

PUBLIC REVIEW

DRAFT

ENVIRONMENTAL ASSESSMENT/REGULATORY IMPACT REVIEW/ INITIAL REGULATORY FLEXIBILITY ANALYSIS

for a Proposed Amendment to the
Fishery Management Plan for Groundfish
of the GOA Management Area
to

ADD PACIFIC COD ENDORSEMENTS TO WESTERN AND CENTRAL GOA FIXED GEAR LLP LICENSES

**Prepared by staff of the
North Pacific Fishery Management Council
605 W. 4th Avenue, #306
Anchorage Alaska 99501**

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DEFINITIONS AND ASSUMPTIONS FOR THE GOA PACIFIC COD ENDORSEMENT FMP AMENDMENT ANALYSIS

The following list provides definitions for a list of selected words or phrases used in the analysis:

- An **LLP license** is held by a person, and not by a vessel. NOAA Fisheries requires license owners to assign a vessel to the license before it can be used in a fishery subject to the LLP. Licenses may be transferred to a different vessel or owner once per calendar year (Jan 1- Dec 31). The LLP license must be physically on board the vessel when it is engaged in activities authorized by the license.
- **Area Endorsements** – Each license carries one or more area endorsements authorizing entry into fisheries in those management areas (Bering Sea, Aleutian Islands, Western GOA, Central GOA, and Southeast). For purposes of the LLP, the Central GOA area endorsement also allows vessels to fish in West Yakutat.
- **Gear Designation**- Each license carries a non-trawl and/or trawl gear designation which authorizes the license to fish using the designated gear type.
- **Landing** – For purposes of this analysis, a catcher vessel landing includes any LLP groundfish species landed during one calendar day. State waters and IFQ catch is not counted toward qualifying catch. Catcher vessel harvests are based upon ADFG Fish tickets. A catcher processor landing includes any groundfish landed during a one week interval, because catcher processor landings are based upon Blend and Catch Accounting data and are only specific to a week ending date.
- **MLOA designation** – Each license carries a maximum length overall (LOA) designation, limiting the length of the vessel that may use the license.
- **Non-severability** – The endorsements and designations on a license are non-severable and only transfer with the license.
- **Non-Trawl** – A license was assigned a non-trawl designation if fixed gear was used to harvest groundfish from a qualifying fishery during the period beginning January 1, 1988 through June 17, 1995 (§679(k)(3)(iv)(D)).
- **Operation-type designation** – Each license carries a designation for either catcher processor or catcher vessel operation. A catcher processor may choose to operate as a catcher vessel, delivering its catch shoreside or to a floating processor.
- **Trawl/non-trawl** – A license was assigned both a trawl and non-trawl gear designation if both gear types were used to harvest groundfish by the qualifying vessel during the period beginning January 1, 1988 through June 17, 1995 (§679(k)(3)(iv)(B)).
- **Trawl** – A license was assigned a trawl gear designation if trawl gear was used to harvest groundfish from by the qualifying vessel during the period beginning January 1, 1988 through June 17, 1995 (§679(k)(3)(iv)(C)).

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EXECUTIVE SUMMARY

This EA/RIR/IRFA examines the environmental, economic, and socioeconomic aspects of the proposed action to revise the groundfish License Limitation Program (LLP). The proposed action would add Pacific cod endorsements to Western and Central GOA fixed gear licenses. Licenses would be required carry a Pacific cod endorsement, in addition to the appropriate area endorsement, to participate in the directed Pacific cod fisheries in the Western and Central GOA. The action would result in an amendment to the GOA Fisheries Management Plan (FMP).

Competition among fixed gear participants in the Western and Central GOA Pacific cod fisheries has intensified in recent years, and long-term participants are concerned about the potential for latent fixed gear licenses to re-enter the fisheries. The proposed amendment would address this concern by limiting entry to the Pacific cod fishery to fixed gear licenses that have participated in recent years and qualify for a Pacific cod endorsement. This action may enhance stability in the GOA Pacific cod fisheries, reduce competition among fixed gear participants, and protect historic catch shares of participants. In the absence of this action, future entry of latent effort into the Western and Central GOA Pacific cod fisheries could further intensify competition among fixed gear participants and erode catch shares of long-term participants.

To address these concerns, the Council adopted the following problem statement:

GOA Fixed Gear Recency Purpose and Need Statement

Western GOA and Central GOA Pacific cod fisheries are subject to intense competition, particularly during the A season, when fish are aggregated and of highest value. Competition among fixed gear participants in the Western GOA and Central GOA Pacific cod fisheries has increased for a variety of reasons, including increased market value of Pacific cod products, a declining ABC/TAC, increased participation by harvesters displaced from other fisheries and introduction of capital that has been accrued from participation in rationalized fisheries. Additionally, fishery policies have created incentives that encourage non-traditional efficiency improvements for the less than 60 ft LOA vessel class. The possible future entry of latent effort and disproportionate vessel efficiency would have detrimental effects on LLP holders that have exhibited participation in, and dependence on, the fixed gear Pacific cod fisheries. Many fixed gear vessel owners have made significant investments, have long catch histories, and are dependent on the Western GOA and Central GOA Pacific cod resources. These long-term participants need protection from those who have little or no recent history and who have the ability to increase their participation in the Pacific cod fisheries. At the same time, retaining Federal waters opportunities for small community quota eligible (CQE) communities dependent on access to a range of fishery resources and expanding opportunities in Federal waters for small capacity jig operations is valued to promote community protections at a level that imposes minimal impact on historic catch shares of recent participants.

The intent of the proposed amendment is to prevent the future entry or re-entry of latent fixed gear groundfish fishing capacity that has not been utilized in recent years into the Pacific cod fisheries, and to preserve the traditional vessel operational efficiencies within the fisheries. This requires prompt action to promote stability in the fixed gear sectors of the GOA Pacific cod fisheries, and is expected to be implemented concurrently with the division of GOA Pacific cod among sectors which is currently under consideration. However, this action cannot address continued growth in the waters managed by the State of Alaska.

Alternatives, Components, and Options

There are two alternatives currently under consideration:

Alternative 1 (no action) would not make any changes to the current License Limitation Program.

Alternative 2 would add Pacific cod endorsements to fixed gear licenses, which would limit entry into the directed Pacific cod fisheries in Federal waters in the Western and Central GOA. Alternative 2 includes the following Components and Options:

Component 1— Management areas included

Western GOA

Central GOA (current LLP endorsement includes West Yakutat)

- Different options may be applied to each management area.

Component 2— Identify and define sectors

The sector definitions for awarding Pacific cod endorsements may be different from those used for the GOA Pacific cod sector split action. The purpose of sector definitions in this action is to allow the Council to select different catch thresholds for the different gear types, operation types, and vessel lengths. Individual licenses may qualify for any combination of a jig, hook-and-line, and pot endorsement if the license meets the respective threshold(s) for the appropriate gear type, operation type, and vessel length.

- Hook-and-line CP
Option: Hook-and-line CP ≥ 125
Hook-and-line CP < 125
- Hook-and-line CV
Option: Hook-and-line ≥ 60
Hook-and-line < 60
- Pot CP
- Pot CV
Option: Pot CV ≥ 60
Pot CV < 60
- Jig
Exempt vessels using jig gear from the LLP requirement (including the Pacific cod endorsement requirement) that use a maximum of 5 jigging machines, 5 lines, and 30 hooks per line or one line of 150 hooks.

Option: Exempt vessels participating with fixed gear in the Western GOA B season directed Pacific cod fishery from the Pacific cod endorsement requirement.

Suboption: Exempt vessels using pot gear only.

Component 3 – Qualifying years

Option 1: 2000-2006

Option 2: 2002-2006

Option 3: Add the qualifying period January 1, 2007 through:

Suboption 1: June 4, 2008

Suboption 2: December 8, 2008

- Either of these suboptions will be selected in addition to one of the qualifying periods in Option 1 or Option 2.

Suboption 3: If an LLP license qualifies only when the supplemental range of years in Suboption 1 or Suboption 2 is included, any Pacific cod endorsements granted to licenses under these suboptions would be extinguished upon transfer of the LLP license to another vessel or owner.

- If a GOA hook-and-line catcher processor LLP license holder was a voluntary non-participant in the Freezer Longliner Coalition informal PSC co-op efforts of 2006, 2007, or 2008, and does not qualify under Component 3, Options 1, 2, or 3, the LLP would not be extinguished. If Pacific cod endorsements are a result of this action in the GOA hook-and-line CP sector, the LLP would receive a Pacific cod endorsement.

Component 4 – Catch thresholds

Thresholds shall be based on legally retained catch in the aggregate during all of the qualifying years in the Federal and parallel fisheries (excluding IFQ catch). Separate and distinct thresholds may be determined for each defined sector.

Option 1: All directed Pacific cod 1, 3, or 5 landings (resulting in a Pacific cod endorsement)

Option 2: All directed Pacific Cod 5, 10, 25, or 100 mt (resulting in a Pacific cod endorsement)

Option: Hardship provision. A GOA fixed gear LLP holder who had 5 or more Pacific cod landings in 1999, but had a vessel on which the LLP was used sink in 1999 or 2000, shall be credited with qualifying history so as to obtain a Pacific cod endorsement.

Directed Pacific cod catch is defined as landings made when the directed Pacific cod fisheries are open. For purposes of catch accounting, licenses are credited with deliveries or processing activity recorded up to 7 days after the directed season closes.

Component 5 – Stacked license provisions

Where there are multiple LLPs registered to a single vessel, also known as ‘stacking’ of LLPs, groundfish harvest history will be fully credited to all stacked licenses, each carrying its own qualifying endorsements and designations.

Component 6 – Capacity/efficiency limits to CV and CP fixed gear LLPs

Add a width restriction (efficiency restriction) to each CV and CP fixed gear LLP license that is eligible to access Pacific cod under this action. The width restriction would be 1 ft of width for each 3 ft of length, and is based on the LOA of the vessel assigned to the license on December 8, 2008. The licenses that are assigned to vessels on December 8, 2008 that exceed the width restriction will be grandfathered at their present LOA. For vessels under construction on December 8, 2008, the width restriction for the license shall be equal to the vessel width upon completion. Vessels would be required to report width measurements to RAM.

Option: Add a simple gross tonnage maximum to licenses.

Component 7 – CQE community resident exemption

CQE community residents currently holding latent, non-qualifying, LLP permits shall retain their LLP and area endorsement(s) and be exempt from the Pacific cod endorsement requirement. A hook-and-line

or pot gear endorsement shall be made through (a) a one-time designation at the time the endorsement is issued or (b) designated at the time the first Pacific cod landing is made based on the gear type used. The CQE community resident's LLP shall not be leased, and can only be transferred to an individual who has lived continuously in the permit holder's CQE community for 24 consecutive months prior to the transfer and who intends to remain a resident of the community. Residency shall be affirmed annually upon renewal. If a CQE community LLP holder with a restricted transfer LLP is no longer a resident of the CQE community or dies without a designated qualified LLP community beneficiary, the community CQE shall designate a qualified individual in the CQE community to hold the restricted transfer LLP.

Option: Restrict the exemption to LLPs with a MLOA designation of less than 60 feet.

Expected Effects of the Alternatives

This section provides an overview of the expected effects of the proposed action to add Pacific cod endorsements to Western and Central GOA fixed gear groundfish licenses. The tables show the number of fixed gear groundfish licenses that will be eligible to participate in the directed Pacific cod fisheries in Western and Central GOA under the various components and options. The EA/RIR/IRFA for the proposed action includes a discussion of the potential economic and socioeconomic effects which may occur as a result of the proposed action. In that document, effects on harvesters, processors, and communities are analyzed, followed by a description of the cumulative effects of the proposed amendment and other recent actions, and an analysis of the net benefits to the Nation.

Alternative 1 – No Action

Under the no action alternative, Pacific cod endorsements would not be added to Western and Central GOA fixed gear groundfish licenses. As a result, there would be no reduction in the number of fixed gear groundfish licenses eligible to participate in the directed Pacific cod fisheries in the Western and Central GOA. If this alternative is selected, fixed gear licenses that have not participated in the Western and Central GOA Pacific cod fisheries in recent years could enter the fisheries in the future and dilute revenues, increase costs, or both, for licenses with recent participation in the fisheries. Increased participation may result in negative economic impacts to current participants in the fisheries. The number of licenses that might enter the fisheries in the absence of this action is unknown, and depends on future market conditions, the size of Pacific cod TACs, opportunities to participate in other fisheries, the future regulatory environment, and operating costs in the fisheries. Consequently, this analysis does not provide a quantitative estimate of the potential economic impacts of the no action alternative.

