for long-term, stable, fisheries-based economies in small, economically disadvantaged, adjacent coastal communities	Neutral
10. Reduction in ability to provide a quality product to consumers at a competitive price, and thus maintain the competitiveness of seafood products from the EEZ off Alaska on the world market	Neutral
<p>11. Possible impacts on marine mammals and seabirds, and marine habitat</p> <p>Comment: <i>The potential impact of the proposed action is considered moderately positive to the extent that additional trawl vessels would have had impacts on marine mammals, seabirds, and marine habitat.</i></p>	Moderately Positive
<p>12. Inability to achieve long-term, sustainable economic benefits to the nation.</p> <p>Comment: <i>The prospect of fewer trawl vessels than the potential under the status quo is positive, but is not likely to be a panacea with long-term, sustainable benefits to the nation.</i></p>	Moderately Positive
<p>13. A complex enforcement regimen for fishermen and management alike that inhibits the achievement of the Council's comprehensive goals</p> <p>Comment: <i>The proposed action will create an additional designation for which administrative processes and procedure will need to be developed. The action will also create an increased need for accuracy within the existing data. In addition, the potential difficulty in assigning gear designation to vessels that have purchased additional qualification histories probably will be difficult to implement (See Subsection 4.1.2.7).</i></p>	Moderately Negative

4.5 Overall Conclusions

Overall, Proposed Action 2 appears to create positive impacts for the groundfish fisheries. Gear designations will reduce the potential that additional trawl effort will be brought into the fisheries. The positive benefits for the fishery as a whole probably will be offset to some degree by lower prices for individual licenses that do not have the potential to use trawl gear.

5 Proposed Action 3: Rescind the CDQ Vessel Exemption

The Council exempted four categories of vessels from the LLP. The specific language taken directly from the proposed rule exempting these vessels is shown below.

- (i) A catcher vessel or catcher/processor vessel that does not exceed 26 ft (7.9 m) LOA may conduct directed fishing for license limitation groundfish in the Gulf of Alaska without a groundfish license;
- (ii) A catcher vessel or catcher/processor vessel that does not exceed 32 ft (9.8 m) LOA may conduct directed fishing for crab species in the Bering Sea and Aleutian Islands management area and also may conduct directed fishing for license limitation groundfish in the Bering Sea and Aleutian Islands management area without a groundfish or crab species license;
- (iii) A catcher vessel or catcher/processor vessel that does not exceed 60 ft (18.3 m) LOA may use a maximum of 5 jig machines, one line per jig machine, and a maximum of 15 hooks per line, to conduct directed fishing for license limitation groundfish in the Bering Sea and Aleutian Islands management area without a groundfish license; or
- (iv) A catcher vessel or catcher/processor vessel that does not exceed 125 ft (38.1 m) LOA, and that was, after November 18, 1992, specifically constructed for and used exclusively in accordance with a CDQ approved by the Secretary of Commerce under subpart C of this part, and is designed and equipped to meet specific needs that are described in the CDQ.

This proposal would rescind the exemption for CDQ vessels (Exemption iv), but would allow any vessels that CDQ groups have previously built within an existing CDP to continue to be used.

5.1 Overview

The CDQ vessel exemption has a relatively long history. It was first discussed in 1992 when the NPFMC began its discussions of the GCM. At that time the first CDQ fisheries for pollock had been approved, but the CDQ program with its CDQ groups and CDQ Partners had not yet become the norm. One concept under discussion was the possibility of developing large shallow-draft vessels that could easily access the small villages in the CDQ program and fish the shallow water in the inland areas, and could also participate in the mainstream Bering Sea fisheries. Because this particular type of vessel had not previously been in use in the groundfish and crab fisheries, the GCM would make its introduction even more expensive. This concept and the potential of other creative development programs with vessels new to the region led the Council to provide the CDQ vessel exemption in the regulations for the GCM.

In 1995, when the Council approved the proposed LLPs, it also approved additional CDQ fisheries. CDQs would be issued for 7.5 percent of all BSA groundfish not already covered by a CDQ program and 7.5 percent of all BSA king and tanner crab fisheries. The quotas would be allocated to communities as defined in the current CDQ program regulations and would be patterned after the current CDQ programs. The additional CDQ fisheries would not have a sunset provision, as existed at the time for the pollock CDQ program.

The MSCFMA approved by Congress in October 1996 instructed NMFS and the Council to phase in the crab portion of the CDQ program and also mandated that there be no sunset provision in the any of the crab and groundfish CDQ programs, including the pollock CDQ program.

Under the status quo, vessels operating under the CDQ exemption would be able to operate in both CDQ and Non-CDQ fisheries for groundfish using any legal gear in all areas, including the GOA and BSA. In the BSA crab fisheries the exempt vessels would be allowed to operate in all federally managed fisheries during the Non-CDQ portion of the season and during the CDQ fisheries. The exempt vessels would be able to operate as catcher vessels, catcher processors, or both.

Under the proposed change to the Groundfish and Crab LLPs, CDQ groups would not be able to build and use new vessels. All vessels operating within NMFS-approved CDQ Plans would be required to:

- Have been specifically constructed for and used exclusively in accordance with a CDQ Plan approved by the SOC, be designed and equipped to meet specific needs that are described in the CDQ Plan, and have been put into use through February 7, 1998, or
- Be a licensed vessel under the Groundfish or Crab LLP, or
- Be exempt under any of the other three categories of exempt vessels.

5.2 Industry Concerns About the CDQ Exemption

The combination of the expanded CDQ program and the CDQ vessel exemption has led some members of the industry to question whether the CDQ vessel exemption could potentially erode some of the positive benefits that would be derived from the LLP. The following arguments have been voiced at public meetings or in private conversations in one form or another, and are summarized here.

- The CDQ allocation for a given group functions essentially as an IFQ, allowing participating vessels the luxury of operating with maximum economic efficiency during the CDQ fisheries. Because these vessels are able to operate for at least some period of time at relatively higher efficiency, they are better able to sustain their operations during the non-CDQ seasons. Therefore, vessels operating in CDQ programs have a comparative advantage.
- The CDQ exemption would at least in theory allow an unlimited number of vessels into the non-CDQ fisheries. These vessels could be either catcher vessels or catcher processors. If there is justification for an LLP in the first place, allowing an unlimited number of additional vessels to enter the fisheries appears contradictory to the purpose of the LLP.
- The profit advantage for vessels operating in CDQ programs compared to vessels without CDQ partners gives the CDQ groups sufficient bargaining power with their partners that they do not need the vessel exemption.
- The fact that CDQ groups have not taken advantage of the CDQ vessel exemption brings the necessity of the exemption into question.

5.3 Reactions of CDQ Groups to Removal of the Exemption

All of the CDQ groups were contacted and asked about their plans for utilizing the CDQ vessel exemption. The CDQ groups were unanimous in stating that they had not utilized the exemption to date. Furthermore, they all stated that they had no current plans to utilize the vessel exemption in the future. They also stated that although it could be to their advantage to keep the exemption in place, they understood the position of the non-CDQ members of the industry. The groups also indicated that it is critical from their perspective to maintain strong and positive relationships with the entire industry. They stated that the CDQ program is a success and that the foundation of that success is the cooperation and goodwill the program is generating. If the CDQ exemption were a potential cause of enmity, then they would not object to removing the exemption.

5.4 Analysis of the Proposed Change

Economic theory supports the claims of industry that the vessels operating in the CDQ program have a comparative advantage over vessels that do not operate with CDQs. If it is economically advantageous for existing vessels to form partnerships with CDQ groups, then the incentive and need for CDQ groups to expend additional capital to build new vessels does not appear to exist. There is little doubt that the option to be able to build new vessels creates value for the CDQ groups. The CDQ groups appear to believe that the negative value in terms of relationships with the industry outweighs the positive value of the

exemption, and the groups are willing to operate within the same licensing parameters as non-CDQ industry.

5.5 Summary and Conclusions

The CDQ vessel exemption was initially established as a part of the GCM that was developed in 1992 prior to the implementation of the first pollock CDQ programs. At the time there was a great deal of uncertainty about how the CDQ program would operate. With the CDQ program established as a permanent fixture in the fisheries of the North Pacific, and the proven track record of CDQ groups in forming mutually beneficial partnerships with industry, there does not appear to be a need to maintain the CDQ exemption in the Crab and Groundfish LLPs.

5.5.1 Proposed Action 3 and the CRP Problem Statement

The CRP Problem Statement, shown on page 4, delineated 14 issues the Council hoped to address with the LLP. Table 36 provides a qualitative assessment of the proposed action compared to the status quo, relative to each of the 14 issues. See Section 3.4 for a listing of the 7 levels of potential impact.

Table 36: Impact of Proposed Action 3 Relative to Status Quo and the CRP Problem Statement

Problem	Impact Relative to Status Quo
1. Harvesting capacity in excess of that required to harvest the available resource Comment: <i>The proposed action will eliminate the possibility that additional vessels with potentially large catch capacity will be able to enter the fishery. However, it does not appear likely that the CDQ groups are intending to use the exemption, at least under the current economic conditions.</i>	Minimally Positive
2. Allocation and preemption conflicts between and within industry sectors, such as with inshore and offshore components.	Neutral
3. Preemption conflicts between gear types	Neutral
4. Gear conflicts within fisheries in which there is overcrowding of fishing gear due to excessive participation and surplus fishing effort on limited grounds Comment: <i>The potential impact of the proposed action is considered minimally positive to the extent that fewer vessels would be participating in the fisheries.</i>	Minimally Positive
5. Dead-loss, such as with ghost fishing by lost or discarded gear Comment: <i>The potential impact of the proposed action is considered minimally positive to the extent that fewer vessels would be participating in the fisheries.</i>	Minimally Positive
6. Bycatch loss of groundfish, crab, herring, salmon, and other non-target species, including bycatch that is not landed for regulatory reasons	Neutral
7. Economic loss and waste associated with discard mortality of target species harvested but not retained for economic reasons	Neutral
8. Concerns regarding vessel and crew safety that are often compromised in the race for fish Comment: <i>The potential impact of the proposed action is considered minimally positive to the extent that fewer vessels would be participating in the fisheries.</i>	Minimally Positive
9. Economic instability within various sectors of the fishing industry, and in fishing communities, caused by short and unpredictable fishing seasons, or preemption that denies access to fisheries resources	Neutral

Problem	Impact Relative to Status Quo
<p>10. Inability to provide for long-term, stable, fisheries-based economies in small, economically disadvantaged, adjacent coastal communities</p> <p>Comment: <i>The potential impact of the proposed action is considered minimally negative to the extent that CDQ groups might have been able to take advantage of the exemption if economic conditions in the fishery changed.</i></p>	Minimally Negative
<p>11. Reduction in ability to provide a quality product to consumers at a competitive price, and thus maintain the competitiveness of seafood products from the EEZ off Alaska on the world market</p> <p>Comment: <i>The potential impact of the proposed action is considered minimally negative to the extent that CDQ groups might have been able to take advantage of the exemption with new vessels specifically designed to meet a particular market niche.</i></p>	Minimally Negative
<p>12. Possible impacts on marine mammals and seabirds, and marine habitat</p> <p>Comment: <i>To the extent that fewer vessels would be participating in the fisheries.</i></p>	Minimally Positive
<p>13. Inability to achieve long-term sustainable economic benefits to the nation</p> <p>Comment: <i>The potential impact of the proposed action is considered minimally positive to the extent that fewer vessels would be participating in the fisheries.</i></p>	Minimally Positive
<p>14. A complex enforcement regimen for fishermen and management alike that inhibits the achievement of the Council's comprehensive goals</p> <p>Comment: <i>The proposed action will eliminate a class of exempt vessels, which means that regulations and administrative procedures regarding those vessels will not have to be developed.</i></p>	Minimally Positive

5.6 Overall Conclusions

Overall, Proposed Action 3 appears to create at least minimally positive impacts. If economic conditions in the fisheries improve dramatically from the current conditions, then the overall impacts would be more positive—to the extent that catching capacity would not increase. Currently, none of the CDQ groups have used the vessel exemption; nor do they have plans to use the exemption.

6 Proposed Action 4: Clarify the Council's Intent on the Transfer of Catch History

Proposed Action 4 would clarify the Council's intent that catch history transfers be recognized, except those occurring after June 17, 1995, and where the owner of the vessel at that time was unable to document a vessel under Chapter 121, Title 46, U.S.C.

6.1 Overview

The Plan Amendment language for the Groundfish and Crab LLPs states that "Licenses will be issued to owners (as of June 17, 1995) of qualified vessels. The owners as of this date must be 'persons eligible to document a fishing vessel' under Chapter 121, Title 46, U.S.C."

However, the Plan Amendment continues in the next sentence: "In cases where the vessel was sold on or before June 17, 1995, and the disposition of the vessel's fishing history for license qualification was not mentioned in the contract, the license qualification history would go with the vessel. If the transfer occurred after June 17, 1995, the license qualification history would stay with the seller of the vessel unless the contract specified otherwise."

According to NMFS [Lepore, 1998], licenses will not be issued to persons that were not eligible to document a vessel as of June 17, 1995, under Chapter 121, Title 46, U.S.C. NMFS will not, however, prevent such persons from transferring the vessel or the fishing history of the vessel to an eligible person, who would then be allowed to apply for and receive a license.

Proposed Action 4 would amend the FMP language to specifically extinguish the fishing history, as well as any and all claims for a license of any vessel that was not owned by a person eligible to document a vessel as of June 17, 1995 under Chapter 121, Title 46, U.S.C.

6.1.1 Additional Background

This section provides additional background necessary to understand the issue and the consequences of the proposed action. Subsection 6.1.1.1 provides a rudimentary discussion of the requirements for the documentation of fishing vessels in the U.S., and Subsection 6.1.1.2 provides a summary of Council discussions, LLP Plan amendment language, and the NMFS proposed rule for the LLP.

6.1.1.1 Requirements for U.S. Fishing Vessel Documentation

The following requirements for the documentation of a fishing vessel based on Chapter 121, Title 46, U.S.C., have been adapted from the National Vessel Documentation Center's Internet site at <http://www.uscg.mil/hq/g-m/vdoc/faq.htm>.

Vessels of 5 net tons or more used in fishing activities on navigable waters of the U.S. or in the EEZ, or used in coastwise trade, must be documented. In order to be documented, the vessels must have been built in the U.S. and must be owned by a U.S. citizen. In addition to individuals, corporations, partnerships, and other entities capable of holding legal title may be deemed citizens for documentation purposes. In order to document a vessel, corporations must fulfill the following requirements:

1. The corporation must be registered in a state or the U.S.
2. The chief executive officer and chairman of the board of directors must be U.S. citizens.

3. No more than a minority of the number of directors necessary to constitute a quorum may be non-citizens.
4. More than 50 percent of the voting stock must be vested in U.S. citizens.

According to Ver Walker, a fishing vessel documentation specialist at the U.S. Coast Guard (USCG) Vessel Documentation Center [Walker, 1998], there is nothing in U.S. law that prohibits U.S. citizens from owning vessels operating under the flag of another country. Some countries such as Belize, Liberia, and Vanuatu not only allow non-citizens to document vessels, but allow vessels to operate under multiple flags. These countries are known as countries of convenience.

However, according to Walker, some countries do require that in order for a vessel to be flagged under its rules, it must first give up its U.S. documentation. In fact, Russian documentation rules do not allow vessels that are documented as U.S. vessels to document and operate under a Russian flag. Russian documentation rules do, however, allow vessels documented under flags of other countries to document as Russian vessels.

6.1.1.2 A Summary of Council Discussions, LLP Plan Amendments, and the Proposed Rule

At the June 1995 Council meeting, members of the crab and groundfish industry testified to the Council that a number of vessels that had been operating in the crab and groundfish fisheries of the North Pacific in the early 1990s had begun to operate in Russian fisheries under non-U.S. flags. The exact number of vessels was not known by members of the industry, but they indicated the number was as high as 30. Many of the vessels discussed were known to have had considerable fishing histories, particularly in the crab fisheries of the Bering Sea. Members of the industry hoped that the vessels that had re-flagged would not be allowed to receive licenses.

During the Council's debate over the Groundfish and Crab LLPs, there was a lengthy discussion concerning the issuance of licenses to vessels that would meet the participation criteria but were no longer documented as U.S. fishing vessels. Some members of the Council wished to deny licenses to all such vessels. However, after consultation with the USCG and with National Oceanic and Atmospheric Administration (NOAA) General Counsel (GC), it was determined that it would be difficult to deny a license to a U.S.-owned vessel that had met all of the participation requirements. The Council was advised that it would be able to deny licenses to vessels that were no longer owned by U.S. citizens. Ultimately, the Council approved language that would require that the vessel owner as of June 17, 1995, be eligible to document a vessel under Chapter 121, Title 46, U.S.C.

In September 1995, Council staff asked that the Council clarify several issues regarding the LLPs it had approved in June. These issues dealt with the transfers of fishing history, among several other topics. In particular, the Council was asked to clarify who would receive the licenses under several different scenarios involving transfers of vessels and/or fishing histories before, on, or after June 17, 1995.

The Council made the following decisions:

- If the bill of sale contained specific language regarding the disposition of fishing history, then that language would determine who would be issued a license, provided that the transfer of the fishing history did not cause multiple licenses to be issued and that there were no disputes or other claims concerning the history.
- If the bill of sale did not contain specific language regarding the disposition of fishing history, then:
 - If the vessel was sold on or before June 17, 1995, the vessel's fishing history, and therefore its license qualification rights, would go with the vessel.

- If the vessel was sold after June 17, 1995, the vessel's fishing history, and therefore its license qualification rights, would stay with the owner as of June 17, 1995.

The Council staff developed the following two paragraphs of the FMP language from the previous series of decisions in conjunction with the June 1995 decision regarding the requirement that owners as of June 17, 1995, be eligible to document a vessel. These paragraphs, along with the remainder of the amendment language for each of the three plans in question, were forwarded to NMFS for public review. The entire LLP plan amendment for each of the FMPs in question may be found in Appendices A, B, and C.

License Recipients. Licenses will be issued to owners (as of June 17, 1995) of qualified vessels. The owners as of this date must be "persons eligible to document a fishing vessel" under Chapter 121, Title 46, U.S.C. In cases where the vessel was sold on or before June 17, 1995, and the disposition of the vessel's fishing history for license qualification was not mentioned in the contract, the license qualification history would go with the vessel. If the transfer occurred after June 17, 1995, the license qualification history would stay with the seller of the vessel unless the contract specified otherwise.

Who May Purchase Licenses. Licenses may be transferred only to "persons" defined as those "eligible to document a fishing vessel" under Chapter 121, Title 46, U.S.C. Licenses may not be leased.

Most of the concerned parties would agree that the language in the two preceding paragraphs does not fully and accurately reflect the Council's decisions as summarized in subsection 6.1.1.2.¹⁹ Indeed, the appropriate portions of the preamble to the proposed rule for LLP, as shown below, appear to much more closely capture the Council's intent than does the amendment language shown above.

Licenses would be issued to eligible applicants. Eligible applicants must have been eligible, on June 17, 1995 (the date of final Council action on the LLP), to document a fishing vessel under Chapter 121 of Title 46, U.S.C. An eligible applicant would be the owner, on June 17, 1995, of a qualified vessel or, if the fishing history of that qualified vessel has been transferred to another person by the express terms of a written contract that clearly and unambiguously provides that the qualification for a license under the LLP has been transferred, the person to which the qualification was transferred by the express terms of a written contract. The Council recommended that NMFS recognize written contracts to the extent practicable; however, in the event of a dispute concerning the disposition of the license qualification by written contract, NMFS would not issue a license until the dispute was resolved by the parties involved. For determining the qualification for a license in the absence of a written contract the Council recommended the following:

1. If the vessel were sold on or before June 17, 1995, the vessel's fishing history and license qualification transfers with the vessel.
2. If the vessel were sold after June 17, 1995, the vessel's fishing history and license qualification remain with the seller.
3. Only one license shall be issued based on the landings of any qualified vessel. For instance, a vessel's fishing history could not be divided so that multiple licenses could be issued based on separate qualifications created by that division. Also, if there had been multiple owners of a qualified vessel on June 17, 1995, then one license would be issued in the name of the multiple owners.

The problem that Proposed Action 4 attempts to correct is not explicitly stated in the proposed rule. Rather, the problem occurs because of an apparent omission in the rule. Specifically, there is nothing in the remaining portions of the proposed rule that prevents a non-citizen who is the owner of a vessel or of a fishing history that would otherwise qualify for a license from transferring the fishing history to a person who was eligible to document a vessel as of June 17, 1995. The Council contends that its intent was not only to prohibit licenses from being issued to non-U.S. citizens, but also to prohibit fishing histories, that as of June 17, 1995 were not owned by person eligible to document a fishing vessel in the U.S. from being transferred back to a U.S. citizen, who could then be issued a license.

¹⁹ In the spirit of full disclosure, it should be noted that the primary author of the LLP Plan Amendment is also the primary author of this document.

6.1.1.3 Proposed Changes to the Wording of the Affected FMPs

The FMP language as it currently exists in the FMP for groundfish in the GOA, the FMP for groundfish in the BSA, and the FMP for king and tanner crab in the BSA is shown below.

License Recipients. Licenses will be issued to owners (as of June 17, 1995) of qualified vessels. The owners as of this date must be persons eligible to document a fishing vessel under Chapter 121, Title 46, U.S.C. In cases where the vessel was sold on or before June 17, 1995, and the disposition of the vessel's fishing history for license qualification was not mentioned in the contract, the license qualification history would go with the vessel. If the transfer occurred after June 17, 1995, the license qualification history would stay with the seller of the vessel unless the contract specified otherwise.

Who May Purchase Licenses. Licenses may be transferred only to persons defined as those eligible to document a fishing vessel under Chapter 121, Title 46, U.S.C. Licenses may not be leased.

Pursuant to discussions with NMFS staff and attorneys from NOAA GC [Babson, 1998], the following language is suggested to replace the current language:

License Recipients. Licenses will be issued to owners as of June 17, 1995, of qualified vessels. The owners, as of June 17, 1995, must be persons eligible to document a fishing vessel under Chapter 121, Title 46, U.S.C. The following stipulations will also apply:

1. In cases in which the owner of the vessel as of June 17, 1995, was not eligible to document that vessel under Chapter 121, Title 46, U.S.C, the fishing history for license qualification of the vessel will be extinguished and may not be used to qualify for a license under this plan, with the exception that:
 - (a) In cases in which the vessel was sold on or before June 17, 1995, and the disposition of the vessel's fishing history for license qualification was specifically mentioned in the contract, the owner of the vessel's fishing history as of June 17, 1995, must be eligible to document a fishing vessel under Chapter 121, Title 46, U.S.C. If the owner of the vessel's fishing history was not eligible to document a vessel under Chapter 121, Title 46, U.S.C, the fishing history for license qualification of that vessel will be extinguished and may not be used to qualify for a license under this plan; or
 - (b) In cases in which the vessel was sold on or before June 17, 1995, and the disposition of the vessel's fishing history for license qualification was not mentioned in the contract, the fishing history for license qualification would go with the vessel. If the new owner of the vessel was not eligible to document that vessel under Chapter 121, Title 46, U.S.C as of June 17, 1995, then the fishing history of the vessel will be extinguished and may not be used to qualify for a license under this plan.
2. In cases in which the vessel was sold on or before June 17, 1995, and the disposition of the vessel's fishing history for license qualification was specifically mentioned in the contract, the owner of the vessel's fishing history as of June 17, 1995, must be eligible to document a fishing vessel under Chapter 121, Title 46, U.S.C. If the owner of the vessel's fishing history was not eligible to document a vessel under Chapter 121, Title 46, U.S.C, the fishing history for license qualification of that vessel will be extinguished and may not be used to qualify for a license under this plan; or
3. In cases in which the vessel was sold on or before June 17, 1995, and the disposition of the vessel's fishing history for license qualification was not mentioned in the contract, the fishing history for license qualification would go with the vessel. If the new owner of the vessel was not eligible to document that vessel under Chapter 121, Title 46, U.S.C as of June 17, 1995, then the fishing history of the vessel will be extinguished and may not be used to qualify for a license under this plan.
4. Transfers of the vessel or the fishing history that occurred after June 17, 1995, will not affect the eligibility of the vessel or the vessel's fishing history to qualify for a license; license qualification will be based on eligibility criteria defined above. However, NMFS is requested to issue any license in such cases to the person applying for the license, provided that such persons can verify that they are legal owners of the vessel or fishing history, and the person is eligible to document a vessel under Chapter 121, Title 46, U.S.C, and provided that no other claims have been submitted regarding that vessel or the fishing history of that vessel.

Who May Purchase Licenses. Licenses may be transferred only to "persons" defined as those eligible to document a fishing vessel under Chapter 121, Title 46, U.S.C. Licenses may not be leased.

The above language is intentionally redundant. Subparagraphs (a) and (b) are specifically included to apply to the cases in which the owner of the vessel as of June 17, 1995, was not eligible to document a vessel under Chapter 121, Title 46, U.S.C. Paragraphs 2 and 3 are intended to apply to all other cases, that is, cases in which the owner of the vessel, as of June 17, 1995, was eligible to document a vessel under Chapter 121, Title 46, U.S.C.

6.2 Assessment of Impacts of Proposed Action 4

The following section provides an assessment of the Proposed Action 4.

6.2.1 Migration of Vessels from U.S. Ownership to Non-U.S. Ownership

No irrefutable information is known to exist that describes the vessels that have migrated from U.S. ownership situations that are sufficient to allow fishing vessel documentation in the U.S. to ownership situations that are insufficient to allow fishing vessel documentation in the U.S. It would be theoretically possible to query the U.S. Vessel Documentation files to obtain a list of vessels that had given up their documentation prior to June 17, 1995.²⁰ However, this process would not indicate whether the ownership of these vessels had also changed such that the owner was no longer eligible to document the vessel under Chapter 121, Title 46, U.S.C.

During the course of this analysis, several knowledgeable persons were contacted to discuss what they know of the ownership status of these re-flagged vessels. Those contacted included attorneys, brokers, and one of the owners in question. These contacts indicated that it was their impression that many of the vessels that were currently operating or had operated in foreign fisheries under a flag other than that of the U.S. had in fact always maintained their U.S. ownership structure and could prove that the vessels were owned by U.S. citizens as of June 17, 1995. The contacts specified two types of ownership scenarios that could allow these U.S. citizens to document their vessels under the flags of other countries:

- The vessels are transferred through a lease-to-buy arrangement whereby the U.S. owners would maintain the title and ownership of the vessels for several years, after which the foreign partner would have an option to purchase the vessel.
- The vessel's U.S. owner forms a U.S.-owned corporation in a country of convenience that allows dual-flagged vessels—Belize or Liberia, for example. The U.S. owner gives up U.S. vessel documentation and acquires documentation from the second country. With the documentation from this second country and proof that the vessel is not documented in the U.S., the U.S.-owned corporation of the second country applies for documentation in the third country, where fishing is to take place.

According to Ver Walker of the USCG Vessel Documentation Center, in both cases it would appear that the vessel owners would be eligible to document their vessels under Chapter 121, Title 46, U.S.C. This eligibility results because the owners would be able to meet all of the documentation requirements specified in the law.

²⁰ In 1997, the Alaska Crab Coalition (ACC) asked the U.S. Coast Guard (USCG) to verify that a list of vessels submitted to the USCG by ACC had indeed relinquished their documentation. The USCG verified a list of 13 vessels that had relinquished their U.S. documentation. ACC subsequently submitted that list to the U.S. Congress, which, according to ACC, passed an Appropriations Bill that states that NMFS is prohibited from spending money to issue permits to these vessels.

6.2.2 Effectiveness of Proposed Action 4

Proposed Action 4 is intended to prevent licenses from being issued that result from the fishing history of vessels that were owned by persons not eligible to document the vessel under Chapter 121, Title 46, U.S.C., as of June 17, 1995. To the extent that qualifying vessels or qualifying fishing histories of vessels were in fact owned by persons not eligible to document the vessel under Chapter 121, Title 46, U.S.C., as of June 17, 1995, the proposed action will be effective; licenses resulting from the fishing history of these vessels will not be issued.

However, as discussed above in Subsection 6.2.1, there are many indications that at least some of the vessels operating under non-U.S. flags are in fact owned, and were in fact owned as of June 17, 1995, by persons who were be eligible to document the vessel under Chapter 121, Title 46, U.S.C. The proposed action will not deny licenses to the owners of these vessels.

6.2.3 Reductions in Catching Capacity

To the extent that the proposed action is effective in denying licenses, it appears that it would have a positive impact on the catching capacity of the licensed fleet. If the affected vessels are similar to those indicated in the Alaska Crab Coalition (ACC) submission to the U.S. Congress (see Footnote 20 on Page 74), then many of the vessels would be in either the Fixed-gear CP or the Pot CV 125+ vessel class in the crab fisheries. The average catch levels in 1995 of vessels in these classes were 479,079 and 526,062 pounds respectively, or 0.5 percent of the total 1995 crab catch. (See Table 18 on page 36.)

There is no way to know how many vessels will be affected by the proposed action, if any. However, if 10 additional vessels—5 in each of these 2 classes—had participated in 1995 at the catch levels of their respective classes, and if the total catch of the entire fleet was unchanged, the average catch of every vessel in the fleet would have declined by approximately 5 percent.

6.3 Summary and Conclusions

Proposed Action 4 has the potential to reduce the overall catching capacity of the qualifying vessels under the Groundfish and Crab LLPs to the extent that there were vessels that would otherwise be issued licenses. However, given that there is no way of knowing the ownership status of the vessels that might be affected, and given that there is evidence that many of the potentially affected vessels had been eligible to document a vessel as of June 17, 1995, there is no way to determine whether the changes will have any affect at all.

6.3.1 Proposed Action 4 and the CRP Problem Statement

The CRP Problem Statement, shown on page 4, delineated 14 issues the Council hoped to address with the LLP. Table 37 provides a qualitative assessment of Proposed Action 4 compared to the status quo, relative to each of the 14 issues. See Section 3.4 for a listing of the 7 levels of potential impact.

Table 37: Impact of Proposed Action 4 Relative to Status Quo and the CRP Problem Statement

Problem	Impact Relative to Status Quo
1. Harvesting capacity in excess of that required to harvest the available resource Comment: <i>The proposed action has the potential to reduce the number of vessels that would be issued licenses. Vessels that might be affected would probably be larger vessels with relatively greater harvesting capacities. Because there is no way to determine exactly how many vessels would be denied licenses under the proposed action, the impact is relatively uncertain, and therefore its impacts are judged to be only moderately positive.</i>	Moderately Positive
2. Allocation and preemption conflicts between and within industry sectors, such as with inshore and offshore components	Neutral
3. Preemption conflicts between gear types	Neutral
4. Gear conflicts within fisheries where there is overcrowding of fishing gear due to excessive participation and surplus fishing effort on limited grounds. Comment: <i>The potential impact of the proposed action is considered minimally positive to the extent that fewer vessels would be participating in the fisheries.</i>	Minimally Positive
5. Dead-loss, such as with ghost fishing by lost or discarded gear Comment: <i>The potential impact of the proposed action is considered minimally positive to the extent that fewer vessels would be participating in the fisheries.</i>	Minimally Positive
6. Bycatch loss of groundfish, crab, herring, salmon, and other non-target species, including bycatch that is not landed for regulatory reasons	Neutral
7. Economic loss and waste associated with discard mortality of target species harvested but not retained for economic reasons	Neutral
8. Concerns regarding vessel and crew safety that are often compromised in the race for fish Comment: <i>The potential impact of the proposed action is considered minimally positive to the extent that fewer vessels would be participating in the fisheries.</i>	Minimally Positive
9. Economic instability within various sectors of the fishing industry, and in fishing communities caused by short and unpredictable fishing seasons, or preemption, which denies access to fisheries resources	Neutral
10. Inability to provide for long-term, stable, fisheries-based economies in small, economically disadvantaged, adjacent coastal communities	Neutral
11. Reduction in ability to provide a quality product to consumers at a competitive price, and thus maintain the competitiveness of seafood products from the EEZ off Alaska on world markets	Neutral
12. Possible impacts on marine mammals and seabirds, and marine habitat Comment: <i>The potential impact of the proposed action is considered minimally positive to the extent that fewer vessels would be participating in the fisheries.</i>	Minimally Positive
13. Inability to achieve long-term, sustainable economic benefits to the nation Comment: <i>The potential impact of the proposed action is considered minimally positive to the extent that fewer vessels would be participating in the fisheries.</i>	Minimally Positive
14. A complex enforcement regimen for fishermen and management alike that inhibits the achievement of the Council's comprehensive goals Comment: <i>The proposed action will require additional regulation and administrative procedures. Relative to the existing regulations regarding transfers of fishing histories, the expected impact is likely to be minimal.</i>	Minimally Negative

6.3.2 Overall Conclusions

Although Proposed Action 4 appears to have the potential to create moderately positive impacts, depending on how many vessels would actually be affected, NOAA GC has raised serious concerns about this proposed action. Appendix D to this document contains a copy of recent correspondence from NMFS and NOAA GC expressing concern about the proposed action on the basis that it probably violates the “foreign reciprocity” mandates of the Magnuson-Stevens Act. Furthermore, the proposed action probably would be unable to withstand judicial challenge and could be found to be “arbitrary and capricious” in terms of the apparent purpose of the action: there is no apparent justification for singling out this particular group of vessels—as opposed to vessels that may have been fishing off California, for example—and denying them the ability to reenter fisheries for which they otherwise qualified (Babson, 1998).

Although the NOAA GC legal opinion is couched primarily in the context of “re-flagged” vessels (as opposed to whether an owner could legally document a vessel on June 17, 1995), the effect is essentially the same (denying access to a specific group of vessels that otherwise qualified). Therefore, the legal opinion is equally applicable. Furthermore, if the original plan amendment language had been interpreted by the agency to prevent the license qualification of these vessels, that plan language probably would have been disapproved previously (Babson, 1998). In summary, it appears that the potential advantages of this proposal, in terms of fleet capacity limitations, may well be outweighed by the potential legal ramifications. Other proposed amendments being considered, as well as proposed buyback programs for the crab fisheries, may address the Council’s capacity reduction goals more appropriately.

7 Proposed Action 5: Require Recent Crab Fishery Participation

Proposed Action 5 would require recent participation in the BSA king and tanner crab fisheries in order to qualify for a license under the Crab LLP. The recent participation period would involve one or more years from 1995 through February 7, 1998. The recent participation requirement would apply to the general license only; if a vessel satisfies the chosen recent participation criteria, it would receive its original license and all of the species/area endorsements for which it qualified under the original criteria. No new species/area endorsements could be earned during the recent qualification.

The purpose of Proposed Action 5 is to reduce the qualified crab fleet to numbers that reflect recent patterns of participation. The Council stated that their intent is that the proposed action should not impede or delay implementation of the Crab LLP. Therefore, the proposed action would instruct NMFS to issue interim permits for the Crab LLP if these changes cannot be fully implemented by the time the current LLP takes effect. Permanent permits would then be issued without additional amendments to the plan.

The Council also serves notice that the proposed chosen date for recent participation criteria is very firm. However, the Council may choose to examine participation more recent than February 7, 1998, in making its final decision, but cannot at this time foresee any extraordinary circumstances that would allow the date to be extended.

The present analysis examines the numbers of vessels that would qualify under each of 11 alternative recent participation criteria and addresses the implications for overall capacity. The specific alternatives used for the analysis are not intended to limit the Council's choice of the actual combination of years, but rather are intended to provide upper and lower bounds within which any other participation criteria will fall. The specific alternatives addressed are shown below:²¹

Alternative 1: Status quo

Alternative 2: Require participation in 1996

Alternative 3: Require participation in both 1995 and 1996

Alternative 4: Require participation in both 1996 and 1997

Alternative 5: Require participation in the two calendar years from 1997 through February 7, 1998

Alternative 6: Require participation in all three calendar years from 1995 through 1997

Alternative 7: Require participation in all three calendar years from 1996 through February 7, 1998

Alternative 8: Require participation in all four calendar years from 1995 through February 7, 1998

Alternative 9: Require participation at least once between 1996 and February 7, 1998

Alternative 10: Require participation at least once between 1995 and February 7, 1998

Alternative 11: Require participation in any 2 of the 4 calendar years from 1995 through February 7, 1998

²¹ Two new recent participation alternatives were added to the Analysis of Proposed License Limitation Amendment Package Draft for Public Review following the June 1998 Council meeting. The added alternatives will: a) require participation in 1996, and b) require participation in any calendar year between 1995 and February 7, 1998. Because of these additions the numbers identifying each alternative have changed between the initial draft and the present Draft for Public Review. The decision to change the numbering system was made so that there would be a logical flow from one alternative to the next.

These alternatives are only 11 of many other potential combinations of years that could be used as recent participation criteria. There are at least 49 other potential combinations of years that could be chosen by the Council. Table 38 lists the 61 potential combinations, with the analyzed alternatives shown in bold.

The table is divided into two parts. Part 1 shows simple alternatives that require 1 or more years of participation. All of the alternatives examined in this document are listed in Part 1. Alternatives that require two or more specific years are listed using the conjunction symbol "&" between required years. For example, Alternative 3 requires participation in both 1995 and 1996. Alternatives with two or more optional years include the conjunction "or" between years. Thus Alternative 9 requires one year of participation in three optional years: 1996, 1997, or on or before February 7, 1998. Part 2 lists complex alternatives that mix required years and optional years. For example, Alternative 34, a complex alternative, requires participation in 1995 and participation in either 1996 or 1997.

None of the alternatives shown in Part 2 were specifically analyzed. However, because they are likely to produce results within the range of studied alternatives they may be chosen by the Council.

Table 38: Possible Alternatives Using Participation in the Years 1995, 1996, 1997, and 1998

Part 1: Simple Alternatives		Part 2: Complex Alternatives	
Alt. #	Years	Alt. #	Years
1	Status Quo	34	1995 & (1996 or 1997)
12	1995	35	1995 & (1996 or 1998)
2	1996	36	1995 & (1997 or 1998)
13	1997	37	1996 & (1995 or 1997)
14	1998	38	1996 & (1995 or 1998)
3	1995 & 1996	39	1996 & (1997 or 1998)
15	1995 & 1997	40	1997 & (1995 or 1996)
16	1995 & 1998	41	1997 & (1995 or 1998)
4	1996 & 1997	42	1997 & (1996 or 1998)
17	1996 & 1998	43	1998 & (1995 or 1996)
5	1997 & 1998	44	1998 & (1995 or 1997)
6	1995 & 1996 & 1997	45	1998 & (1996 or 1997)
18	1995 & 1996 & 1998	46	1995 & (1996, 1997, or 1998)
19	1995 & 1997 & 1998	47	1996 & (1995, 1997, or 1998)
7	1996 & 1997 & 1998	48	1997 & (1995, 1996, or 1998)
8	1995 & 1996 & 1997 & 1998	49	1998 & (1995, 1996, or 1997)
20	1995 or 1996	50	1995 & 1996 & (1997 or 1998)
21	1995 or 1997	51	1995 & 1997 & (1996 or 1998)
22	1995 or 1998	52	1995 & 1998 & (1996 or 1997)
23	1996 or 1997	53	1996 & 1997 & (1995 or 1998)
24	1996 or 1998	54	1996 & 1998 & (1995 or 1997)
25	1997 or 1998	55	1997 & 1998 & (1995 or 1996)
26	1995 or 1996 or 1997	56	(1995 or 1996) & (1997 or 1998)
27	1995 or 1996 or 1998	57	(1995 or 1997) & (1996 or 1998)
28	1995 or 1997 or 1998	58	(1995 or 1998) & (1996 or 1997)
9	1996 or 1997 or 1998	59	(1996 or 1997) & (1995 or 1998)
10	1995 or 1996 or 1997 or 1998	60	(1996 or 1998) & (1995 or 1997)
29	Any 2 of 1995, 1996, or 1997	61	(1997 or 1998) & (1995 or 1996)
30	Any 2 of 1995, 1996, or 1998	Note: All references to 1998 imply that participation must have occurred between January 1, 1998 through February 7, 1998. Participation after February 7, 1998 will not count toward qualification criteria.	
31	Any 2 of 1995, 1997, or 1998		
32	Any 2 of 1996, 1997, or 1998		
11	Any 2 of 1995, 1996, 1997, or 1998		
33	Any 3 of 1995, 1996, 1997, or 1998		

7.1 Implementation Issues

Several implementation issues would be created by the proposed action. These are discussed briefly in the following subsection. If the Council chooses to approve any one of the alternatives, it will also need to address these issues.

7.1.1 Interim Permits

The Council included the concept of interim permits in its proposed action because of its desire that the amendment package does not delay implementation of the LLP. Such interim permits may be necessary to ensure the timely implementation of the LLP. It should be noted that NMFS has indicated that the addition of recent participation criteria will not necessarily delay implementation of the program, particularly if the Council makes a decision at its October 1998 meeting.

If the Council approves one of the alternatives other than the status quo, it may wish to provide instruction to NMFS regarding the criteria for the issuance and transferability of interim permits. A fundamental question that arises with interim permits is whether their use is envisioned as a mechanism to relieve NMFS of the burden of having to undertake two different time-consuming and costly application and issuance processes. If so, then it may be prudent to make the interim permits more general and easier to implement than the status quo licenses. If, on the other hand, interim permits exclude vessels that may otherwise wish to participate, then it is necessary that the application and issuance process be rigorous enough to withstand challenges. A rigorous and exclusionary process will be costly. If the permits are truly interim in nature, then it may be prudent to make the interim permits more general, less exclusionary, and easier to implement than the status quo licenses.

Regardless of the Council's preferences on the rigor of the interim permit process, the Council should provide NMFS with advice on several issues regarding the implementation of interim permits. Eight issues that should be addressed are shown as numbered items in bold text below, with potential options listed under each, denoted with a letter. The following list has been developed by the analyst, and includes the concept of an easily implementable interim permit, as well as more rigorous approaches. Therefore, addressing these issues could help identify the appropriate level of rigor for the interim-permit process. The list of options should not be viewed as exhaustive. Other options may be considered before the Council makes its final decision.

1. Who must have an interim permit

- a. All vessel owners who participate in any BSA king or tanner crab fishery

2. The nature of interim permits

- a. Interim permits will include species area endorsements as specified in the original LLP.
- b. Interim permits will not include species area endorsements, but instead will allow the holder to fish in any BSA crab fishery.

3. Who should receive interim permits

- a. All actual qualifiers under the original LLP following a full application process
- b. Any projected qualifiers as determined by the NPFMC license database for the original LLP. Any applicant that can demonstrate a link to a vessel that is projected to qualify in the NPFMC database will be issued an interim permit. If more than one person submit claims to the same vessel history, then an adjudication process will occur. The adjudication process will result in one person receiving the interim permit or a finding that neither person will be issued a permit. Multiple permits from a single vessel history will not be issued.

- c. Any projected qualifier as determined by the NPFMC license database for the original LLP. Any applicant that can demonstrate a link to a vessel that is projected to qualify in the NPFMC database will be issued an interim permit. If more than one person submit claims to the same vessel history, then interim permits will be issued to each. However, before the permits will be issued, NMFS will require that all parties sign affidavits swearing their claims are valid to the best of their knowledge.
- d. Any projected qualifier in Option c, and any other persons that supply evidence that they owned a vessel that would qualify under the original LLP. More than one interim permit may be issued resulting from claims on a single vessel history. However, before the permits will be issued, NMFS will require that all permit recipients sign affidavits swearing their claim is valid to the best of their knowledge.

4. Vessel designations to be included in interim permits

- a. Interim permits will include length limits as in the original LLP, but will not specify vessels.
- b. Interim permits will include length limits and vessel identification numbers.

5. Transferability of interim permits

- a. Interim permits will be transferable to other persons. Transfers must be approved by NMFS prior to the transfer taking affect. Using the license first on one vessel and then on another vessel will not constitute a transfer and will not require that NMFS be notified.
- b. Interim permits will be transferable to other persons. Transfers of interim permits may be accomplished simply by notifying NMFS. NMFS will not need to approve the transfer. Using the license first on one vessel and then on another vessel will not constitute a transfer and will not require that NMFS be notified.
- c. Interim permits will be transferable to other persons and vessels. Transfers must be approved by NMFS prior to the transfer taking affect. Using the license first on one vessel and then on another vessel will constitute a transfer, and will require that NMFS be notified and give its approval prior to the transfer taking effect.
- d. Interim permits will be transferable to other persons and vessels. Transfers of interim permits may be accomplished simply by notifying NMFS. NMFS will not need to approve the transfer. Using the license first on one vessel and then on another vessel will constitute a transfer and will require that NMFS be notified prior to the use of the license on the different vessel.
- e. Interim permits will not be transferable to other persons. Using the license first on one vessel and then on another vessel will not constitute a transfer and will not require that NMFS be notified.
- f. Interim permits will not be transferable to other persons or other vessels.

6. Links between interim permits and actual crab licenses (only necessary if interim permits are transferable)

- a. There will be no link between interim permits and actual crab licenses. Any transfers of interim permits that may have occurred will not be recognized in the issuance of actual crab licenses.
- b. There will be no link between interim permits and actual crab licenses. Any transfers of interim permits will be treated by NMFS in a fashion similar to transfers of fishing history. In other words, NMFS will acknowledge transfers of interim permits as transfers of fishing histories if documentation is supplied to verify the interim permit transfer constituted a transfer of fishing history, and if none of the parties involved in the transfer contest the action.
- c. Transfers of interim permits will be assumed by NMFS to constitute a full transfer of all claims to the fishing history of the vessel.

7. Groundfish licenses and interim crab permit Severability

- a. Interim permits and groundfish licenses will not be severable and will be treated as a single package. Transfers of either the groundfish license or the interim permit may not occur independently. If interim permits are non-transferable, then any groundfish licenses that would be tied to the permits are also non-transferable.
- b. Interim permits and groundfish licenses will be severable and will not be treated as a single package. Transfers of either the groundfish license or the interim permit may occur independently. This option requires that Option a in Issue 6 is approved.

8. Effective period of interim permits

- a. Interim permits will be effective until the full LLP as amended is implemented.
- b. Interim permits will be in effect only in the calendar year in which they are issued. If interim permits are required for subsequent years, a new application process will occur.

7.1.1.1 Potential Configuration of Interim Permits

The following set of options may be the most practical way to implement an interim permit system. The suggested approach assumes that interim permits are indeed temporary, and that NMFS will not wish to undertake two rigorous application processes for crab licenses.