Current number of fixed gear groundfish licenses

The number of fixed gear licenses with Western and Central GOA endorsements is reported by operation type and maximum length overall (MLOA) in Table 3-22. The table also indicates the number of licenses that have other area endorsements in addition to a Western or Central GOA endorsement. There are 883 fixed gear catcher vessel licenses with Central GOA endorsements and 264 fixed gear catcher vessel licenses with Western GOA endorsements. Most of these licenses may only be used on vessels less than 60 feet LOA. Fewer than 25% of catcher vessel licenses with Central GOA endorsements also have BSAI or Western GOA endorsements. In contrast, more than half of catcher vessel licenses with Western GOA endorsements also have BSAI or Central GOA endorsements. There are 49 Central GOA and 31 Western GOA CP licenses, and the majority of these licenses also carry BSAI endorsements. Only a small number of catcher processor licenses are restricted for use on vessels less than 60 feet LOA. This is

the universe of fixed gear licenses that would continue to have access to the directed Pacific cod fisheries in the Western and Central GOA in the absence of the proposed amendment.

Table E-1 Number of GOA fixed gear LLP licenses with each area endorsement, operation type, MLOA, and gear designation.

	Number of endorsements		Licenses that also have an endorsement (or designation) for:					
	All licenses	Licenses with MLOA <60 feet	Central Gulf	Western Gulf	Aleutian Islands	Bering Sea	Southeast Outside	Trawl
Central Gulf CV	883	702	--	175	61	159	178	114
Central Gulf CP	49	5	--	27	41	45	5	8
Western Gulf CV	264	154	175	--	62	157	42	78
Western Gulf CP	31	1	27	--	30	31	3	4

Source: NMFS RAM groundfish license file, December 2008.

Alternative 2 – Add Pacific cod endorsements to licenses

This section describes the impacts of the proposed action on the universe of fixed gear licenses that are currently eligible to participate in the directed Pacific cod fisheries in Federal waters of the Western and Central GOA. The proposed action would add Pacific cod endorsements to fixed gear licenses. Licenses would be required carry a Pacific cod endorsement, in addition to the appropriate area endorsement, to participate in the directed Pacific cod fisheries in Federal waters of the Western and Central GOA. The action would result in an amendment to the GOA Fisheries Management Plan (FMP).

The tables in this section show the number of fixed gear licenses that meet the various landings and catch thresholds during 2000-2006 and 2002-2006, and also show the additional number of licenses that would qualify if landings during 2007 through either June 4, 2008 or December 8, 2008 are included in addition to landings during 2000-2006 or 2002-2006. Under Component 3, there is a provision that states that one of the qualifying periods included in the suboptions under Option 3 will be selected in addition to either 2000-2006 (Option 1) or 2002-2006 (Option 2). If Suboption 3 is also selected, any license that qualifies for a Pacific cod endorsement only when catch during the supplemental years in Option 3 are included would receive a nontransferable Pacific cod endorsement. The endorsement would be extinguished if the license is transferred to another vessel or owner.

Catcher vessel licenses

The number of fixed gear catcher vessel licenses that meet each landings and catch threshold is reported in Table E-2. The number of licenses that would qualify for a Pacific cod endorsement depends upon the catch definition, landings or catch threshold, and qualification period selected. There are currently 264 Western GOA fixed gear CV licenses, and 54 to 110 of these licenses would qualify for a Pacific cod endorsement. There are 883 Central GOA fixed gear CV licenses, and 110 to 306 of these licenses would qualify for a Pacific cod endorsement. If landings during 2007 through June 4, 2008 or December 8, 2008 are included in addition to landings during one of the qualifying periods under Options 1 or 2, approximately 10% to 15% more CV licenses meet the one landing threshold (see Table 3-23).

The number of licenses that meet each landings and catch threshold based on catch made while using a specific gear type is reported in Table E-3. It is important to note that the gear type columns are not mutually exclusive. Licenses may have qualified landings using more than one fixed gear type, and as a

result, the number of licenses in the columns in Table E-3 may sum to more than the number of qualifying licenses in Table E-2. In the absence of specific gear type endorsements (i.e., pot, hook-and-line, or jig endorsements), these licenses could continue to fish in the directed Pacific cod fisheries using any fixed gear type. The Council could choose different catch or landings thresholds for different gear types and MLOA size class to account for differences in catch history among licenses in each sector. There are additional tables in Chapter 3 of this document that report the number of licenses in each gear type and MLOA size class that meet the various landings and catch thresholds.

Under the current set of landings and catch thresholds, the number of gear-specific Pacific cod endorsements that would be added to fixed gear catcher vessel licenses includes:

Central GOA

- 68 to 202 hook-and-line endorsements
- 42 to 124 pot endorsements
- 0 to 24 jig endorsements

Western GOA

- 0 to 14 hook-and-line endorsements
- 54 to 96 pot endorsements
- 0 to 12 jig endorsements

Table E-2 Number of fixed gear catcher vessel licenses that meet the landings and catch thresholds based on landings in the Western or Central GOA directed Pacific cod fisheries.

Western GOA – 264 CV licenses

Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	110	106	93	101	96	82
3 landings	100	95	83	95	90	76
5 landings	91	87	74	86	82	68
5 mt	105	100	85	99	94	77
10 mt	97	93	79	93	89	73
25 mt	91	88	74	85	82	66
100 mt	68	63	55	68	63	54

Central GOA – 883 CV licenses

Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	306	297	269	245	234	198
3 landings	272	266	240	220	215	179
5 landings	249	246	219	203	200	164
5 mt	273	267	237	222	216	180
10 mt	255	250	223	210	205	171
25 mt	221	220	190	189	188	154
100 mt	171	169	151	142	139	110

Source: ADFG Fish Tickets (2000-2007), NMFS Catch Accounting (2008) and RAM groundfish license file, December 2008.

Table E-3 Number of fixed gear licenses that meet the catch and landings thresholds based on catch using a specific gear type in the Western or Central GOA directed Pacific cod fisheries.

Western GOA licenses - 264 CV licenses

Hook-and-line						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	14	12	7	14	12	7
3 landings	11	8	4	10	7	3
5 landings	9	5	1	9	5	1
5 mt	13	11	6	12	10	5
10 mt	11	9	3	11	9	3
25 mt	9	6	0	9	6	0
100 mt	3	0	0	3	0	0

Jig						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	12	9	9	11	8	8
3 landings	7	7	7	7	7	7
5 landings	5	5	5	5	5	5
5 mt	7	6	6	7	6	6
10 mt	3	3	3	3	3	3
25 mt	*	*	*	*	*	*
100 mt	0	0	0	0	0	0

Pot						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	96	94	83	86	84	72
3 landings	88	87	77	82	81	69
5 landings	82	81	71	76	75	64
5 mt	91	89	78	84	82	69
10 mt	88	86	75	83	81	68
25 mt	82	81	71	76	75	63
100 mt	65	63	55	65	63	54

Source: ADFG Fish Tickets (2000-2007), NMFS Catch Accounting (2008) and RAM groundfish license file, December 2008.

*Withheld for confidentiality.

Note: Gear type columns are not mutually exclusive, and the number of licenses in the columns in Table E-3 may sum to more than the number of qualifying licenses in Table E-2.

Central GOA licenses – 883 CV licenses

Hook-and-line gear						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	202	196	169	161	154	123
3 landings	177	172	149	142	138	111
5 landings	157	155	133	125	123	98
5 mt	180	176	149	145	141	112
10 mt	162	159	135	133	130	104
25 mt	134	134	112	116	116	94
100 mt	96	94	84	84	81	68

Jig						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	24	22	19	20	18	15
3 landings	10	10	9	7	7	6
5 landings	9	9	7	7	7	5
5 mt	9	8	7	8	7	6
10 mt	4	4	4	4	4	4
25 mt	*	*	0	*	*	0
100 mt	0	0	0	0	0	0

Pot						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	124	120	111	94	90	78
3 landings	109	106	100	85	82	70
5 landings	98	98	91	78	78	66
5 mt	109	106	99	85	82	72
10 mt	106	103	96	83	80	69
25 mt	93	91	83	76	74	62
100 mt	75	75	66	59	59	42

Source: ADFG Fish Tickets (2000-2007), NMFS Catch Accounting (2008) and RAM groundfish license file, December 2008.
*Withheld for confidentiality.

Note: Gear type columns are not mutually exclusive, and the number of licenses in the columns in Table E-3 may sum to more than the number of qualifying licenses in Table E-2.

Catcher processor licenses

The number of catcher processor licenses that meet the various landings and catch thresholds is reported in Table E-4. There are 31 Western GOA catcher processor licenses, and 19 to 24 licenses meet the 1 landing threshold during the qualifying periods in Options 1 through 3, and would qualify for a Pacific cod endorsement. The majority of Western GOA licenses that have catch history during the various qualifying periods also meet the highest catch threshold (100 mt) and landings threshold (5 landings). Three licenses qualified only when catch through December 2008 was included. There are 49 Central GOA licenses, and 12 to 21 licenses meet the 1 landing threshold during the qualifying periods in Options 1 through 3 and would qualify for a Pacific cod endorsement. In general, a smaller proportion of Central GOA CP licenses that meet the one landing threshold also meet the highest catch and landings thresholds. There were 7 licenses that qualified only when catch (at the 1 landing threshold) through December 2008 was included.

The number of catcher processor licenses that would qualify for gear-specific Pacific cod endorsements includes:

Western GOA

- 14 to 22 hook-and-line catcher processor endorsements
- Up to 5 pot catcher processor endorsements
- 3 licenses have both hook-and-line and pot landings

Central GOA

- 7 to 18 hook-and-line catcher processor endorsements
- Up to 4 pot catcher processor endorsements
- 1 license has both hook-and-line and pot landings

Table E-4 Number of fixed gear catcher processor licenses qualifying under various landings and catch thresholds based on catch in the Western and Central GOA directed Pacific cod fisheries.

Western GOA – 31 CP licenses

All gear						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	24	22	21	23	21	19
3 landings	24	21	20	22	19	17
5 landings	20	19	18	18	17	16
5 mt	23	21	20	22	20	18
10 mt	22	20	19	21	19	17
25 mt	21	20	19	20	19	17
100 mt	18	18	*	*	*	*

Hook-and-line gear						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	22	19	18	20	17	16
3 landings	21	17	16	20	16	14
5 landings	17	15	15	16	14	13
5 mt	21	18	17	19	16	15
10 mt	20	17	16	18	15	14
25 mt	18	16	15	17	15	14
100 mt	16	15	15	15	14	14

Pot gear						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	5	5	5	4	4	3
3 landings	5	5	5	3	3	3
5 landings	4	4	3	3	3	3
5 mt	5	5	5	4	4	3
10 mt	5	5	5	4	4	3
25 mt	5	5	5	4	4	3
100 mt	4	4	*	*	*	*

Source: Catch Accounting/Blend data and RAM LLP license file, December 2008. *Withheld for confidentiality.

Note: Gear type columns are not mutually exclusive, because some licenses have catch history using more than one gear type. The number of licenses in the gear columns may sum to more than the total number of licenses qualifying.

Central GOA – 49 CP licenses

Threshold	All gear					
	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	21	21	14	19	19	12
3 landings	18	18	12	17	17	11
5 landings	14	14	11	12	12	9
5 mt	21	21	14	18	18	*
10 mt	19	19	12	18	18	*
25 mt	18	18	12	17	17	*
100 mt	15	15	*	14	14	*

Threshold	Hook-and-line gear					
	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	18	18	12	16	16	10
3 landings	15	15	10	14	14	9
5 landings	10	10	8	9	9	7
5 mt	18	18	12	15	15	9
10 mt	16	16	10	15	15	9
25 mt	15	15	10	14	14	9
100 mt	11	11	7	11	11	7

Threshold	Pot gear					
	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	4	4	3	3	3	2
3 landings	4	4	3	3	3	2
5 landings	4	4	3	3	3	2
5 mt	4	4	3	3	3	*
10 mt	4	4	3	3	3	*
25 mt	4	4	3	3	3	*
100 mt	4	4	*	3	3	*

Source: Catch Accounting/Blend data and RAM LLP license file, December 2008. *Withheld for confidentiality.

Note: Gear type columns are not mutually exclusive, because some licenses have catch history using more than one gear type. The number of licenses in the gear columns may sum to more than the total number of licenses qualifying.

Licenses that only Qualify when 2007 and 2008 Catch History is Included

Under Component 3, Suboption 3 states that if an LLP license qualifies for a Pacific cod endorsement only when the supplemental range of years (Jan 1, 2007 through Jun 4, 2008 or Dec 8, 2008) in Suboption 1 or Suboption 2 of Component 3 are included, any Pacific cod endorsement granted to a license would be extinguished upon transfer of the LLP license to another vessel or owner. Those participants who entered the fishery in 2007 and 2008 would receive a Pacific cod endorsement under Suboption 1 or Suboption 2, and could continue to participate in the fishery. **It is important to note that Suboption 3 currently states that the Pacific cod endorsement would not be transferable to another vessel or owner.**

Designating licenses that qualify under Suboption 1 or Suboption 2 as non-transferable to another vessel or owner could have several effects. First, it would maintain the existing fleet of vessels in the Pacific cod fishery that are currently assigned to licenses that qualify based on 2007 or 2008 catch history. For

example, a high capacity 58 ft LOA vessel could not later be assigned to a license to replace a lower capacity boat that is currently assigned to a license. However, it would also prevent a license holder from replacing a vessel for safety or other considerations. If a boat sinks or otherwise becomes inoperable, the Council may wish to specify vessel replacement provisions for these licenses. If the Council wishes to choose Suboption 3, but to allow the owner to transfer the license to another vessel, **Suboption 3 could be revised so that a license cannot be transferred to another owner, but can be transferred to another vessel.** This would allow license holders to replace the vessel assigned to the license with a different vessel.