1. All vessel owners who participate in any BSA king or tanner crab fishery must have an interim permit. (Option 1a)
2. Interim permits will not include species/area endorsements, but instead will allow the holder to fish in any BSA crab fishery. (Option 2b)
3. Interim permits will be issued to any projected qualifier as determined by the NPFMC license database for the original LLP, and to any other persons that supply evidence that they owned a vessel that would qualify under the original LLP. More than one interim permit may be issued resulting from claims on a single vessel history. However, NMFS will require that all permit recipients sign affidavits swearing their claim are valid to the best of their knowledge before the permits will be issued. (Option 3d)
4. Interim permits will include length designations, but will not specify vessels. (Option 4a)
5. Interim permits will not be transferable to other persons. Using the license first on one vessel and then on another vessel will not constitute a transfer and will not require that NMFS be notified. (Option 5e)
6. Not applicable
7. Interim permits and groundfish licenses will not be severable and will be treated as a single package. Transfers of the groundfish license may not occur independently. Since the interim permits are non-transferable, any groundfish licenses that would be tied to the permits are also non-transferable.
8. Interim permits will be effective until the full LLP as amended is implemented.

7.1.2 Combinations of Recent and Past Fishing Histories

By creating an additional participation period, the proposed action creates the possibility of combining fishing histories of different vessels for qualification under the Crab LLP. The GCM and the Crab LLP as approved by the Council allowed vessels to transfer fishing histories. As discussed in Section 2.2.5, at least 51 GCM transfers have occurred in which the selling vessel was projected to qualify for a license. Assuming that the license qualification fishing histories of these vessels were also transferred, there are

likely to be occurrences in which the fishing history of the selling vessel and the more recent participation history of the buying vessel will combine to create a history that satisfies recent participation criteria.

The Council will have to determine whether such combinations could meet the qualifying criteria. In so doing, the Council will have choices before it that include the following two basic options:

1. Disallow any combinations of fishing histories for meeting recent participation criteria
2. Allow combinations of fishing histories to meet recent participation criteria

If the Council chooses to allow combinations, then it should also make decisions regarding each of the following potential cases.²²

1. **The transferring vessel was qualified under the status quo but not under the recent criteria; the buying vessel meets the recent criteria but not the status quo criteria.** In such cases the combination of fishing histories could create a qualifying fishing history. An analysis of the GCM transfer data revealed that there were no instances of the creation of new qualifications under any of the alternatives studied. However, because the available data is quite limited, the Council is advised to provide NMFS with their intent regarding such possibilities.
2. **The transferring vessel was qualified under the status quo but not under the recent criteria; the buying vessel was qualified under the status quo and under the recent participation criteria.** This combination presumably would increase the number of species/area endorsements or combined CV / CP designations for the buying vessel. Analysis of the GCM data revealed that this combination occurs under many of the alternatives examined. In these cases the Council could advise NMFS as follows:
 - a. **Create a non-severable package.** This will allow the purchaser to keep the rights associated with both vessels. With the creation of non-severable packages, the number of vessels that can fish at any given time would be unaffected in comparison with the number that would qualify if GCM transfer were ignored.
 - b. **Issue two distinct licenses.** This will allow the purchaser to keep the rights associated with both vessels. With the issuance of two licenses, the number of vessels that can fish at any given time would increase over what would have occurred if there had been no transfers of fishing histories.
3. **The transferring vessel was qualified under the status quo and under the recent criteria; the buying vessel was qualified under the status quo and under the recent participation criteria.** In these cases the Council could advise NMFS to:
 - a. **Create a non-severable package.** This will allow the purchaser to keep the rights associated with both vessels. With the creation of non-severable packages, the number of vessels that can fish at any given time would be reduced.
 - b. **Issue two distinct licenses.** This will allow the purchaser to keep the rights associated with both vessels. With the issuance of two licenses, the number of vessels that can fish at any given time would be unaffected compared to the number there would have been if there had been no transfers of fishing histories. The number of potential vessels would increase in comparison with the number resulting under Option 3a.

Overall, it appears that allowing fishing histories to be combined, but requiring that such combinations be non-severable, will allow purchasers to benefit from their acquisitions, and at the same time will reduce the number of vessels that may fish at any given time.

²² The Council could probably justify allowing combinations of fishing histories to meet the recent participation criteria, while continuing to disallow the combinations of fishing histories in the original qualification period.

7.1.3 Recent Participation Criteria and Lost or Destroyed Vessels

The original Crab LLP specified that “vessels which qualified for the NPFMC license limitation program that have been lost or destroyed are still eligible to receive earned licenses and endorsements...” In addition, the original Crab LLP contained a provision for vessels that were qualified under the GCM. This provision reads as follows:

Vessels which qualify under the moratorium and were lost, damaged, or otherwise out of the fishery due to factors beyond the control of the owner and which were replaced or otherwise reentered the fisheries in accordance with the moratorium rules and which made a landing in a fishery any time between the time the vessel left the fishery and 6/17/95, will be qualified for a general license and endorsement for that area.

The provision as worded indicates that vessels that made qualifying landings but then were lost or destroyed will receive licenses they earned. If the Council adopts additional recent participation criteria, it is possible that some of vessels that may have been lost or destroyed will not have had time to reenter the fishery and make qualifying landings.

The revised provision presented below provides a model for dealing with this issue with respect to the recent participation criteria. The following paragraph adapts the original provision so that it may be applied to any of the alternatives of Proposed Action 5 and could be used by the Council as a provision for lost or destroyed vessels.

Vessels that qualify under the original Crab LLP and were lost, damaged, or otherwise out of the fishery due to factors beyond the control of the owner and which were replaced or otherwise reentered the fisheries in accordance with the crab moratorium rules and which made a landing in a BSA crab fishery at any time from the time the vessel left the fishery through (*date*), will be deemed to have met the recent participation criteria and would therefore be issued a general license and endorsements to which it was entitled under the original Crab LLP. If the vessel was lost after the most recent date on which qualifying landings could have been made, then consideration as discussed above will not be granted.

The Council has several options for an appropriate date to insert into the text in the next to last sentence of the preceding paragraph. These options include but are not limited to the following:

1. February 7, 1998
2. The date of Council action approving an alternative under Proposed Action 5
3. The deadline for submitting application for a crab license or for an interim crab permit, whichever is earliest
4. A period not to exceed 2 years from the date on which the vessel was lost
5. A period not to exceed 3 years from the date on which the vessel was lost
6. January 1, 2000

7.1.4 Exemptions to the Recent Participation Criteria

The Council requested that the following four exemptions to Proposed Action 5 be examined in this analysis:

1. Vessels < 60' LOA
2. Any vessel that made landings in any BSA crab fishery in 1998, on or before February 7, and for which the owner acquires license limitation rights related to a vessel that meets the GQP and EQP landing requirements
3. Any vessel that was under construction for the BSA crab fishery and whose owner acquired a crab moratorium qualification for the vessel on or before February 7, 1998

4. Persons who are projected to receive a Norton Sound endorsement but no other species/area endorsement under the Crab LLP

The Council added the first three of these exemptions to the proposed action at its June 1998 meeting. The fourth exemption has been a part of the proposed action from the beginning. The following subsections discuss the effects of the exemptions.

7.1.4.1 Vessels Less Than 60' LOA May Be Exempt from Recent Participation Criteria

The exemption discussed in this subsection is presented as a way to address difficulties that owners of small vessels face when trying to access the BSA crab fisheries.

As shown in Table 14 in Section 2.2, 14 vessels < 60' LOA are projected to qualify for licenses under the original Crab LLP; Alaskans own 11 of these vessels. Vessels < 60' LOA are projected to receive a total of 18 endorsements, 12 of which are for the Pribilof Island king crab fisheries. The Pribilof Island fishery is relatively short, lasting only 1 to 2 weeks in mid-September. The short seasons, difficult weather conditions, and size of vessels involved may lead to inconsistent participation. Table 20 in Chapter 3 shows that at most 3 of the 14 qualified small vessels have participated between 1996 and 1998. In 1995, as shown in Table 18, these vessels were estimated to have caught less than 0.05 percent of the total crab harvest in the BSA fisheries. It appears unlikely that exempting these vessels from recent participation criteria will significantly affect the reductions in capacity that might result from the proposed action.

7.1.4.2 Participants in 1998 Who Acquire Rights May Be Exempt from Recent Participation Criteria

The exemption discussed in this subsection is presented as a way to provide access to vessels that have participated in the most recent year of the fishery and have purchased or were planning to purchase licenses or qualifying fishing histories of inactive vessels.

For 1998, 20 vessels that participated on or before February 7 are not projected to qualify under the original Crab LLP, based on the reported ADFG numbers. However, 5 of the 20 vessels had ADFG numbers that do not appear in recent vessel registration files. Often in such instances, the vessel number is incorrect—that probably is the case here, given that the data for 1998 have not been fully edited. To this point the analysis has assumed that these vessels do exist, but that they are smaller vessels with incidental participation. As such they have been grouped into the Seine Combination CV class. Of the remaining 15 apparently unqualified vessels that participated in 1998, 1 was a catcher processor, 7 were catcher vessels > 125' LOA, 6 were catcher vessels 60' - 125' LOA, and 1 was a catcher vessel < 60' LOA.

An examination of the GCM transfer data shows that 11 of the 15 known vessels have purchased moratorium rights from vessels that were originally qualified under the LLP. Of those, 10 purchased rights of vessels that had participated in at least one year between 1995 and 1997. Thus it appears likely that at least some of the 15 known vessels that may benefit from the exemption probably would qualify under several of the recent participation criteria if Proposed Action 5 is approved.

Table 39 summarizes the effects of the exemption, assuming that the Council approves one of the alternative recent participation criteria and that they allow combinations of fishing histories to count toward qualification. The table shows the known vessels by vessel length (125'+ and < 125') and the unknown vessels in a separate column. There are two columns under each length class: one for the numbers that would qualify by virtue of transfers and combinations of fishing histories under the specific alternative and one for the numbers that would benefit from the exemption. The numbers of qualifiers result from the assumption that combinations of fishing histories are allowed. If combinations are not allowed, none of the vessels shown would qualify. There are three columns under the heading "Grand Total." The first two show the numbers that qualify by virtue of the combination of fishing histories and

the numbers of exemption beneficiaries with the unknown vessels included. The rightmost column shows the number of exemption beneficiaries without including the unknown vessels. In alternatives that are more restrictive the number of exemption beneficiaries increases. In the most restrictive alternative, only 16 vessels could potentially benefit from the exemption, and 5 of these vessels may not exist. If only one year of participation is required (Alternatives 9 and 10), then only 4 vessels would benefit from the exemption.

Table 39: Vessels Potentially Affected by the 1998 Exemption

Length Class	125' +		< 125'		Unknown (Un.)		Grand Total		
Potentially Affected Vessels	8		7		5		20		
	Combination Qualifies	Benefit	Combination Qualifies	Benefit	Combination Qualifies	Benefit	Combination Qualifies	Benefit	
Alternative 2	5	3	4	3	0	5	9	11	6
Alternative 3	2	6	3	4	0	5	5	15	10
Alternative 4	4	4	4	3	0	5	8	12	7
Alternative 5	5	3	4	3	0	5	9	11	6
Alternative 6	1	7	3	4	0	5	4	16	11
Alternative 7	4	4	4	3	0	5	8	12	7
Alternative 8	1	7	3	4	0	5	4	16	11
Alternative 9	6	2	5	2	0	5	11	9	4
Alternative 10	6	2	5	2	0	5	11	9	4
Alternative 11	6	2	4	3	0	5	10	10	5

Notes:

1. The row showing "Potentially Affected Vessels" contains the numbers of vessels that participated in 1998 but were not qualified under the original LLP.
2. The column labeled "Combination Qualifies" shows the numbers of these vessels that would qualify if combinations of fishing histories are allowed.
3. The column labeled "Benefit" shows the numbers of vessels that could benefit from the exemption. These numbers were calculated by reducing the number of potentially affected vessels by the number of qualifiers if combinations are allowed.
4. The column labeled "All" shows the sums of vessels that could benefit from the exemption, including the unknown vessels.
5. The column labeled "No Un." shows the estimated numbers of exemption beneficiaries if the vessels that are unknown are not included in the total.

The Council may also wish to provide the same exemption to vessels that originally were qualified, but participated only in 1998, on the grounds that these vessels have already acquired an LLP qualification. A search of the participation data revealed that only one additional vessel (in the Pot CV 125'+ class) would potentially benefit from this extension of the exemption.

Overall, it appears that the exemption may have a minimal impact on the number of vessels that are eventually issued licenses. However, at least 4 vessels would certainly benefit from the exemption, and possibly as many as 17.

7.1.4.3 Vessels Under Construction That Have Acquired Crab Moratorium Qualifications May Be Exempt from Recent Participation Criteria

The provision discussed in this subsection would exempt any vessel that was under construction for the BSA crab fishery and whose owner had acquired a crab moratorium qualification for the vessel on or before February 7, 1998, from having to qualify under the recent participation criteria. In addition, vessels exempted under this provision would have to obtain a fishing history that would have qualified the vessel under the original Crab LLP.

This exemption is presented in recognition that persons may have undertaken construction projects with the assumption that they would be allowed to purchase licenses of inactive vessels once the LLP is implemented. This will still be the case if a recent participation criterion is approved, although the pool of vessels that are inactive but qualified will decrease. However, it is likely that some persons with vessels under construction have already purchased fishing histories of inactive vessels that will not meet the recent participation criteria. At least two persons and possibly more are known to be in this situation. These two persons have vessels that are currently under construction and have already purchased GCM qualifications of inactive vessels.

The provision that vessels must have purchased a GCM qualification on or before February 7, 1998, limits the number of vessels that may be exempted and is a tangible method to demonstrate the vessel owner's intent to participate in the BSA crab fisheries. Without the GCM purchase requirement, any vessel under construction in the U.S. could claim it was being built with the intent to participate in the BSA crab fishery. Then that vessel would need only to purchase the fishing history of a vessel that had not met the recent participation criteria to be issued a license. If the Council chooses to exempt vessels under construction from the recent participation criteria, it may be prudent to include the GCM qualification purchase requirement.

7.1.4.4 Norton Sound Endorsement Holders Will Be Exempt from Recent Participation Criteria

Persons who are projected to receive a Norton Sound Endorsement but no other species/area endorsement under the Crab LLP will be exempt from recent participation criteria. Species/area endorsements for the Norton Sound king crab fisheries were given special attention under the status quo Crab LLP. Licenses were issued to permit holders (rather than vessel owners) unless the vessel was corporate owned. Participants in the Norton Sound red and blue king crab fisheries and the Pribilof red king crab fisheries will be exempt from the requirements of the GQP and must have made landings between January 1, 1993, through December 31, 1994.

The Norton Sound fishery is managed as a "super-exclusive" fishery in which participants must declare intent to fish. If they choose to fish in Norton Sound, they are not allowed to fish in any other BSA crab fishery during the year. Primarily, this fishery is prosecuted by small local vessels or without vessels through ice. Occasionally larger vessels choose to participate. A total of 63 endorsements are projected to be issued to Norton Sound participants. Only one of the recipients will receive endorsements for other fisheries. Because the Norton Sound Fishery is super-exclusive and was given special consideration in the original program, endorsements for this fishery have been exempted from the recent participation criteria. None of the data shown in Chapter 2 or in the analysis that follows include the Norton Sound endorsement recipients or data from the Norton Sound Fishery.

7.1.5 Norton Sound Fishery Data

Given that the Norton Sound fishery is exempt from recent participation criteria, data regarding the 62 participants who will receive only Norton Sound endorsements have not been included in the analysis. A question arises, however, as to whether participation in the Norton Sound fishery will count toward fulfillment of recent participation criteria in general.

As an example, assume that a vessel owner is projected to receive endorsements for the Norton Sound and the Bristol Bay king crab fisheries. Assume also that the vessel participated in the Norton Sound fishery every year between 1995 and 1998. Since the Norton Sound fishery is super-exclusive, the vessel would have been precluded from participating in any other BSA crab fishery, and therefore would not be eligible to receive other endorsements. Additionally, it can be assumed that vessels that will not receive Norton Sound endorsements may have chosen to participate in the Norton Fishery in recent years. If their

participation in Norton Sound does not count toward the recent participation criteria, then they may lose their LLP qualification.

Because of the situations described in the previous paragraphs, it appears reasonable to assume that participation in the Norton Sound fishery will be applied toward recent participation criteria. As it takes final action on Proposed Action 5, the Council is advised to verify that this is indeed its intent. Although the analysis does not include Norton Sound participation data, it assumes that they will be included in the actual implementation process and that an incremental number of additional vessels may in fact qualify in non-Norton Sound areas because of that participation.

7.1.6 Severability and the Crab Vessel Buyback Program

The MSFCMA provides for the development of an industry-funded license buyback program in the BSA crab fisheries. Members of the crab industry have been considering a buyback program since the original Crab LLP was approved by the Council in 1995. The intent of the buyback program would be to further reduce the numbers of licensed vessels. Developers of the buyback program have indicated that they believe the licensed fleet should be reduced to approximately 200 vessels. Under the alternatives in Proposed Action 5 the number of vessels licensed to participate in the crab fisheries would be reduced relative to the status quo. A reduction in the number of vessels initially issued licenses might improve the likelihood that an industry-funded buyback would be feasible. However, the fact that groundfish and crab licenses are non-severable means that technically the buyback program would have to purchase both a crab license and a groundfish license in order to buy back the license of an owner whose vessel qualifies in both fisheries. Therefore, the Council may wish to add language to the severability provisions in the LLPs allowing groundfish and crab licenses to be severed if the crab license is tendered and purchased in a buyback program.

The non-severability provisions were added to the LLPs to prevent an owner from applying a license to one vessel in the groundfish fisheries and simultaneously to another vessel participating in the crab fisheries. Additionally, the non-severability provisions prevent an owner from selling the either the crab or the groundfish license and retaining the other. Under a buyback program, the purchased license will be retired from the fishery, and therefore the possibility of more than one vessel using the license would be eliminated. Thus it appears that no negative consequences would result if licenses are severed when a crab license is purchased in the buyback program.

7.2 Analysis of the Proposed Action Alternatives

The analysis of Proposed Action 5 compares the alternative participation periods against the status quo. The status quo was depicted in some detail in Section 2.2. In that section, various tables were developed showing the number of projected qualifiers by vessel class and state of residence. Section 2.2 also contains an assessment of the catch in the 1995 crab fishery by vessel classes.

In this section the alternatives are initially addressed in a two-page summary for each alternative (Subsections 7.2.1 - 7.2.10). Because the alternatives vary only by the years included in the recent participation period, little narrative is included. Each subsection begins with a set of summary indicators drawn from the four tables that appear in the subsection. The following paragraphs describe the tables that appear in each subsection (in the order in which they appear):

1. **Tables headed “Qualifying Crab Vessels” show the projected number of qualifying vessels by vessel class and the residence of the vessel owner (the “Q” columns).** Also shown are the number of vessels that would qualify under the status quo (the “All” columns), and the number of status quo qualifiers that are non-qualifiers (the “NQ” columns) under the alternative. The second section of rows shows the outcomes by catcher vessels and catcher processors.

2. **Tables headed “Endorsements of Qualified Vessels” show the number of qualifying and non-qualifying vessels for each of the species area endorsements by vessel class.** In order to be included in the tables under a given species/area, the vessel must have been qualified for that endorsement under the status quo. These tables also indicate endorsements for CV/CP designations in each area.
3. **Tables headed “Estimated Change in Catch” show the estimated changes in catch under the alternatives.** These estimates have been calculated by multiplying the number of projected qualifiers in each vessel class by the scaled-mean catch from 1995 of the vessel class. These mean catch levels were shown in Table 18 on page 36. The actual means of each vessel class have been scaled proportionately downward such that the sum of the estimated pounds of the vessel classes under the status quo equals the 1995 total catch. If unscaled means were used, the estimated total catch under the status quo would increase by 20 percent to 112,756,000 pounds. To put this another way, if the each vessel that qualifies under the status quo were to participate at the 1995 mean catch level of its vessel class, then the total catch would increase to 112,756,000 pounds. This would be a 20 percent increase over the actual 1995 harvest.

The estimated catch tables are provided as a way to judge the relative effectiveness of the alternative in terms of catching capacity. This is a very rudimentary measure of catch capacity. By using the mean catch of each class, the measure discounts any differences in species or values. In addition, the estimates are measures of constrained capacity and do not indicate how much the vessel could catch if it were not constrained by guideline harvest levels.

Finally and perhaps most importantly, this measure of catch capacity treats all vessels in a given vessel class equally. It is likely that vessels that do not participate every year will have lower catches than vessels that do participate every year. It is also likely that vessels that do not participate every year will not qualify for licenses at the same rate as those that do participate every year. Therefore, if the vessels that are more likely to be eliminated are also the vessels with lower catch levels, then estimating capacity changes using mean catch levels probably will overestimate the impact on capacity. Nonetheless, these tables are included to provide benchmarks for comparing the alternatives. Using the estimates of catch for purposes other than benchmarking for this document could prove to be misleading.

The catch estimates broken down by residency (Alaskan residents and residents of other states) and the total for all vessel owners. For each of these categories, columns are provided showing the estimated catch of the vessels that qualify under the alternative, the estimated catch of the vessels that would not qualify, and the total estimated catch under the status quo. The rightmost column shows the percentage change in the estimated catch using the estimated change in the numerator and the status quo estimate in the denominator.

4. **Tables headed “Impact of GCM Transfers” show the impacts of GCM transfers, assuming that license-qualifying catch histories were transferred with each GCM transfer.** The tables also assume that the combination of catch histories during the original qualifying period may be combined with the catch histories in the recent period to result in a license. The tables include five columns of qualification types and a summary column, the headings of which are defined as follows:
 - a. **One Pre-Existing License Transferred:** This column shows the number of simple transfers in which the seller's vessel would qualify without the need for combining catch histories.
 - b. **Two Stacked Licenses:** This column shows the number of combined catch histories in which the catch histories of both the seller and the buyer would result in licenses under the alternative.
 - c. **Combination Qualifies 1 of 2 Licenses:** These are cases in which both the buyer and the seller of the catch history would qualify under the status quo, but only one of the recent participation histories would meet the criteria of the alternative.

- d. **Combination Qualifies 2 of 3 Licenses:** These cases are basically the same as those under “Combination Qualifies 1 of 2 Licenses,” except that the buyers who are qualified under the status quo purchased two catch histories, but only 2 of the 3 recent participation histories would meet the criteria of the alternative.
- e. **Originally Qualified, Transfer Adds None:** This column reports the number of fishing history buyers who were originally qualified under both the status quo and the recent criteria, but whose purchases did not augment the crab endorsements they would earn.
- f. **Total Number of Persons with Combination:** This column presents the sum of the columns to the left and show the numbers of qualified persons who have purchased fishing histories under the alternative. If the Council chooses to allow the combination of recent and past catch histories, and decides to make these combinations non-severable packages, these are the numbers of license packages that would result.

The last two rows in the tables show the number of individual licenses that would result if combinations were not recognized and the net decrease that would result from allowing combinations with non-severable packages.

7.2.1 Alternative 2

Recent participation criteria: The vessel must have participated in any BSA crab fishery in 1996.

Projected qualifying vessels: 239	(See Table 40)
Projected non-qualifiers among status quo qualifiers: 126	(See Table 40)
Percentage change of projected qualifiers: 35	(See Table 40)
Projected qualifiers from Alaska: 75	(See Table 40)
Projected qualifiers from other states: 164	(See Table 40)
Projected catcher processor designations: 14	(See Table 40)
Projected non-qualifying catcher processors among status quo qualifiers: 13	(See Table 40)
Projected catcher vessel designations: 225	(See Table 40)
Projected non-qualifying catcher vessels among status quo qualifiers: 113	(See Table 40)
Projected number of species/area endorsements: 826	(See Table 41)
Projected number endorsements issued to catcher vessels: 783	(See Table 41)
Projected number of endorsements issued to catcher processors: 43	(See Table 41)
Projected reduction in the number of endorsements: 288	(See Table 41)
Projected catch capacity (1,000s of pounds) based on 1995 mean catch levels: 65,328	(See Table 42)
Projected percentage change in catch capacity based on 1995 mean catch levels: 30	(See Table 42)
Projected number of qualifiers who purchased fishing histories: 39	(See Table 43)
Projected number of qualifiers if no transfers had occurred: 46	(See Table 43)
Projected net decrease with combinations and non-severable packages: 7	(See Table 43)

Table 40: Qualifying Crab Vessels with Participation in 1996

Crab Vessel Class	Alaskan Owners			Owners from Other states			All Vessels		
	Q	NQ	All	Q	NQ	All	Q	NQ	All
Factory Trawlers	1		1	3	3	6	4	3	7
Other Fixed-gear CPs	2	1	3	25	16	41	27	17	44
Pot CVs 125'+	8	6	14	34	8	42	42	14	56
Pot CVs 60'-124'	54	27	81	79	14	93	133	41	174
Seine Combination CVs	1	9	10		3	3	1	12	13
Trawl CVs 125'+	1		1	6	7	13	7	7	14
Trawl CVs 60'-124'	8	7	15	17	25	42	25	32	57
CV / CP Licenses									
Catcher Vessels	74	50	124	151	63	214	225	113	338
Catcher Processors	1		1	13	13	26	14	13	27
Grand Total	75	50	125	164	76	240	239	126	365
Notes:									
1. "Q" denotes the numbers of vessels that are projected to qualify under the alternative.									
2. "NQ" denotes the numbers of vessels that are projected to be disqualified under the alternative.									
3. "All" denotes the numbers of vessels that are projected to qualify under the status quo.									

Table 41: Endorsements of Vessels Participating in 1996

	BSA Tanner Crab		Adak Brown		Adak Red		Bristol Bay Red		D. Harbor Brown		Pribilof Blue/Red		St. Matthew Blue/Red	
Crab Vessel Class	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ
Factory Trawlers	4	2				2	3	2			2		2	
Other Fixed-gear CPs	26	17	5	2	1	2	26	16	3	2	12	3	18	7
Pot CVs 125'+	41	13	5	2	5		41	14	5	2	22	5	34	9
Pot CVs 60'-124'	129	24	10	2	16	2	129	34	8		81	15	94	12
Seine Combination CVs		2						4			1	10		
Trawl CVs 125'+	7	7	1		1		6	6	1		5	1	5	
Trawl CVs 60'-124'	25	26			2		25	30			11	7	14	6
CV / CP Licenses														
Catcher Vessels	218	78	18	4	25	5	217	93	15	2	129	38	161	28
Catcher Processors	14	13	3	2		1	13	13	2	2	5	3	6	6
Grand Total	232	91	21	6	25	6	230	106	17	4	134	41	167	34

Notes:

1. "Q" denotes the numbers of vessels that are projected to qualify under the alternative.
2. "NQ" denotes the numbers of vessels that are projected to be disqualified under the alternative.
3. "All" denotes the numbers of vessels that are projected to qualify under the status quo.

Table 42: Estimated Change in Catch under Alternative 2

Crab Vessel Class	Residents of Alaska			Residents of Other States			All Vessels			
	Alt. 2	S.Q.	Change	Alt. 2	S.Q.	Change	Alt. 2	S.Q.	Change	Percent
	Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Change
Factory Trawlers	101	101	-	304	608	304	405	709	304	43
Other Fixed-gear CPs	796	1,195	398	9,955	16,326	6,371	10,751	17,521	6,769	39
Pot CVs 125'+	3,498	6,121	2,623	14,866	18,364	3,498	18,364	24,486	6,121	25
Pot CVs 60'-124'	12,713	19,069	6,356	18,599	21,895	3,296	31,312	40,964	9,652	24
Seine Combination CVs	9	94	84	-	28	28	9	122	112	92
Trawl CVs 125'+	157	157	-	944	2,045	1,101	1,101	2,203	1,101	50
Trawl CVs 60'-124'	1,083	2,030	948	2,301	5,685	3,384	3,384	7,715	4,332	56
Grand Total	18,358	28,768	10,410	46,969	64,952	17,983	65,328	93,720	28,393	30

Notes:

1. Estimated pounds (1,000s) are calculated by multiplying the number of projected qualifiers, shown in Table 40, by the mean 1995 catch of the vessel class (shown in Table 18); where the mean of each vessel class is scaled, such that the sum of the estimated pounds of the vessel classes under the status quo equals the 1995 total catch. If unscaled means were used, the estimated total catch under the status quo would increase by 20 percent to 112,756.
2. "Alt. 2" denotes the estimated catch of vessels projected to qualify under the alternative
3. "S.Q." denotes the estimated catch of vessels projected to qualify under the status quo.
4. "Change" denotes the difference between estimate catch under the status quo and the alternative.
5. Percent change is calculated as estimated total change divided by estimated total catch under the status quo.

Table 43: Impacts of GCM Transfers on Alternative 2

Alternative	1 Pre-existing License was Bought / Earned	Pre-existing Stacked Licenses			Combination of Fishing Histories Qualifies Vessel	Total Number of Persons with Combinations
		Two Stacked Licenses	1 of 2 Licenses	2 of 3 Licenses		
Alternative 2	6	14	10	1	8	39
Total number of licenses which would have qualified under the alternative before transfers: 46						
The net decrease in qualifiers if combinations are allowed and made non-severable under the alternative: 7						

7.2.2 Alternative 3

Recent participation criteria: The vessel must have participated in any BSA crab fishery in both 1995 and 1996.

Projected qualifying vessels: 234	(See Table 44)
Projected non-qualifiers among status quo qualifiers: 131	(See Table 44)
Percentage change of projected qualifiers: 36	(See Table 44)
Projected qualifiers from Alaska: 73	(See Table 44)
Projected qualifiers from other states: 161	(See Table 44)
Projected catcher processor designations: 12	(See Table 44)
Projected non-qualifying catcher processors among status quo qualifiers: 15	(See Table 44)
Projected catcher vessel designations: 222	(See Table 44)
Projected non-qualifying catcher vessels among status quo qualifiers: 116	(See Table 44)
Projected number of species/area endorsements: 812	(See Table 45)
Projected number endorsements issued to catcher vessels: 777	(See Table 45)
Projected number of endorsements issued to catcher processors: 35	(See Table 45)
Projected reduction in the number of endorsements: 302	(See Table 45)
Projected catch capacity (1,000s of pounds) based on 1995 mean catch levels: 64,025	(See Table 46)
Projected percentage change in catch capacity based on 1995 mean catch levels: 32	(See Table 46)
Projected number of qualifiers who purchased fishing histories: 34	(See Table 47)
Projected number of qualifiers if no transfers had occurred: 45	(See Table 47)
Projected net decrease with combinations and non-severable packages: 11	(See Table 47)

Table 44: Qualifying Crab Vessels with Participation in both 1995 and 1996

Crab Vessel Class	Alaskan Owners			Owners from Other states			All Vessels		
	Q	NQ	All	Q	NQ	All	Q	NQ	All
Factory Trawlers	1		1	3	3	6	4	3	7
Other Fixed-gear CPs	2	1	3	23	18	41	25	19	44
Pot CVs 125'+	8	6	14	34	8	42	42	14	56
Pot CVs 60'-124'	53	28	81	79	14	93	132	42	174
Seine Combination CVs	1	9	10		3	3	1	12	13
Trawl CVs 125'+	1		1	6	7	13	7	7	14
Trawl CVs 60'-124'	7	8	15	16	26	42	23	34	57
CV / CP Licenses									
Catcher Vessels	72	52	124	150	64	214	222	116	338
Catcher Processors	1		1	11	15	26	12	15	27
Grand Total	73	52	125	161	79	240	234	131	365
Notes:									
1. "Q" denotes the number of vessels that are projected to qualify under the alternative.									
2. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.									
3. "All" denotes the number of vessels that are projected to qualify under the status quo.									

Table 45: Endorsements of Qualified Vessels with Participation in both 1995 and 1996

	BSA Tanner Crab		Adak Brown		Adak Red		Bristol Bay Red		D. Harbor Brown		Pribilof Blue/Red		St. Matthew Blue/Red	
Crab Vessel Class	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ
Factory Trawlers	4	2				2	3	2			2		2	
Other Fixed-gear CPs	24	19	4	3	1	2	24	18	2	3	11	4	17	8
Pot CVs 125'+	41	13	5	2	5		41	14	5	2	22	5	34	9
Pot CVs 60'-124'	128	25	10	2	16	2	128	35	8		81	15	94	12
Seine Combination CVs		2						4			1	10		
Trawl CVs 125'+	7	7	1		1		6	6	1		5	1	5	
Trawl CVs 60'-124'	23	28			2		23	32			11	7	14	6
CV / CP Licenses														
Catcher Vessels	215	81	18	4	25	5	214	96	15	2	129	38	161	28
Catcher Processors	12	15	2	3		1	11	15	1	3	4	4	5	7
Grand Total	227	96	20	7	25	6	225	111	16	5	133	42	166	35

Notes:

1. "Q" denotes the numbers of vessels that are projected to qualify under the alternative.
2. "NQ" denotes the numbers of vessels that are projected to be disqualified under the alternative.
3. "All" denotes the numbers of vessels that are projected to qualify under the status quo.

Table 46: Estimated Change in Catch under Alternative 3

Crab Vessel Class	Residents of Alaska			Residents of Other States			All Vessels			
	Alt. 3	S.Q.	Change	Alt. 3	S.Q.	Change	Alt. 3	S.Q.	Change	Percent
	Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Change
Factory Trawlers	101	101	-	304	608	304	405	709	304	43
Other Fixed-gear CPs	796	1,195	398	9,159	16,326	7,168	9,955	17,521	7,566	43
Pot CVs 125'+	3,498	6,121	2,623	14,866	18,364	3,498	18,364	24,486	6,121	25
Pot CVs 60'-124'	12,478	19,069	6,592	18,599	21,895	3,296	31,076	40,964	9,888	24
Seine Combination CVs	9	94	84	-	28	28	9	122	112	92
Trawl CVs 125'+	157	157	-	944	2,045	1,101	1,101	2,203	1,101	50
Trawl CVs 60'-124'	948	2,030	1,083	2,166	5,685	3,519	3,113	7,715	4,602	60
Grand Total	17,988	28,768	10,781	46,037	64,952	18,914	64,025	93,720	29,695	32

Notes:

1. Estimated pounds (1,000s) are calculated by multiplying the number of projected qualifiers (shown in Table 44) by the mean 1995 catch of the vessel class (shown in Table 18); where the mean of each vessel class is scaled, such that the sum of the estimated pounds of the vessel classes under the status quo equals the 1995 total catch. If unscaled means were used, the estimated total catch under the status quo would increase by 20 percent to 112,756.
2. "Alt. 3" denotes the estimated catch of vessels projected to qualify under the alternative.
3. "S.Q." denotes the estimated catch of vessels projected to qualify under the status quo.
4. "Change" denotes the difference between estimate catch under the status quo and the alternative.
5. Percent change is calculated as estimated total change divided by estimated total catch under the status quo.

Table 47: Impacts of GCM Transfers on Alternative 3

Alternative	1 Pre-existing License was Bought / Earned	Pre-existing Stacked Licenses			Combination of Fishing Histories Qualifies Vessel	Total Number of Persons with Combinations
		Two Stacked Licenses	Combination Qualifies 1 of 2 Licenses	Combination Qualifies 2 of 3 Licenses		
Alternative 3	5	14	10	1	4	34

Total number of licenses that would have qualified under the alternative before transfers: 45

The net decrease in qualifiers if combinations are allowed and made non-severable under the alternative: 11

7.2.3 Alternative 4

Recent participation criteria: The vessel must have participated in any BSA crab fishery in both 1996 and 1997.

Projected qualifying vessels: 226	(See Table 48)
Projected non-qualifiers among status quo qualifiers: 139	(See Table 48)
Percentage change of projected qualifiers: 38	(See Table 48)
Projected qualifiers from Alaska: 72	(See Table 48)
Projected qualifiers from other states: 154	(See Table 48)
Projected catcher processor designations: 10	(See Table 48)
Projected non-qualifying catcher processors among status quo qualifiers: 17	(See Table 48)
Projected catcher vessel designations: 216	(See Table 48)
Projected non-qualifying catcher vessels among status quo qualifiers: 122	(See Table 48)
Projected number of species/area endorsements: 787	(See Table 49)
Projected number endorsements issued to catcher vessels: 757	(See Table 49)
Projected number of endorsements issued to catcher processors: 30	(See Table 49)
Projected reduction in the number of endorsements: 327	(See Table 49)
Projected catch capacity (1,000s of pounds) based on 1995 mean catch levels: 61,748	(See Table 50)
Projected percentage change in catch capacity based on 1995 mean catch levels: 34	(See Table 50)
Projected number of qualifiers who purchased fishing histories: 34	(See Table 50)
Projected number of qualifiers if no transfers had occurred: 37	(See Table 50)
Projected net decrease with combinations and non-severable packages: 3	(See Table 50)

Table 48: Qualifying Crab Vessels with Participation in both 1996 and 1997

Crab Vessel Class	Alaskan owners			Owners from other states			All Vessels		
	Q	NQ	All	Q	NQ	All	Q	NQ	All
Factory Trawlers	1		1	2	4	6	3	4	7
Other Fixed-gear CPs	2	1	3	21	20	41	23	21	44
Pot CVs 125'+	8	6	14	33	9	42	41	15	56
Pot CVs 60'-124'	52	29	81	76	17	93	128	46	174
Seine Combination CVs	1	9	10		3	3	1	12	13
Trawl CVs 125'+	1		1	6	7	13	7	7	14
Trawl CVs 60'-124'	7	8	15	16	26	42	23	34	57
CV / CP Licenses									
Catcher Vessels	71	53	124	145	69	214	216	122	338
Catcher Processors	1		1	9	17	26	10	17	27
Grand Total	72	53	125	154	86	240	226	139	365
Notes:									
1. "Q" denotes the number of vessels that are projected to qualify under the alternative.									
2. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.									
3. "All" denotes the number of vessels that are projected to qualify under the status quo.									

Table 49: Endorsements of Qualified Vessels with Participation in both 1996 and 1997

	BSA Tanner Crab		Adak Brown		Adak Red		Bristol Bay Red		D. Harbor Brown		Pribilof Blue/Red		St. Matthew Blue/Red	
Crab Vessel Class	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ
Factory Trawler	3	3				2	2	3			1	1	1	1
Other Fixed-gear CPs	22	21	4	3	1	2	22	20	2	3	11	4	16	9
Pot CVs 125'+	40	14	5	2	5		40	15	5	2	22	5	34	9
Pot CVs 60'-124'	125	28	10	2	16	2	125	38	8		77	19	92	14
Seine Combination CV		2						4			1	10		
Trawl CVs 125'+	7	7	1		1		6	6	1		5	1	5	
Trawl CVs 60'-124'	23	28			2		23	32			10	8	13	7
CV / CP Licenses														
Catcher Vessels	210	86	18	4	25	5	209	101	15	2	123	44	157	32
Catcher Processors	10	17	2	3		1	9	17	1	3	4	4	4	8
Grand Total	220	103	20	7	25	6	218	118	16	5	127	48	161	40

Notes:

1. "Q" denotes the number of vessels that are projected to qualify under the alternative.
2. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.
3. "All" denotes the number of vessels that are projected to qualify under the status quo.

Table 50: Estimated Change in Catch under Alternative 4

Crab Vessel Class	Residents of Alaska			Residents of Other States			All Vessels			
	Alt. 4	S.Q.	Change	Alt. 4	S.Q.	Change	Alt. 4	S.Q.	Change	Percent
	Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Change
Factory Trawlers	101	101	-	203	608	405	304	709	405	57
Other Fixed-gear CPs	796	1,195	398	8,362	16,326	7,964	9,159	17,521	8,362	48
Pot CVs 125'+	3,498	6,121	2,623	14,429	18,364	3,935	17,927	24,486	6,559	27
Pot CVs 60'-124'	12,242	19,069	6,827	17,892	21,895	4,002	30,134	40,964	10,830	26
Seine Combination CVs	9	94	84	-	28	28	9	122	112	92
Trawl CVs 125'+	157	157	-	944	2,045	1,101	1,101	2,203	1,101	50
Trawl CVs 60'-124'	948	2,030	1,083	2,166	5,685	3,519	3,113	7,715	4,602	60
Grand Total	17,752	28,768	11,016	43,996	64,952	20,956	61,748	93,720	31,972	34

Notes:

1. Estimated pounds (1,000s) are calculated by multiplying the number of projected qualifiers, (shown in Table 48) by the mean 1995 catch of the vessel class (shown in Table 18); where the mean of each vessel class is scaled, such that the sum of the estimated pounds of the vessel classes under the status quo equals the 1995 total catch. If unscaled means were used, the estimated total catch under the status quo would increase by 20 percent to 112,756.
2. "Alt. 4" denotes the estimated catch of vessels projected to qualify under the alternative.
3. "S.Q." denotes the estimated catch of vessels projected to qualify under the status quo.
4. "Change" denotes the difference between estimate catch under the status quo and the alternative.
5. Percent change is calculated as estimated total change divided by estimated total catch under the status quo.

Table 51: Impacts of GCM Transfers on Alternative 4

Alternative	1 Pre-existing License was Bought / Earned	Pre-existing Stacked Licenses			Combination of Fishing Histories Qualifies Vessel	Total Number of Persons with Combinations
		Two Stacked Licenses	Combination Qualifies 1 of 2 Licenses	2 of 3 Licenses		
Alternative 4	3	11	10	1	9	34

Total number of licenses that would have qualified under the alternative before transfers: 37

The net decrease in qualifiers if combinations are allowed and made non-severable under the alternative: 3

7.2.4 Alternative 5

Recent participation criteria: The vessel must have participated in any BSA crab fishery in both 1997 and 1998.

Projected qualifying vessels: 198	(See Table 52)
Projected non-qualifiers among status quo qualifiers: 167	(See Table 52)
Percentage change of projected qualifiers: 46	(See Table 52)
Projected qualifiers from Alaska: 57	(See Table 52)
Projected qualifiers from other states: 141	(See Table 52)
Projected catcher processor designations: 9	(See Table 52)
Projected non-qualifying catcher processors among status quo qualifiers: 18	(See Table 52)
Projected catcher vessel designations: 189	(See Table 52)
Projected non-qualifying catcher vessels among status quo qualifiers: 149	(See Table 52)
Projected number of species/area endorsements: 715	(See Table 52)
Projected number endorsements issued to catcher vessels: 683	(See Table 53)
Projected number of endorsements issued to catcher processors: 32	(See Table 53)
Projected reduction in the number of endorsements: 399	(See Table 53)
Projected catch capacity (1,000s of pounds) based on 1995 mean catch levels: 55,727	(See Table 54)
Projected percentage change in catch capacity based on 1995 mean catch levels: 41	(See Table 54)
Projected number of qualifiers who purchased fishing histories: 31	(See Table 55)
Projected number of qualifiers if no transfers had occurred: 31	(See Table 55)
Projected net decrease with combinations and non-severable packages: 0	(See Table 55)

Table 52: Qualifying Crab Vessels with Participation in both 1997 and 1998

Crab Vessel Class	Alaskan Owners			Owners from Other States			All Vessels		
	Q	NQ	All	Q	NQ	All	Q	NQ	All
Factory Trawlers	1		1	1	5	6	2	5	7
Other Fixed-gear CP	2	1	3	20	21	41	22	22	44
Pot CVs 125'+	8	6	14	30	12	42	38	18	56
Pot CVs 60'-124'	41	40	81	75	18	93	116	58	174
Seine Combination CVs		10	10		3	3	-	13	13
Trawl CVs 125'+	1		1	5	8	13	6	8	14
Trawl CVs 60'-124'	4	11	15	10	32	42	14	43	57
CV / CP Licenses									
Catcher Vessels	56	68	124	133	81	214	189	149	338
Catcher Processors	1		1	8	18	26	9	18	27
Grand Total	57	68	125	141	99	240	198	167	365
Notes:									
1. "Q" denotes the number of vessels that are projected to qualify under the alternative.									
2. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.									
3. "All" denotes the number of vessels that are projected to qualify under the status quo.									

Table 53: Endorsements of Qualified Vessels with Participation in Both 1997 and 1998

	BSA Tanner Crab		Adak Brown		Adak Red		Bristol Bay Red		D. Harbor Brown		Pribilof Blue/Red		St. Matthew Blue/Red	
Crab Vessel Class	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ
Factory Trawler	2	4			2		2	3			1	1	1	1
Other Fixed-gear CPs	22	21	3	4	2	1	21	21	2	3	13	2	16	9
Pot CVs 125'+	37	17	5	2	4	1	37	18	5	2	22	5	33	10
Pot CVs 60'-124'	113	40	8	4	14	4	113	50	7	1	70	26	88	18
Seine Combination CVs		2						4				11		
Trawl CVs 125'+	6	8	1		1		5	7	1		5	1	5	
Trawl CVs 60'-124'	14	37			2		14	41			9	9	11	9
CV / CP Licenses														
Catcher Vessels	185	111	16	6	22	8	183	127	14	3	114	53	149	40
Catcher Processors	9	18	1	4	1		9	17	1	3	6	2	5	7
Grand Total	194	129	17	10	23	8	192	144	15	6	120	55	154	47

Notes:

1. "Q" denotes the number of vessels that are projected to qualify under the alternative.
2. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.
3. "All" denotes the number of vessels that are projected to qualify under the status quo.

Table 54: Estimated Change in Catch under Alternative 5

Crab Vessel Class	Residents of Alaska			Residents of Other States			All Vessels			
	Alt. 5	S.Q.	Change	Alt. 5	S.Q.	Change	Alt. 5	S.Q.	Change	Percent
	Estimated Pounds (1,000)			Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Change
Factory Trawler	101	101	-	101	608	507	203	709	507	71
Other Fixed-gear CPs	796	1,195	398	7,964	16,326	8,362	8,760	17,521	8,760	50
Pot CVs 125'+	3,498	6,121	2,623	13,117	18,364	5,247	16,615	24,486	7,870	32
Pot CVs 60'-124'	9,652	19,069	9,417	17,657	21,895	4,238	27,309	40,964	13,655	33
Seine Combination CVs	-	94	94	-	28	28	-	122	122	100
Trawl CVs 125'+	157	157	-	787	2,045	1,259	944	2,203	1,259	57
Trawl CVs 60'-124'	541	2,030	1,489	1,354	5,685	4,332	1,895	7,715	5,820	75
Grand Total	14,747	28,768	14,021	40,980	64,952	23,972	55,727	93,720	37,993	41

Notes:

1. Estimated pounds (1,000s) are calculated by multiplying the number of projected qualifiers (shown in Table 52) by the mean 1995 catch of the vessel class (shown in Table 18); where the mean of each vessel class is scaled, such that the sum of the estimated pounds of the vessel classes under the status quo equals the 1995 total catch. If unscaled means were used, the estimated total catch under the status quo would increase by 20 percent to 112,756.
2. "Alt. 5" denotes the estimated catch of vessels projected to qualify under the alternative.
3. "S.Q." denotes the estimated catch of vessels projected to qualify under the status quo.
4. "Change" denotes the difference between estimate catch under the status quo and the alternative.
5. Percent change is calculated as estimated total change divided by estimated total catch under the status quo.