There are up to 37 additional Central GOA CV licenses that qualify at the 1 landing threshold when catch from 2000 through Dec 8, 2008 is credited to licenses; 32 of these licenses have an MLOA of <60 ft, and 19 have an MLOA of 58 or 59 ft. There are 17 Western GOA CV licenses that qualify at the 1 landing threshold only when catch history through Dec 8, 2008 is included; 10 licenses have an MLOA of <60 ft, and 7 licenses have an MLOA of 58 or 59 ft.

There are also additional CP licenses that qualify for a Pacific cod endorsement at the 1 landing threshold when catch through Dec 8, 2008 is credited to licenses. Three additional Western GOA licenses and 7 additional Central GOA licenses meet the 1 landing threshold. Most of these licenses have hook-and-line CP landings, and would qualify for a hook-and-line Pacific cod endorsement. There is a comparison of annual participation and revenues in the GOA Pacific cod fisheries and other Alaska fisheries by CV and CP licenses that only qualify when 2007 and 2008 catch is included and licenses that qualify based on 2000-2006 catch in Section 3.6.2 of the EA/RIR/IRFA for the proposed action.

Exemptions from the Pacific cod endorsement requirement

The Council is considering several exemptions from the Pacific cod endorsement requirement, or from the catch thresholds. These exemptions would (1) allow certain types of vessels to participate in the GOA directed Pacific cod fisheries without a Pacific cod endorsement, and (2) exempt some licenses from the catch thresholds, allowing these licenses to qualify for a Pacific cod endorsement even if they do not have qualifying catch. In determining which exemptions will be selected, the Council may wish to consider balancing the objective of creating opportunities for new entry with the need to protect long-term participants from an influx of additional effort into the fisheries. The exemptions currently under consideration include:

- An exemption from the Pacific cod endorsement requirement for vessels using jig gear that use a maximum of 5 jigging machines, 5 lines, and 30 hooks per line or one line of 150 hooks.
- An exemption from the Pacific cod endorsement requirement for vessels participating with fixed gear in the Western GOA B season directed Pacific cod fishery. A suboption would exempt only vessels using pot gear.
- An exemption from the catch thresholds for CP licenses that voluntarily stood down from the GOA Pacific cod fisheries during 2006, 2007, or 2008 as part of the informal hook-and-line CP halibut PSC cooperative.
- An exemption from the catch thresholds for licenses held by residents of CQE communities. A suboption would only exempt licenses with an MLOA designation of less than 60 ft.

Each of the proposed exemptions is discussed in Chapter 3 of this document. Additional tables report the number of licenses that would be eligible for the halibut PSC co-op exemption and the CQE exemption.

Potential Range of Outcomes from this Action

Based on the existing set of options, there is a range of possible outcomes from this action:

1. Status quo: No Pacific cod endorsements are added to Western and Central GOA fisheries. All existing fixed gear licenses are eligible to access the directed Pacific cod fisheries.
2. Pacific cod endorsements are added to fixed gear licenses to limit entry to the directed Pacific cod fisheries in the Western and Central GOA.
3. Gear-specific (pot, hook-and-line, and jig) Pacific cod endorsements are added to fixed gear licenses to limit entry to the Western and Central GOA directed Pacific cod fisheries, and to limit access to the proposed Pacific cod sector allocations.

Interactions with Pacific Cod Sector Allocations

In refining the alternatives and options for analysis, the Council may wish to consider interactions between the proposed action to add Pacific cod endorsements to fixed gear licenses and the proposed GOA Pacific cod sector allocations. A comparison of the components and options currently under consideration for the two actions is found Table E-5. The Council is considering options to add Pacific cod endorsements to fixed gear licenses to limit entry into the directed Pacific cod fisheries in the Western and Central GOA. Pacific cod endorsements could also restrict licenses to using the fixed gear type (e.g., pot, hook-and-line, or jig) specified on the endorsement. The gear endorsements could limit access to the Pacific cod sector allocations to ensure that vessels that contributed catch history to the sector allocations have access to those allocations.

Both actions include provisions to increase entry level opportunities in the GOA Pacific cod fisheries. The proposed exemption from the LLP requirement for vessels using jig gear, in tandem with the proposal to provide the jig sector an Pacific cod allocation of more than the sector's historic catch, will provide a substantial increase in opportunity for current as well as new participants in this sector. In addition, the potential for a stairstep increase in the jig allocation, if it is fully harvested, would provide for growth in the jig sector.

Table E-5 A comparison of the components and options included in the proposed GOA Pacific cod sector allocation and GOA fixed gear recency actions.

COMPARISON OF GULF OF ALASKA ACTIONS		
ACTION	GOA Pacific Cod Sector Allocations	GOA Fixed Gear LLP Recency
PURPOSE OF ACTION	Allocate Western and Central Gulf Pacific cod TACs to the various sectors	Add Pacific cod endorsements to licenses to limit entry to directed Pacific cod fisheries in WG and CG
MANAGEMENT AREAS	Western and Central Gulf of Alaska	Western and Central Gulf of Alaska (CG endorsement also includes West Yakutat)
SECTORS	(1) Hook-and-line CVs <u>Option:</u> Hook-and-line CVs <60 and ?60 <u>Option:</u> Hook-and-line CVs <50 and ?50 (CGOA) (2) Hook-and-line CPs <u>Option:</u> Hook-and-line CPs <125 and ?125 (3) Pot CVs <u>Option:</u> Pot CVs <60 and ?60 (4) Pot CPs (5) Jig (6) Trawl CVs (7) Trawl CPs <u>Option:</u> Combined <60 ft trawl and pot CV (WG only)	(1) Hook-and-line CVs <u>Option:</u> Hook-and-line CVs <60 and ?60 (2) Hook-and-line CPs <u>Option:</u> Hook-and-line CPs <125 and ?125 (3) Pot CVs <u>Option:</u> Pot CVs <60 and ?60 (4) Pot CPs (5) Jig
QUALIFYING CATCH	Retained catch of Pacific cod from parallel and Federal waters State waters catch is excluded	Retained catch from the directed Pacific cod fisheries in parallel and Federal waters State waters and IFQ catch is excluded
QUALIFYING YEARS	(1) 1995-2005: best 5 or 7 years (2) 2000-2006: best 3 or 5 years (3) 2002-2007: best 3 or 5 years (4) 2002-2008: best 3 or 5 years	(1) 2000-2006 (2) 2002-2006 (3) Include 2007-June 4, 2008 or 2007-Dec 8, 2008 in addition to one of the above qualifying periods
LANDINGS THRESHOLDS	None	(1) 1, 3, or 5 landings during qualifying years (2) 5, 10, 25, or 100 mt during qualifying years
JIG	1%, 3%, 5%, or 7% allocation Step up provision (1%) if allocation is 90% harvested during a given year Step down provision if allocation is not 90% harvested during 3 consecutive years, but allocation will not drop below its initial level	(1) Exempt jig vessels from any LLP requirement (2) Exempt jig vessels from Pacific cod endorsement requirement
OTHER COMPONENTS	Options to allocate hook-and-line halibut PSC to CVs and CPs Options to cap mothership processing shares	Option to exempt licenses held by CQE residents from the landings thresholds Option to exempt vessels using fixed gear (Suboption: pot gear only) from the Pacific cod endorsement requirement in the WGOA during the B season.

1.0 INTRODUCTION

The groundfish fisheries in the Exclusive Economic Zone (3 to 200 miles offshore) of the Gulf of Alaska (GOA) are managed under the GOA Fisheries Management Plan (FMP), developed by the North Pacific Fishery Management Council under the Magnuson-Stevens Fishery Conservation and Management Act. The GOA FMP was approved by the Secretary of Commerce and became effective in 1978.

This document is an Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis (EA/RIR/IRFA) for the proposed action to add Pacific cod endorsements to fixed gear LLP licenses to limit entry to the Western and Central GOA directed Pacific cod fisheries. This action would result in an amendment to the GOA FMP. Under the proposed action, a fixed gear license would receive a Pacific cod endorsement if it meets the minimum landings or catch (mt) threshold during a specific qualifying period.

An Environmental Assessment (EA) is required by the National Environmental Policy Act of 1969 (NEPA) to determine whether the proposed action will result in a significant impact on the human environment. If the action is determined not to be significant based on an analysis of the relevant considerations, the EA and finding of no significant impact (FONSI) would be the final environmental documents required by NEPA. An Environmental Impact Statement (EIS) must be prepared for major Federal actions significantly affecting the human environment.

The purpose of the EA is to analyze the environmental impacts of the proposed Federal action to remove latent fixed gear licenses from the Western and Central GOA. The human environment is defined by the Council on Environmental Quality as the natural and physical environment and the relationships of people with that environment (40 CFR 1508.14). This means that economic or social effects are not intended by themselves to require preparation of an EA. However, when an EA is prepared and socio-economic and natural or physical environmental impacts are interrelated, the EA must discuss all of these impacts on the quality of the human environment. NEPA requires a description of the purpose and need for the proposed action as well as a description of alternatives which may address the problem. This information is included in **Chapter 1** of this document. **Chapter 2** contains a description of the affected human environment and information on the impacts of the alternatives on that environment, specifically addressing potential impacts on endangered species and marine mammals and cumulative effects.

Executive Order 12866 (E.O. 12866) requires preparation of a Regulatory Impact Review (RIR) to assess the social and economic costs and benefits of available regulatory alternatives, in order to determine whether a proposed regulatory action is economically significant as defined by the order. This analysis is included in **Chapter 3**. **Chapter 4** addresses the requirements of other applicable laws, including the Magnuson Stevens Act, Marine Mammal Protection Act, and Regulatory Flexibility Act (RFA). The RFA requires an analysis of potential adverse economic impacts to small entities that would be directly regulated by the proposed action. The references and literature cited are in **Chapter 5**, the list of preparers is in **Chapter 6**, and the list of agencies and individuals consulted is in **Chapter 7**.

1.1 Purpose and Need for the Action

1.1.1 Background

Management of the GOA groundfish fisheries has become increasingly complex as a result of Steller sea lion protection measures, increased participation by vessels displaced from other fisheries, and bycatch reduction requirements under the Magnuson-Stevens Act (MSA). These factors have made achieving the

goals set by the National Standards in the MSA difficult, and have had significant adverse social and economic impacts on harvesters, processors, crew, and communities that depend on the GOA fisheries. In 1999, the Council began developing a package of measures to rationalize the GOA groundfish fisheries. At its April 2003 meeting, the Council adopted a motion defining preliminary alternatives for rationalizing the GOA groundfish fisheries. During 2003 through 2006, the Council worked to develop and refine these alternatives. However, in December 2006, the Council elected to delay further consideration of the comprehensive rationalization program. Instead, the Council decided to proceed with the more discrete issues of allocating the Pacific cod resource to the various gear sectors and limiting future entry to the GOA groundfish fisheries by extinguishing latent License Limitation Program (LLP) groundfish licenses. In April 2008, the Council took final action to remove latent trawl licenses from the BSAI and GOA. The Council began reviewing options to remove latent fixed gear licenses from the GOA fisheries in 2007.

In October 2007, the Council adopted a problem statement, outlined draft components and options, and directed staff to prepare an EA/RIR/IRFA for a proposed amendment to revise the LLP. The Council's motion included options to either remove latent licenses from the Western and Central GOA groundfish fisheries or add Pacific cod endorsements to licenses in order to limit entry into the directed Pacific cod fisheries. The Council reviewed a draft initial EA/RIR/IRFA at its December 2008 meeting in Anchorage, and decided to retain the options to add Pacific cod endorsements to licenses, and remove the options to extinguish latent licenses. The Council recommended that the document be released for public review. Final action is scheduled for the April 2009 meeting.

1.1.2 Purpose and Need Statement

The LLP limits access to the groundfish and crab fisheries in the Bering Sea, Aleutian Islands, and GOA.¹ In the mid to late 1990s, the Council developed the LLP to address capacity concerns and take a first step toward rationalization of the groundfish fisheries under its management. Fishing under the program began in 2000. Competition among fixed gear participants in the Western and Central GOA Pacific cod fisheries has intensified in recent years, and long-term participants are concerned about the potential for latent fixed gear licenses to re-enter the fisheries. The proposed amendment would address this concern by adding gear-specific Pacific cod endorsements to fixed gear licenses that have recent landings in the Western GOA and Central GOA directed Pacific cod fisheries.

The sectors potentially affected by the proposed amendment include fixed gear catcher vessel and catcher processor groundfish LLP license holders with Western and Central GOA² area endorsements. The action would add Pacific cod endorsements to fixed gear licenses that meet the minimum landings or catch (mt) threshold. Fixed gear licenses would be required to carry a Pacific cod endorsement, in addition to the appropriate area endorsement, to participate in the directed Pacific cod fisheries in Federal waters in the Western and Central GOA.