Table 55: Impact of GCM Transfers on Alternative 5

Alternative	1 Pre-existing License was Bought / Earned	Pre-existing Stacked Licenses			Combination of Fishing Histories Qualifies Vessel	Total Number of Persons with Combinations
		Two Stacked Licenses	1 of 2 Licenses	2 of 3 Licenses		
Alternative 5	3	8	10	1	9	31
Total number of licenses which would have qualified under the alternative before transfers: 31						
The net decrease in qualifiers if combinations are allowed and made non-severable under the alternative: 0						

7.2.5 Alternative 6

Recent participation criteria: The vessel must have participated in any BSA crab fishery in every year, 1995 - 1997.

Projected qualifying vessels: 221	(See Table 56)
Projected non-qualifiers among status quo qualifiers: 144	(See Table 56)
Percentage change of projected qualifiers: 39	(See Table 56)
Projected qualifiers from Alaska: 70	(See Table 56)
Projected qualifiers from other states: 151	(See Table 56)
Projected catcher processor designations: 8	(See Table 56)
Projected non-qualifying catcher processors among status quo qualifiers: 19	(See Table 56)
Projected catcher vessel designations: 213	(See Table 56)
Projected non-qualifying catcher vessels among status quo qualifiers: 125	(See Table 56)
Projected number of species/area endorsements: 773	(See Table 57)
Projected number endorsements issued to catcher vessels: 751	(See Table 57)
Projected number of endorsements issued to catcher processors: 22	(See Table 57)
Projected reduction in the number of endorsements: 341	(See Table 57)
Projected catch capacity (1,000 pounds) based on 1995 mean catch levels: 60,446	(See Table 58)
Projected percentage change in catch capacity based on 1995 mean catch levels: 36	(See Table 58)
Projected number of qualifiers who purchased fishing histories: 29	(See Table 59)
Projected number of qualifiers if no transfers had occurred: 36	(See Table 59)
Projected net decrease with combinations and non-severable packages: 7	(See Table 59)

Table 56: Qualifying Crab Vessels with Participation in Each Year, 1995 - 1997

Crab Vessel Class	Alaskan Owners			Owners from Other States			All Vessels		
	Q	NQ	All	Q	NQ	All	Q	NQ	All
Factory Trawler	1		1	2	4	6	3	4	7
Other Fixed-gear CPs	2	1	3	19	22	41	21	23	44
Pot CVs 125'+	8	6	14	33	9	42	41	15	56
Pot CVs 60'-124'	51	30	81	76	17	93	127	47	174
Seine Combination CVs	1	9	10		3	3	1	12	13
Trawl CVs 125'+	1		1	6	7	13	7	7	14
Trawl CVs 60'-124'	6	9	15	15	27	42	21	36	57
CV / CP Licenses									
Catcher Vessels	69	55	124	144	70	214	213	125	338
Catcher Processors	1		1	7	19	26	8	19	27
Grand Total	70	55	125	151	89	240	221	144	365
Notes:									
1. "Q" denotes the number of vessels that are projected to qualify under the alternative.									
2. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.									
3. "All" denotes the number of vessels that are projected to qualify under the status quo.									

Table 57: Endorsements of Qualified Vessels with Participation in Each Year, 1995-1997

	BSA Tanner Crab		Adak Brown		Adak Red		Bristol Bay Red		D. Harbor Brown		Pribilof Blue/Red		St. Matthew Blue/Red	
Crab Vessel Class	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ
Factory Trawlers	3	3				2	2	3			1	1	1	1
Other Fixed-gear CPs	20	23	3	4	1	2	20	22	1	4	10	5	15	10
Pot CVs 125'+	40	14	5	2	5		40	15	5	2	22	5	34	9
Pot CVs 60'-124'	124	29	10	2	16	2	124	39	8		77	19	92	14
Seine Combination CVs		2						4			1	10		
Trawl CVs 125'+	7	7	1		1		6	6	1		5	1	5	
Trawl CVs 60'-124'	21	30			2		21	34			10	8	13	7
CV / CP Licenses														
Catcher Vessels	207	89	18	4	25	5	206	104	15	2	123	44	157	32
Catcher Processors	8	19	1	4		1	7	19		4	3	5	3	9
Grand Total	215	108	19	8	25	6	213	123	15	6	126	49	160	41

Notes:

1. "Q" denotes the number of vessels that are projected to qualify under the alternative.
2. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.
3. "All" denotes the number of vessels that are projected to qualify under the status quo.

Table 58: Estimated Change in Catch under Alternative 6

Crab Vessel Class	Residents of Alaska			Residents of Other States			All Vessels			
	Alt. 6	S.Q.	Change	Alt. 6	S.Q.	Change	Alt. 6	S.Q.	Change	Percent
	Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Change
Factory Trawler	101	101	-	203	608	405	304	709	405	57
Other Fixed-gear CPs	796	1,195	398	7,566	16,326	8,760	8,362	17,521	9,159	52
Pot CVs 125'+	3,498	6,121	2,623	14,429	18,364	3,935	17,927	24,486	6,559	27
Pot CVs 60'-124'	12,007	19,069	7,063	17,892	21,895	4,002	29,899	40,964	11,065	27
Seine Combination CVs	9	94	84	-	28	28	9	122	112	92
Trawl CVs 125'+	157	157	-	944	2,045	1,101	1,101	2,203	1,101	50
Trawl CVs 60'-124'	812	2,030	1,218	2,030	5,685	3,655	2,843	7,715	4,873	63
Grand Total	17,381	28,768	11,387	43,064	64,952	21,887	60,446	93,720	33,274	36

Notes:

1. Estimated pounds (1,000s) are calculated by multiplying the number of projected qualifiers (shown in Table 56) by the mean 1995 catch of the vessel class (shown in Table 18); where the mean of each vessel class is scaled, such that the sum of the estimated pounds of the vessel classes under the status quo equals the 1995 total catch. If unscaled means were used, the estimated total catch under the status quo would increase by 20 percent to 112,756.
2. "Alt. 6" denotes the estimated catch of vessels projected to qualify under the alternative.
3. "S.Q." denotes the estimated catch of vessels projected to qualify under the status quo.
4. "Change" denotes the difference between estimate catch under the status quo and the alternative.
5. Percent change is calculated as estimated total change divided by estimated total catch under the status quo.

Table 59: Impacts of GCM Transfers on Alternative 6

Alternative	1 Pre-existing License was Bought / Earned	Pre-existing Stacked Licenses			Combination of Fishing Histories Qualifies Vessel	Total Number of Persons with Combinations
		Two Stacked Licenses	Combination Qualifies 1 of 2 Licenses	2 of 3 Licenses		
Alternative 6	2	11	10	1	5	29
Total number of licenses that would have qualified under the alternative before transfers: 36						
The net decrease in qualifiers if combinations are allowed and made non-severable under the alternative: 7						

7.2.6 Alternative 7

Recent participation criteria: The vessel must have participated in any BSA crab fishery in every year, 1996 - 1998.

Projected qualifying vessels: 195	(See Table 60)
Projected non-qualifiers among status quo qualifiers: 170	(See Table 60)
Percentage change of projected qualifiers: 47	(See Table 60)
Projected qualifiers from Alaska: 57	(See Table 60)
Projected qualifiers from other states: 138	(See Table 60)
Projected catcher processor designations: 7	(See Table 60)
Projected non-qualifying catcher processors among status quo qualifiers: 20	(See Table 60)
Projected catcher vessel designations: 188	(See Table 60)
Projected non-qualifying catcher vessels among status quo qualifiers: 150	(See Table 60)
Projected number of species/area endorsements: 702	(See Table 61)
Projected number endorsements issued to catcher vessels: 679	(See Table 61)
Projected number of endorsements issued to catcher processors: 23	(See Table 61)
Projected reduction in the number of endorsements: 412	(See Table 61)
Projected catch capacity (1,000s of pounds) based on 1995 mean catch levels: 54,695	(See Table 62)
Projected percentage change in catch capacity based on 1995 mean catch levels: 42	(See Table 62)
Projected number of qualifiers who purchased fishing histories: 30	(See Table 63)
Projected number of qualifiers if no transfers had occurred: 31	(See Table 63)
Projected net decrease with combinations and non-severable packages: 1	(See Table 63)

Table 60: Qualifying Crab Vessels with Participation in Each Year, 1996 – 1998

Crab Vessel Class	Alaskan owners			Owners from other states			All Vessels		
	Q	NQ	All	Q	NQ	All	Q	NQ	All
Factory Trawlers	1		1	1	5	6	2	5	7
Other Fixed-gear CPs	2	1	3	18	23	41	20	24	44
Pot CVs 125'+	8	6	14	30	12	42	38	18	56
Pot CVs 60'-124'	41	40	81	74	19	93	115	59	174
Seine Combination CVs		10	10		3	3	-	13	13
Trawl CVs 125'+	1		1	5	8	13	6	8	14
Trawl CVs 60'-124'	4	11	15	10	32	42	14	43	57
CV / CP Licenses									
Catcher Vessels	56	68	124	132	82	214	188	150	338
Catcher Processors	1		1	6	20	26	7	20	27
Grand Total	57	68	125	138	102	240	195	170	365
Notes:									
1. "Q" denotes the number of vessels that are projected to qualify under the alternative.									
2. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.									
3. "All" denotes the number of vessels that are projected to qualify under the status quo.									

Table 61: Endorsements of Qualified Vessels with Participation in Each Year, 1996 - 1998

	BSA Tanner Crab		Adak Brown		Adak Red		Bristol Bay Red		D. Harbor Brown		Pribilof Blue/Red		St. Matthew Blue/Red	
Crab Vessel Class	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ
Factory Trawlers	2	4			2		2	3			1	1	1	1
Other Fixed-gear CPs	20	23	3	4	1	2	19	23	2	3	11	4	14	11
Pot CVs 125'+	37	17	5	2	4	1	37	18	5	2	22	5	33	10
Pot CVs 60'-124'	112	41	8	4	14	4	112	51	7	1	69	27	87	19
Seine Combination CVs		2						4				11		
Trawl CVs 125'+	6	8	1		1		5	7	1		5	1	5	
Trawl CVs 60'-124'	14	37			2		14	41			9	9	11	9
CV / CP Licenses														
Catcher Vessels	184	112	16	6	22	8	182	128	14	3	113	54	148	41
Catcher Processors	7	20	1	4		1	7	19	1	3	4	4	3	9
Grand Total	191	132	17	10	22	9	189	147	15	6	117	58	151	50

Notes:

1. "Q" denotes the number of vessels that are projected to qualify under the alternative.
2. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.
3. "All" denotes the number of vessels that were projected to qualify under the status quo.

Table 62: Estimated Change in Catch under Alternative 7

Crab Vessel Class	Residents of Alaska			Residents of Other States			All Vessels			
	Alt. 7	S.Q.	Change	Alt. 7	S.Q.	Change	Alt. 7	S.Q.	Change	Percent
	Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Change
Factory Trawlers	101	101	-	101	608	507	203	709	507	71
Other Fixed-gear CPs	796	1,195	398	7,168	16,326	9,159	7,964	17,521	9,557	55
Pot CVs 125'+	3,498	6,121	2,623	13,117	18,364	5,247	16,615	24,486	7,870	32
Pot CVs from 60'-124'	9,652	19,069	9,417	17,421	21,895	4,473	27,074	40,964	13,890	34
Seine Combination CVs	-	94	94	-	28	28	-	122	122	100
Trawl CVs 125'+	157	157	-	787	2,045	1,259	944	2,203	1,259	57
Trawl CVs 60'-124'	541	2,030	1,489	1,354	5,685	4,332	1,895	7,715	5,820	75
Grand Total	14,747	28,768	14,021	39,948	64,952	25,004	54,695	93,720	39,025	42

Notes:

1. Estimated pounds (1,000s) are calculated by multiplying the number of projected qualifiers (shown in Table 60) by the mean 1995 catch of the vessel class (shown in Table 18); where the mean of each vessel class is scaled, such that the sum of the estimated pounds of the vessel classes under the status quo equals the 1995 total catch. If unscaled means were used, the estimated total catch under the status quo would increase by 20 percent to 112,756.
2. "Alt. 7" denotes the estimated catch of vessels projected to qualify under the alternative.
3. "S.Q." denotes the estimated catch of vessels projected to qualify under the status quo.
4. "Change" denotes the difference between estimate catch under the status quo and the alternative.
5. Percent change is calculated as estimated total change divided by estimated total catch under the status quo.

Table 63: Impacts of GCM Transfers on Alternative 7

Alternative	1 Pre-existing License was Bought / Earned	Pre-existing Stacked Licenses			Combination of Fishing Histories Qualifies Vessel	Total Number of Persons with Combinations
		Two Stacked Licenses	Combination Qualifies 1 of 2 Licenses	2 of 3 Licenses		
Alternative 7	3	8	10	1	8	30

Total number of licenses that would have qualified under the alternative before transfers: 31

The net decrease in qualifiers if combinations are allowed and made non-severable under the alternative: 1

7.2.7 Alternative 8

Recent participation criteria: The vessel must have participated in any BSA crab fishery in every year from 1995, 1996, 1997 and 1998.

Projected qualifying vessels: 193	(See Table 64)
Projected non-qualifiers among status quo qualifiers: 172	(See Table 64)
Percentage change of projected qualifiers: 47	(See Table 64)
Projected qualifiers from Alaska: 57	(See Table 64)
Projected qualifiers from other states: 136	(See Table 64)
Projected catcher processor designations: 5	(See Table 64)
Projected non-qualifying catcher processors among status quo qualifiers: 22	(See Table 64)
Projected catcher vessel designations: 188	(See Table 64)
Projected non-qualifying catcher vessels among status quo qualifiers: 150	(See Table 64)
Projected number of species/area endorsements: 694	(See Table 65)
Projected number endorsements issued to catcher vessels: 679	(See Table 65)
Projected number of endorsements issued to catcher processors: 15	(See Table 65)
Projected reduction in the number of endorsements: 420	(See Table 65)
Projected catch capacity (1,000s of pounds) based on 1995 mean catch levels: 53,899	(See Table 66)
Projected percentage change in catch capacity based on 1995 mean catch levels: 42	(See Table 66)
Projected number of qualifiers who purchased fishing histories: 25	(See Table 67)
Projected number of qualifiers if no transfers had occurred: 30	(See Table 67)
Projected net decrease with combinations and non-severable packages: 5	(See Table 67)

Table 64: Qualifying Crab Vessels with Participation in Each Year, 1995 - 1998

Crab Vessel Class	Alaskan Owners			Owners from Other States			All Vessels		
	Q	NQ	All	Q	NQ	All	Q	NQ	All
Factory Trawler	1		1	1	5	6	2	5	7
Other Fixed-gear CPs	2	1	3	16	25	41	18	26	44
Pot CVs 125'+	8	6	14	30	12	42	38	18	56
Pot CVs 60'-124'	41	40	81	74	19	93	115	59	174
Seine Combination CVs		10	10		3	3	-	13	13
Trawl CVs 125'+	1		1	5	8	13	6	8	14
Trawl CVs 60'-124'	4	11	15	10	32	42	14	43	57
CV / CP Licenses									
Catcher Vessels	56	68	124	132	82	214	188	150	338
Catcher Processors	1		1	4	22	26	5	22	27
Grand Total	57	68	125	136	104	240	193	172	365
Notes:									
1. "Q" denotes the number of vessels that are projected to qualify under the alternative.									
2. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.									
3. "All" denotes the number of vessels that are projected to qualify under the status quo.									

Table 65: Endorsements of Qualified Vessels with Participation in Each Year, 1995 - 1998

	BSA Tanner Crab		Adak Brown		Adak Red		Bristol Bay Red		D. Harbor Brown		Pribilof Blue/Red		St. Matthew Blue/Red	
Crab Vessel Class	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ
Factory Trawlers	2	4			2		2	3			1	1	1	1
Other Fixed-gear CPs	18	25	2	5	1	2	17	25	1	4	10	5	13	12
Pot CVs 125'+	37	17	5	2	4	1	37	18	5	2	22	5	33	10
Pot CVs 60'-124'	112	41	8	4	14	4	112	51	7	1	69	27	87	19
Seine Combination CVs		2						4				11		
Trawl CVs 125'+	6	8	1		1		5	7	1		5	1	5	
Trawl CVs 60'-124'	14	37			2		14	41			9	9	11	9
CV / CP Licenses														
Catcher Vessels	184	112	16	6	22	8	182	128	14	3	113	54	148	41
Catcher Processors	5	22		5		1	5	21		4	3	5	2	10
Grand Total	189	134	16	11	22	9	187	149	14	7	116	59	150	51

Notes:

1. "Q" denotes the number of vessels that are projected to qualify under the alternative.
2. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.
3. "All" denotes the number of vessels that are projected to qualify under the status quo.

Table 66: Estimated Change in Catch under Alternative 8

Crab Vessel Class	Residents of Alaska			Residents of Other States			All Vessels			
	Alt. 8	S.Q.	Change	Alt. 8	S.Q.	Change	Alt. 8	S.Q.	Change	Percent
	Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Change
Factory Trawlers	101	101	-	101	608	507	203	709	507	71
Other Fixed-gear CPs	796	1,195	398	6,371	16,326	9,955	7,168	17,521	10,353	59
Pot CV 125'+	3,498	6,121	2,623	13,117	18,364	5,247	16,615	24,486	7,870	32
Pot CVs 60'-124'	9,652	19,069	9,417	17,421	21,895	4,473	27,074	40,964	13,890	34
Seine Combination CVs	-	94	94	-	28	28	-	122	122	100
Trawl CVs 125'+	157	157	-	787	2,045	1,259	944	2,203	1,259	57
Trawl CVs 60'-124'	541	2,030	1,489	1,354	5,685	4,332	1,895	7,715	5,820	75
Grand Total	14,747	28,768	14,021	39,152	64,952	25,800	53,899	93,720	39,821	42

Notes:

1. Estimated pounds (1,000s) are calculated by multiplying the number of projected qualifiers (shown in Table 64), by the mean 1995 catch of the vessel class (shown in Table 18); where the mean of each vessel class is scaled, such that the sum of the estimated pounds of the vessel classes under the status quo equals the 1995 total catch. If unscaled means were used, the estimated total catch under the status quo would increase by 20 percent to 112,756.
2. "Alt. 8" denotes the estimated catch of vessels projected to qualify under the alternative.
3. "S.Q." denotes the estimated catch of vessels projected to qualify under the status quo.
4. "Change" denotes the difference between estimate catch under the status quo and the alternative.
5. Percent change is calculated as estimated total change divided by estimated total catch under the status quo.

Table 67: Impact of GCM Transfers on Alternative 8

Alternative	1 Pre-existing License was Bought / Earned	Pre-existing Stacked Licenses			Combination of Fishing Histories Qualifies Vessel	Total Number of Persons with Combinations
		Two Stacked Licenses	Combination Qualifies 1 of 2 Licenses	2 of 3 Licenses		
Alternative 8	2	8	10	1	4	25
Total number of licenses that would have qualified under the alternative before transfers: 30						
The net decrease in qualifiers if combinations are allowed and made non-severable under the alternative: 5						

7.2.8 Alternative 9

Recent participation criteria: The vessel must have participated in any BSA crab fishery in at least one year, 1996 - 1998.

Projected Qualifying Vessels: 272	(See Table 68)
Projected Non-Qualifiers among Status Quo Qualifiers: 93	(See Table 68)
Percentage Change of Projected Qualifiers: 25	(See Table 68)
Projected Qualifiers from Alaska: 78	(See Table 68)
Projected Qualifiers from Other States: 194	(See Table 68)
Projected Catcher Processor Designations: 14	(See Table 68)
Projected Non-Qualifying Catcher Processors among Status Quo Qualifiers: 13	(See Table 68)
Projected Catcher Vessel Designations: 16	(See Table 68)
Projected Non-Qualifying Catcher Vessels among Status Quo Qualifiers: 11	(See Table 68)
Projected Number of Species/Area Endorsements: 914	(See Table 69)
Projected Number Endorsements Issued to Catcher Vessels: 862	(See Table 69)
Projected Number of Endorsements Issued to Catcher Processors: 52	(See Table 69)
Projected Reduction in the Number of Endorsements: 200	(See Table 69)
Projected Catch Capacity (1,000s of pounds) Based On 1995 Mean Catch Levels: 65,328	(See Table 70)
Projected Percentage Change in Catch Capacity Based on 1995 Mean Catch Levels: 30	(See Table 70)
Projected Number of Qualifiers who Purchased Fishing Histories: 44	(See Table 71)
Projected Number of Qualifiers if No Transfers Had Occurred: 55	(See Table 71)
Projected Net Decrease with Combinations and Non-severable Packages: 11	(See Table 71)

Table 68: Qualifying Crab Vessels with Participation in At Least One Year Between 1996 - 1998

Crab Vessel Class	Alaskan owners			Owners from Other States			All Vessels		
	Q	NQ	All	Q	NQ	All	Q	NQ	All
Factory Trawlers	1		1	5	1	6	6	1	7
Other Fixed-gear CPs	2	1	3	27	14	41	29	15	44
Pot CVs 125'+	8	6	14	35	7	42	43	13	56
Pot CVs 60'-124'	55	26	81	81	12	93	136	38	174
Seine Combination CVs	2	8	10		3	3	2	11	13
Trawl CVs 125'+	1		1	12	1	13	13	1	14
Trawl CVs 60'-124'	9	6	15	34	8	42	43	14	57
CV / CP Licenses	77	47		179	35				
Catcher Vessels	1			15	11	26	16	11	27
Catcher Processors	1		1	13	13	26	14	13	27
Grand Total	78	47	125	194	46	240	272	93	365
Notes:									
1. "Q" denotes the number of vessels that are projected to qualify under the alternative.									
2. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.									
3. "All" denotes the number of vessels that are projected to qualify under the status quo.									

Table 69: Endorsements of Vessels Participating in At Least One Year, 1996 - 1998

	BSA Tanner Crab		Adak Brown		Adak Red		Bristol Bay Red		D. Harbor Brown		Pribilof Blue/Red		St. Matthew Blue/Red	
Crab Vessel Class	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ
Factory Trawlers	6				1	1	5				2		2	
Other Fixed-gear CPs	28	15	5	2	2	1	28	14	3	2	14	1	20	5
Pot CVs 125'+	42	12	5	2	5		42	13	5	2	22	5	35	8
Pot CVs 60'-124'	132	21	10	2	16	2	132	31	8		84	12	96	10
Seine Combination CVs	1	1					1	3			2	9		
Trawl CVs 125'+	13	1	1		1		12		1		5	1	5	
Trawl CVs 60'-124'	43	8			2		43	12			14	4	20	
CV / CP Licenses														
Catcher Vessels	249	47	18	4	26	4	248	62	15	2	136	31	170	19
Catcher Processors	16	11	3	2	1		15	11	2	2	7	1	8	4
Grand Total	265	58	21	6	27	4	263	73	17	4	143	32	178	23

Notes:

1. "Q" denotes the number of vessels that are projected to qualify under the alternative.
2. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.
3. "All" denotes the number of vessels that are projected to qualify under the status quo.

Table 70: Estimated Change in Catch under Alternative 9

Crab Vessel Class	Residents of Alaska			Residents of Other States			All Vessels			
	Alt. 9	S.Q.	Change	Alt. 9	S.Q.	Change	Alt. 9	S.Q.	Change	Percent
	Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Change
Factory Trawler	101	101	-	507	608	101	608	709	101	14
Other Fixed-gear CPs	796	1,195	398	10,751	16,326	5,575	11,548	17,521	5,973	34
Pot CVs 125'+	3,498	6,121	2,623	15,304	18,364	3,061	18,802	24,486	5,684	23
Pot CVs 60'-124'	12,948	19,069	6,121	19,069	21,895	2,825	32,018	40,964	8,946	22
Seine Combination CVs	19	94	75	-	28	28	19	122	103	85
Trawl CVs 125'+	157	157	-	1,888	2,045	157	2,045	2,203	157	7
Trawl CVs 60'-124'	1,218	2,030	812	4,602	5,685	1,083	5,820	7,715	1,895	25
Grand Total	18,738	28,768	10,030	52,122	64,952	12,830	70,860	93,720	22,860	24

Notes:

1. Estimated pounds (1,000s) are calculated by multiplying the number of projected qualifiers (shown in Table 68), by the mean 1995 catch of the vessel class (shown in Table 18); where the mean of each vessel class is scaled, such that the sum of the estimated pounds of the vessel classes under the status quo equals the 1995 total catch. If un-scaled means were used, the estimated total catch under the status quo would increase by 20% to 112,756.
2. "Alt. 9" denotes the estimated catch of vessels projected to qualify under the alternative.
3. "S.Q." denotes the estimated catch of vessels projected to qualify under the status quo.
4. "Change" denotes the difference between estimate catch under the status quo and the alternative.
5. Percent change is calculated as estimated total change divided by estimated total catch under the status quo.

Table 71: Impacts of GCM Transfers on Alternative 9

Alternative	1 Pre-existing License was Bought / Earned	Pre-existing Stacked Licenses			Combination of Fishing Histories Qualifies Vessel	Total Number of Persons with Combinations
		Two Stacked Licenses	1 of 2 Licenses	2 of 3 Licenses		
Alternative 9	6	15	12	1	10	44
Total number of licenses that would have qualified under the alternative before transfers: 55						
The net decrease in qualifiers if combinations are allowed and made non-severable under the alternative: 11						

7.2.9 Alternative 10

Recent participation criteria: The vessel must have participated in any BSA crab fishery in at least one year between 1995 and 1998.

Projected qualifying vessels: 293	(See Table 72)
Projected non-qualifiers among status quo qualifiers: 72	(See Table 72)
Percentage change of projected qualifiers: 20	(See Table 72)
Projected qualifiers from Alaska: 85	(See Table 72)
Projected qualifiers from other states: 208	(See Table 72)
Projected catcher processor designations: 19	(See Table 72)
Projected non-qualifying catcher processors among status quo qualifiers: 8	(See Table 72)
Projected catcher vessel designations: 274	(See Table 72)
Projected non-qualifying catcher vessels among status quo qualifiers: 64	(See Table 72)
Projected number of species/area endorsements: 960	(See Table 73)
Projected number endorsements issued to catcher vessels: 900	(See Table 73)
Projected number of endorsements issued to catcher processors: 60	(See Table 73)
Projected reduction in the number of endorsements: 154	(See Table 73)
Projected catch capacity (1,000s of pounds) based on 1995 mean catch levels: 74,839	(See Table 74)
Projected percentage change in catch capacity based on 1995 mean catch levels: 20	(See Table 74)
Projected number of qualifiers who purchased fishing histories: 44	(See Table 75)
Projected number of qualifiers if no transfers had occurred: 50	(See Table 75)
Projected net decrease with combinations and non-severable packages: 4	(See Table 75)

Table 72: Qualifying Crab Vessels with Participation in At Least One Year, 1995 - 1998

Crab Vessel Class	Alaskan Owners			Owners from Other States			All Vessels		
	Q	NQ	All	Q	NQ	All	Q	NQ	All
Factory Trawlers	1		1	5	1	6	6	1	7
Other Fixed-gear CPs	2	1	3	30	11	41	32	12	44
Pot CVs 125'+	8	6	14	37	5	42	45	11	56
Pot CVs 60'-124'	57	24	81	84	9	93	141	33	174
Seine Combination CVs	6	4	10	2	1	3	8	5	13
Trawl CVs 125'+	1		1	12	1	13	13	1	14
Trawl CVs 60'-124'	10	5	15	38	4	42	48	9	57
CV / CP Licenses									
Catcher Vessels	84	40	124	190	24	214	274	64	338
Catcher Processors	1		1	18	8	26	19	8	27
Grand Total	85	40	125	208	32	240	293	72	365
Notes:									
1. "Q" denotes the number of vessels that are projected to qualify under the alternative.									
2. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.									
3. "All" denotes the number of vessels that are projected to qualify under the status quo.									

Table 73: Endorsements of Vessels Participating in At Least One Year, 1995 - 1998

	BSA Tanner Crab		Adak Brown		Adak Red		Bristol Bay Red		D. Harbor Brown		Pribilof Blue/Red		St. Matthew Blue/Red	
Crab Vessel Class	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ
Factory Trawlers	6				1	1	5				2		2	
Other Fixed-gear CPs	31	12	5	2	2	1	31	11	3	2	14	1	22	3
Pot CVs 125'+	44	10	6	1	5		44	11	6	1	23	4	36	7
Pot CVs 60'-124'	134	19	11	1	16	2	135	28	8		89	7	97	9
Seine Combination CVs	1	1					2	2			8	3		
Trawl CVs 125'+	13	1	1		1		12		1		5	1	5	
Trawl CVs 60'-124'	48	3			2		48	7			15	3	20	
CV / CP Licenses														
Catcher Vessels	258	38	20	2	26	4	259	51	16	1	149	18	172	17
Catcher Processors	19	8	3	2	1		18	8	2	2	7	1	10	2
Grand Total	277	46	23	4	27	4	277	59	18	3	156	19	182	19

Notes:

1. "Q" denotes the number of vessels that are projected to qualify under the alternative.
2. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.
3. "All" denotes the number of vessels that are projected to qualify under the status quo.

Table 74: Estimated Change in Catch under Alternative 10

Crab Vessel Class	Residents of Alaska			Residents of Other States			All Vessels			
	Alt. 10	S.Q.	Change	Alt. 10	S.Q.	Change	Alt. 10	S.Q.	Change	Percent
	Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Change
Factory Trawlers	101	101	-	507	608	101	608	709	101	14
Other Fixed-gear CPs	796	1,195	398	11,946	16,326	4,380	12,742	17,521	4,778	27
Pot CVs 125'+	3,498	6,121	2,623	16,178	18,364	2,186	19,676	24,486	4,810	20
Pot CVs 60'-124'	13,419	19,069	5,650	19,776	21,895	2,119	33,195	40,964	7,769	19
Seine Combination CVs	56	94	37	19	28	9	75	122	47	38
Trawl CVs 125'+	157	157	-	1,888	2,045	157	2,045	2,203	157	7
Trawl CVs 60'-124'	1,354	2,030	677	5,144	5,685	541	6,497	7,715	1,218	16
Grand Total	19,382	28,768	9,386	55,457	64,952	9,495	74,839	93,720	18,881	20

Notes:

1. Estimated pounds (1,000s) are calculated by multiplying the number of projected qualifiers, shown in Table 72, by the mean 1995 catch of the vessel class (shown in Table 18); where the mean of each vessel class is scaled, such that the sum of the estimated pounds of the vessel classes under the status quo equals the 1995 total catch. If unscaled means were used, the estimated total catch under the status quo would increase by 20 percent to 112,756.
2. "Alt. 10" denotes the estimated catch of vessels projected to qualify under the alternative.
3. "S.Q." denotes the estimated catch of vessels projected to qualify under the status quo.
4. "Change" denotes the difference between estimate catch under the status quo and the alternative.
5. Percent change is calculated as estimated total change divided by estimated total catch under the status quo.

Table 75: Impacts of GCM Transfers on Alternative 11

Alternative	1 Pre-existing License was Bought / Earned	Pre-existing Stacked Licenses			Combination of Fishing Histories Qualifies Vessel	Total Number of Persons with Combinations
		Two Stacked Licenses	Combination Qualifies 1 of 2 Licenses	2 of 3 Licenses		
Alternative 10	8	17	11	1	9	46
Total number of licenses that would have qualified under the alternative before transfers: 50						
The net decrease in qualifiers if combinations are allowed and made non-severable under the alternative: 4						

7.2.10 Alternative 11

Recent participation criteria: The vessel must have participated in any BSA crab fishery in at least two different years between 1995 and 1998.

Projected qualifying vessels: 257	(See Table 76)
Projected non-qualifiers among status quo qualifiers: 108	(See Table 76)
Percentage change of projected qualifiers: 30	(See Table 76)
Projected qualifiers from Alaska: 77	(See Table 76)
Projected qualifiers from other states: 180	(See Table 76)
Projected catcher processor designations: 16	(See Table 76)
Projected non-qualifying catcher processors among status quo qualifiers: 11	(See Table 76)
Projected catcher vessel designations: 241	(See Table 76)
Projected non-qualifying catcher vessels among status quo qualifiers: 97	(See Table 76)
Projected number of species/area endorsements: 879	(See Table 77)
Projected number endorsements issued to catcher vessels: 827	(See Table 77)
Projected number of endorsements issued to catcher processors: 52	(See Table 77)
Projected reduction in the number of endorsements: 235	(See Table 77)
Projected catch capacity (1,000s of pounds) based on 1995 mean catch levels: 68,462	(See Table 78)
Projected percentage change in catch capacity based on 1995 mean catch levels: 27	(See Table 78)
Projected number of qualifiers who purchased fishing histories: 41	(See Table 79)
Projected number of qualifiers if no transfers had occurred: 47	(See Table 79)
Projected net decrease with combinations and non-severable packages: 6	(See Table 79)

Table 76: Qualifying Crab Vessels with Participation in At Least Two Years Between 1995 and 1998

Crab Vessel Class	Alaskan Owners			Owners from Other States			All Vessels		
	Q	NQ	All	Q	NQ	All	Q	NQ	All
Factory Trawler	1		1	5	1	6	6	1	7
Other Fixed-gear CPs	2	1	3	27	14	41	29	15	44
Pot CVs 125'+	8	6	14	34	8	42	42	14	56
Pot CVs 60'-124'	55	26	81	81	12	93	136	38	174
Seine Combination CVs	2	8	10		3	3	2	11	13
Trawl CVs 125'+	1		1	9	4	13	10	4	14
Trawl CVs 60'-124'	8	7	15	24	18	42	32	25	57
CV / CP Licenses									
Catcher Vessels	76	48	124	165	49	214	241	97	338
Catcher Processors	1		1	15	11	26	16	11	27
Grand Total	77	48	125	180	60	240	257	108	365
Notes:									
4. "Q" denotes the number of vessels that are projected to qualify under the alternative.									
5. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.									
6. "All" denotes the number of vessels that are projected to qualify under the status quo.									

Table 77: Endorsements of Vessels Participating in At Least Two Years, 1995 - 1998

	BSA Tanner Crab		Adak Brown		Adak Red		Bristol Bay Red		D. Harbor Brown		Pribilof Blue/Red		St. Matthew Blue/Red	
Crab Vessel Class	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ
Factory Trawlers	6				1	1	5				2		2	
Other Fixed-gear CPs	28	15	5	2	2	1	28	14	3	2	14	1	20	5
Pot CVs 125'+	41	13	5	2	5		41	14	5	2	22	5	34	9
Pot CVs 60'-124'	132	21	10	2	16	2	132	31	8		84	12	96	10
Seine Combination CVs	1	1					1	3			2	9		
Trawl CVs 125'+	10	4	1		1		9	3	1		5	1	5	
Trawl CVs 60'-124'	32	19			2		32	23			13	5	17	3
CV / CP Licenses														
Catcher Vessels	234	62	18	4	26	4	233	77	15	2	135	32	166	23
Catcher Processors	16	11	3	2	1		15	11	2	2	7	1	8	4
Grand Total	250	73	21	6	27	4	248	88	17	4	142	33	174	27

Notes:

4. "Q" denotes the number of vessels that are projected to qualify under the alternative.

5. "NQ" denotes the number of vessels that are projected to be disqualified under the alternative.

6. "All" denotes the number of vessels that are projected to qualify under the status quo.

Table 78: Estimated Change in Catch under Alternative 11

Crab Vessel Class	Residents of Alaska			Residents of Other States			All Vessels			
	Alt.11	S.Q.	Change	Alt.11	S.Q.	Change	Alt.11	S.Q.	Change	Percent
	Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Estimated Pounds (1,000s)			Change
Factory Trawler	101	101	-	507	608	101	608	709	101	14
Other Fixed-gear CPs	796	1,195	398	10,751	16,326	5,575	11,548	17,521	5,973	34
Pot CVs 125'+	3,498	6,121	2,623	14,866	18,364	3,498	18,364	24,486	6,121	25
Pot CVs 60'-124'	12,948	19,069	6,121	19,069	21,895	2,825	32,018	40,964	8,946	22
Seine Combination CVs	19	94	75	-	28	28	19	122	103	85
Trawl CVs 125'+	157	157	-	1,416	2,045	629	1,573	2,203	629	29
Trawl CVs from 60'-124'	1,083	2,030	948	3,249	5,685	2,436	4,332	7,715	3,384	44
Grand Total	18,603	28,768	10,165	49,859	64,952	15,093	68,462	93,720	25,258	27

Notes:

6. Estimated pounds (1,000s) are calculated by multiplying the number of projected qualifiers, shown in Table 76, by the mean 1995 catch of the vessel class (shown in Table 18); where the mean of each vessel class is scaled, such that the sum of the estimated pounds of the vessel classes under the status quo equals the 1995 total catch. If unscaled means were used, the estimated total catch under the status quo would increase by 20 percent to 112,756.

7. "Alt. 11" denotes the estimated catch of vessels projected to qualify under the alternative.

8. "S.Q." denotes the estimated catch of vessels projected to qualify under the status quo.

9. "Change" denotes the difference between estimate catch under the status quo and the alternative.

10. Percent change is calculated as estimated total change divided by estimated total catch under the status quo.

Table 79: Impacts of GCM Transfers on Alternative 11

Alternative	1 Pre-existing License was Bought / Earned	Pre-existing Stacked Licenses			Combination of Fishing Histories Qualifies Vessel	Total Number of Persons with Combinations
		Two Stacked Licenses	Combination Qualifies			
			1 of 2 Licenses	2 of 3 Licenses		
Alternative 11	6	14	11	1	9	41
Total number of licenses that would have qualified under the alternative before transfers: 47						
The net decrease in qualifiers if combinations are allowed and made non-severable under the alternative: 6						

7.3 Comparison of Alternatives

Table 80 provides a summary of the number of vessels projected to qualify under each alternative. The table only shows qualifiers (Q) and non-qualifiers (NQ) that would qualify under the current Crab LLP. Thus the sum of the Q + NQ will be the same under every alternative. The columns showing the percentage decrease were calculated using non-qualifiers in the numerator and the sum of qualifiers and non-qualifiers in the denominator.

The biggest decreases in the number of qualifiers occurs whenever participation in 1998 is required (Alternatives 5, 7, and 8). This is an expected outcome because the *opilio* fishery is the only major fishery that was open on or before February 7, 1998. Thus any alternative that requires 1998 participation will favor participants in the *opilio* fishery. Requiring 1998 participation will also tend to favor larger vessels over smaller vessels that are more likely to be at risk in the winter conditions of the Bering Sea.

Of the remaining alternatives, the two most restrictive would require participation in both 1996 and 1997. Alternative 6, which requires participation in all three years between 1995 and 1997, would eliminate 5 more vessels than Alternative 4, which requires participation only in 1996 and 1997. Requiring participation in any one year between 1995 and 1998 (Alternative 10) is the least restrictive, reducing the numbers in the fleet by only 20 percent. Alternative 9, which requires participation once between 1996 and 1998, and Alternative 11, requiring participation in any two years, are also relatively lenient.

Overall, the recent participation criteria tend to eliminate proportionally more Alaskan residents than residents of other states. The proportional difference, measured by taking the difference between the percentage decrease in Alaskans and the percentage decrease from other states, is least with Alternative 5 and 6, both of which require participation in 1996 and 1997. The proportionate differences are greatest in those alternatives that are the most lenient in terms of recent participation (Alternatives 9 and 10).

Table 80: Summary of Qualifying Crab Vessels under the Alternatives

Alternative	Alaskan owners			Owners from Other states			All Vessels		
	Q	NQ	Percent decrease	Q	NQ	Percent decrease	Q	NQ	Percent decrease
Alternative 2: 96	75	50	40	164	76	32%	239	126	35
Alternative 3: 95 & 96	73	52	42	161	79	33%	234	131	36
Alternative 4: 96 & 97	72	53	42	154	86	36%	226	139	38
Alternative 5: 97 & 98	57	68	54	141	99	41%	198	167	46
Alternative 6: 95 – 97	70	55	44	151	89	37%	221	144	39
Alternative 7: 96 – 98	57	68	54	138	102	43%	195	170	47
Alternative 8: 95 – 98	57	68	54	136	104	43%	193	172	47
Alternative 9: Once in 96 - 98	78	47	38	194	46	19%	272	93	25
Alternative 10: Once in 95 - 98	85	40	32	208	32	13%	293	72	20
Alternative 11: Twice in 95 - 98	77	48	38	180	60	25%	257	108	30
Notes:									
1. "Q" denotes the numbers of vessels that are projected to qualify under the alternative.									
2. "NQ" denotes the numbers of vessels that are projected to be disqualified under the alternative.									
3. "All" denotes the numbers of vessels that were projected to qualify under the status quo.									

The number of projected qualifiers as shown in Table 80 will be affected by the implementation issues discussed in subsection 7.1. The number of persons who would be issued licenses is expected to be reduced if the Council allows combinations of fishing histories to meet the recent participation criteria and at the same time makes such combinations non-severable. The number of persons who are projected to receive licenses will increase with exemptions to the recent participation criteria. Paradoxically, the number of vessels that would benefit from the exemptions increases as the participation criteria become

stricter. Thus the exemptions have the effect of reducing the effective difference between the different alternatives.

Table 81 summarizes the impact on the number of projected qualifiers resulting from transfers and exemptions. The first column of numbers in the table shows the unadjusted totals from Table 80. The next column reports the estimated net reduction in the number of licenses that would be issued if combinations of fishing histories are allowed and made non-severable. These numbers were taken from the bottom line of the last table in each section summarizing the individual alternatives. The next three columns report the number of licenses that would be issued if the proposed exemptions are approved. The first of the three columns shows the number of licenses that would be issued to vessels < 60' LOA if these vessels are exempted from the recent participation criteria. The second column shows number of vessels that would benefit from the 1998 participation exemption. This is the number from the right-most column of Table 39, and does not include unknown vessels and vessels that would qualify if combinations are allowed. The column labeled "Under Construction" shows the number of known vessels that are expected to benefit from the exemption. The right-most column is the sum of the previous columns and shows the adjusted number of vessels that are expected to qualify if combinations are allowed and made non-severable, and if the three exemptions are approved.²³ Overall the adjustments tend to partially offset the effects of the recent participation criteria; the range of outcomes is much less, varying by 81 vessels from 215 to 296 with the adjusted totals. The unadjusted range varies by 100 vessels from 193 to 293.

Table 81: Qualifying Vessels Under Each Alternative Adjusted by Transfers and Exemptions

	Initial Estimate of Qualifiers from Table 80	Reductions if Combinations Are Allowed	Increases Due to Exemptions			Total
			Vessels < 60'	Fished in 1998	Vessels Under Construction	
Alternative 2: 1996	239	-7	13	6	2	253
Alternative 3: 1995 & 1996	234	-11	13	10	2	248
Alternative 4: 1996 & 1997	226	-3	13	7	2	245
Alternative 5: 1997 & 1998	198	0	14	6	2	220
Alternative 6: 1995 – 1997	221	-7	13	11	2	240
Alternative 7: 1996 – 1998	195	-1	14	7	2	217
Alternative 8: 1995 – 1998	193	-5	14	11	2	215
Alternative 9: Once, 1996 - 1998	272	-6	12	4	2	284
Alternative 10: Once, 1995 - 1998	293	-9	6	4	2	296
Alternative 11: Twice, 1995 - 1998	257	-6	12	5	2	270

Table 82 compares the estimated changes in catch under the various alternatives. This table is based on the adjusted number of qualifiers from Table 81. Catch estimates in Table 82 are taken directly from the bottom line of the catch tables from each of the alternatives. Rather than showing the estimated status quo catch, Table 82 shows the catch of qualifiers (Q) and non-qualifiers (NQ), and the percentage change $[NQ/(NQ + Q)]$. In general, the information provided by these estimates reiterates the summary provided by the numbers of qualifiers alone. Also in general, the proportional estimated catch of Alaskan non-qualifiers is greater than the proportional estimated catch of non-qualifying residents of other states. Estimated catches of non-qualifiers are highest if participation in 1998 is required. The proportional difference between Alaskans and non-Alaskans is least under Alternatives 4 and 6, in which participation in both 1996 and 1997 is required.

²³ The Norton Sound exemption is not included in the table because the Norton Sound qualifiers will not be affected by the proposed action.

Table 82: Comparison of Estimated Changes in Catch under the Alternatives

Crab Vessel Class	Residents of Alaska			Residents of Other States			All Vessels		
	Q	NQ	Percent Change	Q	NQ	Percent Change	Q	NQ	Percent Change
	Estimated Pounds (1,000s)	Estimated Pounds (1,000s)		Estimated Pounds (1,000s)	Estimated Pounds (1,000s)		Estimated Pounds (1,000s)	Estimated Pounds (1,000s)	
Alternative 2: 1996	18,358	10,410	36	46,969	17,983	28	65,328	28,393	30
Alternative 3: 1995 & 96	17,988	10,781	37	46,037	18,914	29	64,025	29,695	32
Alternative 4: 1996 & 97	17,752	11,016	38	43,996	20,956	32	61,748	31,972	34
Alternative 5: 1997 & 98	14,747	14,021	49	40,980	23,972	37	55,727	37,993	41
Alternative 6: 1995 -1997	17,381	11,387	40	43,064	21,887	34	60,446	33,274	36
Alternative 7: 1996 -1998	14,747	14,021	49	39,948	25,004	38	54,695	39,025	42
Alternative 8: 1995 -1998	14,747	14,021	49	39,152	25,800	40	53,899	39,821	42
Alternative 9: Once, 1996-1998	18,358	10,410	36	46,969	17,983	28	65,328	28,393	30
Alternative 10: Once, 1995-'98	19,382	9,386	33	55,457	9,495	15	74,839	18,881	20
Alternative 11: Twice, 1995-'98	18,603	10,165	35	49,859	15,093	23	68,462	25,258	27

Notes:

1. Estimated Pounds (1,000s) are the estimates of total catch from each of the alternatives.
2. "Q" denotes the estimated total catch of vessels projected to qualify under each of the alternatives.
3. "NQ" denotes the estimated total catch of vessels that are not projected to qualify under the alternative.
4. Percent change is calculated as estimated catch of NQ divided by the sum of Q and NQ.

Table 83 summarizes the alternatives from the perspective of the numbers of endorsement that would be issued. In order to conserve space this table shows only the number of qualifiers (Q) and the percentage change, which equals the non-qualifiers divided by the sum of qualifiers and non-qualifiers $[NQ/(Q+NQ)]$ for each alternative. The number of non-qualifiers is shown in the bottom line of each of the endorsement tables for the specific alternatives. For example, Table 45 includes the number of non-qualifiers under Alternative 3.

Table 83: Summary of Endorsements under the Alternatives

Alternative	BSA Tanner Crab		Adak Brown		Adak Red		Bristol Bay Red		D. Harbor Brown		Pribilof Blue/Red		St. Matthew Blue/Red	
	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ	Q	NQ
Alternative 2: 1996	232	28%	21	22	25	19%	230	32%	17	19%	134	23	167	17
Alternative 3: 1995 & 1996	227	30%	20	26	25	19%	225	33%	16	24%	133	24	166	17
Alternative 4: 1996 & 1997	220	32%	20	26	25	19%	218	35%	16	24%	127	27	161	20
Alternative 5: 1997 & 1998	194	40%	17	37	23	26%	192	43%	15	29%	120	31	154	23
Alternative 6: 1995-1997	215	33%	19	30	25	19%	213	37%	15	29%	126	28	160	20
Alternative 7: 1996-1998	191	41%	17	37	22	29%	189	44%	15	29%	117	33	151	25
Alternative 8: 1995-1998	189	41%	16	41	22	29%	187	44%	14	33%	116	34	150	25
Alternative 9: Once, 1996-1998	265	18%	21	22	27	13%	263	22%	17	19%	143	18	178	11
Alternative 10: Once, 1995-'98	277	14%	23	15	27	13%	277	18%	18	14%	156	11	182	9
Alternative 11: Twice, 1995-'98	250	23%	21	22	27	13%	248	26%	17	19%	142	19	174	13

Notes:

1. "Q" denotes the number of vessels that are projected to qualify under the alternative.
2. "NQ" denotes the non-qualifiers as a percent of the sum of qualifiers and non-qualifiers $[NQ/(Q+NQ)]$

The number of vessels qualifying for area endorsements ranges from 277 for the BSA tanner crab and Bristol Bay red king crab fisheries under Alternatives 10 through 14 in the Dutch Harbor brown king crab and 16 in the Adak brown king crab fisheries under Alternative 8. In all areas, implementation of Alternative 8 would result in the largest number of non-qualifiers. When compared to the peak number of

vessels qualifying under other alternatives, Alternative 8 would result in 88 fewer qualified vessels in the BSA tanner crab fishery and 90 fewer vessels in the Bristol Bay red king crab fishery. Alternative 7 results in similar, but slightly fewer, reductions in the number of qualifying vessels.

In general, alternatives requiring participation in two or more consecutive years that include 1998 result in the largest declines in the number of endorsements and the highest percentage of non-qualifying vessels. Alternatives encompassing earlier years tend to have more endorsements and fewer non-qualifying vessels than alternatives incorporating later years (for example, compare Alternative 3 with Alternative 4). A review of the data in Table 83 indicates that the effects of the alternative are relatively small in the Pribilof and St. Matthews fisheries. This result is attributable to the fact that the fleets in those fisheries have remained relatively stable in comparison to other areas between 1995 and 1998.

7.4 Summary and Conclusions

Overall, it appears that the proposed action has the potential to reduce the number of LLP qualifiers in the BSA king and tanner crab fisheries. Although requiring participation in 1998 will reduce the fleet by the largest amounts, it is less likely to be viewed as an equitable choice because of the very small window of opportunity it provides.

Of the remaining alternatives, those that require participation in both 1996 and 1997 (Alternative 4 and Alternative 6) provide significant fleet reductions and show the least proportional differences between Alaskans and non-Alaskans.

7.4.1 Proposed Action 5 and the CRP Problem Statement

The CRP Problem Statement shown on page 4, delineated 14 issues the Council hoped to address with the LLP. Table 84 provides a qualitative assessment of Proposed Action 5 compared to the status quo, relative to each of the 14 issues. See Section 3.4 for a listing of the 7 levels of potential impact.

Table 84: Impact of Proposed Action 5 Relative to Status Quo and the CRP Problem Statement

Problem	Impact Relative to Status Quo
(1) Harvesting capacity in excess of that required to harvest the available resource Comment: <i>The proposed action would the reduce number of vessels that would be issued licenses. Estimates of potential capacity reduction range between 20 and 40 percent. It appears that any of the alternatives that do not require 1998 participation would reduce the fleet in all vessel classes in an equitable manner.</i>	Positive
(2) Allocation and preemption conflicts between and within industry sectors, such as with inshore and offshore components	Neutral
(3) Preemption conflicts between gear types Comment: <i>To the extent the proposed action reduces the number of active vessels in the crab fleet, it could positively impact the amount of pot gear on the grounds, thereby reducing gear conflicts.</i>	Moderately Positive
(4) Gear conflicts within fisheries in which there is overcrowding of fishing gear due to excessive participation and surplus fishing effort on limited grounds Comment: <i>To the extent the proposed action reduces the number of active vessels in the crab fleet, it could positively impact the amount of pot gear on the grounds, thereby reducing gear conflicts.</i>	Moderately Positive
(5) Dead-loss, such as with ghost fishing by lost or discarded gear Comment: <i>To the extent the proposed action reduces the number of active vessels in the crab fleet, it could positively impact the amount of lost pot gear on the grounds, thereby reducing dead-loss.</i>	Moderately Positive

Problem	Impact Relative to Status Quo
(6) Bycatch loss of groundfish, crab, herring, salmon, and other non-target species, including bycatch that is not landed for regulatory reasons	Neutral
(7) Economic loss and waste associated with discard mortality of target species harvested but not retained for economic reasons Comment: <i>The potential impact of the proposed action is considered minimally positive to the extent that there is a reduction in active vessels, and to the extent that these vessels require fewer pot hauls and reduced soak time, thereby reducing the handling mortality.</i>	Minimally Positive
(8) Concerns regarding vessel and crew safety that are often compromised in the race for fish Comment: <i>The potential impact of the proposed action is considered minimally positive to the extent that fewer vessels would be participating in the fisheries, and to the extent that those vessels operate at a slower pace.</i>	Minimally Positive
(9) Economic instability within various sectors of the fishing industry, and in fishing communities, caused by short and unpredictable fishing seasons, or preemption that denies access to fisheries resources	Neutral
(10) Inability to provide for long-term, stable, fisheries-based economies in small, economically disadvantaged, adjacent coastal communities Comment: <i>To the extent that there is a reduction in the numbers of active vessels, the length of the crab season could be extended. Since none of the CDQ communities would be excluded from the CDQ fisheries, and because they have had a record of participating in both the open and CDQ fisheries, the CDQ communities could benefit with greater revenues.</i>	Minimally Positive
(11) Reduction in ability to provide a quality product to consumers at a competitive price, and thus maintain the competitiveness of seafood products from the EEZ off Alaska on the world market Comment: <i>To the extent that there is a reduction in the numbers of active vessels, the length of the crab season could be extended. A longer season probably would enhance overall product quality.</i>	Minimally Positive
(12) Possible impacts on marine mammals and seabirds, and marine habitat	Neutral
(13) Inability to achieve long-term, sustainable economic benefits to the nation Comment: <i>The potential impact of the proposed action is considered moderately positive to the extent that fewer vessels would be participating in the fisheries, and to the extent that seasons would be longer. The proposed action will not eliminate the race for fish, which is one of the main causes of the inability to achieve long-term benefits to the nation.</i>	Moderately Positive
(14) A complex enforcement regimen for fishermen and management alike, which inhibits the achievement of the Council's comprehensive goals Comment: <i>The proposed action will require additional regulations and administrative procedures. The additional qualifying period will open the possibility that fishing histories of different vessels could be combined to create a license. This will increase the cost of implementation.</i>	Moderately Negative

7.4.2 Overall Conclusions

Overall, Proposed Action 5 appears to have the potential to create moderately positive to positive impacts on the crab fishery. Under any of the alternatives it appears that there would be at least a 20 percent reduction in potential capacity. Alternatives that require participation in 1998 (through February 7, 1998) are judged to inequitably limit the fleet to those vessels that participated in the 1998 *opilio* fishery. Alternative 4 and Alternative 6 appear to hold the highest promise for equitable fleet reductions.

8 Proposed Action 6: Allow Limited Processing for Catcher Vessels

Proposed Action 6 would change the Groundfish LLP to allow limited processing for vessels with CV designations. In addition to the status quo, which prohibits processing by CVs, two alternatives for processing limits are included. The three alternatives considered under Proposed Action 6 are:

Alternative 1: Maintain status quo

Alternative 2: Allow limited processing of bycatch amount of any groundfish up to directed fishing standards by vessels with CV designations

Alternative 3: Allow limited processing up to 5 mt round weight (rwt) per day for vessels < 60' LOA with CV designations, and up to 18 mt rwt per day for vessels ≥ 60' LOA with CV designations

8.1 Overview

When the Council approved the original Groundfish and Crab LLPs in June 1995, it created a catcher vessel/catcher processor (CV/CP) designation. This designation allows CPs to operate as CVs, but prohibits CVs from operating as CPs. During the Council discussions, there was considerable debate as to whether CVs should be allowed to process limited amounts of groundfish – up to 18 mt rwt per day, or bycatch amounts were cited by the Council as examples of the processing limits that might be allowed. In the end, the Council decided against including the allowance, citing a lack of analysis and implementation and reporting issues. However, the Council also stated that it would revisit the issue at a later date.

Since then, the limited processing allowance has been discussed several times, most recently as part of the Improved Retention / Improved Utilization (IRIU) initiative.²⁴ Dr. Lew Queirolo of NMFS presented an overview of the limited processing issue to the Council in December 1996. The action memo from the December 1996 meeting discussed an option that had been included in previous discussion of the issue, which would “allow processing of targeted levels of species for which ‘restricted market opportunities’ exist.” This option is no longer included in the proposed action. The text from the Council Action Memo on the subject [NPFMC, 1996(2)] provides the justification for the exclusion of that option and is reproduced in the offset section below:

Part of the Council's June 1995 action on the groundfish and crab license limitation program was to create catcher vessel (CV) and catcher/processor (CP) license designations. A proposal to allow limited processing allowances for CVs was not included as part of the license program, although the Council directed that the proposal be considered as part of the IRIU initiative. In the original set of IRIU alternatives approved by the Council, the following three options were identified:

- (1) Allow processing of bycatch amounts of any groundfish species up to the directed fishing standards
- (2) Allow processing of targeted levels of species for which “restricted market opportunities” exist
- (3) Allow processing of up to 5 mt rwt per day of any species for vessels under 60', and up to 18 mt rwt per day for vessels greater than 60'

The IRIU Committee discussed this issue briefly at its spring 1996 meeting and advised that the analysis should focus on Option (3). This was due largely to difficulties in estimating potential volumes of processing associated with Options (1) and (2), particularly the difficulty associated with defining when

²⁴ The IRIU initiative was approved by the Council in 1996 and has been in effect since the beginning of 1998. Under IRIU, vessels and processors are not permitted to discard pollock or Pacific cod. Furthermore, processors are required to meet utilization standards for both species.

“restricted market opportunities” exist. The following bulleted items highlight a few of the issues discussed:

- The existence of a market at any given point in time may be wholly in the eye of the beholder—would it require that some price is offered for the product? Would it be based on some minimum price offer for the species in question?
- If a given species is being purchased at any plant, located anywhere in the state, would that mean that a market exists, regardless of where the catcher vessel traditionally delivers its catch?
- Even if the above questions were answered and defined, markets for fish change from week to week and from year to year—if markets become available in the future, would a catcher vessel then be precluded from processing that species, even though significant economic investments had been made?

It has been suggested that current discards could be used as a proxy for defining the nonexistence of markets. To illustrate the difficulties in this approach, preliminary numbers from 1994 and 1995 discards were examined from two perspectives:

- (1) Fish that were reported harvested but not retained, when no landings of that species were reported as retained by anyone in that week. This is a proxy for cases where no market existed.
- (2) Total discards of species associated with onshore deliveries by week.

The amounts of fish, as determined by (1) are minimal for weeks when no retention of that species was observed (when ‘no market existed’). For example, the total amount of all species in the BSAI in 1995 (including pollock and cod) harvested but not retained under this definition is only 760 mt, some of which is regulatory-induced in any case. If we only look at CVs over 60', (there are 271 that qualify in the BSAI, but which will receive a CV-only designation), the amount calculates to 2.8 mt per vessel for the entire year.

If all discards from onshore delivery vessels in 1995 are examined, as determined by (2), the total amounts increase considerably, but are still nowhere near the 18 mt per day suggested in the proposal. In this instance pollock and Pacific cod have been excluded, under the assumption that these species have markets and will be required to be retained and delivered. The total amount of discards reported of all other species in 1995 (associated with all vessels in this sector) was 10,500 mt. Using this more liberal definition of “non-marketable” results in 39 mt per vessel for the year. The current proposal would allow up to 18 mt per vessel per day. These examples are offered simply to illustrate that discards cannot be viewed as a useful proxy for nonexistent markets.

During the Council discussions of the processing upgrade issue, the option (option 2 on page 116) to examine processing where markets did not exist was dropped from consideration. The remaining two options are considered under the proposed action as Alternative 2 and Alternative 3.

8.1.1 Concerns of Catcher Vessel Representatives

Proposed Action 6 stems from requests brought forward by CV representatives who state that the option to upgrade to catcher processors will allow them to take advantage of changes in the market conditions of the fishery. CV owners state that if the proposed action is approved, they will have the option to take advantage of niche markets that currently exist; a growing market for some flatfish species is often cited. CV representatives also state that the option to process limited quantities will allow them to process their bycatch from target fisheries such as pollock and Pacific cod.

Under IRIU it is now illegal to discard pollock and Pacific cod in any target fishery.²⁵ In the coming years IRIU will also be applied to other major flatfish target fisheries. For delivery vessels, IRIU requires that all pollock and Pacific cod be delivered to processing facilities, even if the vessel is targeting other fisheries. When rock sole and yellowfin sole in the BSA and shallow-water flatfish in the GOA are

²⁵ There are exceptions allowing discards of pollock and Pacific cod when those species have been closed to directed fishing.

included, no discard of these species is allowed, even in the pollock or Pacific cod target fisheries. A concern has been raised that if CVs do not have the ability to process bycatch, the primary processing facilities will be able to use the IRIU regulations to exert additional pressures on the prices paid for the target species.

The same kinds of concerns about control are voiced regarding CV markets for the non-pollock target fisheries such as Pacific cod and rock sole. CV representatives maintain that if catcher vessels are not allowed the option to process their own fish, processors will be able to exert additional control over prices.

8.1.2 Concerns of Processor Representatives

Some processors have also voiced concerns about the proposed action. Members of the H&G Trawl CP, Longline CP, and Other Fixed-gear CP classes have indicated that they do not favor options that would allow additional vessels to compete in their sectors. They state that the Groundfish LLP is intended to limit the capacity of the fishing fleet. The current program places limits on the number of vessels that may operate as catcher processors. Because relatively few vessels operated incidentally as catcher processors, the vessels designated as CPs are much more representative of the active fleet than vessels that would be designated as CVs. Given that the LLP actually limits the number of catcher processors to a reasonable level, members of those classes ask what justification there could be to loosen those controls. Shore-based processors have also expressed concerns that there is no need for additional processors.

Although members of the CP classes indicated that there may not be justification for allowing CVs to process, they also said they do not expect that there would be a big rush to upgrade if the restrictions were lifted. CP representatives indicated that it is not as easy to operate as a processor as many CV owners may like to think. The sentiment was widely expressed that if there were so much more money to be made as a catcher processor, then more vessels would have upgraded when it was allowed.

8.2 Analytical and Implementation Issues

At the Council meeting in December 1996, a discussion paper on the issue of limited processing was presented by Dr. Lewis Queirolo of the Alaska Fishery Science Center [Queirolo, 1996]. That paper described a number of issues and potential questions dealing with definitions of bycatch and markets. The paper is useful for understanding the complexity of the processor upgrade issue and is included by reference with this analysis. The following issues were among those discussed by Queirolo:

- 1) The ability of analysts to determine which vessels would opt to upgrade
- 2) The ability of analysts to determine the operational characteristics of vessels that would opt to upgrade
- 3) The ability of analysts to estimate the potential catch that would be taken by the vessels that would opt to upgrade

In general, Dr. Queirolo concludes the following:

The probable level of participation in an upgrade program cannot be precisely anticipated, *a priori*. Participation would likely vary, by target fishery, depending on, 1) the species or species groups authorized to be processed, 2) the authorized daily quantity of processing, 3) the average abundance of the "authorized" species or species groups present in the catch, 4) the presence of potential markets for the "authorized" species or species groups, 5) the unit value of the processed output, 6) the age, size, and configuration of the existing catcher boat fleet, 7) the regulatory constraints on "upgrading" the processing capacity of the specific vessel in question [e.g., class and loadline certifications], and 8) the cost of acquiring, installing, operating, and maintaining the necessary equipment to permit "limited processing" of under/unutilized bycatch.

It may only be possible, given information currently available on these operations, to project the "upper bound" of the potential increase in at-sea processing (and thus reduction in bycatch discarding) by catcher vessels. It is implicit in the Council's questions that by reviewing the catch, retention, and discard data for the "catcher" vessel fleet, by target fishery, the "appropriate" processing upgrade threshold will emerge. This may not be the case, given available data on this sector of the domestic fishing industry.

In the absence of these data it will be very difficult to determine, on the basis of objective historical data, *"Whether processing upgrades should be allowed?", for a given target fishery; "How much processing capacity should be allowed, 10 mt per day (round weight equivalent), 18 mt per day, or unlimited amounts?"; and "Which species may be processed?"*

The Council's action memo presented at the December 1996 meeting mirrored Dr. Queirolo's statements with the following assessment of the analytical possibilities for the proposed action:

From an analytical perspective, we will have difficulty determining, quantitatively, (1) how many vessels would take advantage of this allowance, (2) whether those vessels would process up to the maximum allowed for each species, (3) whether the allowances would represent a *transfer* of processing activity (from onshore to offshore), as opposed to *additional* processing capacity (simply utilizing fish which would otherwise be wasted), and (5) what the costs and benefits are of that increased processing potential.

The Council's action memo indicated that upper-bound estimates of potential catch by upgraded vessels could be provided, but that these are likely to be "extreme."

Given these caveats, this analysis limits itself to a more qualitative approach to the processing upgrade issue. Given that more quantitative information that would be directly applicable is not available, this approach will meet the MSCFMA requirements to use the best scientific information available

8.2.1.1 Monitoring and Enforcement

Monitoring and enforcement were major concerns during Council discussions of the processing upgrade issue in June 1997. Although vessels were allowed to operate as both CVs and CPs at the time (and in fact still are allowed to do until the LLPs are actually implemented), there were concerns on the part of NMFS that allowing CVs to upgrade would result in higher costs for monitoring and enforcement. Enforcement of the limits on processing has been of particular concern. Some of the enforcement issues are listed below:

- How the 18 mt rwt per day limit be enforced if it were approved
- What observer coverage would be required on vessels < 125' LOA that want the option to process
- Whether a vessel with the option to process would be required to submit weekly processor reports during weeks when it is delivering to shore plants

This analysis assumes that these issues will be worked out during the process of drafting regulations if the Council chooses to approve limited processing for catcher vessels. However, the analysis assumes the following for the sake of consistency:

1. Prior to leaving port a vessel must declare whether it intends to operate as a processing vessel during that trip.
2. If a vessel has stated that it intends to operate as a processor, then there must be an observer on board before the vessel leaves port. The time the observer spends aboard during processing trips will not be counted toward the 30 percent observer coverage level of the vessel.
3. Processing limits will be counted on a calendar-day basis. The limit may not be exceeded during any given calendar day. A vessel would not be allowed to forego processing one day and process twice the daily limit on the next day.

4. The daily processing limit will be estimated in a manner similar to that used in calculating the blend data.
5. If a vessel has stated that it intends to operate as a processor during that trip, then it will be required to submit all reports required of any processor.
6. Any fish that are delivered raw to another processor by a vessel that has declared its intent to operate during the trip as a processor will be reported by the delivering vessel in a new section of the weekly processor report. Processors taking those deliveries will also document the landing, using the same forms they currently use.
7. If a vessel has stated that it intends to operate during the week as a catcher vessel, no processing on board will be allowed.
8. Deliveries from such trips will be recorded according to current regulations.
9. If the vessel is < 125' LOA, observer coverage will be required for 30 percent of the time that the vessel is operating as a catcher vessel.

8.3 Analysis of Proposed Action 6

The analysis of the proposed action is qualitative in nature, but uses the available information about the groundfish fleets as presented in Chapter 2 and in other documents to the extent feasible. The analysis consists of the following sections:

1. A comparison of daily processing limits and daily catch
2. A qualitative discussion of the numbers of vessels that might upgrade
3. A qualitative discussion of the technical issues involved in upgrading vessels
4. A set of hypothetical scenarios describing potential operations and impacts under the proposed action
5. Summary and conclusions

8.3.1 The Relationship between Daily Processing Limits and Daily Catch Rates

Alternative 3 of Proposed Action 6 would set daily processing limits for vessels that choose to upgrade. The limits as proposed are: a) 18 mt rwt per day for vessels \geq 60' LOA, and b) 5 mt rwt per day for vessels < 60' LOA. This section of the analysis examines the potential impacts of the daily processing limits by comparing them to estimates of daily catch. This comparison is meaningful because the operation of a processing vessel that can process all of its daily catch will be much different from the operations of vessels that catch more fish than they can process. If an operation can catch more fish than it can process, it must make a decision to catch less fish, deliver some fish fresh, or increase its processing capacity. If the processing limits preclude the option to increase processing capacity then the processing limits become a constraint to the activities of upgraded vessels.

8.3.1.1 Constraints and Regulations

The term “constraint” is used throughout the remainder of this chapter and is defined as a physical or regulatory bound that effectively limits the activities that may be undertaken by a fishing or processing operation. In this sense, the term “constraint” is somewhat vague and situational. In some situations a regulation may limit the types of activities a vessel can undertake. In other situations the same regulation may not be limit the types of activities a vessel can undertake, because other limits — physical, regulatory, or environmental — have combined to render the particular regulation moot. For example, the roe-stripping regulations prohibit vessels from having more pollock roe on board than can be justified by

the amounts of other pollock products on board. During the A-season for pollock, this regulation is a constraint on the activities of catcher processors in the pollock fishery. If the regulation were not in place, the set of feasible activities would increase. During the B-season for pollock, this regulation is not a constraint because roe-bearing pollock are not available. The set of activities available to catcher processors is the same with or without the regulation, and thus the regulation is not a constraint.

Similarly a regulation that limits a vessel to no more than 18 mt rwt per day of processing is not a constraint to a vessel that has never caught more than 10 mt in a day. However, a vessel that catches 50 mt per day and wishes to process will be constrained by a processing limit of 18 mt rwt. The rule effectively constrains the set of activities that the vessel can undertake. With the regulation, the vessel cannot process all it catches. Without the regulation, the vessel's set of feasible activities could include processing 50 mt rwt per day. Thus the rule is a constraint for those vessels that could catch more than 18 mt per day.

From this perspective, a comparison of the daily catch rates of vessels in various fisheries to the daily processing limits will indicate whether the processing limit will be a constraint to the activities of the upgraded vessel. If the processing limit is not a constraint, vessels choosing to upgrade to catcher processors will be able to operate as full-time catcher processors in selected fisheries without compromising their catch rates. Unfortunately, primary data necessary to calculate daily catch rates in different target fisheries for the various vessel classes were not available for use in this analysis. Nonetheless, some secondary information showing average daily catches can be used as an indicator of the likelihood that the processing limit of 18 mt rwt will be a constraint to the activities of various vessel types in various fisheries.

8.3.1.2 Catch per Week in the Pacific Cod Target Fisheries

The figures on pages 36 and 37 of the EA/RIR for Pacific Cod Gear Allocations [NPFMC, 1996 (3)] show the average catch per week by vessel for the different gear groups. The catches shown in these figures can be compared to the 18 mt rwt per day processing limit under the Proposed Action 6.

The figures show average catch per week. To allow comparisons to be made, the average weekly catches need to be translated to a daily catches. To make this translation assumptions about the typical fishing week of different types of vessel needs to be defined.²⁶ Theoretically, a vessel can fish up to 7 days a week. However, in practice few vessels are able to actively fish every day of the week. It is more likely that, on average, catcher processors are only able to fish actively 6 days per week. Similarly, shore-based catcher vessels in practice are not able to fish every day of the week. The shore-based processors to which they deliver require that target fish have been caught no more than 3 days prior to delivery. If we assume ½ day of running time to and from the grounds, a typical Pacific cod trip for catcher vessels will last 3 no longer than 3 days. If we then add ½ day of downtime between trips, the total trip length is 3.5 days. As a result, typical shore-based catcher vessels may fish no more than 4 days in a given a week.

The 1995 BSA Pacific cod trawl catcher vessel fishery was active for an 11-week period from the middle of February to the end of April. The participants in this fishery were vessels in the three Trawl CV classes. Participation peaked with 60 trawl catcher vessels participating in one week in April. Average weekly catch per vessel ranged from 140 mt rwt per week in the first week but dropped to 40 mt rwt in the third week. In the fourth through eleventh weeks, the average catch per vessel per week was between 50 mt rwt and 100 mt rwt. If a 4-day fishing week is assumed for these vessels, then the daily catches would have been 35 mt rwt per day in the in the first week dropping down to 10 mt rwt per day in the third week. In the fourth through eleventh weeks, the average catch per vessel per week was between 12.5 mt rwt per day and 25 mt rwt per day. If the 18 mt rwt per day processing limit were applied to this

²⁶ This is particularly true because of the assumption (see the discussion in subsection 8.2) that the processing limits will be enforced on a daily basis rather than on a weekly basis.

fishery, it would mean that some vessels would not be able to process all of the fish they caught (i.e. the limit would constrain processing activities) during some weeks for some vessels and in other weeks or for other vessels it would not be constraining, i.e. they could process their entire catch. Overall it appears the 18 mt rwt processing limit would be moderately constraining on upgraded catcher vessels operating in the Pacific cod fishery.

During 1995, the BSA Pacific cod trawl catcher processor fishery was actively prosecuted for 13 weeks, from the end of January through the end of April. These vessels will not be directly affected by the processing limit because they will most likely receive CP designations in the first place. However, the 1995 catches of the existing trawl catcher-processors provide an indication of the typical catch levels of full-time catcher processors. If the Council wishes to limit the activities of upgraded catcher vessels, then it would most likely want to constrain them to process less than is typically processed by existing catcher processors. Catcher processors participating in the Pacific cod fishery were from the Fillet Trawl and H&G Trawl CP classes. During the 4-week period with highest participation levels, the average weekly catch per vessel exceeded 250 mt, and in next 3 weeks the average dropped gradually to 150 mt per vessel. Assuming that these vessels fished 6 days a week their daily catches on average would have been at least 42 mt rwt per day during the 4-week peak period, and would have dropped gradually down to 25 mt rwt per day. These vessels would have been constrained by the processing limit of 18 mt rwt in the proposed action if it had been imposed upon them — they would not have been able to process all of their catch. Therefore, it may be assumed that upgraded catcher vessels operating under the 18 mt rwt per day processing limit would not be able to maintain the catch and processing levels of the existing fleet.

For non-trawl vessels, a different picture emerges. The 1995 BSA Pacific cod longline fishery consisted primarily of vessels from the Longline CP class and some vessels from the Other Fixed-gear CP vessel class that were using longline gear. A minimal number of vessels from the longline CV 60'+ class were also represented. The fishery shows high activity during the weeks ending January 7 through May 7, 1995, and again from September 9 through October 14, 1995. In those weeks the average catch per vessel targeting Pacific cod with longline gear was never less than 100 mt rwt per week, with a peak at 160 mt rwt and most weeks showing an average vessel catch between 115 and 120 mt rwt. If we assume that these vessels operated six days each week, then the daily catch and processing rates were never less than 16 mt rwt per day and peaked at 27 mt rwt per day. During most weeks the average daily catch (given a 6-day operating week) would have been between 19 and 20 mt rwt per day.

Because most of these vessels are operating as CPs already, they would not be directly affected by the proposed action. However, their average daily catch rates indicate that the processing limit might be only be minimally constraining to these particular vessels if it were applied to them. On the other hand, these vessels are likely to have been designed to catch and process at the highest possible rates. It is unlikely that upgraded vessels will be able to catch and process at the same high rates, and therefore it appears unlikely that the processing limit of 18 mt rwt per day would constrain processing activities of upgrade vessels operating in the longline Pacific cod fisheries.

The 1995 BSA Pacific cod pot fishery consisted primarily of vessels in the two Pot CV classes and a few vessels in the Other Fixed-gear CP class using pot gear. The fishery appears to have been actively prosecuted beginning in the first week of March, with a peak at the beginning of May. Activity in the fishery declined gradually through July and was relatively stable through the rest of the year. Average weekly catches in the target fishery ranged from a low of 10 mt rwt to a high of just over 50 mt rwt, with the majority of weekly average catches between 20 and 40 mt rwt. If we assume that these vessels operated only 4 days per week, then the average daily catch ranged from 2.5 mt rwt per day to just over 12.5 mt rwt per day, with average daily catches during most of the weeks between 5 mt rwt and 10 mt rwt per day. From these estimates of daily catch, it does not appear that the daily processing limit of 18 mt rwt per day would provide any kind of constraint to processing activities — pot vessels that choose to upgrade would probably be able to function as full-time catcher processors in the Pacific cod fishery.

Similar information has not been developed for the Pacific cod fisheries in the GOA or for the flatfish fisheries in the BSA or GOA. In general, however, it does not appear likely that the processing limit of 18 mt rwt per day will constrain processing activities of upgrade vessels using fixed gear. For vessels using trawl gear, the processing limit of 18 mt rwt per day could constrain the processing activities of upgraded vessels if they intend to operate at catch rates consistent with other catcher processors. The question of whether or not upgraded catcher vessels will try to operate at that pace is open to debate.

8.3.1.3 Processing Limits Compared to Annual Catch

As indicated in the previous subsection, daily catch rates of vessels operating in target fisheries other than in the BSA Pacific cod fishery were not available for use in the analysis. If these were available, then it would be possible to look at the various target fisheries and determine whether the processing limits would constrain potential processing activities in these other fisheries. Given that the data were not available, the analysis examines the 1995 total catch of the different CV classes from the perspective of the processing limits under Alternative 3 of Proposed Action 6.

Table 85 shows the numbers of CVs by vessel class that made landings in 1995, along with the mean annual landings of the class. The table also shows the percentile of the mean and the numbers of days vessels would have to fish to harvest the mean if they harvested and processed at the processing limits²⁷ in Alternative 3 of the proposed action.

The percentile of the mean shows the percentage of vessels that in 1995 caught less than the mean for the class. Thus, in the Fixed-gear CV 33' – 45' vessel class 81 percent of the 509 participating vessels (412 vessels) caught less than 8.5 mt during the entire year. If these vessels were to upgrade to catcher processors and they chose to operate at maximum levels allowed by the processing limit, they would have to operate for 2 days before exceeding the mean catch of the class. If these vessels actually operated in 1995 for more than 2 days, then the processing constraints would not have been a constraint on their harvesting activities. No more than 9 days would be needed to harvest the mean annual catch of any of the fixed-gear vessel classes, if the vessels caught at the level allowed by the processing limits in Alternative 3. Given that it is likely that vessels in these classes could participate in the groundfish fisheries for more than 9 days in a year, it does not appear that the processing limits would constrain the set of activities in which they could participate.

The processing constraints appear to be relatively effective in limiting the activities of trawl vessels that choose to upgrade. The average Seiner/Trawler CV would have to fish 50 days at 5 mt rwt per day before catching the mean annual harvest for the class. Trawl CVs 60' – 89' would have to fish 89 days at 18 mt rwt per day before catching the mean for their class. For these two trawl vessel classes, the number of days of operations at the processing limit is the same order of magnitude that these vessels might participate in trawl fisheries in a given year. Thus the processing limits could be at least minimally constraining on processing activities if vessels in these two classes choose to upgrade. For the two larger classes, the number of days operating at the processing limit necessary to catch the mean of class greatly exceeds the number of potential fishing days in the year. Thus it appears that for these vessel classes, a daily processing limit of 18 mt rwt would be a constraint on the processing activities of the vessels. In other words these vessels would have to either process less than they catch or reduce their catch in order to process the entire amount. It is important to note that the table includes all catches, including pollock,

²⁷ For vessel classes containing vessels < 60' LOA, a daily processing limit of 5 mt rwt was applied. For vessel classes containing vessels ≥ 60' LOA, a daily processing limit of 18 mt rwt was applied. The number of days to catch the mean was calculated by dividing the mean by the processing limit and rounding the next highest integer. Thus in the Pot CV 125' + vessel class the days to harvest the mean was calculated as $152.7 \text{ mt} \div 18 \text{ mt per day} = 8.48$ or 9 days to harvest the mean after rounding to the next highest integer.

which could not be processed in a target fishery under the proposed action. Therefore, the analysis demonstrates the potential that the processing limit could be constraining.

Table 85: Estimated Catch by Vessel Class for All North Pacific Groundfish in 1995

Vessel Class	Vessels	Mean Catch (mt)	Percentile of Mean (%)	Days to Harvest Mean
Fixed-gear CV < 32'	200	3.3	83	1
Fixed-gear CV 33' – 45'	509	8.5	81	2
Longline CV 60'+	52	9.7	73	1
Other and Unclassified CV	20	1.6	85	1
Other Seine CV	365	25.3	85	6
Pot CV 125'+	27	152.7	81	9
Pot CV 60'-124'	140	123.7	74	7
Seiner/Trawler CV	89	246.2	65	50
Trawl CV 125'+	28	10,324.6	64	574
Trawl CV 60'-89'	60	1,592.4	72	89
Trawl CV 90'-124'	74	4,805.5	54	267

Note: "Days to Harvest Mean" shows the number of days vessels could fish at the processing constraint for that class before catching the mean annual harvest for vessels in the class. Days are rounded up to the next integer.

8.3.1.4 Summary of Discussions on the Comparison of Daily Catch and Processing Limits

The discussions on the relationship between daily catch and the daily processing limits in Alternative 3 of the proposed action indicate that the daily processing limits would probably only constrain the set of potential processing activities of trawl vessels that choose to upgrade. Potential processing activities of vessels using pot gear, longline gear, or jig gear are much less likely to be constrained by the daily processing limits under Alternative 3. This conclusion is drawn from the fact that trawl vessels are the only group that have a demonstrated ability to catch more than the daily processing limits on a given day.

8.3.2 Identification of Vessels as Upgrade Candidates

The number of catcher vessels that might choose to upgrade their vessels with limited processing abilities is unknown and unknowable. It is certain only that no fewer than zero and no more than 2,288—the projected number of catcher vessels that will qualify for CV licenses—will upgrade. Although both outcomes are feasible, neither is likely. Projecting impacts based on either outcome will not provide meaningful information to the decision makers.

A more qualitative approach to estimating the number of vessels that may choose to upgrade can be achieved by employing a three-step dialectic process. This basic process is as follows:

1. An argument (thesis) is submitted.
2. A counter-argument (antithesis) is made.
3. The two are combined (synthesis) into a new argument that is nearer the truth than either alone.

The synthesis of the arguments then becomes the basis for the next dialectic. An example of the process is shown below.

Dialectic 1

Thesis 1: All vessels will upgrade with limited processing capacity if allowed under the proposed action. This will occur because catcher processors are much more profitable than catcher-vessels.

Antithesis 1: No vessels will upgrade even if allowed under the proposed action. If catcher processors are all more profitable, all of the catcher vessels would have upgraded to catcher processors when they were not limited.

Synthesis 1: Some, but not all vessels may choose to upgrade.

The remainder of this section builds on this first dialectic to arrive at a synthesis of ideas that, although qualitative, can provide guidelines for answering the questions of how many vessels may choose to upgrade, and how this might effect the decision to approve the proposed action. The arguments presented in the theses and antitheses are intended as discussion points and do not necessarily reflect the judgment of the analyst.

Dialectic 2

Thesis 2: Only vessels > 50' LOA have the size necessary for the installation of processing equipment and freezers and for housing the extra crew members that will be required.

Antithesis 2: There are many examples of smaller salmon vessels, particularly trollers, that have processing equipment on board. There are many types of processing that may be feasible. It is likely that a vessel of any size will be able to find a type of processing upgrade that will allow it to operate profitably.

Synthesis 2: Although vessel size is an important consideration regarding the types of processing that may be feasible on any given vessel, vessels of all sizes may choose to upgrade with limited processing.

Dialectic 3

Thesis 3: In order for processing to be profitable, the vessel must be able to operate in areas where there are high TACs for groundfish. Thus vessels that are limited by their endorsements to participation in the Eastern Gulf are not likely to upgrade with limited processing.

Antithesis 3: The profitability of limited processing will depend on low-volume, high-value species such as rockfish and thornyheads. These species are plentiful in the Eastern Gulf and are often taken as incidental catch in the sablefish and halibut IFQ fisheries. The ability to process these bycatch species and thereby obtain greater value may be critical to the overall profitability of vessels in the Eastern Gulf, particularly given the currently low prices for halibut.

Synthesis 3: There are no hard-and-fast rules for the types of processing that vessels may choose to employ. Thus it is not possible predict the fisheries or areas in which limited processing will be used.

Dialectic 4

Thesis 4: Owners of vessels that are currently the most profitable in their class are likely to be the only persons that can afford the high cost of upgrading. Thus vessels that catch less than average are unlikely to be upgrade candidates.

Antithesis 4: Given that in any year only 1,700 vessels participate in the groundfish fisheries, and further given that 2,435 licenses will be issued, owners of inactive vessels are more likely to upgrade their vessels because they will not be sacrificing current profitability. Furthermore, many of the inactive vessels currently are primarily involved in salmon fisheries. Many owners of these vessels are finding that processing salmon on board is feasible. If vessel owners choose to upgrade to process salmon, they may wish to use the processing equipment to process limited amounts of groundfish.

Synthesis 4: Vessels that are currently profitable may have less incentive to change their operating procedures than vessels that are currently less profitable. However, profitability is not necessarily limited to vessels that are full-time groundfish operators. Vessel owners that are currently less active in groundfish may be very profitably engaged in other fisheries such as salmon or herring. Processing may fit nicely into owners' plans for these fisheries.

Dialectic 5

Thesis 5: Because there appears to be no way to determine how many vessels may upgrade if limited processing is allowed, the proposed action should not be approved.

Antithesis 5: Because it is reasonably certain that not all vessels will choose to upgrade, the proposed action should be approved.

Synthesis 5: It is reasonably certain that not all vessels will upgrade, and it also appears that there is no way to determine exactly or even approximately how many vessels will upgrade. The decision regarding approval action should not be based on the number of vessels that may or may not upgrade.

8.3.2.1 Summary of Discussions on Upgrade Candidate Vessels

The statements presented in the dialectics show that for nearly every argument produced that might rule out a class of vessels as upgrade candidates there is likely to be a reasonable counter-argument. At the extreme, if every CV upgraded, 2,288 vessels could choose to take advantage of the proposed action. Ultimately however, the conclusion that little can be said about which vessels might upgrade and which might not is inevitable. In other words, because it appears feasible that any given vessel may choose to upgrade, there is no way, given the available data, to provide a reasonable estimate of how many vessels may in fact upgrade under the proposed action. Therefore, it can also be concluded that the number of vessels that might upgrade may not be a meaningful decision point in the question of whether to allow limited processing upgrades. Furthermore, if there is no way to provide a reasonable estimate of how many vessels may upgrade, there is little that can be said quantitatively regarding the potential catch of upgraded vessels under the proposed action.

8.3.3 Operating Characteristics of Upgraded Vessels

Under the proposed action, there is a presumption that vessels would change from full-time catcher vessels to at least part-time processors. Although there may be some vessels that currently fit into this mode, they are not always tracked as such.²⁸ Little is known about the operating characteristics of vessels that are engaged as part-time catcher vessels and part-time processors. Indeed, no data that is routinely reported identifies such vessels. There is anecdotal evidence that a handful of vessels have operated in this way in the past, and some evidence that there are some vessels currently operating in that manner. Generally, however, it has been assumed that any vessel operating in both modes is only doing so because of a mechanical problem or some other failure that precludes it from operating its processing facility.

These facts notwithstanding, industry members were asked in unstructured phone interviews about the types of operations and processing that could be undertaken by upgraded catcher vessels. Responses varied greatly, depending on the type of vessel involved. However, several common themes were apparent:

²⁸ One of the rules of thumb used by data analysts to estimate total catch by the vessels harvesting fish is to search the fish-ticket data for the ADF&G numbers of all processing vessels that have been identified by their submittal of weekly processing reports. These data are then routinely purged from the analyst's version of the fish-ticket dataset, because they are assumed to be reporting redundant catches.

- Upgrading a vessel for processing is not done without a great deal of planning and expense. Estimates of upgrade costs ranged from \$100,000 for a small, fixed-gear catcher vessel with minimal equipment to \$3,000,000 for larger vessels hoping to optimize space and reconfigure crew quarters.
- Space is the most critical constraint to upgrading. Every available foot of space on a fishing vessel is valuable and is likely to be generating revenue in its current configuration.
- For processing equipment to pay for itself, it must be highly utilized, not only because of the investment expense, but also because the space that processing equipment would occupy would probably contribute to revenues in some other way if the equipment were not present. Investing in processing equipment and then letting it sit idle during part of the fishing year was not deemed a judicious practice.

8.3.3.1 The Location of Processing Equipment

Most catcher vessels were not designed with processing in mind, and since there is very limited access to fish hold areas, most persons contacted agreed that processing would have to occur on deck. Typically, the only possible space that could be used for processing on deck is likely to be just aft of the wheelhouse.

For smaller trawl vessels (< 125') the space behind the wheelhouse area is critical to midwater trawl operations. Utilizing this space for processing would result in less effective midwater trawling or even the elimination of midwater trawling. Reconfiguring a vessel to eliminate midwater trawling is not considered a feasible choice in an era of bycatch reduction. Even if these vessels are not currently using the space below decks for fresh fish holds, the prospect of compromising their midwater trawl operations is a serious concern.

Regardless of their size, trawl vessels usually are designed to utilize available space to optimize the generation of revenues. Large, shore-based trawl vessels, typically vessels in the Trawl 125+ CV class, are designed to maximize the amount of fish they can carry in their holds. Even if processing equipment can be located in such a manner that it does not interfere with fishing operations, installing space for frozen storage in such vessels will compromise their ability to carry fresh fish. Therefore, these vessels will be trading the ability to maximize fresh fish capacity for the option to process. For many of these vessels, that trade-off may not make economic sense.

For pot vessels, deck space may be plentiful, particularly when using pots for groundfish. Currently these vessels, which are primarily used in crab fisheries, participate only one groundfish fishery — the Pacific cod fishery. The Pacific cod pot fishery is not prosecuted in a typical “race for fish”. Furthermore these vessels can fish more pots than can be loaded onto their decks at any given time. This means that while deck space is important, there is space available for processing equipment, particularly if it could be removed when the vessel is operating in the crab fisheries. Industry members indicated that some sort of modular arrangement might be quite feasible for pot vessels wishing to upgrade to processors.

Smaller, fixed-gear vessels would have to focus on higher-value products. The processing limits of 5 mt rwt or 18 mt rwt per day are not likely to be a constraint, but unless the vessel is optimized for processing, catch rates are likely to be lower on a vessel that processes than on a similar vessel that does not process.

8.3.3.2 Product Types

U.S. regulations require that any vessel that processes fish to a final product must meet load line requirements. Meeting this requirement represents a significant investment that might preclude part-time operations. Therefore, processed products from limited processors are likely to be limited to headed-and-gutted, bled, or whole product forms.

8.3.3.3 Processing Equipment

A basic heading machine and areas for bleeding, gutting, cleaning, and temporary storage would all have to be added to the vessel. Industry members indicated that a minimum of 10 feet of deck space would have to be dedicated to processing.

8.3.3.3.1 Freezing Equipment

Blast freezing equipment and space would also have to be added. Units that freeze 5 to 10 tons every 4 hours are available. The blast freezer area would probably use the equivalent of 5 linear feet of below-deck space.

8.3.3.4 Frozen Storage Space

If a vessel processes 18 mt rwt per day it will need frozen-storage space large enough to store 10 to 15 tons of frozen products for every day of the trip. If the vessel wishes to make 6 day trips, then it would need approximately 100 tons of storage, which requires a minimum of 3,000 cubic feet of space [Green, 1998]. Assuming that the frozen-storage space would be located below decks, it could probably be no higher than 10 feet and no wider than 20 feet, and would have to be 15 feet long. These dimensions represent a sizable portion of the space below decks. If the vessel is operating as a delivery vessel, this space would not be available for wet fish delivery.

8.3.3.5 Crew and Crew Quarters

According to members of the industry, reconfiguring vessels to accommodate crew quarters is an extremely expensive undertaking. Therefore, it might be preferable to cut back on fishing crew and replace them with one or two processing crew. Cutting back on fishing crew will cause both catching ability and fishing revenues to drop, and therefore processing revenue will be even more important.

8.3.3.6 Processing Bycatch Only

Currently most trawl catcher vessels deliver their catch unsorted to the processor. This is certainly the case for at-sea delivery vessels. If the proposed action limits processing to bycatch only, then the primary fishing operation of an upgraded vessel would be compromised. Sorting bycatch from target in a pollock trawl fishery requires space, and space is at a premium on a trawl vessel. In trawl fisheries with lower catch rates or with higher bycatch than in the pollock fishery, bycatch may be sorted more easily, and the feasibility of processing is higher. However, as noted above, the investment costs for processing equipment are significant, and having the equipment sit idle during the pollock season would be a serious consideration.

Bycatch-only processing would be more feasible for fixed-gear vessels because fish are currently handled individually. However, catch rates are relatively low in the fixed-gear fisheries; therefore processing bycatch only is less likely to justify the expense of upgrading.

8.3.3.7 Summary of Discussions of Operating Characteristics

The discussions of potential operating characteristics indicate that there is a continuum of processing configurations that may be attempted by vessels choosing to upgrade. Larger vessels will have greater flexibility in designing processing upgrades, but smaller vessels will also have choices.