The rationale for this action is concern over the impacts that future entry of latent effort may have on current LLP permit holders that participate in the Western and Central GOA Pacific cod fisheries. Latent effort, for the purpose of the proposed action, is comprised of valid LLPs that have not been utilized in the directed Pacific cod fisheries during recent years. Recent participation has been defined by the Council to be participation in the Western or Central GOA directed Pacific cod fisheries using fixed gear during a specified time period (2000-2006, 2002-2006, 2000-2008, or 2002-2008). The proposed action would add Pacific cod endorsements to Western and Central GOA fixed gear LLP licenses that meet minimum landings thresholds during a specific qualifying period. This action may enhance stability in the GOA Pacific cod fisheries, reduce competition among fixed gear participants, and protect historic

¹ Amendment 39 to the BSAI groundfish plan and Amendment 41 to the groundfish plan for the GOA established the LLP. The primary rules governing the LLP are contained in 50 CFR 679.4(k).

²Note that under LLP area designations, the Central GOA subarea includes West Yakutat.

catch shares of participants. If entry to the Pacific cod fisheries is not limited by a Pacific cod endorsement requirement, future entry of latent effort into the Western and Central GOA Pacific cod fisheries could further intensify competition among fixed gear participants and erode catch shares of long-term participants.

To address these concerns, the Council adopted the following problem statement:

GOA Fixed Gear Recency Purpose and Need Statement

Western GOA and Central GOA Pacific cod fisheries are subject to intense competition, particularly during the A season, when fish are aggregated and of highest value. Competition among fixed gear participants in the Western GOA and Central GOA Pacific cod fisheries has increased for a variety of reasons, including increased market value of Pacific cod products, a declining ABC/TAC, increased participation by harvesters displaced from other fisheries, and introduction of capital that has been accrued from participation in rationalized fisheries. Additionally, fishery policies have created incentives that encourage non-traditional efficiency improvements for the less than 60 ft LOA vessel class. The possible future entry of latent effort and disproportionate vessel efficiency would have detrimental effects on LLP holders that have exhibited participation in, and dependence on, the fixed gear Pacific cod fisheries. Many fixed gear vessel owners have made significant investments, have long catch histories, and are dependent on the Western GOA and Central GOA Pacific cod resources. These long-term participants need protection from those who have little or no recent history and who have the ability to increase their participation in the Pacific cod fisheries. At the same time, retaining Federal waters opportunities for small community quota eligible (CQE) communities dependent on access to a range of fishery resources and expanding opportunities in Federal waters for small capacity jig operations is valued to promote community protections at a level that imposes minimal impact on historic catch shares of recent participants.

The intent of the proposed amendment is to prevent the future entry or re-entry of latent fixed gear groundfish fishing capacity that has not been utilized in recent years into the Pacific cod fisheries, and to preserve the traditional vessel operational efficiencies within the fisheries. This requires prompt action to promote stability in the fixed gear sectors of the GOA Pacific cod fisheries, and is expected to be implemented concurrently with the division of GOA Pacific cod among sectors which is currently under consideration. However, this action cannot address continued growth in the waters managed by the State of Alaska.

Limiting entry to the fisheries with a Pacific cod endorsement requirement may prevent future gross revenues from Pacific cod harvests in the respective management areas from being diluted by future increases in fishing effort by latent licenses. Those LLP holders exhibiting dependence and participation in the fixed gear Pacific cod fisheries, (i.e., those meeting the selected threshold criteria), would be protected from possible future increases in effort and dilution of their gross revenue share. However, this action may not result in increased production efficiencies to licenses that would generally be expected from a comprehensive rationalization program. Following implementation of the amendment, each qualified LLP holder will still have an incentive to expand their fishing effort and maximize their respective share of the gross revenues in the open access GOA Pacific cod fisheries. The action will not necessarily result in an 'optimum' harvesting capacity in any of the sectors or management areas. The Council is considering a range of potential catch and landings thresholds, qualification periods, and catch definitions. The number of Pacific cod endorsements that would be added to fixed gear licenses under any of these options was not based on a predetermined optimum capacity for the fixed gear fleet. The action would revise the LLP by removing latent effort from the directed Pacific cod fisheries, and is a more modest approach to revolving participation issues than a fully rationalized fixed gear Pacific cod fishery.

1.2 Alternatives

This section identifies the alternatives and options under consideration for the proposed action. **Alternative 1** (no action) would not make any changes to the current License Limitation Program. **Alternative 2** would add Pacific cod endorsements to fixed gear licenses that would limit entry into the directed Pacific cod fisheries in Federal waters in the Western and Central GOA.

ALTERNATIVE 1.

No Action. No changes would be made to the current License Limitation Program.

ALTERNATIVE 2.

Add non-severable gear-specific Pacific cod endorsements to fixed gear licenses. Pacific cod endorsements would limit entry into the directed Pacific cod fisheries in the Western and Central GOA.

Component 1— Areas included

Western GOA

Central GOA (current LLP endorsement includes West Yakutat)

- Different options may be applied to each management area.

Component 2— Identify and define sectors

The sector definitions for awarding Pacific cod endorsements may be different from those used for the GOA Pacific cod sector split action. The purpose of sector definitions in this action is to allow the Council to select different catch thresholds for the different gear types, operation types, and vessel lengths. Individual licenses may qualify for any combination of a jig, hook-and-line, and pot endorsement if the license meets the respective threshold(s) for the appropriate gear type, operation type, and vessel length.

- Hook-and-line CP
Option: Hook-and-line CP ≥ 125
Hook-and-line CP < 125
- Hook-and-line CV
Option: Hook-and-line ≥ 60
Hook-and-line < 60
- Pot CP
- Pot CV
Option: Pot CV ≥ 60
Pot CV < 60
- Jig
Exempt vessels using jig gear from the LLP requirement (including the Pacific cod endorsement requirement) that use a maximum of 5 jigging machines, 5 lines, and 30 hooks per line or one line of 150 hooks.

Option: Exempt vessels participating with fixed gear in the Western GOA B season directed Pacific cod fishery from the Pacific cod endorsement requirement.

Suboption: Exempt vessels using pot gear only.

Component 3 – Qualifying years

Option 1: 2000-2006

Option 2: 2002-2006

Option 3: Add the qualifying period January 1, 2007 through:

Suboption 1: June 4, 2008

Suboption 2: December 8, 2008

- Either of these suboptions will be selected in addition to one of the qualifying periods in Option 1 or Option 2.

Suboption 3: If an LLP license qualifies only when the supplemental range of years in Suboption 1 or Suboption 2 is included, any Pacific cod endorsements granted to licenses under these suboptions would be extinguished upon transfer of the LLP license to another vessel or owner.

- If a GOA hook-and-line catcher processor LLP license holder was a voluntary non-participant in the Freezer Longliner Coalition informal PSC co-op efforts of 2006, 2007, or 2008, and does not qualify under Component 3, Options 1, 2, or 3, the LLP would not be extinguished. If Pacific cod endorsements are a result of this action in the GOA hook-and-line CP sector, the LLP would receive a Pacific cod endorsement.

Component 4 – Catch thresholds

Thresholds shall be based on legally retained catch in the aggregate during all of the qualifying years in the Federal and parallel fisheries (excluding IFQ catch). Separate and distinct thresholds may be determined for each defined sector.

Option 1: All directed Pacific cod 1, 3, or 5 landings (resulting in a Pacific cod endorsement)

Option 2: All directed Pacific Cod 5, 10, 25, or 100 mt (resulting in a Pacific cod endorsement)

Option: Hardship provision. A GOA fixed gear LLP holder who had 5 or more Pacific cod landings in 1999, but had a vessel on which the LLP was used sink in 1999 or 2000, shall be credited with qualifying history so as to obtain a Pacific cod endorsement.

Directed Pacific cod catch is defined as landings made when the directed Pacific cod fisheries are open. For purposes of catch accounting, licenses are credited with deliveries or processing activity recorded up to 7 days after the directed season closes.

Component 5 – Stacked license provisions

Where there are multiple LLPs registered to a single vessel, also known as ‘stacking’ of LLPs, groundfish harvest history will be fully credited to all stacked licenses, each carrying its own qualifying endorsements and designations.

Component 6 – Capacity/efficiency limits to CV and CP fixed gear LLPs

Add a width restriction (efficiency restriction) on each CV and CP fixed gear LLP license that is eligible to access Pacific cod under this action. The width restriction would be 1 ft of width for each 3 ft of length, and is based on the LOA of the vessel assigned to the license on December 8, 2008. The licenses that are assigned to vessels on December 8, 2008 that exceed the width restriction will be grandfathered at

their present LOA. For vessels under construction on December 8, 2008, the width restriction for the license shall be equal to the vessel width upon completion. Vessels would be required to report width measurements to RAM.

Option: Add a simple gross tonnage maximum to licenses.

Component 7 – CQE community resident exemption

CQE community residents currently holding latent, non-qualifying, LLP permits shall retain their LLP and area endorsement(s) and be exempt from the Pacific cod endorsement requirement. A hook-and-line or pot gear endorsement shall be made through (a) a one-time designation at the time the endorsement is issued or (b) designated at the time the first Pacific cod landing is made based on the gear type used. The CQE community resident's LLP shall not be leased, and can only be transferred to an individual who has lived continuously in the permit holder's CQE community for 24 consecutive months prior to the transfer and who intends to remain a resident of the community. Residency shall be affirmed annually upon renewal. If a CQE community LLP holder with a restricted transfer LLP is no longer a resident of the CQE community or dies without a designated qualified LLP community beneficiary, the community CQE shall designate a qualified individual in the CQE community to hold the restricted transfer LLP.

Option: Restrict exemption to LLPs with a MLOA endorsement less than 60 feet.

Options considered but rejected:

At its June 2008 meeting, the Council removed options from the motion that would have precluded vessels from participating in both the trawl and fixed gear sectors during a given year, or would have required vessels to make a one time election to participate in either the trawl or fixed gear sectors. The Council reviewed data which showed that approximately 10 to 15 vessels use both trawl and fixed gear in the Pacific cod fisheries (most operating in the Western GOA) on an annual basis. Restricting vessels to using only one gear type during a given year would impact the annual fishing operations of this group of vessels. In addition, when the trawl recency action is limited, only a small number of licenses will hold dual gear designations. This information is included in this document (see Section 3.3.2.14, Table 3-47).

At its December 2008 meeting, the Council removed options that would have extinguished Western GOA and Central GOA area endorsements from fixed gear licenses that did not meet catch thresholds based on all groundfish landings. Instead, the proposed action will add Pacific cod endorsements to licenses that have recent catch history in the directed Pacific cod fisheries in the Western and Central GOA. The Council also removed an option that would have exempted vessels less than 60 ft LOA and under a specified capacity limit from the LLP requirement or from the Pacific cod endorsement requirement. The majority of WGOA and CGOA CV licenses have an MLOA of less than 60 ft, and exempting these licenses from the action would substantially limit the scope of the action. Instead of the less than 60 ft exemption, the Council has included a provision to exempt all vessels using jig gear from the LLP requirement in the GOA. The intent of the jig exemption is to provide entry-level opportunities into the fisheries. In addition, the Council added an exemption for fixed gear licenses held by residents of CQE communities. Under the CQE exemption, the licenses held by residents of CQE communities would receive a Pacific cod endorsement even if they do not meet the selected catch thresholds. There is an option to limit this exemption to licenses with an MLOA of less than 60 ft. The Council also removed options to use 2000-2005 or 2002-2005 as qualifying periods under Component 4, and added an option to include more recent catch history (through December 8, 2008). Under Component 5, the Council removed an option to divide catch history among licenses that were stacked on a vessel at the time of landing. This option was removed because it has the potential to complicate implementation of the

action. Licenses may be stacked on a vessel for operational reasons. For example, 2 or more licenses may be stacked on a vessel to obtain additional area, gear, or other endorsements.

1.3 Consistency with the Problem Statement

The alternatives under consideration are consistent with the problem statement. The problem identified is that fixed gear participants who have made significant, long-term investments, have extensive catch histories, and are highly dependent on the Western and Central GOA Pacific cod fisheries need protection from the potential increase in competition that may be caused by the entry re-entry of latent licenses into the fisheries. If latent fixed gear licenses remain eligible for entry or re-entry into the Western and Central GOA Pacific cod fisheries, future participation levels may increase, intensifying competition for the Western and Central GOA Pacific cod TACs.

Under the no action alternative (Alternative 1), latent fixed gear licenses with Western or Central GOA endorsements will continue to have the potential to enter the directed Western and Central GOA Pacific cod fisheries. If this alternative is selected, any of the currently existing fixed gear licenses could enter the Western and Central GOA Pacific cod fisheries in the future and dilute revenues, increase costs, or both, for licenses that have participated in the fisheries during recent years. Increased participation may result in negative economic impacts to current participants in the fisheries. If Pacific cod endorsements are not added to fixed gear licenses, licenses with no recent catch history in the GOA Pacific cod fisheries could enter the fisheries and erode the catch shares of recent participants. Finally, if gear-specific Pacific cod endorsements are not added to licenses, and Pacific cod sector allocations are implemented, participants in each of the fixed gear sectors will be vulnerable to an influx of effort into those sectors. If effort increases substantially in a particular sector, the erosion of catch shares resulting from latent licenses re-entering the fisheries will be exacerbated, because each sector's catch will be constrained by its allocation.

Alternative 2 includes options to add gear-specific Pacific cod endorsements to fixed gear licenses. Pacific cod endorsements would limit entry into the directed Pacific cod fisheries in Federal waters of the Western and Central GOA. This action would reduce fixed gear capacity in the GOA Pacific cod fisheries to include only licenses that have recent catch history in the fisheries. Those LLP holders exhibiting dependence and participation in the fixed gear Pacific cod fisheries, (i.e., those meeting the selected threshold criteria), would be protected from possible future increases in effort and dilution of their gross revenue share.

2.0 ENVIRONMENTAL ASSESSMENT

The purpose of this environmental assessment (EA) is to analyze the environmental impacts of the proposed action to add Pacific cod endorsements to fixed gear LLP licenses to limit entry to the Western and Central GOA directed Pacific cod fisheries. An EA is intended to provide sufficient evidence of whether or not the environmental impacts of the action are significant (40 CFR 1508.9).

The purpose and need statement for this action and a description of the alternatives and options are included in Chapter 1. This chapter analyzes the alternatives for their effects on the biological, physical, and human environment. Each section discusses the environment that would be affected by the alternatives and then describes the impacts of the alternatives. The following components of the environment are discussed: the Pacific cod fishery, other groundfish fisheries, incidental and prohibited species catch, seabirds and marine mammals, benthic habitat, essential fish habitat, ecosystem effects, economic impacts and management considerations, and cumulative effects.

The criteria listed in Table 2-1 are used to evaluate the significance of impacts. If significant impacts are likely to occur, preparation of an Environmental Impact Statement (EIS) is required. Although economic and socioeconomic impacts must be evaluated, such impacts by themselves are not sufficient to require the preparation of an EIS (see 40 CFR 1508.14).

Table 2-1 Criteria Used to Evaluate the Alternatives.

Component	Criteria
Fish species	An effect is considered to be significant if it can be reasonably expected to jeopardize the sustainability of the species or species group.
Habitat	An effect is considered to be significant if it exceeds a threshold of more than minimal and not temporary disturbance to habitat.
Seabirds and marine mammals	An effect is considered to be significant if it can be reasonably expected to alter the population trend outside the range of natural variation.
Ecosystem	An effect is considered to be significant if it produces population-level impacts for marine species, or changes community- or ecosystem-level attributes beyond the range of natural variability for the ecosystem.

2.1 GOA Groundfish Fisheries

2.1.1 GOA Environment

The action area includes the Western and Central GOA. The documents listed below contain information about the fishery management areas, fisheries, marine resources, ecosystem, social, and economic elements of the GOA groundfish fisheries.

Alaska Groundfish Harvest Specifications Final Environmental Impact Statement (NMFS 2007a). This EIS provides decision makers and the public an evaluation of the environmental, social, and economic effects of alternative harvest strategies for the Federally-managed groundfish fisheries in the GOA and the Bering Sea and Aleutian Islands management areas. The EIS examines alternative harvest strategies that comply with Federal regulations, the GOA FMP, and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). These strategies are applied to the best available scientific information to derive the total allowable catch estimates for the groundfish fisheries. The EIS evaluates the effects of different alternatives on target species, non-specified species, forage species, prohibited

species, marine mammals, seabirds, essential fish habitat, ecosystem relationships, and economic aspects of the GOA fisheries.

Stock Assessment and Fishery Evaluation (SAFE) Report for the Groundfish Resources of the GOA (NPFMC 2007). Annual SAFE reports review recent research and provide estimates of the biomass of each species and other biological parameters. The SAFE report includes the acceptable biological catch (ABC) specifications used by NMFS in the annual harvest specifications. The SAFE report also summarizes available information on the GOA ecosystem and the economic condition of the groundfish fisheries off Alaska. This document is available from: <http://www.afsc.noaa.gov/refm/stocks/assessments.htm>.

2.1.2 Pacific Cod

Pacific cod (*Gadus macrocephalus*) is the primary groundfish species targeted by the fixed gear sectors in the Western and Central GOA. Pacific cod is widely distributed in the GOA and occurs at depths from shoreline to 500 m (Thompson et al. 2006). Pacific cod are moderately fast growing, and females reach 50% maturity at approximately 5.8 years old. Spawning occurs during January through April in the GOA. Pacific cod are demersal and concentrate on the shelf edge and upper slope at depths of 100-250 m in the winter, and move to shallower waters (<100 m) in the summer.

The Pacific cod resource is managed under three discrete TACs in the GOA: the Western GOA TAC, the Central GOA TAC, and the Eastern GOA TAC. In addition, the GOA Pacific cod TACs are divided between the A season (60%) and B season (40%), and are apportioned to the inshore processing component (90%) and offshore component (10%). Historically, the majority of the GOA Pacific cod catch has come from the Central and Western GOA management subareas. Final 2008 harvest specifications apportioned 57% of the GOA catch to the Central GOA (28,426 mt), 39% to the Western GOA (19,449 mt), and 5% to the Eastern GOA (2,394 mt).

Table 2-2 summarizes levels of acceptable biological catch (ABC), total allowable catch (TAC), and actual catch of Pacific cod in the Federal and State waters fisheries in the GOA from 1985 to 2007. From 1989 to 1996, the Federal TAC was set at 100% of the acceptable biological catch (ABC). The Federal TAC has been set below the ABC since 1997 to accommodate the State waters Pacific cod fishery. Total catch in the Federal and State Pacific cod fisheries averaged 87% of the ABC from 1997 to 2007. Most of the unharvested Federal TAC during recent years has been the result of low harvests during the B season. In addition, 25% of the Western and Central GOA Pacific cod ABC is allocated to the State waters fisheries, and the State Guideline Harvest Levels (GHLs) have not been fully harvested during recent years. In 2006 and 2007, only 70% and 74% of the GOA ABC was harvested.

Effects of the proposed action depend to some extent on current and future abundance of the Pacific cod stock. Model projections indicate that the Pacific cod stock is not overfished. However, the ABC is projected to decline over the next several years due to below average recruitment levels during a series of recent years. A comprehensive description of recent survey data and biomass projections is available in the groundfish SAFE report (NMFS 2008a).

Table 2-2 Total catch in the Federal and State GOA Pacific cod fisheries, total allowable catch (TAC) for the Federal fishery, and acceptable biological catch (ABC), 1985-2007.

Year	Federal catch	Federal TAC	Percentage of TAC harvested	State catch	Total catch	ABC	Percentage of ABC harvested
1985	14,428	60,000	24.0	n/a	14,428	n/a	n/a
1986	25,012	75,000	33.3	n/a	25,012	136,000	18.4
1987	32,939	50,000	65.9	n/a	32,939	125,000	26.4
1988	33,802	80,000	42.3	n/a	33,802	99,000	34.1
1989	43,293	71,200	60.8	n/a	43,293	71,200	60.8
1990	72,517	90,000	80.6	n/a	72,517	90,000	80.6
1991	76,328	77,900	98.0	n/a	76,328	77,900	98.0
1992	80,747	63,500	127.2	n/a	80,747	63,500	127.2
1993	56,487	56,700	99.6	n/a	56,487	56,700	99.6
1994	47,484	50,400	94.2	n/a	47,484	50,400	94.2
1995	68,084	69,200	98.4	n/a	68,084	69,200	98.4
1996	68,150	65,000	104.8	n/a	68,150	65,000	104.8
1997	67,856	69,115	98.2	8,393	76,250	81,500	93.6
1998	61,504	66,060	93.1	10,422	71,926	77,900	92.3
1999	67,927	67,835	100.1	13,781	81,708	84,400	96.8
2000	54,266	58,715	92.4	12,037	66,303	76,400	86.8
2001	41,532	52,110	79.7	9,917	51,449	67,800	75.9
2002	42,306	44,230	95.6	12,211	54,516	57,600	94.6
2003	41,152	40,540	101.5	11,423	52,575	52,800	99.6
2004	43,017	48,033	89.6	13,605	56,622	62,810	90.1
2005	35,127	44,433	79.1	12,714	47,840	58,100	82.3
2006	37,807	52,264	72.3	10,338	48,145	68,859	69.9
2007	39,721	52,264	76.0	11,250	50,971	68,859	74.0

Source: 2006 Groundfish SAFE Report, Pacific cod stock assessment (Thompson et al., 2006), NMFS Blend and Catch Accounting databases (1995-2007 Federal catch), and Sagalkin (2007) (State waters catch).

Effects of the Alternatives

Current management of the GOA Pacific cod fisheries was analyzed in detail in the Groundfish PSEIS (NOAA 2004a). This analysis is updated annually during the harvest specifications process for the groundfish fisheries (NMFS 2006a). These analyses concluded that the Pacific cod stock is currently being managed at a sustainable level and that the probability of overfishing occurring is low. The status quo management of Pacific cod is not expected to have a significant impact on the long-term sustainability of the GOA Pacific cod stock.

The proposed action would add Pacific cod endorsements to fixed gear LLP licenses to limit entry to the Western and Central GOA directed Pacific cod fisheries. Participants with recent fishing history would receive a Pacific cod endorsement and would continue to have access to the fishery. Alternative 2 would not change the proportion of the TAC harvested by the various fixed gear sectors. In effect, Alternative 2 maintains the status quo division of catch among the fixed gear sectors by stabilizing participation within each sector. The proposed action would not change the annual harvest specifications process, which sets TACs at appropriate levels to prevent the stock from being overfished. As a result, the proposed action is not expected have a significant effect on the sustainability of the Pacific cod stock.

2.1.3 Other Groundfish Fisheries

The fixed gear sectors primarily participate in the directed Pacific cod fisheries in the GOA and catch other groundfish species incidentally while targeting cod. More than 98% of groundfish catch by vessels using fixed gear is comprised of Pacific cod, excluding IFQ halibut and sablefish catch. Vessels participating in the IFQ fisheries are not required to hold LLP licenses, and these fisheries will not be discussed further in this EA. Other species retained by vessels using fixed gear include skates, rockfish, pollock, and octopus. The proposed action is not expected to result in significant changes in catch levels of other groundfish species. Overall levels of fishing effort by each gear sector, and the timing and location of fishing activities, are not expected to change under the proposed action.

2.2 Halibut Prohibited Species Catch

Halibut prohibited species catch allowances are currently allocated separately to the GOA trawl and hook-and-line sectors, according to the guidelines outlined in 50 CFR 679.21(d). Halibut PSC allowances are not apportioned by management subarea within the GOA. The 2008 PSC allowances for the GOA Pacific cod trawl and hook-and-line fisheries are shown in Table 2-3. The pot and jig sectors are exempt from halibut PSC limits. The GOA-wide halibut PSC mortality allowance is 2000 mt for the trawl sector and 300 mt for the hook-and-line sector (including 10 mt set aside for the demersal shelf rockfish fishery).

The hook-and-line allowance is divided into three seasons: January 1 to June 10 (the A season for Pacific cod), June 10 to September 1, and September 1 to December 31 (the B season for Pacific cod). The trawl allowance is divided not only seasonally, but also between the shallow-water species complex (including the pollock, Pacific cod, shallow-water flatfish, flathead sole, Atka mackerel, skates, and the “other species” directed fisheries) and the deep-water species complex (all other fisheries, which includes Pacific Ocean perch, northern rockfish, pelagic shelf rockfish, and deep-water flatfish). Halibut bycatch during the directed Pacific cod fishery is counted against the shallow-water trawl halibut PSC apportionment. This apportionment is divided into four seasons: January 20 to April 1, April 1 to July 1, July 1 to September 1, and September 1 to October 1. In addition, a separate apportionment that is not divided between the shallow-water and deep-water complexes is available for use from October 1 to December 31. Unused seasonal halibut PSC apportionments are rolled over to the following season. Halibut PSC limits often determine season closure dates for the trawl sector, and to a lesser extent, for the hook-and-line sector.

Table 2-3 Halibut prohibited species catch seasonal allowances in the GOA, 2008

Trawl		Hook-and-line			
		Other than Demersal Shelf Rockfish		Demersal Shelf Rockfish	
Dates	Amount (mt)	Dates	Amount (mt)	Dates	Amount
Jan 20 - Apr 1	550 (27.5%)	Jan 1 - Jun 10	250 (86%)	Jan 1 - Dec 31	10 (100%)
Apr 1 - July 1	400 (20%)	Jun 10 - Sep 1	5 (2%)		
July 1 - Sep 1	600 (30%)	Sep 1 - Dec 31	35 (12%)		
Sep 1 - Oct 1	150 (7.5%)				
Oct 1 - Dec 31	300 (15%)				
Totals	2000		290		10

Source: NMFS 2008-2009 harvest specifications for the groundfish fisheries in the GOA.