It is clear that there may be serious trade-offs for vessels to consider in the decision to upgrade. Many industry sources indicated that the catcher vessels will have to sacrifice catch and delivery capacity if they choose to add processing capacity.

Finally, it is clear that adding a processing facility to an existing catcher vessel appears to be a relatively expensive undertaking. Given the level of expense, it is unlikely that vessels will make a decision to upgrade and then leave the facility idle. In other words, the decision to invest in processing equipment is most likely also a decision to participate in fisheries in which the processing equipment will be used. For many vessels, particularly pollock trawl vessels, the decision to upgrade would appear to also be an indication of intent to participate in other trawl fisheries such as Pacific cod, or the flatfish fisheries.

8.3.4 Impacts on Existing Processors

Any vessel that chooses to upgrade with limited processing capacity will not only affect its own operations, but will also affect indirectly the operations of other catcher vessels and processors. This indirect effect occurs because the fisheries in the North Pacific are managed with TACs, gear and sector allocations, and prohibited species catch caps. If a catcher vessel becomes a part-time catcher processor, the fish it catches while operating as a catcher processor will in most cases reduce the amount of fish that can be harvested by other catcher processors. As has been discussed above, the number of catcher vessels that may upgrade to catcher processors is unknown. It is also unknown how these newly upgraded vessels will operate within the technological constraints of their vessels and processing equipment or within the constraints of the proposed action, that is, within the “bycatch only” or 5mt /18mt rwt per day processing caps. Therefore, a quantitative assessment of indirect impacts on other processors is not possible. Instead, this section presents a series of three hypothetical scenarios involving upgraded vessels operating in different fisheries and discusses how such operations could impact other processors and catcher vessels in the fishery. These scenarios are intended to illustrate the consequences of the proposed action. The analysts do not claim that these scenarios will in fact occur if the proposed action is approved; nor do they imply that the scenarios are actually feasible from a business or technical perspective.

8.3.4.1 Scenario 1: Upgraded Trawl Vessel in the BSA Yellowfin Sole Fishery

This scenario examines the potential changes that might occur in the trawl fishery for yellowfin sole in the Bering Sea if the proposed action is approved.²⁹ The scenario compares the operations of a single 130' LOA trawl CV under the status quo, and under the two options under the proposed action.

Fishery Background: The BSA yellowfin sole fishery is managed with a TAC, prohibited species catch (PSC) limits for halibut and crab, and seasonal closures. The yellowfin sole fishery occurs primarily in spring and summer.

Scenario 1a – Status quo: The vessel does not currently participate in the yellowfin sole fishery, because there are few, if any, delivery vessel markets for yellowfin sole. After the A-season pollock and the spring Pacific cod fisheries, the vessel either sits idle in Dutch Harbor or every other year runs south to Seattle for repairs and maintenance.

Scenario 1b – Processor Upgrades with 18 mt rwt daily cap: Following the A-season pollock and the spring Pacific cod fisheries, the vessel installs a containerized processing unit behind the wheel house in which to process yellowfin sole into H&G product. The limited freezer hold constrains the vessel to shorttrips, with 5 days of fishing and 2 days of running and down time. The vessel catches and processes 18 mt per day. For the week it totals 50 mt of yellowfin sole, 15 tons of rock sole, 15 tons of Pacific cod, and 10 tons of other flatfish.

After receiving the weekly report submitted by the upgraded vessel, NMFS tallies an additional 50 mt against the yellowfin sole TAC, 15 mt against the rock sole TAC, and 10 mt against the other flatfish

²⁹ This scenario cannot be applied to the Pacific cod fishery in the GOA, because in the GOA the Pacific cod is quota allocated between inshore and offshore sectors, rather than between catcher processors and catcher vessels.

TAC. The 15 mt of Pacific cod are counted against the CP allocation, even though one month earlier the vessel's catch of Pacific cod would have counted against the CV allocation. (The assignment by NMFS of the vessels processed Pacific cod to the trawl catcher-processor allocation is based on an assumption of Council intent.) **Scenario 1c – Processor Upgrades with processing of bycatch only:** Because the vessel has no market to which to delivery unprocessed yellowfin sole, there would be no reason for the vessel to upgrade or to participate. This is the same reason that keeps the vessel from participating in the yellowfin sole fishery under the status quo.

Summary of Scenario 1: Under the status quo and Scenario 1c, the vessel is idle. Under Scenario 1b the vessel is utilized for more of the year. Whether the upgrade is financially sound is unknown, but the option to find out is available.

If the vessel owner chooses to upgrade, the only other processors that will be affected are the existing CPs in the yellowfin sole fishery. They will face the possibility of more vessels coming into the fishery. Because the fishery is limited by a TAC and constrained by halibut bycatch limits, more vessels in the fishery would result in less catch for all vessels on average.

Under this scenario, shore-based processors do not appear to be affected unless they are currently taking deliveries of yellowfin sole. If they are doing so, then they will be affected to the same degree as the other CPs.

8.3.4.2 Scenario 2: Upgraded Trawl Vessel in the BSA Pacific Cod Fishery

This scenario examines the potential changes that might occur in the trawl catcher vessel fishery of Pacific cod in the Bering Sea if the proposed action is approved.³⁰ The scenario compares the operations of a single 130'-LOA trawl CV under the status quo, and under the two options under the proposed action.

Fishery Background: The BSA Pacific cod fishery is managed with specific allocation to trawl, longline, pot, and jig vessels. The trawl allocation is subdivided between catcher vessels and catcher processors.

Scenario 2a – Status Quo: Prior to upgrading, the vessel was able to catch and deliver 100 mt rwt of Pacific cod to a shore plant in two trips each week. Each trip consists of 2 fishing days and 1.5 days of running and downtime for each trip. In addition to the Pacific cod, the vessel caught and delivered 20 mt of bycatch consisting mostly of pollock (5 mt), yellowfin sole (5 mt) and rock sole (5mt). The vessel has the hold capacity to deliver more fish, but the processor requires that no fish have been dead more than 3 days when it is delivered. The processor accepts delivery of all 120 mt of catch, but pays only for the Pacific cod. After delivery the vessel returns to the grounds and makes an identical trip to round out the week.

When NMFS tallies the catch reports for the week, 200 mt of Pacific cod are counted against the catcher vessel allocation, and 10 mt of pollock are counted against the inshore pollock allocation. The 10 mt each of yellowfin sole, rock sole, and other species are counted against the general TACs for those species.

Scenario 2b – Processor Upgrades with 18 mt rwt daily cap: After upgrading, the vessel chooses to catch and process Pacific cod and all bycatch in the first part of the trip, and catch and deliver a full load of Pacific cod to a shore plant the catch in the second part of the trip. In the second part of the trip, only bycatch is processed. The total trip length is now 7 days and includes 4 days of fishing and 3 days of running and downtime. During the first part of the trip the vessel makes relatively short tows, trying to find a large school of Pacific cod where bycatch is low. Because the tows are short, catch is low and all of it can be headed and gutted and frozen without exceeding the 18 mt per day limit. During the first 3.5 days the vessel catches a total of 60 mt, consisting of 50 mt of Pacific cod and 2.5 mt. each of pollock,

³⁰ This scenario cannot be applied to the Pacific cod fishery in the GOA, because in the GOA the Pacific cod quota is allocated between inshore and offshore sectors, rather than between catcher processors and catcher vessels.

yellowfin sole, and rock sole and 2.5 mt of other species. On the last fishing day a large school of Pacific cod is found, and 100 mt of Pacific cod is brought on board in three long tows with relatively low bycatch (2.5 mt each pollock, yellowfin sole, and rock sole and 2.5 mt of other species). After this the vessel returns to the shore plant. While the vessel is running back, the bycatch from the last day is sorted and processed. The vessel delivers 100 mt of 1.5 day old Pacific cod and no bycatch. Because the cod is relatively fresh and is sorted of bycatch, the processor would not mind paying a premium to the catcher vessel, but because the catcher vessel also wishes to deliver 5 mt of unprocessed other species, no premium is forthcoming. Before beginning on its next trip, the catcher vessel offloads its frozen product. Overall, the vessel has caught 50 fewer tons of Pacific cod and 5 mt fewer of each the bycatch species.

Realizing that one of the CVs in its fleets is not delivering what might be expected of it, the shore plant contracts with an additional CV in order to maintain its share of the Pacific cod relative to other processors taking deliveries from CV.

When NMFS tallies the catch reports for the week, 100 mt of Pacific cod are counted against the CV allocation, and 50 mt of Pacific cod are counted against the CP allocation.³¹ The 5 mt of pollock catch are counted against the offshore sector. (If the vessel had been < 125' LOA, then the pollock would have counted against the inshore sector.) The 5 mt each of yellowfin sole, rock sole, and other species are counted against those species more general TACs.

Scenario 2c – Processor upgrades with processing of bycatch only: After upgrading, the vessel chooses to process all of its bycatch, but since it still must deliver it Pacific cod no later than 3 days after the first fish were caught, only 2 days are allowed for fishing. In order to use its processing machinery to the maximum allowable capacity, it chooses to fish Pacific cod in a high bycatch area where a lot of flatfish are intermingled with the Pacific cod. In 2 days of fishing, the vessel catches 60 mt of Pacific cod and 60 mt of bycatch (15 mt of pollock, 15 mt of yellowfin sole, 15 mt of rock sole, and 15 mt of other species). The vessel processes the pollock, yellowfin sole, and rock sole, but does not process the other species. After 2 days fishing, the vessel returns to the shore plant to deliver the 60 mt of Pacific cod. Because the Pacific cod is already sorted, the processor agrees to take the 15 mt of other species and still pay the going rate for the Pacific cod. After delivery to the shore plant, the vessel off-loads its frozen product, returns to the grounds, and makes an identical trip to round out the week.

Realizing that one of the CVs in its fleets is not delivering what might be expected of it, the shore plant contracts with an additional CV in order to maintain its share of the Pacific cod relative to other processors taking deliveries from CVs.

When NMFS tallies the catch reports for the week, 120 mt of Pacific cod are counted against the Trawl CV allocation of Pacific cod. The 30 mt of pollock are counted against the offshore pollock allocation, and the 30 mt each of yellowfin sole, rock sole and other species are counted against the TACs for those species.

Summary of Scenario 2: Under Scenarios 2b and 2c, the catcher vessel has made a decision to try to optimize its revenue by processing portions of its catch. Whether it is better off under Scenario 2b or Scenario 2c is unknown, although it appears that operating under the limit of 18 mt per day may provide more operating choices for the CV.

Assuming the shore plant is able to contract with additional CVs in order to keep pace with other processors taking deliveries from Trawl CVs, the plant's position appears to be no worse than under the status quo. Because the shore plant has to handle less bycatch per ton of Pacific cod, it may in fact be in a

³¹ This assumes that it is the Council's intent to count trawl-caught Pacific cod that is processed by the vessel that caught it against the catcher-processor allocation, and the catch of vessels that deliver trawl-caught Pacific cod against the catcher vessel allocation. Alternatively, the Council's intent may be that all Pacific cod caught by trawlers with CV designations are counted against the trawl catcher-vessel allocation, and all Pacific cod caught by trawlers with CP designations are counted against the trawl catcher-processor allocation.

better position under both Scenarios 1b and 1c. Scenario 1b in particular seems to be advantageous to shore plants, because the pollock caught and processed by the vessel will be counted against the offshore sectors pollock quota. Furthermore, because the shore plant receives fresher fish under Scenario 1b, its product line may be enhanced.

Vessels that were operating as catcher processors under the status quo appear to be in a worse position under Scenarios 1b and 1c. All of the pollock processed by upgrade vessels > 125' LOA will be counted against the offshore quota. Under the status quo this would have been counted against the inshore pollock quota. Under Scenario 1b, the existing CPs will be able to catch and process 50 mt less Pacific cod than they would under the status quo.

8.3.4.3 Scenario 3: Upgraded Pot Vessel in the BSA Pacific Cod Fishery

This scenario examines the potential changes that might occur in the pot vessel fishery for Pacific cod in the BSA if the proposed action is approved. The scenario compares the operations of a single 130'-LOA pot CV under the status quo, and under the two options under the proposed action.

Fishery Background: The BSA Pacific cod fishery is managed with specific allocations to trawl, longline, pot, and jig vessels. Currently the pot allocation is relatively underutilized. In fact, in 1997 pot vessels did catch their entire allocation of Pacific cod.

Scenario 3a – Status Quo: Prior to upgrading the vessel was able to catch and deliver 20 mt rwt of Pacific cod to a shore plant in twice a week. Each trip consists of 2 fishing days and 1.5 days of running and downtime for each trip. In addition to the Pacific cod, the vessel caught and delivered 2 mt of bycatch consisting mostly of pollock (0.5 mt), yellowfin sole (0.5 mt), and rock sole (0.5 mt). The vessel has the hold capacity to deliver more fish, but the processor requires that no fish have been dead more than 3 days when it is delivered. The processor accepts delivery of all 22 mt of catch, but pays only for the Pacific cod. After delivery the vessel returns to the grounds and makes an identical trip to round out the week.

When NMFS tallies the catch reports for the week, 40 mt of Pacific cod are counted against the pot vessel allocation and 1 mt of pollock are counted against the inshore pollock allocation. The 1 mt each of yellowfin sole, rock sole, and other species are counted against the general TACs for those species.

Scenario 3b – Processor Upgrades with 18 mt rwt daily cap: After upgrading, the vessel chooses to forego deliveries to the shore plant altogether, and instead whenever the crab fisheries are closed chooses to operate as a full-time pot CP for Pacific cod. The vessel makes 1-week trips with 5 days of fishing and 2 days of running time. The vessel processes all of its catch including bycatch. During the 5-day trip it processes 50 mt rwt of Pacific cod and 5 mt rwt of bycatch including pollock (1.25 mt), yellowfin sole (1.25 mt) rock sole (1.25 mt) of other species (1.25 mt).

When NMFS tallies the catch reports for the week, 50 mt of Pacific cod are counted against the pot vessel allocation, and 1.25 mt of pollock are counted against the offshore pollock allocation. The 1.25 mt each of yellowfin sole, rock sole, and other species are counted against the general TACs for those species.

Scenario 3c – Processor Upgrades with 18 mt rwt daily cap: Because both catch rates and bycatch rates in the pot vessel Pacific cod fishery are relatively low, the pot vessel does not upgrade under this scenario — there is not enough bycatch to cover the expense of adding the processing equipment.

Summary of Scenario 3: Under Scenario 3b, the pot catcher vessel has made a decision to try to optimize its revenue by becoming a full-time catcher processor for Pacific cod when it is not fishing for crab. Whether it's position is better under Scenario 1b is unknown. However, it does appear that the limit of 18 mt rwt per day may provide more operating choices for pot vessels than under status quo or under the option that allows processing of bycatch only.

Assuming that the shore plant is able to contract with another Pot CV in order to keep pace with other processors taking deliveries from pot vessels, its position appears to be no worse than under the status quo.

Vessels that were operating as in the pot Pacific cod fishery may be in a slightly worse position under 3b because the upgraded pot vessel is catching 10 mt more per week, and because of the assumption that the shore plant brings in one additional pot vessel to replace the upgraded vessel. However, the position of existing pot vessels will worsen only if the additional catch and pot vessel causes the pot allocation to be met and the fishery is closed by NMFS. As mentioned at the beginning of the scenario, the pot Pacific cod fishery was constrained by the TAC in 1997.

8.3.4.4 Scenario 4: Upgraded Fixed-gear Vessel in the IFQ Fisheries

This scenario examines the potential changes that might occur in sablefish and halibut IFQ fisheries if the proposed action is approved. The scenario involves a 45-foot vessel that has 10,000 pounds of CV IFQs for sablefish in both the SEO and WY areas, and will also qualify for a license with a CV designation because of its landings of rockfish and Pacific cod. The vessel was designed specifically for salmon trolling, and its owner has recently installed a small blast freezer for use in the silver and king salmon fisheries.

Fishery Background: The sablefish IFQ fisheries are not included in the Groundfish LLP. Vessels participating these fisheries will not have to be required to have licenses unless they choose to target species other than sablefish and halibut, or if they choose to retain bycatch amounts in excess of the directed fishing standards.

- **Scenario 4a – Status Quo:** The vessel owner decides to make 4 IFQ fishing trips of 5,000 pounds each, 2 targeting sablefish in SEO and 2 targeting sablefish in WY. In each trip there are 250 pounds of bycatch of slope rockfish and 750 pounds of bycatch of Pacific cod. The vessel owner decides to process and freeze the rockfish in the blast freezer that is already installed for salmon. Before doing so he contacts NMFS to acquire the necessary federal processing permit and weekly-processor report forms. NMFS informs him that because his Groundfish License has a CV designation he is not allowed to operate as a processor. The vessel owner sells his Groundfish License with the CV designation to a person who has not previously participated in the fisheries. He then reapplies to NMFS for an FFP, and is granted one because he is no longer under the constraints of the Groundfish LLP. Upon receiving the processing permit, however, the owner is informed that he can only process sablefish or halibut if he has catcher-processor IFQs, otherwise he is limited to processing bycatch amounts in the sablefish³² catcher vessel IFQ fisheries. The vessel owner takes the four trips as plans and in the first three processes 250 pounds of slope rockfish and 750 Pounds of Pacific cod. On the last trip however, he unexpectedly catches 1,500 pounds of Pacific cod. Because he does not have a groundfish license and has exceeded the directed fishing standard, he is forced to discard the excess Pacific cod, all of which are dead.
- At the end of each of the four trips, NMFS deducts the sablefish from the vessel owner's IFQs and counts the rockfish against the slope rockfish TAC. The Pacific cod, including the discards in the last trip, are counted against the inshore Pacific cod quota in the GOA, even though it was processed or discarded at sea.³³

³² The IFQ regulations (at 50CFR § 679.42) allow vessels with catcher-vessel IFQs for sablefish to process bycatch of other groundfish. The IFQs regulations prohibit vessels from processing groundfish bycatch if persons with halibut catcher-vessel IFQs are on board.

³³ CPs <125' LOA that process < 18 mt rwt are part of the inshore sector under the inshore-offshore regulations.

- Scenario 4b – Processor Upgrades with 18 mt rwt daily cap: Under this scenario the vessel owner is not forced to sell his groundfish license in order to process his bycatch. Additionally, because he has a license, he will not be forced to discard any bycatch that exceeds the directed fishing standards. Therefore, on his last trip he is able to process the extra 750 pounds of Pacific cod.
- At the end of each of the four trips, NMFS deducts the sablefish from the vessel owner's IFQs and counts the rockfish against the slope rockfish TAC. All of the Pacific cod is counted against the inshore Pacific cod quota in the GOA, even though it was processed at sea.
- Scenario 4c – Processor Upgrades with processing of bycatch only: Under this scenario the vessel owner is not forced to sell his groundfish license in order to process his bycatch. However, because he can only process bycatch amounts, he will not be allowed to process any bycatch that exceeds the directed fishing standards. However, because he has a groundfish license, he will be required to deliver excess Pacific cod to shore. Therefore, on his last trip he delivers the extra 750 pounds of Pacific cod to the processor that buys his sablefish. The processor does not pay for the Pacific cod because it is currently not processing Pacific cod, but accepts the delivery because of IRIU regulations.
- At the end of each of the four trips, NMFS deducts the sablefish from the vessel owner's IFQs and counts the rockfish against the slope rockfish TAC. All of the Pacific cod are counted against the inshore Pacific cod quota in the GOA, even though most of it was processed at sea.
- Summary of Scenario 4: The vessel owner clearly has more options under Scenario 4b than under the status quo or under Scenario 4c, which limits processing to bycatch amounts. Under all of the scenarios the vessel owner is allowed to process his bycatch amount, at least up to directed fishing standards.
- The affect on the shorebased processor to which the vessel owner delivers his IFQ fish is insignificant under any of the scenarios, unless having to accept the 750 pound of Pacific cod under Scenario 4c worsens its position. Under all three scenarios the shore plant is only able to process the sablefish and halibut, and under all three scenarios all of the Pacific cod is counted against the inshore Pacific cod quota.
- The position of other licensed Cvs participating in non-IFQ fisheries may be worse under the status quo, because of the new license owner entering the fishery. Having paid for the license, the new license owner is likely to actively fish for non-IFQ species.
- Catcher processors, which currently process much of the rockfish in the Eastern Gulf, are unaffected under any of the three scenarios because the vessel owner's rockfish catch is the same, regardless of the scenario.
- Discussions and Summary of Scenarios
- The four scenarios highlight some of the potential impacts of the proposed action on vessels and processors. These are summarized in following bullets.
- Bycatch amounts of pollock processed by upgrade vessels, whether caught in the BSA or GOA, will in most cases be counted toward the inshore allocation if the vessel is < 125' LOA³⁴, and toward the offshore allocation if the vessel is ≥ 125' LOA. If the pollock is processed in a Pacific cod target fishery, it is likely that the pollock would have been counted against the inshore sector under the status quo. If the pollock is processed as bycatch in a, flatfish fishery, it is likely that those pollock

³⁴ It is technically possible that under Alternative 2 an upgrade vessel < 125' LOA could process enough pollock as bycatch in another target fishery (more than 126 mt rwt in a week) to be counted as an offshore CP under the under the inshore-offshore regulations.

would have been counted against the offshore sector's pollock allocation under the status quo because of the fact that most of the flatfish are currently harvested in CP operations. Given that neither alternative allows processing of pollock caught in a pollock target fishery, the amount of pollock that may be processed by these vessels would probably be relatively small compared to the overall pollock TACs.

- Pacific cod caught and processed by upgrade vessels in the GOA will be counted in the same manner as pollock. If the upgrade vessel is < 125' LOA, its catch will be counted against the inshore sector;32 otherwise, it will be counted against the offshore allocation.
- Pacific cod caught and processed by upgrade vessels in the BSA will be counted against one of four gear allocations, depending on the gear used in the harvest operation: 1.) the longline allocation, 2.)the pot allocation, 3.) the jig allocation, or 4.) the Trawl CP allocation. By definition, none of the Pacific cod processed by upgrade vessels will be counted against the trawl catcher vessel allocation. The previous point implies that processors relying on trawl-caught deliveries of Pacific cod will not be directly affected by the proposed action, at least with respect to Pacific cod. Because none of the other species that may be affected are allocated on a gear basis or processing sector basis, the catch of upgrade vessels will be counted against the TACs for the species. In the BSA most of the other species are harvested and processed by CPs. In general shore-based processors are not involved in any groundfish fisheries except pollock and Pacific cod.
- In the GOA shore plants process not only pollock and Pacific cod, but also flatfish and some rockfish. The flatfish and rockfish species in the GOA are also harvested H&G catcher-processors. Since these fisheries are limited by TACs, the catch of upgrade vessels will mean less fish processed by the existing operations.

All of the scenarios discussed above rely on the assumption that it is the Council's intent to count trawl-caught Pacific cod that processed by the vessel that caught it against the catcher-processor allocation, and the catch of vessels that deliver trawl-caught Pacific cod against the catcher-vessel allocation. There are alternative assumptions possible, as follows:

1. All Pacific cod caught by trawlers with CV designations are counted against the trawl catcher-vessel allocation, and all Pacific cod caught by trawlers with CP designations are counted against the trawl catcher-processor allocation.
2. All Pacific cod caught during a week in which the vessel is required to submit a Weekly Processor Report to NMFS (because of processing activity) will be counted against the catcher-processor allocation regardless of the designation of the vessel or of the relative amounts delivered or processed.
3. All Pacific cod caught during a week in which the vessel is required to submit a Weekly Processor Report to NMFS (because of processing activity) will be counted against the catcher-processor allocation if the amount processed (in rwt) exceeds the amount delivered. Otherwise the catch will be counted against the trawl catcher-vessel allocation.

It should also be noted that under the status quo the same dilemma exists — which allocation to use if a trawl vessel processes and delivers Pacific cod within the same week. This could occur, for example, if a catcher processor has a factory breakdown mid-week, and chooses to deliver cod-ends to other processing vessels (acting as motherships) during the remainder of the week. Currently, NMFS counts the delivered catches against the catcher-vessel allocation, even though the delivering vessel is considered a catcher processor by most accounts.

8.4 Summary and Conclusions

The qualitative assessment of the proposed action provided some indication of its potential impacts of the proposed action. In general, there do not appear to be any compelling arguments favoring either the status quo or the proposed action. Allowing CVs to upgrade would appear to limit those vessels' ability to catch at the same level as they could before upgrade. Thus the proposed action theoretically could reduce a given vessel's catch capacity. On the other hand, keeping the status quo would mean that catcher vessels will have fewer options. For existing processors, the upgrade vessels will constitute additional competition, particularly for the H&G CPs. Overall it appears that shore-based processors would not see direct negative impacts if the proposed action were approved, particularly if, as assumed, it is the Council's intent to count Pacific cod catches in the BSA against the catcher-processor allocation when it is caught and processed by upgraded catcher vessels.

8.4.1 Proposed Action 6 and the CRP Problem Statement

The CRP Problem Statement, shown on page 4, delineated 14 issues the Council hoped to address with the LLP. Table 86 provides a qualitative assessment of Proposed Action 6 compared to the status quo, relative to each of the 14 issues.

Table 86: Impact of Proposed Action 5 Relative to Status Quo and the CRP Problem Statement

Problem	Impact Relative to Status Quo
(1) Harvesting capacity in excess of that required to harvest the available resource Comment: <i>The proposed action would most likely reduce the harvesting capacity of any given license-qualified vessel. However, the option to upgrade to limited processing may be enough of an incentive to bring licensed but inactive vessels into the fishery, albeit at a lower harvest rate than they could have fished without the upgrade. Because there are so many inactive licensed vessels, the overall potential harvesting capacity could increase.</i>	Moderately Negative
(2) Allocation and preemption conflicts between and within industry sectors, such as with inshore and offshore components Comment: <i>The proposed action has the potential to create a new sector with its own set of concerns. These will likely be juxtaposed to the concerns of the existing sectors. Existing catcher processors are likely to be threatened by this new set of vessels. Catcher vessels have indicated that the option to upgrade could strengthen their bargaining power relative to the processors.</i>	Moderately Negative
(3) Preemption conflicts between gear types Comment: <i>The proposed action would appear to be most advantageous for fixed-gear vessels, particularly pot vessels. This could mean more fixed gear on the grounds and therefore more gear conflicts with mobile gear.</i>	Moderately Negative
(4) Gear conflicts within fisheries where there is overcrowding of fishing gear due to excessive participation and surplus fishing effort on limited grounds Comment: <i>The proposed action would appear to be most advantageous for fixed-gear vessels, particularly pot vessels. This could mean more fixed gear on the grounds and therefore more gear conflicts with other users of the same gear.</i>	Moderately Negative
(5) Dead-loss such as with ghost fishing by lost or discarded gear Comment: <i>The proposed action would appear to be most suitable for upgrade by fixed-gear vessels, particularly pot vessels. This could mean more gear on the grounds and therefore more dead-loss.</i>	Minimally Negative

Problem	Impact Relative to Status Quo
<p>(6) Bycatch loss of groundfish, crab, herring, salmon, and other non-target species, including bycatch which is not landed for regulatory reasons.</p> <p>Comment: <i>The option to upgrade does not appear to be very feasible for trawl vessels. Therefore, there does not appear to be significant impact on bycatch.</i></p>	Minimally Positive
<p>(7) Economic loss and waste associated with discard mortality of target species harvested but not retained for economic reasons</p> <p>Comment: <i>The impact of the proposed action is considered minimally positive to the extent that vessels upgrade and to the extent that those vessels were contributing to the discard of target species.</i></p>	Minimally Positive
<p>(8) Concerns regarding vessel and crew safety that are often compromised in the race for fish</p>	Neutral
<p>(9) Economic instability within various sectors of the fishing industry, and in fishing communities, caused by short and unpredictable fishing seasons, or preemption which denies access to fisheries resources</p> <p>Comment: <i>The option to upgrade will give some vessels the opportunity to become viable participants in the fishery. This will potentially help the owners of the upgraded vessels. However, their participation will mean less for those that had already been active.</i></p>	Neutral
<p>(10) Inability to provide for long-term, stable, fisheries-based economies in small, economically disadvantaged, adjacent coastal communities.</p>	Neutral
<p>(11) Reduction in ability to provide a quality product to consumers at a competitive price, and thus maintain the competitiveness of seafood products from the EEZ off Alaska on the world market</p> <p>Comment: <i>The proposed action could give catcher vessels the ability to exploit niche markets.</i></p>	Moderately Positive
<p>(12) Possible impacts on marine mammals and seabirds, and marine habitat</p>	Neutral
<p>(13) Inability to achieve long-term sustainable economic benefits to the nation</p> <p>Comment: <i>The trade-offs across the various sectors appear to neutralize the proposed action in terms of long-term benefits to the nation.</i></p>	Neutral
<p>(14) A complex enforcement regimen for fishermen and management alike which inhibits the achievement of the Council's comprehensive goals</p> <p>Comment: <i>The proposed action will require additional regulations and administrative procedures. The upgraded vessels will require additional permits and reporting forms.</i></p>	Moderately Negative

8.4.2 Overall Conclusions

Overall, Proposed Action 6 appears to have the potential to create moderately negative to moderately positive impacts on the groundfish fishery. The impacts vary by sector, with the existing H&G Trawl CP and Longline CP fleet likely to be adversely affected by competition from additional vessels with processing capacity. A clear economic rationale that would lead active trawl vessels to upgrade was not readily apparent. In fact, such a conversion may impede the catching capability of a Trawl CV and result in lower net income. Underutilized trawl vessels may be able to take advantages of some niche opportunities. Larger fixed-gear vessels, particularly pot boats, may be able to accommodate the required processing equipment without adversely affecting their catch rates. However, constraints on the number of crew that can be accommodated on most of these vessels, and their modest catch rates, minimize the potential benefits of limited processing. Smaller fixed-gear vessels may be able to add processing equipment and utilize it not only in the groundfish fisheries, but also in salmon fisheries in which they are also likely to participate.

The processing limits of 5 mt rwt and 18 mt rwt imposed by Alternative 3 do not appear to be very effective in limiting the amount processed by fixed-gear vessels, since few are catching that much currently. The limits appear to be more effective in limiting the amounts processed by upgraded trawl vessels. On the other hand, limiting processing to bycatch only will reduce the options for vessels to upgrade, particularly for fixed-gear vessels with few target fisheries other than Pacific cod.

Overall, it is unknown how many vessels would undertake the investment necessary to engage in limited processing as proposed in Action 6. The fact that relatively few vessels have made these conversions in the past, and the potentially negative catch capacity consequences, suggest that there will be minimal impact on fishery resources if Proposed Action 6 is implemented.

9 Summary of the Status Quo and Proposed Actions

9.1 Summary of the Status Quo for Groundfish

Under the current groundfish LLP, a single type of groundfish license will be issued. The Groundfish LLP restricts access to groundfish fisheries in the EEZ off the coast of Alaska; the LLP does not restrict access to waters of the State of Alaska. Area endorsements will be issued for the following management areas: AI, BS, WG, CG+WY, and SEO. The endorsements will be contained under one of the following General License areas: GOA, BSA, or GOA/BSA, and would not be severable.

Licenses will be issued to the owners of record of the qualified vessels as of June 17, 1995. The owners on June 17, 1995, must have been persons eligible to document a fishing vessel under Chapter 121, Title 46, of the U.S.C. In cases in which the vessel was sold on or before June 17, 1995, and the disposition of the fishing rights was not mentioned in the contract, the catch history would go with the vessel to the new owner. If the transfer occurred after June 17, 1995, the fishing rights would stay with the seller of the vessel unless the contract specified otherwise.

Licenses and endorsements will be designated as CV or CP, and with one of three vessel length designations. In the SEO, an additional designation allowing the use of legal fixed gear only will be assigned, regardless of the gear used to qualify for the endorsement. CP or CV designations will be determined on the basis of the activities of the vessel from January 1, 1994, through June 17, 1995, or the most recent year of participation during the EQP. Vessel length classes will be based on the LOA of the vessel as of June 17, 1995, provided that the vessel conforms with the provisions of the “20% upgrade” and MLOA rules defined in the GCM.

A total of 2,435 vessels are projected to qualify for licenses under the Groundfish LLP. Of these, 1,793 listed Alaska as their state of residence, and 642 listed other states in the most recent vessel documentation data from the CFEC.

Three full years have passed since the Council approved the proposed rule for the Groundfish LLP. Since that time the number of vessels participating in the fisheries has remained relatively stable. There were 1,701 vessels with documented landings in 1995. The total number of vessels remained relatively constant over the next 3 years, dropping by 100 to 1,599 in 1996 and increasing to 1,689 in 1997. There were 486 vessels that participated in 1998 (through February 7). Although the number of participants in almost all vessel classes appears relatively stable over the years, for some classes it is apparent that there is considerable movement in and out the fishery. For many of the vessel classes there is a downward trend in the number of participating qualifiers. This downward trend is not wholly unexpected. The same general phenomenon was documented in the analyses examining the Sablefish and Halibut IFQ program [NPFMC, 1991] and the GCM [NPFMC, 1992].

9.2 Summary of the Status Quo for Crab

Provisions of the Crab LLP are generally similar to the provisions of the Groundfish LLP. The major difference between the two is the type of endorsements that will be issued. In the Crab LLP, endorsements will be issued for crab fisheries on a species and area basis.

The Crab LLP restricts access to the BSA king and tanner crab fisheries in the EEZ. The program does not restrict access within waters of the State of Alaska, nor does it affect crab fisheries that are not managed by the BSA king and tanner crab FMP.

For General Licenses, the BQP is January 1, 1988, through June 27, 1992, with the additional provision that any vessel that crossed over to crab from groundfish (by December 31, 1994) under the moratorium

would also qualify for a General License. Vessels meeting these requirements would receive endorsements based on landings in the January 1, 1992, through December 31, 1994, EQP except for the Bristol Bay red king crab fishery, which will use January 1, 1991, through December 31, 1994, as the EQP. Vessels in the Norton Sound king crab fisheries and Pribilof king crab fisheries will be exempt from the requirements of the BQP, but must have made landings between January 1, 1993, and December 31, 1994, to qualify for a general license and endorsement.

The crab BQP selected by the Council is the same as the BQP chosen for groundfish. This qualification period was selected for both fisheries because it reflects the moratorium years and the Council's long-published control date. A 4-month extension of the moratorium was included in the Council's BQP to match the cutoff date announced early in its Comprehensive Rationalization deliberations. The three most recent years a fishery was open were used for the EQP. Use of the most recent years for endorsement qualification was selected because those years reflect a fishery's current fleet and participants.

Under the original qualifying criteria, 365 vessels are projected to qualify for crab licenses in areas excluding Norton Sound. Of the total projected qualifiers, 125 vessels are currently owned by Alaskans, and 240 are currently owned by residents of other states.

Participation declined from 349 vessels in 1995 to 299 in 1996 and 282 in 1997. Through February 7, 1998, 219 vessels had participated. The lower number in 1998 probably reflects the fact that only a few weeks of the fishing year have passed. Throughout the recent period a total of 410 unique vessels have participated: 19 vessels as catcher processors and 391 as catcher vessels.

The largest decline in any given class appears in the Seine Combination CV class. The number of participants reported in the data dropped from 70 in 1995 to 7 in 1997. The other vessel classes varied within a much narrower range. The number of Alaskan residents participating in the crab fisheries has declined throughout the period, while the number of participating residents of other states fell in 1996 and then rose in 1997.

9.3 Summary of Proposed Action 1: Restrict Transfers of State Water Vessels

This action would disallow transfers from vessels that qualified for the Groundfish LLP, but had not obtained an FFP at any point during either the GQP or EQP. Under the proposed action, persons who had purchased fishing histories on or before February 7, 1998, would be allowed to receive any licenses for which that fishing history qualified, but any such licenses would not be transferable to other vessels. As an option, the affected licenses will be transferable, but only if accompanied by the vessel originally assigned to the license.

This action is complicated by the recent notification of the Council by NMFS that in the Final Rule for the LLP, vessel names will not be indicated on the license, nor will changes in the vessel using the license constitute a transfer. The Council has expressed its desire to reinstate the vessel names on the license and to require an official transfer if the vessel using the license changes, as was the case in the proposed rule.

The analysis indicates that there are 507 qualified vessels whose owners are without (X) FFPs. These persons, referred to as QVOXFFP, will not be able to sell their licenses and gain money if they choose to forego fishing in federal waters. Most of this financial impact will be felt in Alaska.

It appears that both Proposed Action 1 - FR and Proposed Option 1 - FR will probably have some minimally negative impacts and some minimally positive impacts. Under the final rule, Proposed Action 1 - FR appears to be less restrictive than Proposed Option 1 - FR in that QVOXFFP would be allowed to enter into partnership and joint ventures under Proposed Action 1 - FR. The only impacts that appear relatively certain to occur are the negative financial consequences for those qualifiers who will not be able to transfer their licenses or face limited transferability, and the complications the action may bring to the

implementation and administrative process. Impacts on catch and on catch capacity have the potential to be minimally positive if higher license prices result because of the constrained supply. Given that 1995 mean catch levels of qualified vessels owners with (W) FFPs (QVOWFFP) was higher than the mean catch of QVOXFFP, there is some chance that overall catch capacity could be impacted positively. However, if prices for licenses increase, some vessels that might have chosen to fish in federal waters might instead choose to fish only in state waters. This potential could increase the effort on groundfish in state waters, at least minimally.

9.4 Summary of Proposed Action 2: Add Trawl and Non-Trawl Gear Designations to the Groundfish LLP

Proposed Action 2 would add Trawl, Non-trawl, or All Gear designations to the Groundfish LLP. The designations would be based on all gears used by the qualifying vessel during the original qualification periods, regardless of area. Additionally, Proposed Action 2 would allow qualifying vessels to augment their gear designations by showing that they have made a significant financial commitment to use any additional gear types in the groundfish fisheries either by:

- (a) Having made a legal landing on or before February 7, 1998, with the additional gear type, or
- (b) Documenting a significant investment toward the conversion of a vessel or the deployment of the additional gear type on or before February 7, 1998.

Overall, Proposed Action 2 appears to create positive impacts for the groundfish fisheries. Gear designations will reduce the potential that additional trawl effort will be brought into the fisheries. The positive benefits to the entire fishery probably will be offset to some degree by lower prices for individual licenses that do not allow use of trawl gear.

9.5 Summary of Proposed Action 3: Rescind the CDQ Vessel Exemption

The Council exempted four categories of vessels from the requirements of the LLP, including an exemption for CDQ groups. The specific language in the proposed rule exempting CDQ vessels is shown below:

A catcher vessel or catcher/processor vessel that does not exceed 125 ft (38.1 m) LOA, and that was, after November 18, 1992, specifically constructed for and used exclusively in accordance with a CDQ approved by the Secretary of Commerce under subpart C of this part, and is designed and equipped to meet specific needs that are described in the CDQ.

This proposed action would rescind the exemption for CDQ vessels (Exemption iv), but would allow any vessels that CDQ groups have previously built within an existing CDP to continue to be used.

The CDQ vessel exemption was initially established as a part of the GCM, which was developed in 1992 prior to the implementation of the first pollock CDQ programs. At the time there was a great deal of uncertainty about how the CDQ program would operate. With the CDQ program established as a permanent fixture in the fisheries of the North Pacific, and the demonstrated ability of CDQ Groups to form mutually beneficial partnerships with industry, there does not appear to be a need to maintain the CDQ exemption in the Crab and Groundfish LLPs.

9.6 Summary of Proposed Action 4: Clarify the Council's Intent on the Transfer of Catch History

Proposed Action 4 would clarify the Council's intent that catch history transfers be recognized, except those occurring after June 17, 1995, and in cases in which the owner of the vessel at that time was unable to document a vessel under Chapter 121, Title 46, U.S.C.

The proposed action would rewrite the language in the plan amendment and modify the regulations to indicate that the license-qualifying fishing history of vessels whose owners were unable to document their vessels on June 17, 1995, would be extinguished. The change in the language would clarify the Council's intent and ensure that the fishing history of any vessel whose owner was, in fact, ineligible to document a vessel on June 17, 1995, would not be used to qualify for a license.

The analysis also notes that some persons who are eligible to document a vessel in the U.S. may and do concurrently own and operate fishing vessels in other countries. Many vessels that have been fishing under the flags of other countries may in fact be U.S.-owned, and may have been U.S.-owned as of June 17, 1995, and therefore would not be affected by the proposed action.

A legal opinion submitted by NOAA GC indicates that the proposed action, if approved, could create legal concerns. It is possible that even if the Council approves the proposed action, NMFS will not.

9.7 Summary of Proposed Action 5: Require Recent Participation in Crab Fishery

Proposed Action 5 would require recent participation in the BSA king and tanner crab fisheries in order to qualify for a license under the Crab LLP. The recent participation period would involve one or more years (from 1995 through February 7, 1998). The recent participation requirement would apply to the general license only; if a vessel satisfies the recent participation criteria chosen, it would receive its original license and all of the species/area endorsements for which it qualified under the original criteria. No new species/area endorsements could be earned during the recent qualification.

The specific alternatives addressed are shown below:

Alternative 1: Status quo

Alternative 2: Require participation in 1996

Alternative 3: Require participation in both 1995 and 1996

Alternative 4: Require participation in both 1996 and 1997

Alternative 5: Require participation in the two calendar years 1997 – February 7, 1998

Alternative 6: Require participation in all three calendar years, 1995 – 1997

Alternative 7: Require participation in all three calendar years, 1996 – February 7, 1998

Alternative 8: Require participation in all four calendar years, 1995 – February 7, 1998

Alternative 9: Require participation at least once, 1996- February 7, 1998

Alternative 10: Require participation at least once, 1995- February 7, 1998

Alternative 11: Require participation in any two of the four calendar years, 1995 – February 7, 1998

Overall it appears that the proposed action has the potential to reduce the number of LLP qualifiers in the BSA king and tanner crab fisheries. Although requiring participation in 1998 will reduce the fleet by the largest amounts, this choice is less likely to be viewed as equitable because of the very small window of opportunity that results. Of the remaining alternatives, those that require participation in both 1996 and 1997 (Alternative 4 and Alternative 6) provide significant fleet reductions and show the least proportional differences between Alaskans and non-Alaskans.

9.8 Summary of Proposed Action 6: Allow Limited Processing for Catcher Vessels

Proposed Action 6 will change the Groundfish LLP to allow limited processing for vessels with CV designations. In addition to the status quo, which prohibits processing, two alternatives that include processing limits are included. The three alternatives considered under Proposed Action 6 are:

Alternative 1: Maintain the Status quo

Alternative 2: Allow limited processing of bycatch amount of any groundfish up to directed fishing standards by vessels with CV designations

Alternative 3: Allow limited processing up to 5 mt round weight (rwt) per day for vessels < 60' LOA with CV designations, and up to 18 mt rwt per day for vessels ≥ 60' LOA with CV designations

It appears that this proposed action has the potential to create moderately negative to moderately positive impacts on the groundfish fishery. The impacts vary by sector, with the existing H&G Trawl CP and Longline CP fleet likely to be adversely affected by competition from additional vessels with processing capacity. A clear economic rationale that would lead active trawl vessels to upgrade was not readily apparent. In fact, such a conversion may impede the catching capability of a trawl catcher vessel and result in lower net income. Underutilized trawl vessels may be able to take advantages of some niche opportunities. Larger fixed-gear vessels, particularly pot boats, may be able to accommodate the required processing equipment without adversely affecting their catch rates. However, constraints on the number of crew that can be accommodated on most of these vessels, and their modest catch rates, minimize the potential benefits of limited processing. Smaller fixed-gear vessels may be able to add processing equipment and utilize it not only in the groundfish fisheries, but also in salmon fisheries in which they are also likely to participate.

The processing limits of 5 mt rwt and 18 mt rwt imposed by Alternative 3 do not appear to be very effective in limiting the amount processed by fixed-gear vessels, since few are catching that much currently. The limits appear to be more effective in limiting the amounts processed by upgraded trawl vessels. On the other hand limiting processing to bycatch only will reduce the options for vessels to upgrade, particularly for fixed gear vessels with few target fisheries other than Pacific cod.

Overall, it is unknown how many vessels would undertake the investment necessary to engage in limited processing as proposed in Action 6. The fact that relatively few vessels have made these conversions in the past, and the potentially negative catch capacity consequences, suggest that there will be minimal impact on fishery resources if Proposed Action 6 is implemented.

10 Council's Preferred Alternatives

During the October 1998 Council meeting, the Council spent two days receiving staff and public comments on this LLP amendment package and deliberating over the proposed amendments. As a result, the Council voted to amend five of the six LLP provisions before them. Based on advice from NOAA General Counsel, the Council opted to take no action on the provision that would clarify their intent on catch history transfers, where the owner of the vessel on June 17, 1995, was unable to document a vessel under Chapter 121, Title 46, U.S.C.

The Council's suite of preferred alternatives as well as their justification for selecting those alternatives is presented in this chapter. Presenting the Council's preferred alternatives and justification in one section of the document was thought to provide easy access to the Council's decisions without the need to search through the entire document.

10.1 Restricting the Transfer of Licenses Earned on Vessels that Never Held a Federal Fisheries Permit

After considering the alternatives described in Chapter 3, the Council opted to restrict the transfers of groundfish licenses earned on vessels where the vessel owner never held a Federal Fisheries permit prior to October 9, 1998 (the date of final Council action). In these cases, the license may only be transferred if the vessel listed on the license is transferred along with the license.

Transfers of fishing histories and the subsequent licenses that would be issued as a result of those transfers, occurring on or before February 7, 1998 would be grandfathered in under this action. However, transfers that occurred after February 7, 1998 would be prohibited. The February 7, 1998 cut off date was selected because that was the date the Council notified industry these changes were being considered.

Vessels that were lost or destroyed may be replaced so long as the new vessel met the replacement provisions outlined in the original LLP. The Council considered limiting the replacement vessel to the same length and horsepower as the lost vessel. However because almost all of these vessels are in the < 60' LOA license category and cannot increase their length to more than 59' LOA under the LLP, the Council felt that adequate protection from capacity increases was provided under the original LLP upgrade provisions.

Restricting license transfers from Non-Federally permitted vessels will require that the vessel be listed on the license. Recall that the LLP final rule published on October 1, 1998 states that the name of the vessel will not be recorded on the license. To implement this amendment, the Council has requested that NMFS develop a regulatory amendment to the LLP that would require the vessel to be listed on the license. The Council requested that the regulatory amendment also implement a one transfer per year provision. This change was requested to strengthen the Council's policy banning the leasing to licenses.

The Federal Fishing Permit (FFP) history of each of the 2,435 vessels projected to qualify under the Groundfish LLP was examined for the years 1988 through October 2, 1998 (information was not available through October 9 when this document was drafted). During this time period the owners of 447 groundfish LLP qualified vessels never held a FFP. Chapter 3 of this document indicates that 507 vessels never held an FFP prior to 1996. This means that sixty of the 2,435 vessels obtained a FFP for the first

time between June 17, 1995 and October 2, 1998. The owners of these 447 vessels will not be allowed to transfer their license unless the vessel is transferred along with the vessel.

Vessels that never held a FFP accounted for a small amount of the overall fishing capacity. The concern was that these vessel owners may sell the license to someone who would use it more aggressively and thereby increase harvesting capacity, while the vessel that the license came from continued to participate in State waters groundfish fisheries.

Limiting transfers would not disenfranchise these license holders, in the Council's view. They would be allowed to fish in State waters as they had in the past. If they wanted to start fishing in Federal waters, they could acquire a FFP and do so. What the Council wanted to limit was their ability to sell the license and add capacity to the Federal waters fleet, while they continued to fish their vessel in State waters.

10.2 Add Gear Endorsements to the Groundfish Licenses

Groundfish vessels licensed under the LLP October 1, 1998 final rule would have only been subject to length, catcher vessel/catcher processor, and area restrictions. Members of the fishing industry and the Council were concerned that not including gear restrictions would have allowed capacity increases contrary to the intent of the LLP. A frequently cited example of the problem is the case of a longline vessel that qualifies for a license and also holds IFQs. This vessel could sell the license to a trawler from the Pacific coast and still continue fishing under the IFQ program since IFQ holders are not required to hold a groundfish license while fishing IFQ species. Under this scenario, a new trawler could enter the North Pacific groundfish fishery and potentially add significant harvesting capacity to an already fully subscribed fishery, while the original vessel also continues to fish. Adding gear designations to the general (umbrella) license would remedy this particular scenario.

A discussion of the alternatives considered by the Council is presented in Chapter 4 of this document. After considering these alternatives the Council voted to amend the original groundfish LLP by adding trawl and non-trawl gear designations to the general license. These designations will be based on the fishing history of the vessel that was used to earn the license during the original LLP qualifying period (January 1, 1988 through June 17, 1995). If the vessel used to qualify for the license added or changed gear types from June 18, 1995 through February 7, 1998, then the license recipient will be allowed to choose either the trawl or non-trawl designations. Vessels that used both trawl and non-trawl gear during the original LLP qualifying period would be issued both trawl and non-trawl designations.

Vessels that did not make a landing with a new gear type before February 7, 1998, but whose owners made a "significant" financial investment in the deployment of the new gear type, by February 7, 1998, may select either a trawl or non-trawl designation, if they made a landing with the new gear type by December 31, 1998. A significant financial investment for a trawl designation is defined as a minimum purchase of \$100,000 worth of equipment specific to trawling. For a non-trawl designation, the vessel owners must have acquired groundline, hooks or pots, and hauling equipment for the purpose of prosecuting non-trawl groundfish fisheries. No specific dollar amount was included for the non-trawl fisheries because some members of the Council wished to encourage vessels to switch to what was perceived as the "cleaner gear". Members of the Council also indicated that under the IFQ fishery less gear is being used and lost, so more used gear is available on the market for relatively little money. Inexpensive gear on the market also made determining a dollar figure difficult.

The Council departed from the Advisory Panel's recommendation to add trawl designations only. This would have allowed vessel to move into non-trawl fisheries regardless of their designation. Allowing

trawl vessels the opportunity to move into non-trawl fisheries when non-trawl vessels could not move into trawl fisheries was not felt to be equitable, especially since the BS/AI Pacific cod quota is allocated between trawl non-trawl gears.

A general analysis of gear designations was provided in Chapter 4. In that Chapter projections of the number of trawl and non-trawl designations for the entire Groundfish LLP were developed and discussed. There were however numerous comments that while the information provided was sufficient for the Council's decision, additional information showing gear designations by FMP area and subareas would have been welcome. Comments also indicated that data providing a breakdown of the actual gear usage in recent years would be helpful. Tables 87 – 92 provide the additional information as requested.

The Council's final action dictates gear designations for five types of gear use patterns as follows:

Table 87: Gear-use Patterns and Resulting Gear Designations in the Council's Final Action

Gear Use Pattern	Gear Designations
Exclusively used non-trawl gear in during the original qualifying period and in recent years.	Non-trawl
Exclusively used trawl gear in during the original qualifying period and in recent years.	Trawl
Used both trawl and non-trawl gear in the original qualifying period.	Trawl and Non-trawl
Used trawl gear in the original qualifying period and non-trawl gear in the recent years	Choice of Trawl or Non-trawl
Used non-trawl gear in the original qualifying period and trawl gear in the recent years	Choice of Trawl or Non-trawl

Because of the choice of gear designations provided to qualifiers that used different gears in the recent they used in the qualifying years it is not possible to provide a single estimate of the number of vessels that will receive trawl or a non-trawl designations. Table 88 shows the number of vessels that are projected to receive the trawl or non-trawl gear designations, both designations, or a choice of designations in the GOA, BSAI, and in the LLP as a whole.

Table 88: Projected Gear Designation in the GOA, BSA and EEZ as a Whole

Description of Vessel and Gear Designations	GOA	BSAI	LLP
Catcher Vessels with Non-Trawl Gear Designations	1,898	241	2,003
Catcher Vessels with Trawl Gear Designations	66	64	82
Catcher Vessels with Both Trawl and Non-Trawl Gear Designations	171	89	181
Catcher Vessels with the Choice of Trawl or Non-Trawl Gear Designations	15	13	22
Range of Catcher Vessels Qualifying for Non-Trawl Gear Designations	2,069 - 2,084	422 - 435	2,184 - 2,206
Range of Catcher Vessels Qualifying for Trawl Gear Designations	237 - 252	245 - 258	263 - 285
Total of All Catcher Vessels	2,150	407	2,288
Catcher Processors with Non-Trawl Gear Designations	37	54	57
Catcher Processors with Trawl Gear Designations	23	40	42
Catcher Processors with Both Trawl and Non-Trawl Gear Designations	22	44	44
Catcher Processors with the Choice of Trawl or Non-Trawl Gear Designations	3	3	4
Range of Catcher Processors Qualifying for Non-Trawl Gear Designations	59 - 62	98 - 101	101 - 105
Range of Catcher Processors Qualifying for Trawl Gear Designations	45 - 48	84 - 87	86 - 90
Total of All Catcher Processors	85	141	147
Range of All vessels Qualifying for Non-Trawl Gear Designations	2,128 - 2,146	520 - 536	2,285 - 2,311
Range of All Vessels Qualifying for Trawl Gear Designations	282 - 300	329 - 345	349 - 375
Total of All Catcher Vessels and Catcher Processors Combined	2,235	548	2,435

Note: The range of projected numbers of gear designations occurs because vessel which used different gears in the qualifying years and in recent years may choose either trawl or non-trawl designations.

Table 88 also shows the range in the number vessels that are projected to receive one or the other gear designation. The low end of the range is estimated by adding the number of vessels that exclusively used a single gear to the number of vessels that used both gears during the original LLP qualifying period. Thus the low end of the range of catcher vessel that will receive non-trawl endorsements in the GOA is calculated as $1,898 + 171 = 2,069$. The high end of the range adds in the number of vessels that have a choice of gear designations. Thus the high end of the range of catcher vessels that will receive non-trawl endorsements in the GOA is calculated as $2,069 + 15 = 2,084$.

Table 89 provides a breakdown of gear designations by area endorsements catcher vessel/catcher processor designations and vessel length designations. The table rows are divided into three main sections showing catcher vessels, then catcher processors, and then finally catcher vessels and catcher processors combined. The main sections are separated by double-lines (=====). Within the first two sections (showing gear designations for catcher vessels and then catcher processors) there are four sets of rows showing the four different outcomes for gear designations based on the available data. These four sets are: 1) non-trawl gear designations, 2) trawl designations, 3) both trawl and non-trawl gear designations, and 4) a choice between trawl or non-trawl gear designations. Each set contains rows for each vessel length class in which vessels are projected to qualify. The last row in each main section shows the total number of endorsements that will be issued for each type of vessel. For the GOA, BSAI and LLP total, the rows showing the totals for each set are identical to the similarly defined rows in Table 88 above. In other words, the projected number of catcher vessels that are projected to receive only non-trawl designations for the GOA is 1,898. This projection is found in the fourth row of numbers and fourth column of numbers in Table 89 and in the first row of numbers and first column of number in Table 88.

The columns in Table 89 show the gear designations of vessels that are projected to receive endorsements for the each subarea and for the GOA and BSAI as a whole. It is important to note that many vessels will receive the endorsements for more than one subarea. For example, the number of licenses for the GOA will be less than the number obtained by adding together the number of endorsements in the Eastern, Central, and Western Gulf subareas. Some vessels will also receive endorsements in both the GOA and the BSAI. Therefore the total number of licenses shown in the last column of the table is less than the total obtained by adding the number of in the GOA to the number in the BSAI.

The Council's LLP will prohibit vessels from using trawl gear in the Eastern Gulf, but vessels that qualify for endorsements in the Eastern Gulf may in fact receive trawl gear designations and endorsements for the Eastern Gulf. Table 89 indicates that at least 10 catcher vessels, 6 catcher processors will receive trawl gear designations and endorsements for the Eastern Gulf. This does not mean that these vessels will be allowed to trawl in the Eastern Gulf, but rather that they will be allowed to trawl in other areas for which they receive endorsements. Vessels that receive trawl designations in the Eastern Gulf will only be allowed to use non-trawl gear.

The first row of numbers in Table 89 indicates that there are 975 catcher vessels that are 59' or less that will receive non-trawl designations in the Eastern Gulf. The table also shows that 981 designations will be issued to small catcher vessels in the Central Gulf and another 122 in the Western Gulf. Adding these three numbers together results in a sum of 2,078. However the total number of small catcher-vessels that are projected to receive non-trawl designations in the GOA as shown in Table 89 is only 1,740. This means that as many as 338 small catcher vessels will receive endorsements in more than one area in the GOA. In the BSAI, Table 89 indicates that 14 small catcher vessels will receive non-trawl designations and endorsements for the Aleutian Islands subarea and that 98 small catcher vessels will receive non-trawl designations and endorsements for the Bering Sea subarea. For the BSAI as whole however, the number of vessels that receive non-trawl designations is also 98. This means that every small catcher vessel that will receive a non-trawl designation and an endorsement for the Aleutian Islands will also receive an endorsement for the Bering Sea. Similar types of observations can be made for vessel in other length classes and catcher-vessel/catcher-processor designations.

Table 89: Groundfish Vessel, Length, and Gear Designations By Endorsement Area

Vessel Length	Eastern Gulf	Central Gulf	Western Gulf	GOA Total	Aleutian Islands	Bering Sea	BSAI Total	LLP Total
Designated Catcher Vessels with Non-Trawl Gear Designations								
0' – 59'	975	981	122	1,740	14	98	98	1,770
60' – 124'	39	120	73	152	36	110	116	205
125' +	0	0	6	6	1	26	27	28
Total	1,014	1,101	201	1,898	51	234	241	2,003
Designated Catcher Vessels with Trawl Gear Designations								
0' – 59'	0	9	10	14	0	8	8	21
60' – 124'	0	23	29	35	8	37	37	42
125' +	0	6	17	17	16	19	19	19
Total	0	38	56	66	24	64	64	82
Designated Catcher Vessels with Both Trawl and Non-Trawl Gear Designations								
0' – 59'	9	70	54	81	0	19	19	82
60' – 124'	1	71	50	84	18	62	63	92
125' +	0	4	6	6	7	7	7	7
Total	10	145	110	171	25	88	89	181
Designated Catcher Vessels with the Choice between Trawl and Non-Trawl Gear Designations								
0' – 59'	3	4	1	6	0	1	1	7
60' – 124'	0	6	4	8	1	10	10	12
125' +	0	0	1	1	0	2	2	3
Total	3	10	6	15	1	13	13	22
All Designated Catcher Vessels								
Total	1,027	1,294	373	2,150	101	399	407	2,288
Designated Catcher Processors with Non-Trawl Gear Designations								
0' – 59'	3	4	2	4	1	2	2	4
60' – 124'	8	18	11	19	22	22	22	23
125' +	0	9	10	14	27	29	30	30
Total	11	31	23	37	50	53	54	57
Designated Catcher Processors with Trawl Gear Designations								
60' – 124'	0	7	4	7	1	5	5	7
125' +	2	12	15	16	35	35	35	35
Total	2	19	19	23	36	40	40	42
Designated Catcher Processors with Both Trawl and Non-Trawl Gear Designations								
60' – 124'	3	7	5	7	7	11	11	11
125' +	1	11	12	15	33	33	33	33
Total	4	18	17	22	40	44	44	44
Designated Catcher Processors with the Choice between Trawl and Non-Trawl Gear Designations								
60' – 124'	0	1	0	1	0	0	0	1
125' +	0	0	2	2	3	2	3	3
Total	0	1	2	3	3	2	3	4
All Catcher Processors								
Total	17	69	61	85	129	139	141	147
Designated Catcher Vessels and Catcher Processors Combined								
Total	1,044	1,363	434	2,235	230	538	548	2,435

Tables 90 – 92 provide additional details about the gears used in recent years on vessels that qualify for groundfish licenses. In terms of the assignment of gear designations, recent participation affects only those vessels that used a different gear during the period between June 18, 1995 and February 7, 1998 than was used in the original qualifying period. Tables 90 – 92 however, provide recent gear use information for all qualifying vessels. The tables are useful in that they allow the reader to determine the diversity of gears and their usage by vessels that are projected to receive non-trawl gear designations. The tables also provide an indication of the level of recent non-participation by vessels that are projected to receive groundfish licenses.

Table 90 summarizes the gears used in recent years by vessels that qualify for licenses in the GOA and BSAI, and in the Groundfish LLP as a whole. Table 91 provides additional details for the Eastern Gulf, Central Gulf, and Western Gulf endorsement areas. Table 92 provides additional details for the Aleutian Islands and Bering Sea endorsement areas.

Tables 90 – 92 are formatted similarly to Table 89 with the addition of five columns in FMP area and endorsement subarea showing gears used in recent years by the qualifying vessel. The recent participation gear columns are defined as follows:

1. **DNP** shows the number of qualifying vessels that did not participate between 6/18/95 and 2/7/98
2. **H&L** shows the qualifying vessels that used hook and line gear between 6/18/95 and 2/7/98
3. **Jig** shows the number of qualifying vessels that used jig gear between 6/18/95 and 2/7/98
4. **Trw.** shows the number of qualifying vessels that used trawl gear between 6/18/95 and 2/7/98
5. **Lic's** shows the number of unique vessels that are projected to qualify for licenses

Table 90: LLP Designations, Endorsements and Gears Used 6/18/95 and 2/7/98

Vessel Length	Gulf of Alaska						Bering Sea and Aleutian Islands						Groundfish License Limitation Program					
	DNP	H&L	Jig	Pot	Trw.	Lic's	DNP	H&L	Jig	Pot	Trw.	Lic's	DNP	H&L	Jig	Pot	Trw.	Lic's
Designated Catcher Vessels with Non-Trawl Gear Designations																		
0' - 59'	584	1,094	186	96	0	1,740	18	63	35	11	0	98	591	1,105	205	99	0	1,770
60' - 124'	19	114	2	55	0	152	11	53	1	68	0	116	25	118	2	101	0	205
125' +	0	2	0	6	0	6	3	2	0	24	0	27	3	2	0	25	0	28
Total	603	1,210	188	157	0	1,898	32	118	36	103	0	241	619	1,225	207	225	0	2,003
Designated Catcher Vessels with Trawl Gear Designations																		
0' - 59'	10	0	0	0	4	14	6	0	0	0	2	8	16	0	0	0	5	21
60' - 124'	4	0	0	0	31	35	3	0	0	0	34	37	6	0	0	0	36	42
125' +	0	0	0	0	17	17	0	0	0	0	19	19	0	0	0	0	19	19
Total	14	0	0	0	52	66	9	0	0	0	55	64	22	0	0	0	60	82
Designated Catcher Vessels with Both Trawl and Non-Trawl Gear Designations																		
0' - 59'	3	50	12	39	54	81	1	10	3	11	11	19	3	51	12	40	54	82
60' - 124'	7	40	1	21	61	84	5	18	0	14	46	63	7	40	1	23	68	92
125' +	0	0	0	0	6	6	0	0	0	1	7	7	0	0	0	1	7	7
Total	10	90	13	60	121	171	6	28	3	26	64	89	10	91	13	64	129	181
Designated Catcher Vessels with the Choice between Trawl and Non-Trawl Gear Designations																		
0' - 59'	0	5	0	2	6	6	0	1	1	0	0	1	0	6	1	2	6	7
60' - 124'	0	2	0	5	8	8	0	2	0	9	8	10	0	3	0	9	10	12
125' +	0	0	0	1	1	1	0	0	0	2	2	2	0	0	0	3	3	3
Total	0	7	0	8	15	15	0	3	1	11	10	13	0	9	1	14	19	22
All Designated Catcher Vessels																		
Total	627	1,307	201	225	188	2,150	47	149	40	140	129	407	651	1,325	221	303	208	2,288
Designated Catcher Processors with Non-Trawl Gear Designations																		
0' - 59'	0	4	1	0	0	4	0	2	1	0	0	2	0	4	1	0	0	4
60' - 124'	1	17	1	2	0	19	3	18	1	2	0	22	3	19	1	3	0	23
125' +	1	13	0	4	0	14	12	17	0	6	0	30	12	17	0	6	0	30
Total	2	34	2	6	0	37	15	37	2	8	0	54	15	40	2	9	0	57
Designated Catcher Processors with Trawl Gear Designations																		
60' - 124'	0	0	0	0	7	7	0	0	0	0	5	5	0	0	0	0	7	7
125' +	1	0	0	0	15	16	1	0	0	0	34	35	1	0	0	0	34	35
Total	1	0	0	0	22	23	1	0	0	0	39	40	1	0	0	0	41	42
Designated Catcher Processors with Both Trawl and Non-Trawl Gear Designations																		
60' - 124'	0	6	0	2	3	7	2	7	1	2	4	11	2	7	1	2	4	11
125' +	0	4	0	1	11	15	2	9	0	2	24	33	2	9	0	2	24	33
Total	0	10	0	3	14	22	4	16	1	4	28	44	4	16	1	4	28	44
Designated Catcher Processors with the Choice between Trawl and Non-Trawl Gear Designations																		
60' - 124'	0	0	1	0	1	1	0	0	0	0	0	0	0	0	1	0	1	1
125' +	0	1	0	1	2	2	0	1	0	1	3	3	0	1	0	1	3	3
Total	0	1	1	1	3	3	0	1	0	1	3	3	0	1	1	1	4	4
All Catcher Processors																		
Total	3	45	3	10	39	85	20	54	3	13	70	141	20	57	4	14	73	147
Designated Catcher Vessels and Catcher Processors Combined																		
Total	630	1,352	204	235	227	2,235	67	203	43	153	199	548	671	1,382	225	317	281	2,435

Table 91: GOA Designations, Endorsements and Gears Used between 6/18/95 and 2/7/98

Vessel Length	Eastern Gulf						Central Gulf						Western Gulf					
	DNP	H&L Jig	Pot	Trw.	Lic's		DNP	H&L Jig	Pot	Trw.	Lic's		DNP	H&L Jig	Pot	Trw.	Lic's	
Designated Catcher Vessels with Non-Trawl Gear Designations																		
0' - 59'	312	636	74	9	0	975	297	654	120	80	0	981	22	85	26	26	0	122
60' - 124'	3	36	0	2	0	39	13	99	1	40	0	120	8	53	1	24	0	73
125' +	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	6	0	6
Total	315	672	74	11	0	1,014	310	753	121	120	0	1,101	30	140	27	56	0	201
Designated Catcher Vessels with Trawl Gear Designations																		
0' - 59'	0	0	0	0	0	0	5	0	0	0	4	9	6	0	0	0	4	10
60' - 124'	0	0	0	0	0	0	3	0	0	0	20	23	2	0	0	0	27	29
125' +	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	0	17	17
Total	0	0	0	0	0	0	8	0	0	0	30	38	8	0	0	0	48	56
Designated Catcher Vessels with Both Trawl and Non-Trawl Gear Designations																		
0' - 59'	0	6	1	1	5	9	2	42	9	32	52	70	2	27	7	31	42	54
60' - 124'	0	1	0	0	0	1	5	40	1	17	52	71	5	14	0	16	37	50
125' +	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	6	6
Total	0	7	1	1	5	10	7	82	10	49	108	145	7	41	7	47	85	110
Designated Catcher Vessels with the Choice between Trawl and Non-Trawl Gear Designations																		
0' - 59'	0	2	0	0	3	3	0	4	0	2	4	4	0	1	0	1	1	1
60' - 124'	0	0	0	0	0	0	0	2	0	3	6	6	0	0	0	4	4	4
125' +	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total	0	2	0	0	3	3	0	6	0	5	10	10	0	1	0	6	6	6
All Designated Catcher Vessels																		
Total	315	681	75	12	8	1,027	325	841	131	174	148	1,294	45	182	34	109	139	373
Designated Catcher Processors with Non-Trawl Gear Designations																		
0' - 59'	0	3	1	0	0	3	0	4	1	0	0	4	0	2	1	0	0	2
60' - 124'	0	8	0	0	0	8	1	17	1	1	0	18	0	10	1	1	0	11
125' +	0	0	0	0	0	0	0	9	0	1	0	9	1	9	0	4	0	10
Total	0	11	1	0	0	11	1	30	2	2	0	31	1	21	2	5	0	23
Designated Catcher Processors with Trawl Gear Designations																		
60' - 124'	0	0	0	0	0	0	0	0	0	0	7	7	0	0	0	0	4	4
125' +	0	0	0	0	2	2	1	0	0	0	11	12	0	0	0	0	15	15
Total	0	0	0	0	2	2	1	0	0	0	18	19	0	0	0	0	19	19
Designated Catcher Processors with Both Trawl and Non-Trawl Gear Designations																		
60' - 124'	0	3	0	0	0	3	0	6	0	2	3	7	0	5	0	2	2	5
125' +	0	0	0	0	1	1	0	3	0	1	8	11	0	3	0	1	9	12
Total	0	3	0	0	1	4	0	9	0	3	11	18	0	8	0	3	11	17
Designated Catcher Processors with the Choice between Trawl and Non-Trawl Gear Designations																		
60' - 124'	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0
125' +	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	2
Total	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	1	2	2
All Catcher Processors																		
Total	0	14	1	0	3	17	2	39	3	5	30	69	1	30	2	9	32	61
Designated Catcher Vessels and Catcher Processors Combined																		
Total	315	695	76	12	11	1,044	327	880	134	179	178	1,363	46	212	36	118	171	434

Table 92: BSAI Designations, Endorsements and Gears Used between 6/18/95 and 2/7/98

Vessel Length	Aleutian Islands						Bering Sea					
	DNP	H&L	Jig	Pot	Trw.	Lic's	DNP	H&L	Jig	Pot	Trw.	Lic's
Designated Catcher Vessels with Non-Trawl Gear Designations												
0' - 59'	1	13	0	0	0	14	18	63	35	11	0	98
60' - 124'	4	30	0	4	0	36	10	48	1	67	0	110
125' +	0	0	0	1	0	1	3	2	0	23	0	26
Total	5	43	0	5	0	51	31	113	36	101	0	234
Designated Catcher Vessels with Trawl Gear Designations												
0' - 59'	0	0	0	0	0	0	6	0	0	0	2	8
60' - 124'	1	0	0	0	7	8	3	0	0	0	34	37
125' +	0	0	0	0	16	16	0	0	0	0	19	19
Total	1	0	0	0	23	24	9	0	0	0	55	64
Designated Catcher Vessels with Both Trawl and Non-Trawl Gear Designations												
0' - 59'	0	0	0	0	0	0	1	10	3	11	11	19
60' - 124'	0	6	0	3	13	18	5	17	0	14	46	62
125' +	0	0	0	1	7	7	0	0	0	1	7	7
Total	0	6	0	4	20	25	6	27	3	26	64	88
Designated Catcher Vessels with the Choice between Trawl and Non-Trawl Gear Designations												
0' - 59'	0	0	0	0	0	0	0	1	1	0	0	1
60' - 124'	0	0	0	1	1	1	0	2	0	9	8	10
125' +	0	0	0	0	0	0	0	0	0	2	2	2
Total	0	0	0	1	1	1	0	3	1	11	10	13
All Designated Catcher Vessels												
Total	6	49	0	10	44	101	46	143	40	138	129	399
Designated Catcher Processors with Non-Trawl Gear Designations												
0' - 59'	0	1	0	0	0	1	0	2	1	0	0	2
60' - 124'	3	18	1	2	0	22	3	18	1	2	0	22
125' +	11	16	0	5	0	27	11	17	0	6	0	29
Total	14	35	1	7	0	50	14	37	2	8	0	53
Designated Catcher Processors with Trawl Gear Designations												
60' - 124'	0	0	0	0	1	1	0	0	0	0	5	5
125' +	1	0	0	0	34	35	1	0	0	0	34	35
Total	1	0	0	0	35	36	1	0	0	0	39	40
Designated Catcher Processors with Both Trawl and Non-Trawl Gear Designations												
60' - 124'	0	7	0	2	2	7	2	7	1	2	4	11
125' +	2	9	0	2	24	33	2	9	0	2	24	33
Total	2	16	0	4	26	40	4	16	1	4	28	44
Designated Catcher Processors with the Choice between Trawl and Non-Trawl Gear Designations												
60' - 124'	0	0	0	0	0	0	0	0	0	0	0	0
125' +	0	1	0	1	3	3	0	1	0	1	2	2
Total	0	1	0	1	3	3	0	1	0	1	2	2
All Catcher Processors												
Total	17	52	1	12	64	129	19	54	3	13	69	139
Designated Catcher Vessels and Catcher Processors Combined												
Total	23	101	1	22	108	230	65	197	43	151	198	538

10.3 CDQ Vessel Exemption

Chapter 5 of this document discusses the LLP amendment that would rescind the CDQ vessel exemption. The exemption would allow a CDQ group to construct a catcher vessel or catcher processor vessel that does not exceed 125 ft. LOA, after November 18, 1992, for use exclusively in accordance with a CDQ approved by the Secretary of Commerce. Discussions with CDQ groups indicated that this exemption has not been used to date. The groups went on to say that cooperation with the fishing industry was important to the success of the CDQ program, and if this exemption causes enmity, they would not object to removing the exemption.

The Council voted to drop the exemption, but grandfathered any vessels that were currently being built or operating in an existing CDQ program. This motion passed without objection.

10.4 Require Recent Crab Fishery Participation

Early in 1998, members of the BS/AI crab fishery expressed concern that the original crab LLP would allow too many vessels to qualify, and the program would issue licenses for vessels that have not recently been active in the fishery. Acting on these concerns the Council requested that a recent participation requirement for the crab LLP be studied. The original results of this analysis are presented in Chapter 7 of this document. Since chapter 7 of this document was published, the database used to estimate the likely number of crab LLP qualified vessels has been updated. Our best estimates of the number of vessels that qualify for crab licenses are reported below. The first table reports the number of vessels that are expected to qualify under each of the alternatives considered by the Council. The second table lists the number of endorsements, by fishery, that those vessels are expected to receive. These numbers are different from those reported in chapter 7.

A total of 365 vessels were projected to qualify under the original crab LLP, excluding vessels which would only qualify for the super-exclusive Norton Sound summer red and blue king crab fishery. The recent participation alternatives considered by the Council would require that these vessels also participate in one or more years during the 1995 through February 7, 1998 time period. The options specifically analyzed would reduce the fleet to 210 vessels under the most restrictive scenario that required a vessel to participate in all four calendar years 1995 through February 7, 1998. The most liberal recent participation requirement would allow a vessel to qualify if it made a legal BS/AI crab landing at any time from January 1, 1995 through February 7, 1998. Under this alternative it is estimated that 310 vessels would qualify.

Table 93: Number of vessels under alternatives 2 through 11

Alternatives	Qualified				Not Qualified			
	0-59'	60-124'	125'+	Total	0-59'	60-124'	125'+	Total
Alt. 2: 1996	14	175	74	263	0	68	34	102
Alt. 3: 1995 & 96	14	169	67	250	0	74	41	115
Alt. 4: 1996 & 97	14	169	68	251	0	74	40	114
Alt. 5: 1997 & 98	14	143	63	220	0	100	45	145
Alt. 6: 1995-97	14	163	61	238	0	80	47	127
Alt. 7: 1996-98	14	142	60	216	0	101	48	149
Alt. 8: 1995-98	14	141	55	210	0	102	53	155
Alt. 9: Once, 1996-98	14	200	84	298	0	43	24	67
Alt. 10: Once, 1995-98	14	209	87	310	0	34	21	55
Alt. 11: Twice, 1995-98	14	189	80	283	0	54	28	82

Notes:

- 1) These estimates exclude vessels only qualified for a Norton Sound endorsement, vessels under construction, and the 1998 landings exemption.
- 2) Only the period January 1, 1998 –February 7, 1998 is included for options that use 1998 in the qualification criteria.
- 3) All alternatives include 12 vessels < 60' LOA which were exempted by the Council from any recent participation requirement, and 4 vessels that will be allowed to reenter the fishery if they obtain a lost vessel's catch history.

Table 94: Number of endorsements under alternatives 2 through 11

Alternatives	BSAI Tanner		Adak Brown		Adak Red		Bristol Bay Red		D. Harbor Brown		Pribilof Blue/Red		St. Matt. Blue/Red	
	Q	N	Q	N	Q	N	Q	N	Q	N	Q	N	Q	N
Alt. 2: 1996	244	79	23	4	27	4	244	92	18	3	145	30	170	31
Alt. 3: 1995 & 96	231	92	20	7	26	5	232	104	16	5	143	32	165	36
Alt. 4: 1996 & 97	233	90	22	5	27	4	233	103	17	4	139	36	164	37
Alt. 5: 1997 & 98	203	120	18	9	24	7	204	132	16	5	132	43	156	45
Alt. 6: 1995-97	220	103	19	8	26	5	221	115	15	6	137	38	159	42
Alt. 7: 1996-98	199	124	18	9	23	8	200	136	16	5	129	46	152	49
Alt. 8: 1995-98	193	130	16	11	23	8	194	142	14	7	128	47	149	52
Alt. 9: Once, 1996-98	279	44	23	4	29	2	279	57	18	3	155	20	183	18
Alt. 10: Once, 1995-98	288	35	24	3	29	2	289	47	19	2	159	16	185	16
Alt. 11: Twice, 1995-98	264	59	23	4	29	2	264	72	18	3	154	21	179	22

Notes:

- 1) These estimates exclude vessels only qualified for a Norton Sound endorsement, vessels under construction, and the 1998 landings exemption.
- 2) Only the period January 1, 1998 –February 7, 1998 is included for options that use 1998 in the qualification criteria.
- 3) All alternatives include 12 vessels < 60' LOA which were exempted by the Council from any recent participation requirement, and 4 vessels that will be allowed to reenter the fishery if they obtain a lost vessel's catch history.

After considering all of the alternatives, the Council selected Alternative 9 (pp. 105-106), which requires a crab LLP qualified vessel to make at least one additional BS/AI crab landing from January 1, 1996 through February 7, 1998 to retain its qualification. That alternative is projected to allow 298 vessels to qualify, using the revised data and the exemptions listed below, for the BS/AI crab fishery. A total of 278 vessels would have been expected to qualify without the exemptions. The Council specified four exemptions when it selected Alternative 9. Those exemptions are listed below:

1. Vessels with only a Norton Sound red and blue summer king crab endorsement.
2. All vessels that are less than 60' LOA and are qualified under the original LLP.
3. Vessels that made landings in the BSAI crab fishery in 1998, on or before February 7, 1998, and for which the owner acquires license limitation rights from a vessel that meets the general qualification period (GQP) and endorsement qualification period (EQP) landing requirements. The owner must have acquired the rights or entered into a contract to acquire the rights by 8:36 a.m. Pacific time on October 10, 1998.
4. A vessel that was lost or destroyed and which made a landing (or its replacement vessel) in the BSAI crab fishery at any time from the time when the vessel left the fishery through January 1, 2000. That vessel would be deemed to have met the recent participation criteria and would be granted a general license and all the species/area endorsements to which it was entitled under the original crab LLP.

Exemptions 2 and 3 are expected to allow approximately 16 additional vessels to qualify, 12 of whom qualify as a result of exempting vessels <60' from the recent participation requirements. A maximum of 4 additional vessels will be allowed to reenter the fishery if they obtain a lost vessel's catch history and make a landing with the replacement vessel under, exemption 4.

The Council also stated its intent regarding the combination of catch histories. The Council's intent was that the catch history of a vessel qualified under the original crab LLP, but which did not meet the recent participation requirement, and the catch history of a second vessel that did not qualify under the original crab LLP but had recent crab participation, could not be combined after 8:36 a.m. Pacific time on October 10, 1998, to qualify a vessel where neither was qualified before. The cutoff time applies to either acquiring of the actual catch history rights or entering into a contract to acquire those catch history rights. The Council understood that allowing these histories to be combined would render the recent qualification requirement ineffective. There are enough recent catch histories available to allow all 365 vessels to continue operating in the fishery.

The Council also stated their intent that if a person owns multiple vessels, and only one vessel met the recent qualification criteria, only one license would be issued. Their intent was that a vessel could only generate one recent participation history under the LLP program.

The Council also voted to issue a single non-severable license when combined fishing histories were used to earn a license (see pp. 82-83). The contract to obtain these fishing histories or the actual fishing history transfers must have occurred before 8:36 a.m. Pacific time on October 10, 1998. Combining these licenses is expected to reduce the number of licenses issued by 6. This means that the overall number of vessels that would qualify under the revised crab LLP is reduced by about 20 percent from the 365 that were originally projected to qualify.

Members of the Council selected Alternative 9 because it removed latent capacity while allowing "combination" boats to continue to operate in the crab fishery if they made at least one landing from January 1, 1996 through February 7, 1998. Combination boats, many of which fished crab exclusively in

the 1970's and early 80's began trawling for groundfish, in addition to fishing crab, when the crab stocks declined in the mid 1980's. These combination vessels may choose not fish crab in years when the GHL's are low. According to several witnesses during public testimony, the depressed state of some crab stocks in recent years may have led many of these combination vessels to opt out the crab fisheries.

10.5 Limited Processing Upgrades

Chapter 8 provides an analysis of the impacts which would result from allowing vessels with catcher vessel designations, under the groundfish LLP, to process limited amounts of fish. Alternatives were considered that would allow catcher vessels < 60' LOA to process up to 5 mt round weight of fish per day, and catcher vessels < 60' LOA to process 18 mt round weight per day. These processing limits were considered too high by the Council and several members of industry. The Council pointed out that the analysis, members of industry, and their own personal experiences indicate that freezer longliners could be viable processing 18 mt of round fish per day. Members of the H&G fleet also indicated that 18 mt round weight per day would make a pocket catcher processor viable. It was never the Council's intent to create a new class of catcher processor through this amendment. Therefore, the Council selected the option that allows only catcher vessels less than 60' LOA to process up to 1 mt round weight of fish per day in the both the Bering Sea/Aleutian Islands and the Gulf of Alaska.

While the Council's preferred alternative was not explicitly studied in this document, it was understood that the analysis provided a range of options from which the Council could choose. The range of options was up to 18mt round weight per day for vessels > 60' LOA and up to 5 mt round weight per day for vessels < 60' LOA. The 1 mt limit for catcher vessels < 60' LOA was felt to fall within the range provided in the analysis, especially since the analysis was primarily qualitative, and accurate quantitative projections could not be made for any of the alternatives being considered.

Allowing the smallest class of catcher vessels to process up to 1 mt round weight per day was not expected to add significant capacity to the existing fleet. Giving small catcher vessels the opportunity to process small amounts of fish is expected to provide niche markets, where they may not currently exist, without creating a new class of full-time catcher processor vessels. Members of the Council felt that this issue had been brought up by industry several times in the past and that some sectors of industry felt it was important to be able to process small amounts of fish when they could not find markets for the raw fish. The limited processing provision may make it possible for small catcher vessels to process fish that would otherwise have no value.

Without this provision it would have been almost impossible for catcher vessels in this size class to process fish under the LLP. Table 3 in this document, on page 13, shows that there are only two <60' LOA catcher processor licenses available in the Bering Sea and only one in the Aleutian Islands. Because of the limited supply of catcher processor licenses in the < 60' LOA category, they would likely be expensive and very difficult to purchase.

11 Environmental Assessment

An Environmental Assessment (EA) is required by NEPA to determine whether the action considered will significantly impact the human environment. An Environmental Impact Study (EIS) must be prepared if the proposed action may reasonably be expected to do any of the following:

- 1) Jeopardize the productive capability of the target resource species or any related stocks that may be affected by the action
- 2) Allow substantial damage to the ocean and coastal habitats
- 3) Have a substantial adverse impact on public health or safety
- 4) Affect adversely an endangered or threatened species or a marine mammal population
- 5) Result in cumulative effects that could have a substantial adverse effect on the target resource species or any related stocks that may be affected by the action.

An EA is sufficient as the environmental assessment document if the action is found to have no significant impact (FONSI) on the human environment.

An EA must include a brief discussion of the need for the proposal, the alternatives considered, the environmental impacts of the proposed action and the alternatives, and a list of document preparers. The purpose and alternatives are discussed in Chapters 1 through 9, and the list of preparers is in Chapter 12. Chapter 10 contains the discussion of the environmental impacts of the alternatives including impacts on threatened and endangered species and marine mammals.

11.1 Impacts on Endangered or Threatened Species

Background. The Endangered Species Act (ESA) provides for the conservation of endangered and threatened species of fish, wildlife, and plants. The program is administered jointly by NMFS for most marine species, and the US Fish and Wildlife Service (FWS) for terrestrial and freshwater species.

The ESA procedure for identifying or listing imperiled species involves a two-tiered process, classifying species as either threatened or endangered, based on the biological health of a species. Threatened species are those likely to become endangered in the foreseeable future [16 U.S.C. §1532(20)]. Endangered species are those in danger of becoming extinct throughout all or a significant portion of their range [16 U.S.C. §1532(20)]. The SOC, acting through NMFS, is authorized to list marine mammal and fish species. The Secretary of the Interior, acting through the FWS, is authorized to list all other organisms.

In addition to listing species under the ESA, the critical habitat of a newly listed species must be designated concurrent with its listing to the "maximum extent prudent and determinable" [16 U.S.C. §1533(b)(1)(A)]. The ESA defines critical habitat as those specific areas that are essential to the conservation of a listed species and that may be in need of special consideration. The primary benefit of critical habitat designation is that it informs Federal agencies that listed species are dependent upon these areas for their continued existence, and that consultation with NMFS on any Federal action that may affect these areas is required. Some species, primarily the cetaceans, listed in 1969 under the Endangered Species Conservation Act and carried forward as endangered under the ESA, have not received critical habitat designations.

Listed Species. The following species are currently listed as endangered or threatened under the ESA and occur in the GOA and/or BSA:

Table 95: Species Listed as Endangered or Threatened under ESA Occurring in the North Pacific

Status: Endangered	
Common Name	Scientific Name
Northern Right Whale	<i>Balaena glacialis</i>
Bowhead Whale ³⁵	<i>Balaena mysticetus</i>
Sei Whale	<i>Balaenoptera borealis</i>
Blue Whale	<i>Balaenoptera musculus</i>
Fin Whale	<i>Balaenoptera physalus</i>
Humpback Whale	<i>Megaptera novaeangliae</i>
Sperm Whale	<i>Physeter macrocephalus</i>
Snake River Sockeye Salmon	<i>Oncorhynchus nerka</i>
Short-tailed Albatross	<i>Diomedea albatrus</i>
Steller Sea Lion ³⁶	<i>Eumetopias jubatus</i>
Status: Threatened	
Snake River Fall Chinook Salmon	<i>Oncorhynchus tshawytscha</i>
Snake River Spring/Summer Chinook Salmon	<i>Oncorhynchus tshawytscha</i>
Steller Sea Lion ³⁷	<i>Eumetopias jubatus</i>
Spectacled Eider	<i>Somateria fishcheri</i>

11.1.1 Section 7 Consultations

Because both groundfish fisheries are federally regulated activities, any negative affects of the fisheries on listed species or critical habitat and any takings³⁸ that may occur are subject to ESA Section 7 consultation. NMFS initiates the consultation and the resulting biological opinions (BOs) are issued to NMFS. The Council may be invited to participate in the compilation, review, and analysis of data used in the consultations. The determination of whether the action "is likely to jeopardize the continued existence of" endangered or threatened species or to result in the destruction or modification of critical habitat, however, is the responsibility of the appropriate agency (NMFS or FWS). If the action is determined to result in jeopardy, the opinion includes reasonable and prudent measures that are necessary to alter the action so that jeopardy is avoided. If an incidental take of a listed species is expected to occur under normal promulgation of the action, an incidental take statement is appended to the biological opinion.

Section 7 consultations have been done for all the above listed species, some individually and some as groups. Below are summaries of the consultations.

³⁵Species is present in Bering Sea area only.

³⁶Listed as endangered west of Cape Suckling.

³⁷Listed as threatened east of Cape Suckling.

³⁸The term "take" under the ESA means "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct" (16 U.S.C. §1538(a)(1)(B)).

11.1.2 Considerations with Relation to Endangered or Threatened Marine Mammals

NMFS concluded a formal Section 7 Consultation on the effects of the BSA and GOA groundfish fisheries on endangered cetaceans within the BSA and GOA on December 14, 1979, and April 19, 1991, respectively. These opinions concluded that the fisheries are unlikely to jeopardize the continued existence or recovery of endangered whales. Consideration of the bowhead whale as one of the listed species present within the area of the Bering Sea fishery was not recognized in the 1979 opinion, however, its range and status are not known to have changed. No new information exists that would cause NMFS to alter the conclusion of the 1979 or 1991 opinions. NMFS has no plan to reopen Section 7 Consultations on the listed cetaceans for this action. Of note, however, are observations of northern right whales during Bering Sea stock assessment cruises in the summer of 1997. Prior to these sightings and one observation of a group of two whales in 1996, confirmed sightings had not occurred.

11.1.2.1 Steller Sea Lions

Movements and distribution: Steller sea lions are found predominately from shore to the edge of the continental shelf, but are not uncommon in waters several thousand meters deep. During the breeding season (summer), adult Steller sea lions (ages 4+) are generally located near shore and near rookeries. Juveniles (1-3 year olds) are less tied to the rookeries during summer, but are often found at nearby haulouts. After the breeding season, sea lions may disperse widely, rookeries that were populated in the summer may be vacated in winter. In the Bering Sea, sea lions have been most often sighted over shelf waters from Unimak Pass northward and near the Aleutian Islands. On the shelf, sightings are clustered in the southeastern Bering Sea (including the catcher vessel operational area [CVOA]). The sighting data, however, has not been standardized by effort and cannot by itself be used to determine relative importance of certain areas to Steller sea lions. Nevertheless, population distribution prior to the decline and more recent telemetry data indicate that the southeastern Bering Sea shelf is an important foraging area for sea lions. This information led to the designation of the Eastern Bering Sea foraging area as critical habitat.

Diet and foraging: In 13 studies summarized by NMFS [1995], walleye pollock ranked first in importance as a prey item for Steller sea lions in 11 studies, and second in the remaining two. Other prey consumed off Alaska were Pacific cod, Atka mackerel, salmon, octopus, squid, Pacific herring, capelin, sand lance, flatfishes, and sculpins. Most of the prey are schooling fish, many of which are commercially exploited. Juvenile sea lions tend to eat smaller fish than adults. Consequently, the overlap in the size distribution of their food with commercial fisheries may be less than that of adults.

Sea lion pups (< 1 year old) are more restricted than adults in their foraging range, both vertically and horizontally [Merrick and Loughlin, 1997]. By their sixth month (January), pups were able to range more than 300 km in a trip, but most of their trips offshore were brief (< 1 day), and most of their dives were shallow (<10 m) and short (< 1 min). In summer, adult females with pups foraged close to shore (usually < 20 km) and to shallow depths (most < 30 m), while in winter, they ranged much farther (some > 500 km offshore) and dove to greater depths (often > 250 m).

Evidence obtained from scats (feces) collected on rookeries in the GOA and Aleutian Islands region indicate that pollock and Atka mackerel are important prey items for Steller sea lions, but the evidence also indicates that diet diversity may be as important as particular prey type. Merrick et al. [1997] examined scats from sites throughout the region, developed indices of prey diversity based on those scats, and then correlated the observed diversity to population trends at those sites. The results indicated that population trends worsened as diet diversity decreased.

The value of roe-bearing versus non-ro-e-bearing pollock: The relative value of any prey depends on at least three factors. First, the nutritional characteristics of the prey tissues (in terms of caloric and

nutritional content) must determine, in part, the relative value of the prey. Different species of prey, and prey of the same species but different age, size, or physiological condition have different nutritional content. Presumably, pollock have greater nutritional value, both in terms of calories and nutrients, when they are bearing roe. Therefore, it is reasonable to expect that consumption of roe-bearing pollock may be an advantage to sea lions.

Second, the relative value of a prey type must also depend on the energetic costs of capturing, consuming, and digesting the prey. It is likely that the aggregation of roe-bearing pollock leads to a reduction in sea lion energetic costs associated with foraging. The aggregation of roe-bearing pollock appears to be relatively predictable in, for example, Shelikof Strait or the southeastern Bering Sea, which supports the idea that these are important foraging areas for sea lions.

Third, the relative value of prey depends, in part, on the nutritional needs of the predator. Roe-bearing pollock are available at the end of the winter season when sea lions are likely to be in their worst condition. The added nutritional value of roe-bearing pollock may be essential for sea lions, particularly reproductive females, to regain good condition. Roe-bearing pollock may also be a particular benefit to young sea lions, with less developed foraging skills and relatively greater nutritional demands for growth and thermoregulation.

These arguments, which are more theoretical than scientifically demonstrated, all suggest that the availability of roe-bearing pollock may be of particular benefit to Steller sea lions. However, the argument that pollock may provide better prey when they are roe-bearing does not lessen the potential value of pollock during the remainder of the year. Sea lions eat pollock throughout the year. Therefore, our best information suggests that pollock are an important prey throughout the year, but that pollock in roe-bearing condition may provide a particular advantage to sea lions for the reasons listed above.