Halibut PSC usage in the GOA Pacific cod target fisheries during 1995-2008 is summarized in Table 2-4. The table reports PSC by catcher vessels and catcher processors in each harvest sector. The pot sector is not subject to PSC limits in the GOA, and halibut PSC by pot vessels is reported for informational purposes only. Prohibited species catch limits for halibut apply to the hook-and-line and trawl sectors

and constrain bycatch levels. Inseason managers monitor halibut PSC in the Pacific cod fisheries and close the directed fisheries if halibut PSC limits are reached. After such a closure, the directed fisheries are typically reopened when the next seasonal apportionment of halibut PSC becomes available.

It is important to note that these halibut PSC estimates are based on the best available data, and some sectors have relatively low levels of observer coverage. The trawl and hook-and-line CP fleets in the GOA have relatively high observer coverage rates, and majority of the halibut PSC mortality amounts are estimated based on observer estimates from on board these vessels. Most trawl CV catch in the Central GOA is by vessels in the 30% observed fleet (60 to 125 ft LOA), and most trawl CV catch in the Western GOA is by the unobserved <60 ft LOA fleet. The hook-and-line CV fleet has a very low observer coverage level. In recent years, only 2 to 4 hook-and-line catcher vessels have carried observers for any portion of the Pacific cod season in the GOA.

Table 2-4 Halibut prohibited species catch (PSC) (mt) by vessels targeting Pacific cod in the Western and Central GOA

Western Gulf										
Year	HAL CV	HAL CP	HAL Total	Trawl CV	Trawl CP	Trawl Total	Pot CV	Pot CP	Pot Total	Total
1995	0.2	87.6	87.8	122.3	12.7	135.0	2.2	*	2.2	225.0
1996	1.3	37.3	38.6	86.1	21.6	107.7	1.8	0.0	1.8	148.0
1997	*	41.1	41.1	90.5	0.7	91.3	1.1	0.0	1.1	133.4
1998	*	34.3	34.3	92.7	2.9	95.6	1.7	*	1.7	131.5
1999	*	142.3	142.3	376.8	31.9	408.6	0.4	3.4	3.8	554.8
2000	*	84.1	84.1	131.1	15.2	146.3	1.2	*	1.2	231.6
2001	0.3	122.0	122.3	77.9	32.9	110.9	0.9	0.4	1.3	234.4
2002	0.0	99.9	100.0	32.9	5.5	38.4	1.0	*	1.0	139.4
2003	0.9	98.3	99.3	43.9	21.6	65.5	5.7	*	5.7	170.5
2004	0.2	99.1	99.3	57.5	29.8	87.2	8.3	*	8.3	194.8
2005	6.3	33.6	39.9	24.6	*	24.6	7.5	*	7.5	71.9
2006	2.5	103.6	106.0	60.4	0.4	60.8	4.6	*	4.6	171.4
2007	9.0	84.8	93.8	41.9	9.7	51.6	5.2	*	5.2	150.6
2008	13.8	60.5	74.3	97.8	1.7	99.5	10.0	0.0	10.0	183.8
Central Gulf										
Year	HAL CV	HAL CP	HAL Total	Trawl CV	Trawl CP	Trawl Total	Pot CV	Pot CP	Pot Total	Total
1995	254.0	16.5	270.5	294.2	42.7	336.8	15.3	0.0	15.3	622.7
1996	94.2	18.2	112.5	130.4	24.9	155.3	14.7	0.0	14.7	282.5
1997	70.2	*	70.2	446.6	65.7	512.3	8.4	0.0	8.4	590.8
1998	212.3	*	212.3	358.5	242.9	601.4	11.4	0.0	11.4	825.0
1999	167.5	9.2	176.7	678.0	147.5	825.5	12.3	24.7	37.1	1,039.3
2000	165.1	4.4	169.4	188.6	50.7	239.3	4.7	*	4.7	413.4
2001	143.9	*	143.9	529.6	149.7	679.3	2.7	0.5	3.2	826.4
2002	75.4	62.6	138.0	152.1	*	152.1	1.2	*	1.2	291.4
2003	74.6	10.8	85.4	367.1	*	367.1	3.4	0.0	3.4	455.9
2004	165.6	25.7	191.3	779.1	55.8	834.9	7.7	0.0	7.7	1,033.9
2005	157.6	*	157.6	594.1	33.1	627.2	25.4	0.0	25.4	810.1
2006	166.3	45.7	212.0	267.7	19.7	287.4	14.0	0.0	14.0	513.3
2007	158.7	33.0	191.8	428.2	*	428.2	12.8	*	12.8	632.7
2008	282.9	40.1	323.0	455.4	3.6	459.0	13.4	0.0	13.4	795.4

Source: NMFS Catch Accounting PSC Database (2003-2008) and Blend PSC Database (1995-2002).

*Indicates data are confidential. Totals do not include confidential data.

2.3 Marine Mammals

Marine mammals occur in diverse habitats in the GOA, and include both resident and migratory species. Species that occur in the GOA are listed below (NOAA 2004b). The Groundfish PSEIS (NOAA 2004a) provides descriptions of the range, habitat, diet, abundance, and population status for these marine mammals. Annual stock assessment reports prepared by the National Marine Mammal Laboratory provide population estimates, population trends, and estimates of potential biological removals (Angliss and Outlaw 2007).

NMFS Managed Species

Pinnipeds: Steller sea lion (Western U.S., Eastern U.S.), Northern fur seal (Eastern Pacific), Harbor seal (Southeast Alaska, GOA, Bering Sea), Spotted seal (Alaska), Bearded seal (Alaska), Ringed seal (Alaska), Ribbon seal (Alaska).

Cetaceans: Beluga Whale (Beaufort Sea, Eastern Chukchi Sea, Eastern Bering Sea, Bristol Bay, Cook Inlet), Killer whale (Eastern North Pacific Northern Resident, Eastern North Pacific transient), Pacific White-sided dolphin (North Pacific), Harbor porpoise (Southeast Alaska, GOA), Dall's porpoise (Alaska), Sperm whale (North Pacific), Baird's beaked whale (Alaska), Cuvier's beaked whale (Alaska), Stejneger's beaked whale (Alaska), Gray whale (Eastern North Pacific), Humpback whale (Western North Pacific, Central North Pacific), Fin whale (Northeast Pacific), Minke whale (Alaska), North Pacific right whale (North Pacific)

USFWS Managed Species

Northern sea otter (Southeast Alaska, Southcentral Alaska, Southwest Alaska), Pacific walrus (Alaska)

Direct and indirect interactions between marine mammals and the groundfish fisheries result from temporal and spatial overlap between commercial fishing activities and marine mammal occurrence. Direct interactions include injury or mortality due to entanglement in fishing gear. Indirect interactions include overlap in the size and species of groundfish important both to the fisheries and to marine mammals as prey. The GOA Pacific cod target fisheries are classified as Category III fisheries under the Marine Mammal Protection Act. Category III fisheries are unlikely to cause mortality or serious injury to more than 1% of the marine mammal's potential biological removal level, calculated on an annual basis (50 CFR 229.2). Taking of marine mammals is monitored by the North Pacific observer program.

Marine mammals listed under the Endangered Species Act (ESA) that may be present in the GOA are listed in Table 2-5. All of these species are managed by NMFS, with the exception of Northern Sea Otter, which is managed by U.S. Fish and Wildlife Service. A Biological Opinion evaluating impacts of the groundfish fisheries on the endangered species managed by NMFS was completed in November 2000 (NMFS 2000). The western population segment of Steller sea lions was the only ESA-listed species identified as likely to be adversely affected by the groundfish fisheries. A new Section 7 consultation was initiated in 2006. NMFS is also currently consulting with USFWS on the distinct southwest Alaska population of northern sea otters.

Table 2-5 ESA-listed marine mammal species that occur in the GOA.

Common Name	Scientific Name	ESA Status
Steller Sea Lion (Western Population)	<i>Eumetopias jubatus</i>	Endangered
Steller Sea Lion (Eastern Population)	<i>Eumetopias jubatus</i>	Threatened
Blue Whale	<i>Balaenoptera musculus</i>	Endangered
Fin Whale	<i>Balaenoptera physalus</i>	Endangered
Humpback Whale	<i>Megaptera novaeangliae</i>	Endangered
Right Whale	<i>Balaena glacialis</i>	Endangered
Sei Whale	<i>Balaenoptera borealis</i>	Endangered
Sperm Whale	<i>Physeter macrocephalus</i>	Endangered
Northern Sea Otter	<i>Enhydra lutris</i>	Threatened

A Biological Opinion addressing Steller sea lion management issues was completed in 2001 (NMFS 2001b), and found that under the new suite of protection measures, the GOA groundfish fisheries were unlikely to jeopardize the continued existence of the western population of Steller sea lions or adversely modify critical habitat. Protection measures include area-specific closures around rookeries and haulouts and seasonal divisions of TACs to disperse fishing effort throughout the year. The Pacific cod fishing season was divided into two periods: 60% of the TAC was allocated to the A season (Jan. 1 – June 10) and 40% to the B season (June 10 – Dec. 31). The objective was to limit the total amount of cod harvested in the first half of the year. Pacific cod is one of the four most important prey items of Steller sea lions and is especially important to sea lions during winter (Sinclair and Zeppelin 2002).

Since 2000, the western population of Steller sea lions has been increasing. However, the 2004 count (38,988 animals) was still 7.4% lower than the 1996 count and 32.6% lower than the 1990 count. In the GOA, the 2004 count (9,005 animals) was 12.6% higher than the 2000 count (7,995 animals), but was 45.1% lower than the 1990 count. Annual counts at haulouts and rookeries represent a minimum population estimate and are not corrected to account for animals that were at sea during the surveys (Angliss and Outlaw 2007). The minimum estimate of incidental mortality due to commercial fishing activities in all waters off Alaska is 24.2 sea lions per year, which is slightly more than 10% of the allowable level (234 animals) of removal for this stock (Angliss and Outlaw 2007). No incidental mortalities of Steller sea lions caused by the fixed gear sectors in the GOA were observed during 2000-2005.

Effects of the Alternatives

Impacts of the GOA fixed gear Pacific cod fishery on Steller sea lions were analyzed in the Programmatic SEIS (NOAA 2004a) and in the 2001 Biological Opinion. Current management practices were found to have no adverse impacts on marine mammals, including Steller sea lions. As a result, the status quo alternative is not expected to have a significant impact on Steller sea lions or other marine mammals.

The proposed action would add Pacific cod endorsements to fixed gear licenses, limiting entry to the directed Pacific cod fisheries in the Western and Central GOA to vessels with recent participation in the fisheries. The timing, location, and overall level of fishing effort in the GOA Pacific cod and other groundfish fisheries is not expected to change, and there will be no changes in the harvest specifications process. Annual mortality of Steller sea lions is not expected to change under the proposed action, because fishing effort by the various gear sectors will remain similar to the status quo. Sector allocations will continue to be divided into seasonal apportionments to disperse fishing effort throughout the year.

2.4 Seabirds

Various species of seabirds occur in the GOA, including resident species, migratory species that nest in Alaska, and migratory species that only occur in Alaska outside of the breeding season. The most numerous seabirds in Alaska are northern fulmars, storm petrels, kittiwakes, murre, auklets, and puffins. There are 38 species of seabirds that breed in Alaska. A list of species is provided below.³ Eight species breed only in Alaska and in Siberia. Populations of five other species are concentrated in Alaska but range throughout the North Pacific region. Marine waters off Alaska provide critical feeding grounds for these species as well as others that do not breed in Alaska but migrate to Alaska during summer, and for other species that breed in Canada or Eurasia and overwinter in Alaska. A detailed analysis of the effects of commercial fisheries on seabirds appears in the Alaska Groundfish Fisheries Programmatic Supplemental Environmental Impact Statement (NMFS 2004). The Groundfish PSEIS also provides descriptions of the range, habitat, diet, abundance, and population status for these seabirds.

Species nesting in Alaska

Tube-noses-Albatrosses and relatives: Northern Fulmar, Fork-tailed Storm-petrel, Leach's Storm-petrel

Kittiwakes and terns: Black-legged Kittiwake, Red-legged Kittiwake, Arctic Tern, Aleutian Tern

Pelicans and cormorants: Double-crested Cormorant, Brandt's Cormorant, Pelagic Cormorant, Red-faced Cormorant

Jaegers and gulls: Pomarine Jaeger, Parasitic Jaeger, Bonaparte's Gull, Mew Gull, Herring Gull, Glaucous-winged Gull, Glaucous Gull, Sabine's Gull

Auks: Common Murre, Thick-billed Murre, Black Guillemot, Pigeon Guillemot, Marbled Murrelet, Kittlitz's Murrelet, Ancient Murrelet, Cassin's Auklet, Parakeet Auklet, Least Auklet, Wiskered Auklet, Crested Auklet, Rhinoceros Auklet, Tufted Puffin, Horned Puffin

Species that visit Alaska waters

Tube-noses: Short-tailed Albatross, Black-footed Albatross, Laysan Albatross, Sooty Shearwater, Short-tailed Shearwater

Gulls: Ross's Gull, Ivory Gull

The Northern Fulmar accounts for the majority of incidental seabird take in the groundfish fisheries, and is one of the most abundant species breeding in Alaska. The hook-and-line sector causes most of this take. Three ESA-listed species occur in waters off Alaska (see Table 2-6), and Kittlitz's Murrelet is a candidate species for listing under the ESA. The U.S. Fish and Wildlife Service (USFWS) has primary responsibility for managing seabirds, and has evaluated effects of the BSAI and GOA FMPs and the harvest specifications process on currently listed species in two Biological Opinions (USFWS 2003a and 2003b). Both Biological Opinions concluded that the groundfish fisheries, including the GOA Pacific cod fishery, are unlikely to jeopardize populations of listed species or adversely modify or destroy critical habitat for listed species.

Table 2-6 ESA-listed and candidate seabird species that occur in the management area.

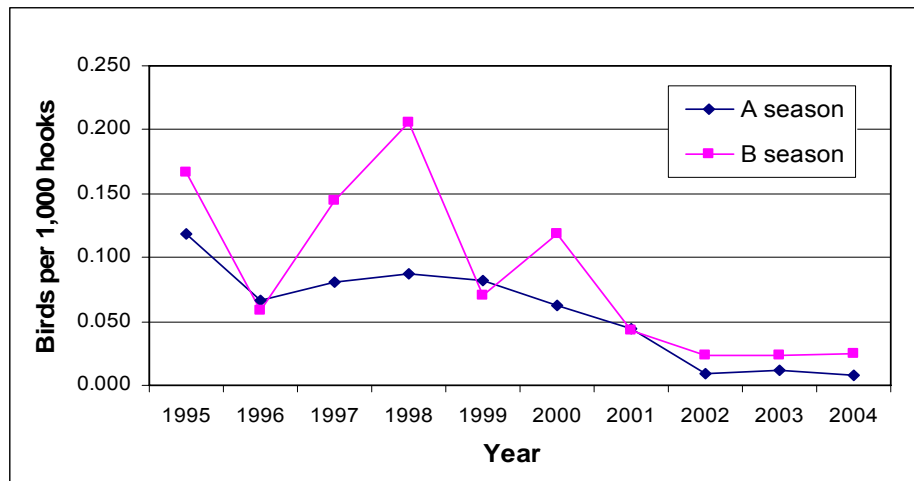
Common Name	Scientific Name	ESA Status
Short-tailed Albatross	<i>Phoebastria albatrus</i>	Endangered
Steller's Eider	<i>Polysticta stelleri</i>	Threatened
Spectacled Eider	<i>Somateria fishcheri</i>	Threatened
Kittlitz's Murrelet	<i>Brachyramphus brevirostris</i>	Candidate

³Source: (USFWS web site Seabirds. Species in Alaska. Accessed at <http://alaska.fws.gov/mbmp/mbm/seabirds/species.htm> on August 31, 2007).

The fixed gear Pacific cod fisheries in the GOA have direct and indirect impacts on seabirds. Seabird take is the primary direct effect of fishing operations. Seabirds are taken in the hook-and-line Pacific cod fisheries in two ways. While hooks are being set, seabirds attracted to the bait may become entangled in fishing lines. Seabirds are also caught directly on baited hooks. Hook-and-line and trawl gear accounts for the majority of the seabird take in the groundfish fisheries.

Indirect effects of fishing on seabirds include impacts to food sources. The fixed gear fisheries may reduce the biomass of prey species available to seabird populations. Fishing gear may disturb benthic habitat used by seabirds that forage on the seafloor and reduce available prey. Bottom trawl gear is the primary source of benthic habitat disturbance in the groundfish fisheries. Fishing activities may also create feeding opportunities for seabirds, for example when catcher processors discard offal.

Hook-and-line gear accounts for the majority of seabird take in the North Pacific groundfish fisheries. Depending on which estimates are used, hook-and-line gear accounts for either 65% or 94% of seabird bycatch in the BSAI and GOA combined (Fitzgerald et al. 2006). Seabird bycatch by the GOA hook-and-line fisheries consists of 46% fulmars, 34% albatrosses, 12% gull species, 5% unidentified seabirds, 2% shearwater species, and less than 1% of ‘all other’ species (Fitzgerald et al. 2006). Most bycatch of Black-footed Albatross in waters off Alaska occurs in the GOA hook-and-line fisheries. From 2000 to 2004, an estimated 88 Black-footed Albatross were taken annually in the GOA hook-and-line fisheries. Total seabird bycatch in the GOA hook-and-line fisheries peaked in 1996 at 1,649 birds, and decreased to 156 birds in 2004, despite an increase in fishing effort. The incidental catch rate in the GOA decreased from an annual average of 0.021 birds per 1,000 hooks from 1993 to 2004 to 0.01 birds per 1,000 hooks from 2000-2004.



Source: AFSC. Data include BSAI and GOA hook-and-line CP fisheries.

Figure 2-1 Seabird bycatch rates by hook-and-line catcher processors during the Pacific cod A and B seasons, 1995-2004.

Figure 2-1 compares seabird bycatch rates per 1,000 hooks by the hook-and-line catcher processor fleet during the A and B seasons from 1995 to 2004, and includes data from both the BSAI and GOA. Seabird bycatch by hook-and-line catcher processors is higher during the B season than during the A season, but bycatch rates have been reduced substantially since 2001 as a result of widespread use of seabird avoidance techniques such as paired streamer lines. The average bycatch rate for hook-and-line catcher processors from 2002 through 2004 was 0.018 birds per 1,000 hooks (Figure 2-1), a substantial reduction from previous years.

Due to different sampling procedures on trawl vessels, two sets of estimates are calculated for seabird bycatch. Average annual take by trawl vessels in the GOA from 1993 to 2004 was either 63 birds or 97 birds (Fitzgerald et al. 2006). Northern Fulmars comprised the majority of bycatch by trawl vessels during this period. Seabird bycatch by the groundfish pot sector has historically been very low. Average annual bycatch in the GOA pot sector from 1993–2004 was 55 seabirds, less than 1% of the average annual seabird bycatch in the groundfish fisheries.

Effects of the Alternatives

The Groundfish PSEIS (NMFS 2004a) concluded that the current GOA groundfish fisheries are not adversely impacting ESA-listed seabird species. Biological Opinions by the USFWS (2003a and 2003b) concluded that the groundfish fisheries in the GOA are unlikely to jeopardize populations of listed species or adversely modify or destroy critical habitat for listed species. Based on current estimates of seabird bycatch, the status quo alternative is not likely to have a significant impact on seabird populations.

The proposed action would add Pacific cod endorsements to fixed gear LLP licenses to limit entry to the Western and Central GOA directed Pacific cod fisheries. Overall levels of fishing effort by each gear sector, and the timing and location of fishing activities are not expected to change. The proposed action will not modify the management practices analyzed in previous Biological Opinions (USFWS 2003a and 2003b), is not likely to cause additional adverse effects to ESA-listed species, and is not likely to increase incidental takes of listed species. Consequently, the proposed action is not likely to have a significant impact on seabird populations.

2.5 Essential Fish Habitat

Essential fish habitat (EFH) is defined as those areas necessary to fish for spawning, breeding, feeding, or growth to maturity. Section 303(a)(7) of the Magnuson-Stevens Act requires all FMPs to describe and identify Essential Fish Habitat (EFH). In addition, FMPs must minimize to the extent practicable adverse effects of fishing on EFH and identify other actions to conserve and enhance EFH. Maps and descriptions of EFH for the GOA groundfish species are available in the Environmental Impact Statement for Essential Fish Habitat Identification and Conservation in Alaska (NMFS 2004). This document also describes the importance of benthic habitat to different groundfish species and the impacts of different types of fishing gear on benthic habitat. Benthic habitat is potentially impacted by fishing practices that contact the seafloor. The analysis concludes that there are long term effects of fishing on benthic habitat features off Alaska and acknowledges that considerable scientific uncertainty remains regarding the consequences of those effects on the sustained productivity of managed species. Based on the best available scientific information, the EIS concludes that there are no indications that current fishing activities are altering the capacity of EFH to support health populations of managed species over the long term. The analysis concludes that no Council-managed fishing activities have more than a minimally adverse effect on EFH, which is the regulatory standard requiring action to minimize adverse effects under the MSA. The Council elected to adopt a variety of new measures to conserve EFH, which were implemented in 2006.

Effects of the Alternatives

The effects of the GOA Pacific cod fixed gear fisheries on benthic habitat and EFH were analyzed in the EFH EIS (NMFS 2005e). In the Pacific cod hook-and-line fishery, anchors, groundline, ganglions, and hooks potentially contact the seafloor. The Pacific cod pot fishery has a very small footprint (an estimated 0.17 square mile footprint for the GOA and BSAI combined). The jig fishery has no direct contact with the seafloor, although contact may occur incidentally. Year-round area closures protect

sensitive benthic habitat. Current fishing practices have minimal or temporary effects on benthic habitat and essential fish habitat. These effects are likely to continue under Alternative 1, and are not considered to be significant. Under the proposed action, the location, timing, and overall level of fishing effort by the various fixed gear sectors will remain essentially the same as under Alternative 1. As a result, impacts on benthic and essential fish habitat under this alternative are not expected to be significant.

2.6 Ecosystem Considerations

Ecosystems consist of communities of organisms interacting with their physical environment. Within marine ecosystems, competition, predation, and environmental disturbance cause natural variation in recruitment, survivorship, and growth of fish stocks. Human activities, including commercial fishing, can also influence the structure and function of marine ecosystems. Fishing may change predator-prey relationships and community structure, introduce foreign species, affect trophic diversity, alter genetic diversity, alter habitat, and damage benthic habitats.

The GOA Pacific cod fishery potentially impacts the GOA ecosystem by relieving predation pressure on shared prey species (i.e., species which are prey for both Pacific cod and other species), reducing prey availability for predators of Pacific cod, altering habitat, imposing bycatch mortality, or by ghost fishing caused by lost fishing gear. Ecosystem considerations for the GOA groundfish fisheries are summarized annually in the GOA Stock Assessment and Fishery Evaluation (SAFE) report (NPFMC 2005). These considerations are summarized according to the ecosystem effects on the groundfish fisheries as well as the potential fishery effects on the ecosystem.

Effects of the Alternatives

An evaluation of the effects of the GOA fixed gear groundfish fisheries on the ecosystem is conducted annually in the Ecosystem Assessment section of the Stock Assessment and Fishery Evaluation report (NMFS 2006b) and in the Harvest Specifications SAFE report (NMFS 2006c). These analyses conclude that the current GOA fixed gear groundfish fisheries do not produce population-level impacts to marine species or change ecosystem-level attributes beyond the range of natural variation. Consequently, Alternative 1 is not expected to have a significant impact on the ecosystem.

Alternative 2 will not change the overall level of Pacific cod or groundfish harvest from the status quo. The level of fishing effort by each fixed gear sector, and the location and timing of fishing activities is not expected to change. As a result, Alternative 2 is not likely to have a significant impact on the ecosystem.

2.7 Economic Impacts

A detailed description of the economic and socioeconomic components of the GOA fixed gear groundfish fisheries and an analysis of the effects of the proposed action may be found in the Regulatory Impact Review (Chapter 3 of this document).

2.8 Cumulative Effects

Analysis of the potential cumulative effects of a proposed action and its alternatives is a requirement of NEPA. Cumulative effects result from the incremental impact of the proposed action in addition to past, present, and reasonably foreseeable future actions. The Alaska Groundfish Fisheries PSEIS (NOAA 2004a) assesses the potential direct and indirect effects of groundfish FMP policy alternatives in

combination with other factors that affect physical, biological and socioeconomic components of the BSAI and GOA environment.

Beyond the cumulative impacts analysis documented in the Groundfish PSEIS, no additional past, present, or reasonably foreseeable cumulative negative impacts on the natural and physical environment (including fish stocks, essential fish habitat, ESA-listed species, marine mammals, seabirds, or marine ecosystems), fishing communities, fishing safety or consumers have been identified that would occur as a result of the proposed action. The proposed action, in combination with other actions, may have additional economic effects on the fixed gear sectors that participate in the GOA Pacific cod fisheries. In recent years, several regulatory changes implemented to protect Steller sea lions have had economic effects on participants in the GOA Pacific cod fisheries. The cumulative impacts from recent management actions are one of the driving forces behind industry support for the proposed amendment. Other fisheries in the region are subject to increasingly restrictive management measures. The GOA Pacific cod fisheries are among the few open access fisheries remaining. Participants that depend on these fisheries are concerned that changes in other fisheries will result in increased numbers of displaced vessels entering the GOA Pacific cod fisheries. Recent actions include:

- the IFQ halibut and sablefish fisheries
- AFA rationalization of the BSAI pollock fishery
- Amendment 67 to the BSAI groundfish management plan that established LLP endorsements specifically for fixed gear Pacific cod fishery participants
- BSAI crab rationalization
- GOA Rockfish Pilot Program – initially approved for two years but recently extended under reauthorization of the Magnuson-Stevens Act
- GOA and BSAI trawl LLP recency

Several reasonably foreseeable future actions are expected to have additional social and economic effects on these sectors, including the GOA Pacific cod sector allocations and revisions to the GOA Pacific cod sideboards. These social and economic effects are addressed in the Regulatory Impact Review (RIR), found in Chapter 3 of this document.