Critical life history stages and critical seasons: Steller sea lions, like other pinnipeds, probably face their most critical transition during the post weaning phase. The strategy for most pinnipeds involves a period of nursing when the pup gains relatively large amounts of weight (i.e., increasing three- or four-fold or more) to provide a large energy store to sustain the pup after weaning and as it learns to forage on its own. The length of time of the nursing period varies considerably for different pinnipeds, from days to months or even several years, depending on a number of factors such as climate, environmental conditions, location of birth, vulnerability of the adult female to predators, annual reproductive rate, and so on. The development of essential and sufficient foraging skills may also take months or years.

For Steller sea lions, births peak in early June and virtually all births in a year have occurred by the end of that month. For at least the next four months, pups nurse and gain considerable weight. Weaning may be abrupt (i.e., the pup is abandoned and all suckling stops) or may occur over a prolonged period (that is, the pup continues to nurse in spite of its physical development and the development of foraging skills, and the resulting energy demands placed on the adult female). The process of weaning for Steller sea lions is poorly understood due to the often inaccessible locations where births occur, the highly variable length of the nursing period, and the fact that many (if not most) pups are weaned in their first winter. Pups may wean as early as four months of age, and most pups have probably been weaned by the next birthing season, if not sooner [York et al., 1996]. Some pups may nurse longer, which makes the most sense if the adult female is not pregnant or does not give birth and therefore may have more energy to direct to her pup.

Due to the chronology of pupping, nursing, and weaning, many pups may be weaned in the winter months; i.e., October through March or April. Therefore, many pups may face the critical transition to independence during a period when environmental conditions may be the most harsh; sea surface conditions worsen, prey availability decreases, and winter weather conditions increase energy requirements to thermoregulate [Merrick and Loughlin, 1997]. A precise or quantitative description of the increased energy costs associated with winter months is not possible at this time, but the period from October to March or April is likely the most critical period of the year for pups and juveniles.

The reproductive cycle of Steller sea lions may also result in stress to adult females during the winter period. Parturient females may lose considerable weight and condition during the nursing period, when they may also be pregnant. Delayed implantation probably reduces the metabolic demands of pregnancy during the period when the female is nursing, but implantation must occur sometime during winter months when, again, environmental conditions are most harsh. Merrick and Loughlin [1997] found that adult females studied in winter months did not increase their overall foraging effort compared to adult females studied in summer months. This may be because they reduce their energy demands when they wean their pups. But it is also likely that sea lions do not maintain a steady body condition throughout the year, but rather experience periods of relatively good condition and other periods when their condition may be poorer. Perez and Mooney [1986] estimated that metabolic demands may be 60 percent greater for lactating versus non-lactating female fur seals, so lactation may reduce considerably the condition of an adult female.

If condition varies throughout the year, and winter imposes increased demands that may lead to a decline in body condition, then the remainder of the year may also be important in that it provides an essential period for sea lions to recover and achieve good condition prior to the next winter. Therefore, while it is important to recognize that sea lions may be most vulnerable to harsh winter conditions, their ability to withstand those conditions may depend, in part, on the availability of prey during the rest of the year. Winter is probably the most demanding period, but other times of the year are also important.

Listing status: Steller sea lions were listed as threatened under the Endangered Species Act by emergency rule in April 1990 after a significant (-64 percent) decline in their population size in Alaska between the mid 1960s (or possibly earlier) through 1989. From 1989 to 1994, the decline continued (another 24 percent), with most losses in southwest Alaska (western and central GOA, Bering Sea, and Aleutian Islands). The status review completed by NMFS in 1995 was part of the process of considering a reclassification of their listing to endangered. In 1997, the species was split into two populations (to the east and west of 144°W longitude); the status of the eastern stock was left as threatened, while the western stock was reclassified as endangered.

Population viability: Population viability analyses [Merrick and York, 1994] predict that the western stock will be reduced to very low levels (< 10 animals) within 100 years if 1985-94 trends persist. Times to extinction were consistent when the population model used aggregate counts on rookeries from the Kenai Peninsula to Kiska Island (63 years to extinction), or individual trends for each of the 26 rookeries in the area (95 years). If trends from 1989-94 were used, neither type model (aggregate versus individual rookery) predicted extinction of the western population, but the decline would continue and could result in as few as 3,000 adult females within 20 years, at which time individual rookeries would disappear. The results of this modeling exercise, combined with continued declines in pups counts, prompted the Recovery Team to recommend a change in listing status for the western population.

Counts were conducted in 1996 from southeastern Alaska through Attu Island in the western Aleutian Islands. Between 1994 and 1996, the overall count at trend sites decreased by 7.8 percent (non-pups). In the Aleutian Islands region, these counts were up by 1.1 percent, and in the eastern Aleutian Islands the count was up by 6.6 percent. However, the Kenai-to-Kiska trend decreased by 4.6 percent.

In 1997, counts were conducted from Kenai Peninsula through the eastern Aleutian Islands to determine if trends observed from 1994 to 1996 continued. In the eastern Aleutian Islands, the counts were down by 4.9 percent at all 40 sites counted, and 13.2 percent at the ten trend sites. Thus, the most recent counts indicate that the decline is continuing.

Management actions taken by NMFS and NPFMC: NMFS designated critical habitat in 1993 [58 Federal Register 45278] for the Steller sea lion based on the Recovery Team's determination of habitat sites essential to reproduction, rest, refuge, and feeding. Listed critical habitats in Alaska include all rookeries, major haul-outs, and specific aquatic foraging habitats of the BSA and GOA. The designation does not

place any additional restrictions on human activities within designated areas. No changes in critical habitat designation were made as result of the 1997 re-listing.

Beginning in 1990 when Steller sea lions were first listed under the ESA, NMFS determined that both groundfish fisheries may adversely affect Steller sea lions, and therefore conducted Section 7 consultation on the overall fisheries [NMFS, 1991], and subsequent changes in the fisheries [NMFS, 1992]. The biological opinion on the BSA and GOA fisheries effects on Steller sea lions issued by NMFS on January 26, 1996 concluded that these fisheries and harvest levels are unlikely to jeopardize the continued existence and recovery of the Steller sea lion or adversely modify critical habitat. NMFS conducted an informal Section 7 consultation on Steller sea lions for this action in 1997 and concluded that the GOA groundfish fishery and the 1997 TAC amounts were not likely to affect Steller sea lions in a way or to an extent not already considered in previous Section 7 consultations [NMFS, January 17, 1997]. Reinitiating of formal consultation was not required at that time. NMFS has reopened formal consultation on the 1998 fishery to evaluate new information specific to the 60 percent increase of pollock TAC in the combined W/C Regulatory Area. The 1998 BO concluded that the 1998 fishery was not likely to jeopardize the continued existence and recovery of Steller sea lions or to adversely modify critical habitat.

The record of specific Steller sea lion conservation management actions taken by NMFS and the NPFMC since the 1990 listing includes:

- Creation of 3-nautical-mile (nmi) radius no-entry buffer zones around all sea lion rookeries west of 150° W longitude (April 1990)
- Prohibition of shooting at or near sea lions and reductions in the number of sea lions that could be killed incidental to commercial fishing (April 1990)
- Spatial allocations, and conditions on temporal allocations of pollock TAC in the GOA (June 1991)
- Creation of year-round 10-nmi radius trawl fishery exclusion zones around all rookeries west of 150°W longitude, and 20-nmi radius trawl fishery exclusion zones around 6 rookeries in the eastern Aleutian Islands during the BSA pollock A-season (June 1991, January 1992, and January 1993)
- Publication of a final recovery plan for the species written by the recovery team for NMFS (December 1992)
- Designation of critical habitat under the ESA in April 1993 [58 Federal Register 17181]. Specific areas designated as critical habitat were (1) all rookeries and major haul outs (where greater than 200 sea lions had been counted, but where few pups are present and little breeding takes place), including a) a zone 3,000 feet (914 m) landward and seaward from each site east of 144 W longitude (including those in Alaska, Washington, Oregon and California); and b) a zone 3,000 feet (914 m) landward and 20 nmi (36.5 km) seaward of each site (36 rookeries and 79 haul outs) west of 144 W longitude where the population had declined more precipitously and where the former center of abundance of the species was located; and 2) three aquatic foraging regions within the core of the species' range
- Splitting of the species into eastern and western populations and changing of the listing status of the western population to endangered (May 1997)
- Protection of forage fish from directed fishing (April 1998).

The rationale behind each management action was outlined in each Federal Register notice announcing the action. The shooting prohibition, reduction in incidental take mortality and creation of no-entry zones around rookeries were enacted to limit potential for direct human-related mortality, and had only minor impact on groundfish fisheries in the BSA and GOA. Spatial-temporal allocations of pollock TAC in the GOA, and creation of trawl-exclusion zones around rookeries were promulgated as part of the ESA Section 7 consultation for the 1991 GOA pollock TAC specifications. In that document, NMFS reviewed and presented data which showed that 1) pollock is a major component of the sea lion diet; 2) sea lions

collected near Kodiak Island in the 1980s were lighter, had smaller girths and thinner blubber layers than sea lions from the same area collected in the 1970s; and 3) the pollock fishery had become increasingly concentrated in time and in areas thought to be important to sea lions. NMFS concluded that the spatial and temporal compression of the pollock fishery in the 1980s in both the GOA and BSA could have created a localized depletion of Steller sea lion prey, which in turn could have contributed to or exacerbated the decline of the sea lion population (5 June 1991). Much of the area in which the pollock fisheries (and other groundfish trawl fisheries; e.g., Atka mackerel and Pacific cod) became spatially compressed is designated as critical habitat for Steller sea lions [Fritz 1993 a, b, c]. Estimated removals of pollock from Steller sea lion critical habitat in the BSA region have increased from between 250,000-300,000 mt from 1981-1986 (between 20-30 percent of total BSA pollock landings) to between 410,000-870,000 mt in 1987-96 (35-69 percent of total landings). Much of this increase in pollock landings from critical habitat came from the eastern Bering Sea foraging area, which overlaps considerably with the CVOA. The species was split into two stocks based largely on genetics information [Bickham et al., 1996]. Finally, certain forage fish were removed from the "other" category of the BSA-FMP and protected from directed fisheries, to ensure that these potential preys for marine mammals and other predators were not depleted.

11.1.2.2 Pacific Harbor Seals

Harbor seals are found in all coastal areas of the GOA and are widely distributed in nearshore habitats of the Bering Sea [Pitcher, 1980a; Calkins, 1986; Frost and Lowry 1986]. They are generally thought of as a coastal, non-migratory species, although individuals are occasionally observed as far as 100 km offshore [Pitcher, 1980a].

Only limited information is available on the diet of harbor seals in Alaska. Pitcher [1980 a; b] reported that the harbor seal diet in the GOA was composed of at least 27 species of fish, as well as cephalopods (both octopi and squids) and shrimp in 269 stomachs analyzed. The seven principal prey were (in order of frequency of occurrence): pollock (21 percent), octopus (17 percent), capelin (9 percent), herring (6 percent), Pacific cod (6 percent), flatfishes (5 percent), and eulachon (5 percent). There were some significant regional differences in the harbor seal diet throughout the GOA. Octopus, capelin and cod were more important components of the diet in the Kodiak area, while pollock was the principal prey in the Prince William Sound area. Fewer data are available on harbor seal food habits in the Bering Sea (16 stomachs analyzed by Lowry et al., 1986 from animals collected in Bristol Bay). Herring and capelin were the principal components of the diet of harbor seals in Bristol Bay.

Little information is available on the size composition of fish in the diet of harbor seals compared with Steller sea lions and northern fur seals. Pitcher [1981] found that harbor seals collected from the same area and during the same period as Steller sea lions consumed smaller pollock (mean length of pollock ingested by harbor seals = 19.2 cm; for Steller sea lions, 29.8 cm). This suggests a low overlap in body size between pollock harvested by the fishery and those ingested by harbor seals.

Recent trends in abundance vary markedly for different harbor seal populations in Alaska and the North Pacific. The central and western GOA stock may have decreased recently by as much as 90 percent [Pitcher, 1990] since the 1970s. Populations in other portions of the range may be more stable (southeast Alaska) or increasing [Olesiak et al., 1990]. The decline in harbor seals in the central and western GOA has not been explained.

The Bering Sea stock of harbor seals was surveyed in 1991 (Bristol Bay and the northern side of the Alaska Peninsula), 1994 (the Aleutian Islands), and 1995 (northern side of the Alaska Peninsula and Bristol Bay/Togiak NWR). The total mean count for 1991 survey was 9,324 seals, with 797 from Bristol Bay and 8,527 from the north side of the Alaska Peninsula [Loughlin, 1992]. The sum of the mean counts from the 1994 Aleutian survey was 2,056 [NMFS, unpubl.], yielding a total mean count for all three areas of 11,380. The 1995 counts were 7,785 (cv = 0.044) for the northern side of the Alaskan Peninsula, and

955 ($cv = 0.071$) for Bristol Bay. These numbers indicate a decline of harbor seals in this area of about 40 percent since the 1970s.

11.1.2.3 Northern Fur Seals

The northern fur seal is a migratory species, returning to the Bering Sea (both Pribilof Islands and Bogoslof Island) in summer to breed. For the remainder of the year, fur seals are distributed throughout the North Pacific Ocean. From May to December, seals forage in and transit through the CVOA and, during August and September, this region is particularly important for pregnant and lactating females, juveniles and departing adult males. Recent studies of fur seal pup migration indicate that newly weaned migrating pups move through and may reside in the CVOA during the period from November to February [Ragen et al., 1995].

The most recent estimate for the number of northern fur seals in the North Pacific Ocean is approximately 1 million, down approximately 20 percent from the 1.25 million estimated in 1974, and perhaps as much as 60 percent from the numbers observed in the early and mid 1950s. Since a short period of apparent increase in the early 1970s, counts declined sharply in the late 1970s and then began to stabilize in the 1980s. Northern fur seals are listed as depleted under the Marine Mammal Protection Act (MMPA) because the population has declined to less than 50 percent of the estimated size in the 1950s. The St. George population, which is closest to the CVOA, declined until approximately 1990 and stayed at about the same level until 1996, when it showed a moderate increase. The larger St. Paul Island population has been stable since 1980.

Important known sources of mortality over the past four decades include direct killing and entanglement in marine debris. From 1956 to 1974, over 300,000 adult females were killed in land-based and pelagic harvests. Many of those females had nursing pups, which also must have succumbed from starvation. The killing of these animals accounts for a large portion of the decline observed in northern fur seals after the mid-1950s [York and Hartley, 1981]. When the harvest was ended, the population appeared to start a recovery in the early and mid 1970s, but then declined further into the 1980s and eventually reached a period of apparent stability at a much reduced level. One possible (partial) explanation for the continued decline in the late 1970s and 1980s is mortality from entanglement in marine debris associated with commercial fishing [Fowler, 1985; Fowler et al., 1994]. Entanglement monitoring programs conducted on the Pribilof Islands throughout the 1980s and 1990s have found that trawl netting is a significant component of entanglement debris found on northern fur seals [Fowler et al., 1994]. While harvests of females and entanglement in fishing gear have contributed to the decline in the size of the population since the 1950s, there is also evidence that the carrying capacity of the North Pacific and Bering Sea for fur seals changed substantially in that period [NMFS, 1993]. The apparent change in carrying capacity may reflect a natural oceanographic phenomenon, or the impact of intense fishing, or both.

The diet of the northern fur seal in the GOA and the Bering Sea has been studied at least since the mid 1950s and has been summarized by Kajimura [1984] and Perez and Bigg [1986]. In 1,800 stomachs from fur seals collected in the Bering Sea from 1960-1974, pollock was a principle prey species, but it occurred in less than 25 percent of the samples [Kajimura, 1984; Perez and Bigg, 1986]. In contrast Sinclair et al. [1994 or 1996] found that juvenile walleye pollock were present in approximately 80 percent of fecal and gastrointestinal samples obtained from the Bering Sea between 1981 and 1990.

In the GOA, data exist for the months of February-July, and indicate a varied diet composed primarily of herring, Pacific sand lance, capelin, squid and pollock. In the Bering Sea, data exist for the months of June-October, and also reveal a varied diet of small schooling fish and squid. Pollock composed a larger percentage of the diet in the Bering Sea (35 percent of diet volume) than in the GOA (5 percent) and Atka mackerel comprised 10 to 20 percent of the diet in the Bering Sea during June. Foraging occurs to depths up to 200 m over both shelf and pelagic waters [Kajimura, 1984; Loughlin et al., 1987; Gentry et al., 1986; Goebel et al., 1991].

The data for northern fur seals, although obtained primarily from females, suggest that they ingest smaller fish than Steller sea lions. Perez and Bigg [1986] reported that fur seals collected in the North Pacific Ocean ingested primarily 1-2 year-old pollock (total range of 4-40 cm; $n = 1,721$ pollock from 71 stomachs). Sinclair et al. [1994] reported that juvenile pollock (especially 0- and 1-year-old fish) are the principle prey of lactating fur seals. In addition, the relative strength of pollock year classes is reflected in the fur seal diet, so that pollock from strong year classes show up with markedly higher frequency as the year class ages [Sinclair et al. 1994]. The largest fish consumed by northern fur seals in the collections of Perez and Bigg [1986] ($n > 3,000$ fish) was a 41-cm salmon. Pollock and Atka mackerel fisheries primarily catch fish (target species) larger than 30 and 35 cm, respectively [Hollowed et al., 1991; Lowe, 1991; Wespested and Dawson, 1991]. Consequently, the overlap between fisheries takes and the preferred fish sizes of northern fur seals may be low, a conclusion also reached by Swartzman and Haar [1983].

11.1.2.4 Killer Whales

One of the most common marine mammal/fishery interactions in the Bering Sea is between longline fishing vessels (particularly those targeting on sablefish or Greenland turbot) and killer whales. While this proposal does not deal with longline vessels, it should be noted that the area where interactions are most frequent is a triangular-shaped area from Unimak Pass to the Pribilof Islands to Segum Pass, much of which also overlaps with the CVOA [Yano and Dahlheim, 1995]. The shelf edge from Unimak Pass to the Pribilof Islands also has a preponderance of the killer whale sightings in the platform of opportunity sighting data, particularly in May-December, but the preponderance may simply reflect the distribution of sighting effort. Interactions between killer whales and trawlers have not been as frequent as with longliners in the area. Killer whale populations off Alaska are thought to be stable, and they probably number in the many hundreds of animals, not in the many thousands. This estimate is based on sighting information and surveys conducted in the 1980s, and replicate surveys conducted in 1992 and 1993 by NMFS.

11.1.3 Considerations with Relation to Endangered or Threatened Salmon

No species of Pacific salmon originating from freshwater habitat in Alaska are listed under the ESA. These listed species originate in freshwater habitat in the headwaters of the Columbia (Snake) River. During ocean migration to the Pacific marine waters a small (undetermined) portion of the stock extend into the Gulf of Alaska as far east as the Aleutian Islands. In that habitat they are mixed with hundreds to thousands of other stocks originating from the Columbia River, British Columbia, Alaska, and Asia. The listed fish are not visually distinguishable from the other, unlisted, stocks. Mortal take of them in the chinook salmon bycatch portion of the fisheries is assumed based on sketchy information on abundance, timing, and migration patterns.

NMFS designated critical habitat in 1992 [57 Federal Register 57051] for the for the Snake River sockeye, Snake River spring/summer chinook, and Snake River fall chinook salmon. The designations did not include any marine waters, therefore, does not include any of the habitat where the groundfish fisheries are promulgated.

NMFS has issued two BOs and no-jeopardy determinations for listed Pacific salmon in the Alaska groundfish fisheries [NMFS, 1994; NMFS, 1995]. Conservation measures were recommended to reduce salmon bycatch and improve the level of information about the salmon bycatch. The no jeopardy determination was based on the assumption that if total salmon bycatch is controlled, the impacts to listed salmon are also controlled. The incidental take statement appended to the second biological opinion allowed for take of one Snake River fall chinook and zero take of either Snake River spring/summer chinook or Snake River sockeye, per year. As explained above, it is not technically possible to know if any have been taken. Compliance with the biological opinion is stated in terms of limiting salmon bycatch

per year to under 55,000 and 40,000 for chinook salmon, and 200 and 100 sockeye salmon in the BSA and GOA fisheries, respectively.

11.1.4 Considerations with Relation to Endangered or Threatened Seabirds

11.1.4.1 Short-tailed Albatross

The entire world population of birds in 1995 was estimated as 800; 350 adults breed on two small islands near Japan [H. Hasegawa, personal communication]. The population is growing but is still critically endangered because of its small size and restricted breeding range. Past observations indicate that older short-tailed albatrosses are present in Alaska primarily during the summer and fall months along the shelf break from the Alaska Peninsula to the GOA, although 1- and 2-year old juveniles may be present at other times of the year [FWS, 1993]. Consequently, these albatrosses generally would be exposed to fishery interactions most often during the summer and fall--during the latter part of the second and the whole of the third fishing quarters.

Short-tailed albatrosses reported caught in the longline fishery include two in 1995, one in October 1996, and none in 1997. Both 1995 birds were caught in the vicinity of Unimak Pass and were taken outside the observers' statistical samples.

Formal consultation on the effects of the groundfish fisheries on the short-tailed albatross under the jurisdiction of the FWS concluded that BSA and GOA groundfish fisheries would adversely affect the short-tailed albatross and would result in the incidental take of up to two birds per year, but would not jeopardize the continued existence of that species [FWS, 1989]. Subsequent consultations for changes to the fishery that might affect the short-tailed albatross also concluded no jeopardy [FWS, 1995; FWS, 1997]. The FWS does not intend to renew consultation for this action.

11.1.4.2 Spectacled Eider

These sea ducks feed on benthic mollusks and crustaceans taken in shallow marine waters or on pelagic crustaceans. The marine range for spectacled eider is not known, although Dau and Kitchinski [1977] review evidence that they winter near the pack ice in the northern Bering Sea. Spectacled eider are rarely seen in U.S. waters except August through September, when they molt in northeast Norton Sound, and in migration near St. Lawrence Island. The lack of observations in U.S. waters suggests that, if not confined to sea ice polynyas, they probably winter near the Russian coast [FWS, 1993]. Although the species is noted as occurring in the GOA and BSA management areas, no evidence exists that they interact with these groundfish fisheries.

11.1.5 Conditions for Re-initiation of Consultation

For all ESA listed species, consultation must be reinitiated if: the amount or extent of taking specified in the Incidental Take Statement is exceeded, new information reveals effects of the action that may affect listed species in a way not previously considered, the action is subsequently modified in a manner that causes an effect to listed species that was not considered in the biological opinion, or a new species is listed or critical habitat is designated that may be affected by the action.

11.1.6 Impacts on Marine Mammals Not Listed Under the ESA

Marine mammals not listed under the ESA that may be present in the GOA and BSA include cetaceans, [minke whale (*Balaenoptera acutorostrata*), killer whale (*Orcinus orca*), Dall's porpoise (*Phocoenoides dalli*), harbor porpoise (*Phocoena phocoena*), Pacific white-sided dolphin (*Lagenorhynchus obliquidens*),

and the beaked whales (e.g., *Berardius bairdii* and *Mesoplodon spp.*) as well as pinnipeds [northern fur seals (*Callorhinus ursinus*), and Pacific harbor seals (*Phoca vitulina*)] and the sea otter (*Enhydra lutris*).

None of the alternatives will affect takes of other marine mammals not listed under the ESA. Therefore, none of the alternatives are expected to have a significant impact on marine mammals not listed under the ESA.

11.2 Environmental Impacts of the Alternatives

The environmental impacts generally associated with fishery management actions are effects resulting from:

- 1) Harvest of fish stocks which may result in changes in food availability to predators and scavengers, changes in the population structure of target fish stocks, and changes in the marine ecosystem community structure
- 2) Changes in the physical and biological structure of the marine environment as a result of fishing practices, e.g., effects of gear use and fish processing discards
- 3) Entanglement/entrapment of non-target organisms in active or inactive fishing gear

The original EA/RIR [NPFMC, 1994] and Supplemental Analysis [NPFMC, 1996] prepared for Amendment 39/41 addressed overall biological impacts, impacts to the human environment, and marine mammal implications of the proposed actions. Total removals of groundfish species are controlled by the setting of TACs, and their monitoring has been enhanced recently to guard against overruns. Chapter 2 of this EA/RIR provides a summary of the current LLP, as well as a summary of catch and participation in both the groundfish and crab fisheries. Chapters 3 through 8 and 10 provide an overview of the effects the proposed actions to modify the current LLP program. These are addressed individually in Sections 11.2.1 through 11.2.5

PSC such as crab, herring, and halibut are controlled as necessary and appropriate by extensive management measures in the BSA and GOA, including closed areas, PSC quotas, bycatch disincentive programs, and authorizations to the NMFS Regional Administrator to limit bycatch and close areas. None of the alternatives is anticipated to change PSC or biological impacts on bycatch species, though there may be changes in fishing patterns that will need to be monitored by the Council.

Marine mammals have direct and indirect interactions with commercial fisheries. Direct interactions include shooting, harassment, disturbance, and entanglement in fishing gear or gear debris. Indirect effects include commercial fisheries related reductions in prey species for marine mammals. None of the alternatives are expected to measurably increase the direct impacts on marine mammals. Though the Council decision to change vessel participation levels could increase vessel traffic to and around coastal communities, the Council and NMFS have established protective buffer zones around major sea lion rookeries and walrus haul-outs to minimize disturbance. Shooting and harassment also are banned. Should future problems be identified, establishment of traffic lanes or other measures could be implemented to reduce these interactions.

Trophic interactions and the potential for fisheries to degrade the prey available to marine mammals are currently issues of great concern. There are no data available that give conclusive evidence that the pollock fisheries are negatively impacting sea lion populations. Studies of sea lion pups in 1991 show that they generally appear healthy and without signs of anemia or malnutrition. None of the proposed changes to the LLP will change how harvest quotas are set for the pollock resource. The quota continues to be set, taking into account a variety of factors including the potential for impacts on marine mammal populations. These considerations, used in combination with existing restrictions on fishing operations such as buffer zones and restrictions on the amount of pollock that may be taken by quarter and area, provides protection for sea lion populations. Section 7 consultations by National Marine Fisheries

Service, to date, have concluded that the groundfish fisheries are unlikely to jeopardize the continued existence and recovery of any endangered or threatened species under the jurisdiction of NMFS. However, NMFS is currently working on a Section 7 consultation for Stellar sea lions. That opinion will describe the potential effects on Stellar sea lions from three separate actions:

1. Authorization of an Atka mackerel fishery in the Bering Sea and Aleutian Islands for the years 1999–2002.
2. Authorization of a walleye pollock fishery under the Bering Sea and Aleutian Islands management plan for the years 1999–2002.
3. Authorization of a walleye pollock fishery under the Gulf of Alaska fishery management plan for the years 1999–2002.

It is possible that this option will find that the existence of the Stellar sea lion may be jeopardized or that the habitat of the Stellar sea lion may be adversely modified.

The actions included in this analysis address six proposed changes to the LLP approved by the Secretary on September 12, 1997. Potential impacts relative to NEPA are expected to be consistent with those previously predicted. Nothing in the examination of the current fisheries leads the analysts to any differing conclusions, with respect to environmental impacts. Changes in vessel participation will not change total removals from the stocks.

The effects of the annual groundfish harvests on the biological environment and associated impacts on marine mammals, seabirds, and other threatened or endangered species are summarized in the final environmental assessment for the annual groundfish total allowable catch specifications [NMFS, 1998]. Potential impacts are considered from two perspectives:

1. A general comparison of status quo management against the proposed, general license limitation program, and
2. A look at potential differential impacts of various forms of license limitation programs proposed.

Potential impacts to threatened or endangered species and marine mammals are discussed separately in the Section 11.1. The environmental impacts expected from the proposed license limitation program will be very similar to that expected (and described) under the proposed vessel moratorium. As such, much of the impact assessment is described in the context of the potential numbers of vessel (capacity) operating in the subject fisheries. The proposed license limitation program does include other options, which may have influences beyond merely the numbers of vessels. These are also discussed below.

The status quo alternative to all six actions that were proposed in this document is the current license limitation as approved by the Secretary. The LLP, when implemented, would cap the fleet at somewhere near, or slightly below, the programs current level. In general, this alternative would result in no changes in the overall TAC management regime. Quotas for target species and bycatch will be enforced. If license recipients expect a future IFQ management system, then vessel capacity may increase and exacerbate the race for quotas as participants attempt to maximize their catch records in anticipation of an IFQ system. Such activity could result in higher bycatch and discard rates of non-target and target species.

An improved IR/IU program for BSA and GOA pollock and Pacific cod has been implemented in 1998, in conjunction with approval of the LLP. An IR/IU program for shallow water flatfish will commence in 2003. By forcing operators to match catching capacity to processing capacity, such a program is aimed to slow down the overall race for fish and reduce the incidental catch of non-target species and, potentially reduce the amount of total removals from the ecosystem.

11.2.1 Environmental Impact of Limiting License Transfers Where the Vessel Never Was Issued a Federal Fisheries Permit

This action prevents the transfer of licenses, except when the vessel is also transferred, from vessels that never held a federal fishery permit from January 1, 1988 through October 9, 1998 and prohibits transfers of fishing histories from these vessels and the subsequent licenses as of February 7, 1998.

The current LLP granted licenses to 447 vessels, primarily small, fixed-gear vessels, which made qualifying landings from state waters. The intent of this action is to allow those vessels to receive a license, but to prevent their transfer, except when the vessel is also transferred, in order to limit the potential for increasing effort in federal waters. However, to the extent some catch history transfers may have already been made, the Council chose the February 7, 1998, date as a “cutoff,” and would allow transfers made prior to this date to be recognized in the licensing process.

Chapter 3 of this EA/RIR addresses this issue. The effect of this action would not further limit the universe of groundfish and crab licenses, but would prohibit the transfer of those 447 licenses, not already transferred on or before February 7, 1998. Any alternative which restricts either the numbers of vessels or their capacity will have the least impact on the fisheries stocks, the physical environment, and non-target organisms.

11.2.2 Environmental Impact of Adding Gear Endorsements to Groundfish Licenses

This action prohibits licenses and fishing histories earned by vessels employing non-trawl gear to be used on vessels employing trawl gear and licenses and fishing histories earned by vessels employing trawl gear to be used on non-trawl gear vessels. The gear endorsements will be based on a vessels fishing activity between January 1, 1988 and June 17, 1995. If a vessel used trawl, fixed, or both gear types during this time they would be issued that endorsement. Vessels that used only fixed or trawl gear during this time period would only be issued an endorsement for fixed or trawl gear. They would be allowed to change their gear endorsement from fixed to trawl, or vise-versa, if they made a landing with the new gear type by February 7, 1998, or if they made a significant investment in the new gear type and make a landing by December 31, 1998.

The original LLP did not contain gear endorsements. Because of this, a fixed-gear sablefish/halibut license recipient could sell his/her LLP license and continue fishing in the IFQ fisheries. That license could then be applied to a trawl vessel and, within the 20 percent upgrade allowance and the license size categories, additional trawl effort could be brought into the fisheries. The same situation applies in reverse. If only a trawl endorsement was added to the license, trawlers could switch to fixed gear and add effort to those fisheries.

Chapter 4 of this EA/RIR addresses this issue. The effect of this alternative is to limit the universe of groundfish and crab licenses to those intended under the LLP and to prohibit the use of licenses to expand the universe to current non-participants. This alternative would also prevent additional capacity within existing gear sectors, preventing the creation of additional trawl vessels in particular serves to further limit capacity, in terms of both species which can be targeted and overall catching capacity. Restricting either the numbers of vessels or their capacity will have the least impact on the fisheries stocks, the physical environment, and non-target organisms.

11.2.3 Environmental Impact of Rescinding the CDQ Vessel Exemption

This action rescinds the CDQ vessel exemption portion of the LLP, with grandfather rights to any vessels currently built or operating in an existing CDP under this provision.

Currently, the LLP contains a provision that would exempt catcher vessels and catcher/processor vessels from a license requirement to be deployed in LLP fisheries if those vessels do not exceed 125 feet LOA, were specifically constructed for and used exclusively in accordance with a CDP approved by the SOC, and were designed and equipped to meet specific needs that are described in the CDP (the status quo, or Alternative 1). This exemption is consistent with the exemption allowed under the moratorium on entry and was discussed by the Council in June 1995. The stated intent of this exemption was to provide an alternative means to finance vessels built for CDQ fishing by CDQ organizations. Fishing industry representatives reported that the CDQ exemption provides a 'loophole' whereby additional effort could flow into the non-CDQ fisheries. Without Action 3, Alternative 2, vessels could be constructed under this provision, and then compete in the LLP fishery, in addition to fishing the CDQ allocations. There is no evidence that this provision is being used at this time.

Chapter 5 of this EA/RIR addresses this issue. The effect of Action 3, Alternative 2 is to limit the universe of groundfish and crab licenses to those intended under the LLP and to prohibit the use of licenses to expand the universe to current non-participants in the CDQ fisheries. Any alternative which restricts either the numbers of vessels or their capacity will have the least impact on the fisheries stocks, the physical environment, and non-target organisms.

11.2.4 Environmental Impact of Adding a Recent Participation Requirement to the Crab LLP

This Council action added a recent participation clause to the Crab LLP. Alternative 9 in Chapter 7 of this EA/RIR was selected. The impact of Alternative 9 was to reduce the qualified crab fleet to numbers by over 20 percent. This could result in decreased chances of Guideline Harvest Level (GHL) overruns as a result of a reduced fishing fleet. Restricting the numbers of vessels or their capacity will have the least impact on the fisheries stocks, the physical environment, and non-target organisms.

11.2.5 Environmental Impact of Allowing Limited Processing on Catcher Vessels

This Council action allows catcher vessels < 60' LOA in both the Gulf of Alaska and Bering Sea and Aleutian Islands to process up to 1 mt round weight of fish per day. When the Council made its final LLP approval in June 1995, they included a provision that licenses would have a catcher vessel or catcher/processor vessel designation (if a vessel had never participated in the fisheries as a processor as of June 17, 1995, they would be limited to only catching activities under LLP) (the status quo, or Alternative 1). Chapter 8 of this EA/RIR addresses this issue. This alternative does not appear to have an impact on the fisheries stock, the physical environment, and non-target organisms.

11.3 Coastal Zone Management Act

Implementation of each of the alternatives selected by the Council would be conducted in a manner consistent, to the maximum extent practicable, with the Alaska Coastal Management Program within the meaning of Section 30(c)(1) of the Coastal Zone Management Act of 1972 and its implementing regulations.

11.4 Finding of No Significant Impact (FONSI)

For the reasons stated above, implementation of these license limitation amendments would not significantly affect the quality of the human environment, and preparation of an EIS on the final action is not required by Section 102(2)(c) of NEPA or its implementing regulations.

Assistant Administrator for Fisheries

Date

11.5 Consistency with Other Applicable Laws

Magnuson-Stevens Act (Executive Order 12866) and National Environmental Policy Act (NEPA) requirements for actions contemplated by the Council (and SOC) are addressed in this section. The proposed actions are also required to be consistent with the 10 National Standards and Section 303(b)(6) of the Magnuson-Stevens Act, which outlines criteria for limited access programs by the Council. Additionally, Section 303(a)(9) of the Magnuson-Stevens Act requires a fisheries impact statement which addresses the potential impacts on participants in both affected, and adjacent, fisheries (Section 303(a)(9)).

The original EA/RIR dated September 18, 1994 contains a detailed discussion of the proposed action relevant to other applicable laws. This document included a discussion of : (1) Section 303(b)(6) of the Magnuson Act, (2) Section 303(a)(9) of the Magnuson Act, (3) Regulatory Flexibility Act, and (4) Coastal Zone Management Act. The information may be found on pages 202-206 of that document, and is not reiterated here. The Supplemental Analysis dated January 10, 1996 contains additional treatment of these issues in Sections 5.4 and 5.5.

11.6 Consistency with the CRP Problem Statement

During the formative stages of the CRP process, the Council developed a 14-point problem statement. Each point was an area of concern the Council felt existed in the fishery. These concerns are listed in the original EA/RIR on pages 196-199, along with a discussion of whether, and to what extent, the LLP would address those problems. In many cases, the License Limitation program was not expected to directly address the specific problems identified, in and of itself. These previous assessments remain generally applicable, with the exception of Problem 3—preemption conflicts between gear types.

As currently specified the LLP does not issue licenses or endorsements by gear type. One exception is that, in the SEO subarea of the Gulf of Alaska, licenses will only be issued to allow fishing with fixed gear; any license earned via trawl landings will be issued to the proper recipient, but no further trawling would be allowed in that area. By doing so, the Council intends to alleviate existing and potential gear conflicts in that area. One of the amendments selected by the Council would issue groundfish licenses for all other areas as trawl, fix, or all legal gear types. Issuing licenses with gear endorsements would limit capacity increases, as fixed-gear licenses would not allow a vessel owner to use trawl gear. Concern has been expressed that IFQ holders are not required to hold a groundfish license, and many IFQ holders will qualify for a license. IFQ fishermen could then sell their license to someone that wants to bring a trawl vessel into the fishery, and continue fishing halibut or sablefish. This type of license transaction could potentially add significant capacity to the fleet.

Problem 1, from the Council's original problem statement, states there is harvesting capacity in excess of that required to harvest the available resource. Some of the measures selected by the Council may reduce the capacity increases. For example, restricting the transfer of licenses from individuals who never held a Federal fisheries permit is projected to impact 447 of the 2,435 licensed vessels. The 447 vessels are all catcher vessels, and only seven of the vessels are 60' LOA or longer. This measure will likely help limit the growth of fleet capacity, because these vessels will not be allowed to sell their license to other vessels that could fish the EEZ, while the seller continues to fish inside State waters. However, based on these vessel's classes, the new vessels are likely to have relatively small harvesting capacity (Table 18). This is especially true since the Council also selected the option to restrict those licenses earned with non-trawl gear from becoming trawl vessels in the future. Imposing this restriction only allows 18 of the 447 vessels, which never held a federal permit prior to 1996, to use trawl gear under the license program.

Rescinding the CDQ vessel exemption closes this potential avenue for new entry. However, no vessels have been added to the fishery using this exemption, and discussions with the groups indicate there are currently no plans to bring in any additional vessels. Rescinding this exemption will not reduce effort, it will only limit additional effort in the future.

Selecting Alternative 9 for the recent crab qualification criteria under the Crab LLP, may reduce effort in the crab fishery in future years. The number of qualifying boats is expected to decrease from 365 to approximately 284 (excluding Norton Sound vessels). This is over a 20 percent reduction in the number of qualified crab vessels. While the number of vessels that participated in recent years is less than 284, removing this latent capacity may effectively reduce effort into these fisheries if the GHs increase in the future. Removing these vessels also reduces the number of licenses that would need to be purchased if the crab industry goes ahead with a vessel buyback program.

11.7 Consistency with National Standards

The following subsection includes the 10 National Standards as contained in the MSCFMA, and a brief discussion of the consistency of the proposed alternatives with those National Standards, where applicable. These issues were addressed in the original EA/RIR and Supplemental Analysis. Some of these assessments would depend on the "Preferred Alternative" for the six proposed actions chosen by the Council and cannot be fully completed until after the Council decision, prior to submittal to the SOC.

11.7.1 National Standard 1

The text for National Standard 1 as contained in the MSCFMA is as follows:

NATIONAL STANDARD 1 - Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery

Under all of the LLP amendments, the fisheries of the North Pacific will continue to be managed by TAC limits. These catch limits will continue to be set by the Council and enforced by NMFS and ADF&G to ensure that overfishing does not occur. In terms of achieving optimum yield from the fishery, the Act defines optimum, with respect to yield from the fishery, as the amount of fish which:

- (A) will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems;
- (B) is prescribed as such on the basis of the maximum sustainable yield from the fishery, as reduced by any relevant economic, social, or ecological factor; and,
- (C) in the case of an overfished fishery, provides for rebuilding to a level consistent with producing the maximum sustainable yield in such fishery.

Optimum yield (OY) is defined as the amount of fish which will provide the greatest overall benefit to the Nation including maximum sustainable yield (MSY) as modified by any relevant economic, social, or ecological factors. Under either the status quo (No Action) or proposed alternatives, the overall way in which the fisheries are managed will not change significantly. None of the alternatives being considered would appear to be inconsistent with this standard.

11.7.2 National Standard 2

The text for National Standard 2 as contained in the MSCFMA is as follows:

NATIONAL STANDARD 2 - Conservation and management measures shall be based upon the best scientific information available.

Information was collected from the observer program's NORPAC database to study the catcher vessels delivering to at-sea motherships. Weekly Production Reports in conjunction with NORPAC data were used to study the catcher processor fleet. Catcher vessels that deliver to shoreside plants or floating motherships operating inside state waters, were studied using fish tickets collected by the State of Alaska. Each of these data sources represents the best and most complete information available for that sector of the fleet, and those data were used to select the Council's preferred alternative.

In-season management under any of the LLP alternatives will be conducted in the same. Weekly Production Reports and In-season Observer data will be "blended" to determine the total catch on close to a real time basis. This information will be used to determine when the TAC has been reached and close fisheries.

Information in this analysis represents the most current, comprehensive set of information available to the Council, recognizing that some information (such as operational costs) are unavailable. None of the alternatives being considered would appear to be inconsistent with this standard.

11.7.3 National Standard 3

The text for National Standard 1 as contained in the MSCFMA is as follows:

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

None of the current LLP amendments will impact the way stocks are managed relative to National Standard 3. The current management practices are consistent with this standard and will continue to be under LLP.

11.7.4 National Standard 4

The text for National Standard 4 as contained in the MSCFMA is as follows:

NATIONAL STANDARD 4 - Conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various U.S. fishermen, such allocation shall be:

- (A) fair and equitable to all such fishermen,
- (B) reasonably calculated to promote conservation, and
- (C) carried out in such a manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

Under the LLP amendments, licenses will be issued to residents of Alaska, Washington, Oregon, and several other states. Each license will be issued to the vessel owner (as of June 17, 1995), based on a

vessel's catch history (or permit holders catch history for some Norton Sound red and blue king crab endorsements). Catch history requirements are the same for all vessels in a designated class and area. No qualification requirements are based on a vessel owner's state of residence. Residents of various states, including Alaska and the Pacific Northwest, participate in each of the fisheries affected by these LLP alternatives. Entry is based on historical and current participation, and does not result in "the acquisition" of any particular share of the privilege to any individual entity. None of the alternatives being considered would appear to be inconsistent with this standard.

Under the current LLP, there are differences in the qualification requirements between FMP subareas and vessel classes. Owners of vessels with the greatest fishing power were often required to meet more stringent qualifying criteria in the GOA subareas. This may indirectly alter the distribution of fishing privileges between states as vessels in some classes may typically be based in specific geographic regions. However, any vessel in that class would be required to meet the same qualifying criteria.

The new amendments may also limit fishing privileges. However, as under the original program they do not discriminate between vessel owners from different states. Any vessel owner who meets the qualification criteria will be issued a license with the appropriate endorsements and restrictions. The groundfish and crab amendments apply the same standards to all vessel owners, regardless of the vessel owner's state of residence.

The amendments are also consistent with provision (B) of National Standard 4. The further restricting of effort has been reasonably calculated to promote conservation.

The Council's LLP program also includes ownership caps of ten groundfish and five crab licenses. Those persons that exceed the cap at the time of initial allocation will be given grandfather rights for those licenses. However, they will not be allowed to acquire any additional licenses until they are within the cap of ten groundfish and five crab licenses. These caps were selected to ensure that no "person" would gain control of an excessive share of the fishery, and will not change under any of the current alternatives being considered. In this case, "person" refers to both individuals and corporations. It does not refer to share holders within a corporation.

The amendments further restrict potential capacity increases in the groundfish fisheries, and may reduce potential effort in the crab fisheries.

11.7.5 National Standard 5

The text for National Standard 5 as contained in the MSCFMA is as follows:

NATIONAL STANDARD 5: Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources, except that no such measure shall have economic allocation as its sole purpose.

The license limitation program changes are not expected to change how fishery resources are utilized. Market forces will continue to impact how the fishery is prosecuted, as they would under open access, the moratorium, or the current LLP. As consumers demand a species or product, the fleet will provide it. This program contains no additional incentives for fishermen to utilize fishery resources that are not valued by consumers.

License Limitation eligibility will only define the eligible players of the game, but will not necessarily affect the utilization patterns in the fisheries. Though the results of the LLP will undoubtedly include economic allocations, the primary purpose of the proposal is to limit entry into the fisheries and to provide a more stable operating environment for fishermen. Further, this program is seen as a potential bridge to further, market based management systems. As such, the program and amendments will define the field of players and how they might operate, making future development of broader CRP initiatives

potentially easier. None of the alternatives being considered would appear to be inconsistent with this standard.

11.7.6 National Standard 6

The text for National Standard 6 as contained in the MSCFMA is as follows:

NATIONAL STANDARD 6: Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.

While some of the amendments limit the ways fishermen can operate, given the attributes of the license(s) they hold, the transferability and use provisions allowed under LLP provide a significant degree of flexibility for fishermen to respond to changes in the fisheries. Because of this flexibility, none of the alternatives being considered would appear to be inconsistent with this standard.

11.7.7 National Standard 7

The text for National Standard 7 as contained in the MSCFMA is as follows:

NATIONAL STANDARD 7: Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

No additional costs are expected under any of the alternatives. Members of industry will be required to apply for a groundfish and/or crab license under any of the options being considered. The only changes would involve the specifics of the information they are required to submit.

The National Marine Fisheries Service is already making plans to develop the databases needed to implement the LLP program. Because they are still in the developmental stage, changes to the program can be anticipated and built into the design with no additional cost to the National Marine Fisheries Service or industry. None of the alternatives being considered would appear to be inconsistent with this standard.

11.7.8 National Standard 8

The text for National Standard 8 as contained in the MSCFMA is as follows:

NATIONAL STANDARD 8: Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to:

- (A) provide for the sustained participation of such communities, and
- (B) to the extent practicable, minimize adverse economic impacts on such communities.

A social impact analysis was prepared for the original LLP analysis in 1995. That analysis provided information on the links between specific vessel classes and communities. The analysis provided in this document also breaks out the impacted vessels by class and the owner's state of residence. None of the amendments selected by the Council appear to be inconsistent with this standard.

11.7.9 National Standard 9

The text for National Standard 9 as contained in the MSCFMA is as follows:

- NATIONAL STANDARD 9: Conservation and management measures shall, to the extent practicable:
- (A) minimize bycatch, and

(B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

None of the amendments appear to be inconsistent with this standard. The qualification options for the crab fishery are more restrictive than the current crab LLP program. The new program would require crab landings during three qualifying periods instead of two. To the extent this program issues licenses to experienced fishermen who have developed successful fishing practices, it may reduce bycatch and handling mortality.

11.7.10 National Standard 10

The text for National Standard 10 as contained in the MSCFMA is as follows:

NATIONAL STANDARD 10 - Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

None of the amendments appear to be directly inconsistent with this standard. The amendments do not change the way fisheries are managed in-season nor would they change safety requirements for fishing vessels.

The original LLP and moratorium allowed vessel owners to lengthen their vessels by 20 percent and still fish under the permit they were initially issued. This provision, in part, was included to allow vessels to become safer. Other upgrades to improve the safety of vessels were not restricted under the original LLP program or any of the amendments to the original LLP in this analysis.

11.8 Section 303(a)(9) - Fisheries Impact Statement

Section 303 (a)(9) of the Magnuson-Stevens Act requires that any plan or plan amendment submitted by the Council include a description of the potential impact of such plan (amendment) on the participants in the fisheries and on the participants in fisheries managed by adjacent Councils. The intent of the original LLP was to stabilize the size and capitalization of the fleet operating in Council-managed fisheries while allowing the industry and Council to further develop other CRP systems which more directly address the underlying problems facing the fisheries. As such, the original LLP did not resolve the underlying problems of existing overcapitalization and excess effort in the fisheries, but may prevent these problems from worsening while more comprehensive solutions are being developed, such as those measures selected by the Council in this package.

11.8.1 Impacts to Participants in Affected Fisheries

Alternative 9 under this analysis which implements a third qualification period to earn a crab license, would likely help resolve some of the capacity issues in the crab fisheries. The alternatives being considered would reduce the crab fleet by approximately 81 vessels. However, the owners of those vessels may increase their effort in the groundfish fishery if they also hold a groundfish license.

Issuing gear specific groundfish licenses will eliminate fixed-gear vessels from becoming trawlers. However, this would not prevent a vessel that has used trawl gear (or has made significant investment in order to use trawl gear in the future) from receiving a trawl gear endorsement. Essentially, a gear restriction would prevent future spillover from fixed to trawl gear fisheries. However, to the extent that licenses have already been transferred from fixed-gear vessels to trawl vessels, that spillover would be allowed under this program.

The LLP will deny access to new vessels that have not purchased a valid license. It will also restrict the ability of vessel owners to significantly increase the capacity of their vessels. As a result, fishermen are not denied the opportunity to enter the fishery, or to upgrade their vessels, so long as they obtain the appropriate license from the owner of a qualified vessel. Under the new alternatives to qualify for a crab

license, vessels that have fished in the past, but not in recent years, would be denied access. Similarly, vessels which have entered the fishery in the most recent year, or those that which may enter between now and implementation of a license program, could also be denied access. Alternative 9 under the crab LLP will further reduce the number of crab vessels that are eligible to participate, and/or further restrict the options for some groundfish license holders.

Total allowable catches of crab and groundfish are not affected by any of the LLP alternatives, and only the amendment that allows catcher vessels <60' LOA to process 1 mt of round fish per day might impact the flow of products and revenues through the processing and marketing network. However given the small amount of processing allowed under this amendment, it is not expected to have a significant impact. Other associated industries and communities that depend upon fishery product flows also are expected to be unaffected, with the possible exception of ship builders and affiliated industries. However, these industries will continue to do business with license holders who wish to upgrade or replace a vessel.

It is possible that certain licenses of a desired endorsement configuration may command a premium in the resale market. Also, because the current LLP alternative further restricts capitalization of the fleet, participants in some fisheries may be able to reinforce their position in certain situations if there is reduced pressure from additional competitors. Despite these possibilities, there is unlikely to be a shortage of qualified vessels necessary to harvest any of the available stocks, in view of the overcapitalization and excess capacity already present in the fleet. The trade-off that the groundfish industry receives for further restricting increases in capitalization is a somewhat stabilized environment during which time the Council and industry can consider long term management solutions without encouraging additional speculative growth in capacity. In the crab fishery, Alternative 9 may reduce capacity to levels that would be considered acceptable when viewed in conjunction with a vessel buyback program.

11.8.2 Impacts to Participants in Adjacent Fisheries

Under Alternative 9 of the crab LLP, it is possible that some vessels and their owners, who are restricted from participating in Council-managed crab fisheries, will move to other fisheries. The result could increase pressure on a declining number of unrestricted fisheries, aggravating management problems in these areas. The entry rate of vessels participating for the first time in the Alaska EEZ fisheries prior to the vessel moratorium averaged nearly 900 vessels per year. Under the LLP alternatives, some of the people wishing to enter may simply purchase a license. Others may opt to redirect their efforts to other open access fisheries (i.e., groundfish fisheries inside state waters, DSR fishery in the southeast outside, etc.).

Under the last scenario described above, the consequence of limited entry in one fishery is to transfer the overcapitalization problem to another. Potential new entrants denied entry into the Alaska EEZ fisheries have an increasingly small or number of open access alternatives available along the West Coast. Within Alaska, many of the commercially important state-managed fisheries such as salmon, sablefish, herring, and GOA crab are already operating under limited entry programs, affording those participants protection from an influx of vessels unable to participate in the EEZ. However, as discussed above there are certain niche fisheries that could come under pressure. These include groundfish fisheries in Alaska State waters, or fisheries within the EEZ not presently covered by a Council or state FMP.

Outside Alaska, the availability of open access fisheries is being reduced significantly due to the recent imposition of limited entry in other areas, for example, the adoption of a limited entry program in the Pacific Council groundfish FMP off the coast of Washington, Oregon and California. As a result, it appears unlikely that the limited entry alternatives proposed for the Alaska EEZ will lead to an unexpected surge in participation in these fisheries.

The combined impact of the limited entry management programs either in effect or being considered off the West Coast may slow the unneeded flow of new capital and catching capacity into these fisheries.

Capital investment shifted out of the commercial fishing industry can be redirected into countless other productive ventures in the economy. Less fortunate are those vessel owners who find themselves or their boats denied access to the fisheries. Owners of non-qualifying vessels may have the ability to purchase rights to operate in certain limited entry fisheries, or sell their boats to other fishermen who possess these rights. However, recognizing that the industry is overcapitalized with excess fishing capacity, it is inevitable that owners of some excluded vessels will incur losses on their investment.

11.9 Section 303(b)(6) - Limited Entry Considerations

Under Section 303 (b)(6) of the Magnuson-Stevens Act, the Council and SOC are required to take into account the following factors when developing a limited access system: (A) present participation in the fisheries, (B) historical fishing practices in, and dependence on, the fisheries, (C) the economics of the fisheries, (D) the capability of fishing vessels used in the fisheries to engage in other fisheries, (E) the cultural and social framework of the fisheries, and (F) any other relevant considerations.

Included in the EA/RIR is range of present and past participation in the fisheries. These options were evaluated for vessels and vessel owners expected to qualify under the current groundfish and crab LLPs, as well as current participants not expected to qualify. Much of this LLP analysis is devoted to an examination of who will be impacted if the LLP is changed. The basic economic principles and theory concerning limited access systems, and particularly license limitation, was discussed in the original LLP analysis. Here an even greater emphasis is placed on the distributional aspects of the various alternatives as they relate to past, current, and future fishing privileges. These distributional impacts are detailed in the analyses for the entire range of alternatives.

The Crab LLP incorporates qualification criteria, which recognizes both past and present participation in the fisheries. Currently, general license qualification is dependent upon landings in the base period (roughly equivalent to the moratorium qualification period). The new alternatives that were considered would require an additional landing during a recent window (some combination of years from 1995 through February 7, 1998) to keep the general license. Species/area endorsements are earned based on landings between January 1, 1992, and June 17, 1995. The endorsement period represents a fairly liberal time frame for a vessel to make landings for endorsement qualification. Vessels that entered the fisheries since mid-year 1992, and therefore made only endorsement period landings, or later, are denied a license, consistent with the Council's stated intent to roughly limit access to those who qualified under the moratorium.

The collective analyses for this program, including this analysis, the original EA/RIR, supplements to that EA/RIR, and social impact studies, represent a most exhaustive consideration of the requirements under Section 303(b)(6).

11.10 Executive Order 12866

Executive Order 12866 signed by the President of the United States in 1995 requires that:

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 quantitative measures of costs and benefits that are difficult to quantify but nevertheless essential to consider. Further, in choosing among alternative regulatory approaches, agencies should select those approaches that maximize net benefits (including potential economic, environment, public health and safety, and other advantages; distributive impacts and equity, unless a statute requires another approach.

The approach that was taken in the assessment of the proposed actions presented in Chapters 3 through 8 is consistent with the requirements of E.O. 12866. The nature of the proposed actions—in that they impose changes on a system that has yet to be implemented—precludes quantitative measures of costs and

benefits. With the exception of the Alternative 9 under Action 5, none of the Council's proposed amendments was judged to create significant costs or significant benefits to the industry or to individual sectors of the industry. Alternative 9 would further reduce the number of licenses issued in the Crab LLP. Because only recent participants will still be issued licenses, the impact on the fishery as it exists and the active participants would be relatively small. If, however, guideline harvest levels in the crab fisheries rise at some point in the future, the reduced number of licenses issued may mean that the profit will not be eroded with an influx of inactive license holders that could have re-entered the crab fisheries under the status quo.

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

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

The "SAFLLA summarized the Groundfish and Crab LLPs relative to E.O. 12866 as follows:

Relative to the status quo (including the moratorium), the license programs proposed have the potential to prevent further deterioration of the economic benefits generated by the groundfish and crab fisheries. The specific configuration chosen by the Council reduces the number of qualified vessels substantially, relative to the moratorium, and places restrictions on the ability of those vessels to increase their capacity. Because the License Limitation program only identifies those, which may continue to participate, and does not directly address the race for fish between those participants, it is not expected to generate gains in net economic benefits from the fisheries. In fact, if the same amount of fish is harvested, then producer and consumer surpluses are not expected to change relative to the status quo, and overall economic benefits remain largely unchanged. None of the alternatives contained in this proposed action is considered significant; i.e., they will not result in changes of \$100 million or more annually to the fisheries.

Although the proposed License Limitation program is not expected to directly generate increased economic returns from the fisheries, it is considered by the Council to be an important step in the overall rationalization of the fisheries. A more stable operating environment for the participants and an enhanced ability for business planning may provide indirect economic benefits for these participants. The identification and limiting of the fishery participants provide a stable environment, not only for the fishermen, but also for the Council and other policy makers as they consider further management programs within the overall CRP initiative. As examples, the Council is currently in the process of analyzing and developing: (1) an IFQ program for BSAI pollock fisheries, (2) a system of individual accountability to manage PSC caps in the groundfish fisheries, and (3) improved retention and utilization requirements for fishing and processing operations.

Given that imposition of the entire LLP for crab and groundfish is not projected to result in changes of \$100 million or more annually to the fisheries, and that it was not significant in terms of the other points of E.O. 12866, it is unlikely that the relatively minor changes imposed by the proposed actions will have significant impacts relative to 12866. The proposed actions concern transferability issues and numbers of initial recipients and are more appropriately addressed by other applicable laws.

11.11 Initial Regulatory Flexibility Analysis (IRFA)

The Regulatory Flexibility Act (RFA), first enacted in 1980, 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 federal regulations. 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 impacts on small entities as a group distinct from other entities and on consideration of alternatives that may minimize the impacts while still achieving the stated goal of the action.

On March 29, 1996, President Clinton signed the Small Business Regulatory Enforcement Fairness Act. Among other things, the new law amended the RFA to allow judicial review of an agency's compliance with the RFA. The 1996 amendments also updated the requirements for a final regulatory flexibility analysis, including a description of the steps an agency must take to minimize the significant economic impacts on small entities. Finally, the 1996 amendments expanded the authority of the Chief Counsel for Advocacy of the Small Business Administration (SBA) to file amicus briefs in court proceedings involving an agency's violation of the RFA.

In determining the scope, or "universe," of the entities to be considered in an IRFA, NMFS generally includes only those entities, both large and small, that can reasonably be expected to be directly or indirectly affected by the proposed action. If the effects of the rule fall primarily on a distinct segment, or a portion thereof, of the industry (e.g., user group, gear type, or geographic area), that segment would be considered the universe for purposes of this analysis. NMFS interprets the intent of the RFA to address negative economic impacts, not beneficial impacts, and thus such a focus exists in analyses that are designed to address RFA compliance.

To ensure broad consideration of impacts and alternatives, NMFS has prepared an IRFA pursuant to 5 U.S.C. 603, without first making the threshold determination of whether or not this proposed action would have a significant economic impact on small entities. An IRFA is conducted below to comply with the RFA.

11.11.1 Requirement to Prepare an IRFA

The central focus of the IRFA should be on the economic impacts of a regulation on small entities and on the alternatives that might minimize the impacts and still accomplish the statutory objectives. The level of detail and sophistication of the analysis should reflect the significance of the impact on small entities. Under Section 603(b) of the RFA, each IRFA is required to address:

- A description of the reasons why action by the agency is being considered;
- A succinct statement of the objectives of, and the legal basis for, the proposed rule;
- 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);
- A description of the projected reporting, recordkeeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirements and the type of professional skills necessary for preparation of the report of record;
- An identification, to the extent practicable, of all relevant Federal rules that may duplicate, overlap, or conflict with the proposed rule; and

- A description of any significant alternatives to the proposed rule that would accomplish the stated objectives of the Magnuson-Stevens Act and any other applicable laws and that would minimize any significant 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:
 1. The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
 2. The clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities;
 3. The use of performance, rather than design, standards; and
 4. An exemption from coverage of the rule, or any part thereof, for such small entities.

11.11.2 What is a Small Entity?

The RFA recognizes and defines three kinds of small entities: (1) small businesses, (2) small non-profit organizations, and (3) small government jurisdictions.

Small Businesses. Section 601(3) of the RFA defines a “small business” the same as a “small business concern” is defined under Section 3 of the Small Business Act. “Small business” or “small business concern” includes any firm that is independently owned and operated and not dominate in its field of operation. The SBA has further defined a “small business concern” as one organized for profit, with a place of business located in the United States, and that operates primarily within the United States or which makes a significant contribution to the U.S. economy through payment of taxes or use of American products, materials, or labor. A small business concern may be in the legal form of an individual proprietorship, partnership, limited liability company, corporation, joint venture, association, trust, or cooperative, except a joint venture cannot have more than 49 percent participation by foreign business entities.

The 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, not dominant in its field of operation (including its affiliates), and if it has combined annual receipts not in excess of \$3 million for all its affiliated operations worldwide. A business involved in fish processing is a small business if it is independently owned and operated, not dominant in its field of operation, 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 fish harvesting and fish processing is a small business if it meets the \$3 million criterion for fish harvesting operations. Finally, 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.

The SBA has established “principles of affiliation” to determine whether a business concern is “independently owned and operated.” In general, business concerns are affiliates if one concern controls, or has the power to control, another, or if a third party controls, or has the power to control, the business concern. The SBA considers factors such as ownership, management, previous relationships with or ties to another concern, and contractual relationships, in determining whether an affiliation exists. Individuals or firms that have identical or substantially identical business or economic interests, such as family members, persons with common investments, or firms that are economically dependent through contractual or other relationships, are treated as one party with such interests aggregated when measuring the size of the concern in question. The SBA counts the receipts or employees of the concern whose size is at issue and those of all its domestic and foreign affiliates, regardless of whether the affiliates are organized for profit, in determining the concern’s size. However, business concerns owned and controlled by Indian Tribes, Alaska Regional or Village Corporations organized pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601), Native Hawaiian Organizations, or Community

Development Corporations authorized by 42 U.S.C. 9805, are not considered affiliates of such entities, or other concerns owned by these entities solely because of their common ownership.

Affiliation may be based on stock ownership. For example, a person is an affiliate of a concern if that person owns, controls, or has the power to control 50% or more of the concern's voting stock, or a block of stock that affords control because it is large compared to other outstanding blocks of stock. Also, a person is presumed to be an affiliate of a concern if that person, with one or more other persons, owns, controls, or has the power to control less than 50% of the voting stock of concern, with minority holdings that are equal or approximately equal in size, but the aggregate of these minority holdings is large compared with any other stock holding.

Affiliation may be based on common management or joint venture arrangements. Affiliation arises when one or more officers, directors, or general partners control the board of directors and/or the management of another concern. Parties to a joint venture also may be affiliates. A contractor and subcontractor are treated as joint venturers if the ostensible subcontractor will perform primary and vital requirements of a contract or if the prime contractor is unusually reliant on the ostensible subcontractor. All requirements of the contract are considered in reviewing such a relationship, including contract management, technical responsibilities, and the percentage of subcontracted work.

Small Organizations. The RFA defines "small organizations" as any not-for-profit enterprise that is independently owned and operated and is not dominant in its field.

Small Governmental Jurisdictions. The RFA defines "small governmental jurisdictions" as governments of cities, counties, boroughs, parishes, towns, townships, villages, school districts, or special districts with populations of less than 50,000.

11.11.3 Reason for Considering the Proposed Actions

11.11.3.1 Limiting the Transfers of Licenses Earned on Vessels That Never Held a Federal Fisheries Permit

The intent of this action is to limit the potential for increasing fishing effort in the EEZ off Alaska, while allowing small vessels to continue operating as they had in the past in both state and Federal waters. The Council determined that a person who did not obtain a Federal Fisheries Permit for his or her vessel in the past must have only fished in the EEZ incidentally because a Federal Fisheries Permit is a legal requirement to participate in the EEZ. Therefore, a limitation on transfers on the privilege to fish in the EEZ would not be too much of a hardship. This action does not impact a person's ability to fish in state waters. See Section 3 of this analysis for further information on this action.

11.11.3.2 Adding Gear Endorsements to Groundfish Licenses

The intent of this action is to restrict movement between the trawl and non-trawl gear sectors and was added to the LLP because of concerns of capital stuffing and excess capacity that could occur in one or the other gear sector through such movement. A person's gear endorsement will be based on past participation. A provision was added to allow a person to designate a gear type different from the one for which that person qualified if certain criteria were met. See Section 4 of this analysis for further information on this action.

11.11.3.3 Rescinding the CDQ Vessel Exemption

The intent of this action is to eliminate an exemption that is not being used. This exemption, a carry-over from the Vessel Moratorium, was originally recommended to assist Community Development Quota

Organizations in prosecuting the groundfish fisheries. Business partnerships and specific allocations made this exemption unnecessary. No Community Development Quota Organizations opposed this change. The Council included a provision that any vessel that took advantage of the exemption prior to October 9, 1998, would be exempted from the license requirements of the LLP. See Section 5 of this analysis for further information on this action.

11.11.3.4 Adding a Recent Participation Requirement for Eligibility for a Crab License

The intent of this action is to exclude vessels that had not participated in the crab fisheries since December 31, 1995. The Council was concerned that the reactivation of this “latent capacity” through transfers would further contribute to the excess capacity the LLP was designed to reduce. Further, the Council was tasked by the American Fisheries Act, passed by the U.S. Congress in 1998, to remove latent capacity from the Bering Sea and Aleutian Islands crab fisheries. See Section 7 for further information on this action.

11.11.3.5 Limited Processing for Catcher Vessels

The intent of this action is to provide increased flexibility to small catcher vessel operations to take advantage of specialized markets. Certain species of fish spoil more rapidly than others. By allowing catcher vessels to process on a limited basis, fishermen would be able to process fish that would spoil rapidly, while continuing to harvest, and store on ice, other species. The limited nature of this privilege, 1 mt of round fish per day, ensures that catcher vessels will not compete in the already overcapitalized processing sector. See Section 8 for further information on this action.

11.11.4 Objectives of, and Legal Basis for, the Proposed Actions

These actions are recommended by the Council to further the objectives of the LLP, a program designed to limit the capacity and effort in the groundfish fisheries in the EEZ off Alaska and the commercial king and Tanner crab fisheries in the Bering Sea and Aleutian Islands. The LLP was recommended by the Council in 1995, and approved by the Secretary of Commerce in 1997. The Council, pursuant to the Magnuson-Stevens Act, is authorized to make recommendations to the Secretary of Commerce concerning the management of fisheries within the EEZ.

These proposed actions further the objectives of the LLP of limiting capacity and effort in the affected fisheries by further restricting movement between gear sectors, eliminating latent capacity in the crab fisheries, and limiting the transfer of a license earned from a vessel without a Federal Fisheries Permit.

11.11.5 Number and Description of Small Entities Affected by the Proposed Actions

The following provides number and description of small entities impacted by the changes proposed by this action. The primary small entities involved in this analysis are small businesses (fishing operations). Impacts to small organizations and small governmental jurisdictions are negligible.

11.11.5.1 Small Entities Affected by Limiting the Transfer of Licenses Earned on Vessels That Never Held a Federal Fisheries Permit

An estimated 447 groundfish license recipients would be affected by this transfer restriction. Of these 447, all are considered small entities because of insufficient annual receipts data. These 447 license recipients are presumed to have participated primarily in state waters fisheries and only inadvertently and infrequently crossed into the EEZ while fishing because a Federal Fisheries Permit was required to legally participate in the Federal EEZ.

11.11.5.2 Small Entities Affected by Adding Gear Endorsements to Groundfish Licenses

All of the estimated 2435 groundfish license recipients would be affected by adding gear endorsements to the license. Of these 2435, 2272 are catcher vessels and 163 are catcher/processors. All 2272 catcher vessels are assumed to be small entities because of insufficient annual receipts data. Of the 163 catcher/processors, some may be small entities for purposes of the RFA; however, due to an absence of ownership, partnership, and affiliation information it is not possible to report the number of each category with certainty. The estimated 2435 groundfish license recipients are owners of catcher vessels and catcher-processor vessels that participated in the groundfish fisheries between January 1, 1988, and June 17, 1995.

11.11.5.3 Small Entities Affected by Rescinding the CDQ Vessel Exemption

All six CDQ organizations, which are considered small entities, have the potential to be affected by the rescission of the CDQ vessel exemption, although none is expected to be impacted. The reasons for this expectation are that no CDQ organizations, to date, have sought to use this exemption, new management and affiliation relationships have developed with CDQ organizations that make the exemption unnecessary, and the Council provided a “grandfather” provision that protects any existing CDQ organization from being disadvantaged by this action.

11.11.5.4 Small Entities Affected by Adding a Recent Participation Requirement for Eligibility for a Crab LLP License

An estimated 93 crab license recipients would be affected by adding a recent participation requirement for eligibility for a crab LLP license. Of these 93 crab license recipients, all are assumed to be small entities because of insufficient annual receipts data. The alternative recommended by the Council would add a recent participation period (January 1, 1996, through February 7, 1998) that requires at least one documented harvest of crab during that time period. This requirement will reduce the number of crab license recipients from approximately 365 to 272.

11.11.5.5 Small Entities Affected Under Limited Processing Upgrade Provision

An estimated 1902 license recipients would be affected by allowing limited processing by catcher vessels under 60 feet. Of these 1902 license recipients, all are assumed to be small entities because of insufficient annual receipts data.

11.11.6 Recordkeeping and Reporting Requirements

No new recordkeeping or reporting requirements are imposed by this rule. Fishing operations taking advantage of the limited processing upgrade would be subject to existing recordkeeping and reporting requirements to keep daily cumulative production logbooks and to submit weekly production reports to NMFS.

11.11.7 Relevant Federal Rules That May Duplicate, Overlap, or Conflict with Proposed Actions

The proposed actions make adjustments to the LLP, a new fishery management program. The LLP will replace the Vessel Moratorium, which is scheduled to expire December 31, 1999. The LLP does not duplicate, overlap, or conflict with other relevant Federal rules.

11.11.8 Measures Taken to Reduce Impacts on Small Entities

The Council considered and adopted several measures to reduce the impact of the proposed actions. The following are measures adopted that will reduce the impacts on small entities.

11.11.8.1 Limiting the Transfer of Licenses Earned on Vessels That Never Held a Federal Fisheries Permit

As originally proposed, this action would have disqualified license recipients who did not have a Federal Fisheries Permit for their vessels. After reviewing the impact disqualification would have on license recipients, primarily small entities, the Council recommended that licenses with limited transferability be issued to such recipients.

11.11.8.2 Adding Gear Endorsements to Groundfish Licenses

The Council recommended that a provision be added to allow a license recipient to designate a gear type different from the one for which that license recipient qualified if certain criteria were met.

11.11.8.3 Rescinding the CDQ Vessel Exemption

The Council consulted with the CDQ organizations prior to making this recommendation. These groups indicated that they had not, nor did they intend to, use the CDQ vessel exemption.

11.11.8.4 Adding a Recent Participation Requirement for Eligibility for a Crab LLP License

The Council reviewed several alternatives for adding a recent participation period for crab license eligibility, including alternatives that would have required more participation than one documented harvest during the period from January 1, 1996, through February 7, 1998. The Council concluded that Alternative 9 provided the most benefits in meeting the goals of the LLP program while imposing the least harm to affected license recipients.

11.11.9 Summary and Conclusions

Most license recipients affected by the proposed actions are small entities given their expected annual gross revenues are less than \$3 million or assumed to be small entities because of insufficient annual receipts data. However, the ownership characteristics of vessels operating in the fishery has not been analyzed to determine if they are independently owned and operated or affiliated with a larger parent company. Furthermore, because NMFS cannot quantify the exact number of small entities that may be indirectly affected by this action, or quantify the magnitude of those effects, NMFS cannot make a finding of non-significance under the RFA.

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Appendices

Appendix A: Original Plan Amendment Language for Licensing Vessels to Fish in the Groundfish Fisheries in the Bering Sea/Aleutian Islands

Appendix B: Original Plan Amendment Language for Licensing Vessels to Fish in the Groundfish Fisheries in the Gulf of Alaska

Appendix C: Original Plan Amendment Language for Vessel License Limitation in the Commercial King and Tanner Crab Fisheries in the Bering Sea/Aleutian Islands

Appendix D: Legal Opinion Regarding Ownership on June 17, 1995 and Implications for Proposed Action 4

Appendix A: Original Plan Amendment Language for Licensing Vessels to Fish in the Groundfish Fisheries in the Bering Sea/Aleutian Islands

To be added at end of Chapter 2.0.

Amendment 39, effective (*insert the effective date of the license program*):

Created a license program for vessels targeting groundfish in the BSAI, other than fixed gear sablefish after (*insert the effective date of the LLP*). The license program will replace the vessel moratorium and will last until the Council replaces or rescinds the action.

A new Section 14.4.7.2 titled "Vessel License Limitation for the Bering Sea/Aleutian Islands" would replace the moratorium language and would read as follows:

14.4.7.2 Groundfish License Limitation Program

Beginning on (*insert the effective date of the LLP*) a Federal groundfish license will be required for harvesting vessels (including harvester/processors) participating in all BSAI groundfish fisheries, other than fixed gear sablefish. However, the following vessel categories are exempt from the license program requirements:

1. Vessels fishing in State of Alaska waters (0-3 miles offshore);
2. Vessels less than 32' LOA;
3. Jig gear vessels less than 60' LOA using a maximum of 5 jig machines, one line per machine, and a maximum of 15 hooks per line.

Any vessel that meets the license programs qualification requirements will be issued a license, regardless of whether they are exempt from the program or not. The vessel license program will last until the Council replaces or rescinds the action.

14.4.7.2.1 Elements of the License Limitation Program

1. Nature of Licenses. General licenses will be issued for the entire Bering Sea/Aleutian Island area based on historical landings defined in Federal regulations. Vessels that qualify for both a Bering Sea/Aleutian Island and a Gulf of Alaska general license will be issued both as a non-severable package. Area endorsements will be issued along with the general license for the Bering Sea and/or Aleutian Islands. General licenses and endorsements will remain a non-severable package.
2. License Recipients. Licenses will be issued to owners (as of June 17, 1995) of qualified vessels. The owners as of this date must be "persons eligible to document a fishing vessel" under Chapter 121, Title 46, U.S.C. In cases where the vessel was sold on or before June 17, 1995, and the disposition of the vessel's fishing history for license qualification was not mentioned in the contract, the license qualification history would go with the vessel. If the transfer occurred after June 17, 1995, the license qualification history would stay with the seller of the vessel unless the contract specified otherwise.

3. License Designations. Licenses and endorsements will be designated as Catcher Vessel or Catcher Processor and with one of three vessel length classes (<60', ≥60' but < 125', or ≥ 125' LOA).
4. Who May Purchase Licenses. Licenses may be transferred only to "persons" defined as those "eligible to document a fishing vessel" under Chapter 121, Title 46, U.S.C. Licenses may not be leased.
5. Vessel/License Linkages. Licenses may be transferred without a vessel, i.e., licenses may be applied to vessels other than the one to which the license was initially issued. However, the new vessel is still subject to the license designations, vessel upgrade provisions, "20% upgrade rule" (defined in provision seven), and the no leasing provision. Licenses may be applied to vessels shorter than the "maximum LOA" allowed by the license regardless of the vessel's length designation. Vessels may also use catcher processor licenses on catcher vessels. However, the reverse is not allowed.
6. Separability of General Licenses and Endorsements. General licenses may be issued for the Bering Sea /Aleutian Islands groundfish, Gulf of Alaska groundfish, and Bering Sea /Aleutian Islands crab fisheries. Those general licenses initially issued to a person based on a particular vessel's catch history are not separable and shall remain as a single "package". General licenses transferred after initial allocation shall remain separate "packages" in the form they were initially issued, and will not be combined with other general groundfish or crab licenses the person may own. Area endorsements are not separable from the general license they are initially issued under, and shall remain as a single "package," which includes the assigned catcher vessel/catcher processor and length designations.
7. Vessel Replacements and Upgrades. Vessels may be replaced or upgraded within the bounds of the vessel length designations and the "20% rule". This rule was originally defined for the vessel moratorium program. The maximum length over all (MLOA) with respect to a vessel means the greatest LOA of that vessel or its replacement that may qualify it to conduct directed fishing for groundfish covered under the license program, except as provided at § 676.4(d). The MLOA of a vessel with license qualification will be determined by the Regional Director as follows:
 - (a) For a vessel with license qualification that is less than 125' LOA, the maximum LOA will be equal to 1.2 times the vessel's original qualifying length or 125', whichever is less; and
 - (b) For a vessel with license qualification that is equal to or greater than 125', the maximum LOA will be equal to the vessel's original qualifying length.

If a vessel upgrades under the "20% rule" to a length which falls into a larger license length designation after June 17, 1995, then the vessel owner would be initially allocated a license and endorsement(s) based on the vessel's June 17, 1995 length. Those licenses and endorsements could not be used on the qualifying vessel, and the owner would be required to obtain a license for that vessel's designation before it could be fished.
8. License Ownership Caps. No more than 10 general groundfish licenses may be purchased or controlled by a "person," with grandfather rights to those persons who exceed this limit in the initial allocation. Persons with grandfather rights from the initial allocation must be under the 10 general license cap before they will be allowed to purchase any additional licenses. A "person" is defined as those eligible to document a fishing vessel under Chapter 121, Title 46, U.S.C. For

- corporations, the cap would apply to the corporation and not to share holders within the corporation.
9. Vessel License Use Caps. There is no limit on the number of licenses (or endorsements) which may be used on a vessel.
 10. Changing Vessel Designations. If a vessel qualifies as a catcher processor, it may select a one time (permanent) conversion to a catcher vessel designation.
 11. Implement a Skipper Reporting System. NMFS will implement a skipper reporting system which requires groundfish license holders to report skipper names, addresses, and service records.
 12. Vessels Targeting Non-groundfish Species. Vessels targeting non-groundfish species that are allowed to land incidentally taken groundfish species without a Federal permit before implementation of the groundfish license program, will be allowed to continue to land bycatch amounts of groundfish without having a valid groundfish license. Additionally, vessels targeting sablefish and halibut under the IFQ program will continue to be allowed to retain bycatch amounts of groundfish species.
 13. CDQ Vessel Exemption. Vessels < 125' obtained under an approved CDQ plan to participate in both CDQ and non-CDQ fisheries, will be allowed to continue to fish both fisheries without a license. If the vessel is sold outside the CDQ plan, the vessel will no longer be exempt from the rules of the license program.
 14. Lost Vessels. Vessels which qualified for the moratorium and were lost, damaged, or otherwise out of the fishery due to factors beyond the control of the owner and which were replaced or otherwise reentered the fishery in accordance with the moratorium rules, and which made a landing any time between the time the vessel left the fishery and June 17, 1995, will be qualified for a general license and endorsement for that area.
 15. Licenses Represent a use Privilege. The Council may alter or rescind this program without compensation to license holders; further, licenses may be suspended or revoked for (serious and/or multiple) violations of fisheries regulations.

14.4.1.2.2.1 CDQ Allocation.

CDQs will be issued for 7.5% of the TAC for all BSAI groundfish species not already covered by another CDQ program (pollock and longline sablefish). A pro-rata share of PSC species will also be issued. PSC will be allocated before the trawl/non-trawl splits. The program will be patterned after the pollock CDQ program (defined in section 14.4.11.6), but will not contain a sunset provision. Also, Akutan will be included in the list of eligible CDQ communities.

Appendix B: Original Plan Amendment Language for Licensing Vessels to Fish in the Groundfish Fisheries in the Gulf of Alaska

A new Section 4.4.1.2 titled "Vessel License Limitation for the Gulf of Alaska" would be added and would read as follows:

Amendment 41, effective (*insert the effective date of the license program*):

4.4.1.2 Groundfish License Limitation Program

Beginning on (*insert the effective date of the LLP*) a license will be required for harvesting vessels (including harvester/processors) participating in all directed GOA groundfish fisheries, other than fixed gear sablefish throughout the Gulf of Alaska and Demersal Shelf Rockfish in the Southeast Outside area (East of 140°). Vessels fishing in State waters will be exempt, as will vessels less than 26' LOA. Vessels exempted from the Gulf of Alaska groundfish license program, will be limited to the use of legal fixed gear in the Southeast Outside area. The vessel license limitation program will replace the vessel moratorium and will last until the Council replaces or rescinds the action.

4.4.1.2.1 Elements of the License Limitation Program

1. Nature of Licenses. General licenses will be issued for the entire Gulf of Alaska area based on historical landings. Vessels that qualify for both Bering Sea/Aleutian Island and Gulf of Alaska general licenses will be issued both as a non-severable package. Area endorsements will be issued along with the general license for the Southeast Outside, Central Gulf including West Yakutat, and/or Western Gulf areas. General licenses and endorsements will remain a non-severable package.
2. License Recipients. Licenses will be issued to owners (as of June 17, 1995) of qualified vessels. The owners as of this date must be "persons eligible to document a fishing vessel" under Chapter 121, Title 46, U.S.C. In cases where the vessel was sold on or before June 17, 1995, and the disposition of the vessel's fishing history for license qualification was not mentioned in the contract, the license qualification history would go with the vessel. If the transfer occurred after June 17, 1995, the license qualification history would stay with the seller of the vessel unless the contract specified otherwise.
3. License Designations. Licenses and endorsements will be designated as Catcher Vessel or Catcher Processor and with one of three vessel length classes (<60', ≥60' but < 125', or ≥ 125' LOA). Southeast Outside endorsements will be designated for use by legal fixed gear only.
4. Who May Purchase Licenses. Licenses may be transferred only to "persons" defined as those "eligible to document a fishing vessel" under Chapter 121, Title 46, U.S.C. Licenses may not be leased.
5. Vessel/License Linkages. Licenses may be transferred without a vessel, i.e., licenses may be applied to vessels other than the one to which the license was initially issued. However, the new vessel is still subject to the license designations, vessel upgrade provisions, "20% rule" (defined in provision seven), and the no leasing provision. Licenses may be applied to vessels shorter than the "maximum LOA" allowed by the license regardless of the vessel's length designation. Vessels may also use catcher processor licenses on catcher vessels. However, the reverse is not allowed.

6. Separability of General Licenses and Endorsements. General licenses may be issued for the Bering Sea /Aleutian Islands groundfish, Gulf of Alaska groundfish, and Bering Sea /Aleutian Islands crab fisheries. Those general licenses initially issued to a person based on a particular vessel's catch history are not separable and shall remain as a single "package". General licenses transferred after initial allocation shall remain separate "packages" in the form they were initially issued, and will not be combined with other general groundfish or crab licenses the person may own. Area endorsements are not separable from the general license they are initially issued under, and shall remain as a single "package," which includes the assigned catcher vessel/catcher processor and length designations.
7. Vessel Replacements and Upgrades. Vessels may be replaced or upgraded within the bounds of the vessel length designations and the "20% rule". This rule was originally defined for the vessel moratorium program. The maximum length over all (MLOA) with respect to a vessel means the greatest LOA of that vessel or its replacement that may qualify it to conduct directed fishing for groundfish covered under the license program, except as provided at § 676.4(d). The MLOA of a vessel with license qualification will be determined by the Regional Director as follows:
 - (a) For a vessel with license qualification that is less than 125' LOA, the maximum LOA will be equal to 1.2 times the vessel's original qualifying length or 125', whichever is less; and
 - (b) For a vessel with license qualification that is equal to or greater than 125', the maximum LOA will be equal to the vessel's original qualifying length.
 - (c) If a vessel upgrades under the "20% rule" to a length which falls into a larger license length designation after June 17, 1995, then the vessel owner would be initially allocated a license and endorsement(s) based on the vessel's June 17, 1995 length. Those licenses and endorsements could not be used on the qualifying vessel, and the owner would be required to obtain a license for that vessel's designation before it could be fished.
8. License Ownership Caps. No more than 10 general groundfish licenses may be purchased or controlled by a "person," with grandfather rights to those persons who exceed this limit in the initial allocation. Persons with grandfather rights from the initial allocation must be under the 10 general license cap before they will be allowed to purchase any additional licenses. A "person" is defined as those eligible to document a fishing vessel under Chapter 121, Title 46, U.S.C. For corporations, the cap would apply to the corporation and not to share holders within the corporation.
9. Vessel License Use Caps. There is no limit on the number of licenses (or endorsements) which may be used on a vessel.
10. Changing Vessel Designations. If a vessel qualifies as a catcher processor, it may select a one time (permanent) conversion to a catcher vessel designation.
11. Implement a Skipper Reporting System. NMFS will implement a skipper reporting system which requires groundfish license holders to report skipper names, addresses, and service records.
12. Vessels Targeting Non-groundfish Species. Vessels targeting non-groundfish species that are allowed to land incidentally taken groundfish species without a Federal permit before implementation of the groundfish license program, will be allowed to continue to land bycatch amounts of groundfish without having a valid groundfish license. Additionally, vessels targeting sablefish and halibut under the IFQ program will continue to be allowed to retain bycatch amounts of groundfish species.

13. CDQ Vessel Exemption. Vessels < 125' obtained under an approved CDQ plan to participate in both CDQ and non-CDQ fisheries, will be allowed to continue to fish in the GOA groundfish fisheries without a license. If the vessel is sold outside the CDQ plan, the vessel will no longer be exempt from the rules of the license program.
14. Lost Vessels. Vessels which qualified for the moratorium and were lost, damaged, or otherwise out of the fishery due to factors beyond the control of the owner and which were replaced or otherwise reentered the fishery in accordance with the moratorium rules, and which made a landing any time between the time the vessel left the fishery and June 17, 1995, will be qualified for a general license and endorsement for that area.
15. Licenses Represent a use Privilege. The Council may alter or rescind this program without compensation to license holders; further, licenses may be suspended or revoked for (serious and/or multiple) violations of fisheries regulations.

Appendix C: Original Plan Amendment Language for Vessel License Limitation in the Commercial King and Tanner Crab Fisheries in the Bering Sea/Aleutian Islands

Amendment 5, effective (*insert the effective date of the license program*):

The first sentence in Section 8.1.2 would read:

Currently no Federal fishing permits are required for harvesting vessels, except as required by the License Limitation Program as described in Section 8.1.4. and regulated by 50 CFR (*insert part #*).

The paragraph contained in Section 8.1.4 would be deleted.

A new section 8.1.4.1` titled "Vessel License Limitation" would be added. and would read as follows:

8.1.4.1 Vessel License Limitation

Beginning on (*insert the effective date of the LLP*) a Federal Crab License is required on harvesting vessels (including harvester/processors) participating in the BSAI King and Tanner Crab fisheries. Vessels fishing in State waters will be exempt, as will vessels < 32'. The license limitation program will replace the vessel moratorium and will last until the Council replaces or rescinds the action.

8.1.4.1.1 Elements of the License Limitation Program

1. Nature of Licenses. General crab licenses will be issued for BSAI king and tanner crab fisheries covered under the FMP, with the following species/area endorsements:

- a. Pribilof red and Pribilof blue king crab
- b. *C. opilio* and *C. bairdi*
- c. St. Matthew blue king crab
- d. Adak brown king crab
- e. Adak red king crab
- f. Bristol Bay red king crab
- g. Norton Sound red and Norton Sound blue summer king crab

Species/area combinations not listed above may be fished by any vessel that holds a valid Federal crab license regardless of the endorsements attached to the license, if those fisheries are open and the vessel meets all other State and Federal regulatory requirements.

2. License Recipients. Licenses will be issued to current owners (as of June 17, 1995) of qualified vessels, except in the Norton Sound summer red and blue king crab fisheries. Licenses for these fisheries would be issued to:

- a. Individuals who held a State of Alaska Permit for the Norton Sound summer king crab fisheries and made at least one landing; or
- b. Vessel owners as of June 17, 1995 in instances where a vessel was corporate owned, but operated by a skipper who was a temporary contract employee.

The owners as of this date must be "persons eligible to document a fishing vessel" under Chapter 121, Title 46, U.S.C. In cases where the vessel was sold on or before June 17, 1995, and the disposition of the license qualification history was not mentioned in the contract, the license qualification history would go with the vessel. If the transfer occurred after June 17, 1995, the license qualification history would stay with the seller of the vessel unless the contract specified otherwise.

3. License Designations. Licenses and endorsements will be designated as Catcher Vessel or Catcher Processor and with one of three vessel length classes (<60', ≥60' but < 125', or ≥ 125' LOA).
4. Who May Purchase Licenses. Licenses may be transferred only to "persons" defined as those "eligible to document a fishing vessel" under Chapter 121, Title 46, U.S.C. Licenses may not be leased.
5. Vessel/License Linkages. Licenses may be transferred without a vessel, i.e., licenses may be applied to vessels other than the one to which the license was initially issued. However, the new vessel is still subject to the license designations, vessel upgrade provisions, 20% upgrade rule (defined in provision seven), and the no leasing provision. Licenses may be applied to vessels shorter than the "maximum LOA" regardless of the length of the vessel class designations. Vessels may also use catcher processor licenses on catcher vessels. However, the reverse is not allowed. It was the Council's intent that vessels be allowed to "downgrade".
6. Separability of General Licenses and Endorsements. General licenses may be issued for the Bering Sea /Aleutian Islands groundfish, Gulf of Alaska groundfish, and Bering Sea /Aleutian Islands crab fisheries. Those general licenses initially issued to a person based on a particular vessel's catch history are not separable and shall remain as a single "package". General licenses transferred after initial allocation shall remain separate "packages" in the form they were initially issued, and will not be combined with other general groundfish or crab licenses the person may own. Species/area endorsements are not separable from the general license they are initially issued under, and shall remain as a single "package," which includes the assigned catcher vessel/catcher processor and length designations.
7. Vessel Replacements and Upgrades. Vessels may be replaced or upgraded within the bounds of the vessel length designations and the "20% rule". This rule was originally defined for the vessel moratorium program. The maximum length over all (MLOA) with respect to a vessel means the greatest LOA of that vessel or its replacement that may qualify it to conduct directed fishing for groundfish covered under the license program, except as provided at § 676.4(d). The MLOA of a vessel with license qualification will be determined by the Regional Director as follows:
 - (a) For a vessel with license qualification that is less than 125' LOA, the maximum LOA will be equal to 1.2 times the vessel's original qualifying length or 125', whichever is less; and
 - (b) For a vessel with license qualification that is equal to or greater than 125', the maximum LOA will be equal to the vessel's original qualifying length.

If a vessel upgrades under the "20% rule" to a length which falls into a larger license length designation after June 17, 1995, then the vessel owner would be initially allocated a license and endorsement(s) based on the vessel's June 17, 1995 length. Those licenses and endorsements

could not be used on the qualifying vessel, and the owner would be required to obtain a license for that vessel's designation before it could be fished. Vessels in the Norton Sound summer king crab fisheries may upgrade more than 20% (as defined in the 20% rule) so long as the vessel does not exceed 32' LOA after the upgrade is complete.

8. License Ownership Caps. No more than five general crab licenses may be purchased or controlled by a "person," with grandfather rights to those persons who exceed this limit in the initial allocation. Persons with grandfather rights from the initial allocation must be under the five general license cap before they will be allowed to purchase any additional licenses. A "person" is defined as those eligible to document a fishing vessel under Chapter 121, Title 46, U.S.C. For corporations, the cap would apply to the corporation and not to share holders within the corporation.
9. Vessel License Use Caps. There is no limit on the number of licenses (or endorsements) which may be used on a vessel.
10. Changing Vessel Designations. If a vessel qualifies as a catcher processor, it may select a one time (permanent) conversion to a catcher vessel designation.
11. Implement a Skipper Reporting System. NMFS will implement a skipper reporting system which requires crab license holders to report skipper names, addresses, and service records.
12. CDQ Vessel Exemption. Vessels < 125' obtained under an approved CDQ plan to participate in both CDQ and non-CDQ target fisheries, will be allowed to continue to fish both fisheries without a license. If the vessel is sold outside the CDQ plan, the vessel will no longer be exempt from the rules of the crab license program.
13. Lost Vessels. Vessels which qualified for the moratorium and were lost, damaged, or otherwise out of the fishery due to factors beyond the control of the owner and which were replaced or otherwise reentered the fishery in accordance with the moratorium rules, and which made a landing any time between the time the vessel left the fishery and June 17, 1995, will be qualified for a general license and endorsement for that species/area combination.
14. Licenses Represent a use Privilege. The Council may alter or rescind this program without compensation to license holders; further, licenses may be suspended or revoked for (serious and/or multiple) violations of fisheries regulations.

14.4.1.2.2.1 CDQ Allocation.

CDQs will be issued for 7.5% of all BSAI crab fisheries that have a Guideline Harvest Level set by the State of Alaska. The program will be patterned after the pollock CDQ program (defined in section 14.4.11.6 of the BSAI groundfish FMP), but will not contain a sunset provision. Also, Akutan will be included in the list of eligible CDQ communities.

**Appendix D: Legal Opinion Regarding Ownership on June 17, 1995 and Implications for
Proposed Action 4**