3.0 REGULATORY IMPACT REVIEW

This chapter provides information on the economic and socioeconomic impacts of the alternatives, as required by Executive Order (E.O.) 12866 (58 FR 51735; October 4, 1993). This chapter includes a description of the GOA Pacific cod fisheries, an analysis of the potential effects of the proposed action on the fisheries, identification of the individuals or groups that may be affected by the action, and a discussion of the nature of those impacts (quantifying the economic impacts where possible) and potential tradeoffs.

The requirements for all regulatory actions specified in E.O. 12866 are summarized in the following Statement from the order:

In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but 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 regulatory approach.

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

- (1) Have an annual effect on the economy of \$100 million or more, or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or 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.

3.1 The Limited License Program (LLP)

The Limited License Program (LLP) limits access to the Federal groundfish and crab fisheries in the BSAI and GOA.⁴ In the mid to late 1990s, the Council developed the LLP to address capacity concerns and take a first step toward rationalization of the groundfish fisheries under its management. Fishing under the program began in 2000. The LLP requirement does not apply to Pacific halibut or lingcod, which are not considered groundfish under the Federal Fisheries Management Plans (FMPs). In addition, some Federal groundfish fisheries are not subject to the LLP requirement. In Federal regulations, License Limitation groundfish includes target species and the ‘other species’ category, specified annually pursuant to 679.20(a)(2).

The LLP established criteria for the issuance of licenses to persons based on the fishing history of vessels. This discussion briefly summarizes the primary provisions applicable to the fixed gear participants. The LLP defined a general qualification period (GQP) and an endorsement qualification period (EQP) both of which must have been satisfied for a management subarea for a vessel owner to receive a license. Vessels that met requirements for more than one subarea endorsement were issued a single, non-severable LLP license with multiple area endorsements. Qualification criteria differ across areas and subareas, and include a variety of exceptions meant to address specific circumstances in the different areas.

Table 3-1 shows the primary GQP and EQP requirements applicable to trawl vessels in the various BSAI and GOA subareas. In general, the endorsements and EQP catch requirements apply to a single subarea. However, the Central GOA endorsement and EQP catch requirements treat the Central GOA area and West Yakutat district as a single LLP endorsement area. Catch in either the Central GOA or West Yakutat qualified a vessel for a Central GOA endorsement, and this endorsement allows a vessel to fish in both the Central GOA and West Yakutat. EQP requirements differ across the different endorsement areas.⁵

Table 3-1 General LLP license issuance criteria.

Management area	General Qualification Period (GQP) (Jan. 1, 1988 – June 27, 1992)	Endorsement area	Vessel length and operation	Endorsement Qualification Period (EQP) (Jan. 1, 1992 - June 17, 1995)
Bering Sea and Aleutian Islands	One landing	Bering Sea	All vessels	One landing
		Aleutian Islands	All vessels	One landing
GOA	One landing	Western GOA	CVs ≥ 125 ft and CPs ≥ 60 ft	One landing in at least two calendar years
			CVs < 125 ft and CPs < 60 ft	One landing
		Central GOA	All vessels, ≥ 60 ft	One landing in at least two calendar years
			All vessels < 60 ft	One landing

⁴ Amendment 39 to the BSAI groundfish plan and Amendment 41 to the groundfish plan for the GOA established the LLP. The primary rules governing the LLP are contained in 50 CFR 679.4(k).

⁵ Notably, persons fishing only inside 3 nm (i.e., in State waters only) were eligible for an LLP license based on their State waters participation. However, persons that never acquired a Federal fisheries permit (FFP), required for participation in fisheries in Federal waters, were issued LLPs that are not transferable from the originating vessel.

In addition to the different area endorsements, LLP licenses also carry a designation for operation type (catcher processor or catcher vessel), gear (trawl or fixed gear), and maximum vessel length (MLOA). LLP licenses were issued catcher processor designations if groundfish were processed on the vessel during the period from January 1, 1994 through June 17, 1995 or the last calendar year of the EQP. It is important to recognize that licenses of either operation type (catcher vessel or catcher processor) authorize participation as a catcher vessel. As a result, removing inactive catcher vessel licenses will not prevent entry of catcher processor licenses into the catcher vessel sector.⁶ Each license carries a gear designation (trawl or fixed gear) based on the gear used on the vessel during the period from January 1, 1988 through June 17, 1995. If a vessel used both trawl and fixed gear during the qualifying period, its license received both gear designations.

Primary LLP License Endorsements and Designations

Area endorsements – Each license carries one or more LLP area endorsements authorizing entry to fisheries in those LLP areas (BS, AI, CG, WG, or SEO).

Operation-type designations – Each license carries a designation for either catcher processor operation or catcher vessel operation. A catcher processor may choose to operate as a catcher vessel, delivering its catch to shore or to a mothership.

Gear designation – Each license carries a gear designation, trawl and/or fixed gear, authorizing its entry in fisheries for the designated gear.

MLOA designation – Each license carries a maximum LOA designation, limiting the length of the vessel that can use the license.

Non-severability – The endorsements and designations of a license are non-severable and only transfer with the license.

Finally, each license carries an MLOA endorsement. The MLOA of the vessel assigned to the license cannot exceed the MLOA endorsements on that license. For vessels 125 feet or greater in length on June 24, 1992, the MLOA endorsement is equal to the vessel length. For vessels less than 125 feet in length on that date, the MLOA endorsement is the lesser of 1.2 times the LOA or 125 feet. If a vessel was under reconstruction on June 24, 1995, the basis for determining the MLOA is the vessel's length on completion of the reconstruction. In addition, vessels under 60 feet on June 17, 1995 (or under construction on that date with a reconstructed LOA under 60 feet) cannot have an MLOA greater than 60 feet; vessels under 125 feet on June 17, 1995 (or under construction on that date with a reconstructed LOA under 125 feet) cannot have an MLOA greater than 125 feet; and vessels under construction on that date with a reconstructed LOA over 125 feet will have an MLOA equal to the vessel's reconstructed length.

3.1.1 Exemptions from the LLP requirement

Generally, vessels participating in the groundfish fisheries in Federal waters in the BSAI or GOA are required to have an LLP license with the applicable area endorsement, gear designation (trawl or fixed gear), and operation type designation (catcher processor or catcher vessel), and cannot exceed the allowed MLOA. There are several exemptions from the LLP requirement, including:

- (1) Vessels fishing exclusively in parallel or State waters fisheries
- (2) Vessels less than 26 feet LOA in the GOA and less than 32 feet LOA in the BSAI
- (3) Vessels less than 60 ft LOA using jig gear in the BSAI directed groundfish fisheries, subject to gear restrictions (maximum of 5 jig machines, one line per machine, and 15 hooks per line)

⁶ This transition could occur one of two ways. First, catcher processor licenses can be voluntarily (and irreversibly) converted to a catcher vessel license. In addition, a catcher processor may choose to deliver its catch to shore or to a mothership.

(4) Vessels participating in the IFQ halibut and sablefish fisheries. Vessels fishing IFQ may also retain groundfish bycatch without a license. This provision was included in the LLP to minimize discards, and is consistent with National Standard 9 of the Magnuson-Stevens Act.

3.1.2 Pacific cod endorsements

Participation in the directed fisheries for Pacific cod in the Bering Sea and Aleutian Islands with pot or hook-and-line gear requires a gear-specific Pacific cod endorsement, in addition to an LLP license with the appropriate gear designation and area endorsements. These endorsements were created under Amendment 67 to the BSAI FMP and became effective on January 1, 2003. Pacific cod endorsements are not required to participate in the BSAI fisheries using trawl and jig gear. Four endorsements were created under Amendment 67: hook-and-line catcher vessel, pot catcher vessel, hook-and-line catcher processor, and pot catcher processor. The program used a vessel basis for determining qualification, because the LLP had not been implemented during the qualification periods. Vessels were required to meet various catch thresholds to qualify for the different endorsements. Qualification criteria for endorsements are summarized in Table 3-2. Vessels using jig gear could qualify for either a hook-and-line catcher vessel or pot catcher vessel endorsement based on their combined jig and hook-and-line catch or jig and pot catch, respectively.

Table 3-2 Qualification criteria for BSAI Pacific cod LLP endorsements.

Operation type	Gear type used for harvests	Pacific cod harvest threshold	Pacific cod endorsement
Catcher vessel	Hook-and-line or jig	7.5 mt in one year from 1995 to 1999	Hook-and-line catcher vessel
	Pot or jig	100,000 pounds (45 mt) in each of any two years from 1995 to 1999	Pot catcher vessel
Catcher processor	Hook-and-line or jig	270 mt in any one year from 1996 to 1999	Hook-and-line catcher processor
	Pot	300,000 pounds (136 mt) in each of any two years from 1995 to 1998	Pot catcher processor

Under Amendment 67, vessels with multiple licenses were only allowed to qualify for BSAI Pacific cod endorsements on a single license, in order to avoid increasing the capacity for additional entry into the fishery. However, individual licenses could qualify for more than one gear endorsement, although they could not qualify for more than one operation type endorsement within each gear type. For example, a license can carry a pot catcher vessel or pot catcher processor endorsement, but not both. However, a pot catcher processor endorsement allows that vessel to fish as either a catcher processor or catcher vessel. It should be noted that one groundfish license currently has 3 BSAI Pacific cod endorsements. This license has both a catcher vessel and catcher processor endorsement for pot gear. These endorsements still have interim status and are being adjudicated by RAM. Once the adjudication process is completed, licenses will have a maximum of two BSAI Pacific cod endorsements, one for each gear type.

Qualification thresholds for BSAI Pacific cod endorsements were based on retained catch from the directed Pacific cod fishery and excluded catch used for personal bait. Any vessel under 60 feet was exempt from the endorsement requirements. The action also contained a provision to address unavoidable circumstances. Although the action only limited entry to the Pacific cod fishery, the Bering Sea and Aleutian Islands catcher processor capacity reduction act (which was part of the Consolidated Appropriations Act of 2005) extended the scope of the endorsements for catcher processors to several other species, specifically Atka mackerel, flathead sole, Pacific Ocean perch, rock sole, Greenland turbot, and yellowfin sole.

Key BSAI Pacific cod LLP endorsement provisions under Amendment 67:

- Vessels with multiple LLP licenses only received Pacific cod endorsements on a single license, but individual licenses were eligible to qualify for up to 2 gear/operation type endorsements (pot and hook-and-line CV or CP)
- Jig catch could be combined with either pot or hook-and-line catch to qualify for a pot or hook-and-line endorsement
- Catcher vessels less than 60 feet LOA are exempt from the BSAI Pacific cod endorsement requirement
- Vessels exempt from the LLP and vessels catching Pacific cod for personal use bait are not required to hold a Pacific cod endorsement

3.2 The GOA Pacific cod fishery

3.2.1 Management of the fishery

This section describes current management of the GOA Pacific cod fishery, and highlights important regulatory changes in management of the GOA Pacific cod fishery during 1992 through 2008. These regulatory changes are summarized in

Table 3-3. Separate area TACs are identified for Pacific cod in the Western GOA, Central GOA, and Eastern GOA management subareas. Final 2008 harvest specifications apportioned 57% of the GOA TAC to the Central GOA (28,426 mt), 39% to the Western GOA (19,449 mt), and 5% to the Eastern GOA (2,394 mt). The total allowable catch (TAC) and percentage of TAC harvested in the Pacific cod fisheries in the Western and Central GOA are summarized in Table 3-3.

The GOA Pacific cod TACs are not divided among gear types, but are apportioned to the inshore and offshore processing sectors, with 90% allocated to the inshore component and 10% to the offshore component. The inshore/offshore apportionments were established in 1992 under GOA Amendment 20. Catcher processors and motherships participating in the directed Pacific cod fisheries must make an annual election to participate in either the inshore or offshore component. The inshore component is comprised of shore plants, stationary floating processors, and vessels less than 125 feet in length that process less than 126 metric tons (round weight) per week of pollock and Pacific cod in the aggregate. In addition, the TACs are apportioned seasonally, with 60% allocated to the A season and 40% to the B season. The A and B seasons were implemented in 2001 as a Steller sea lion protection measure. The A season begins on January 1 for fixed gear vessels, and on January 20 for trawl vessels. This delayed start for the trawl season was implemented in 1993 under Amendments 19/24. The intent of the delayed start of the trawl season was to reduce Chinook salmon and halibut bycatch in the BSAI. In the following year, the BSAI Pacific cod TAC was allocated among the gear and operation types based on catch history. As a result, the different fixed and trawl gear season opening dates did not impact the ability of the sectors to maintain their historic shares of the BSAI TAC.

In the GOA, the A season ends on June 10, but NMFS usually closes the season much earlier when the directed fishing allowance has been harvested. The B season begins on September 1 for all gear types, and ends Nov 1 for trawl vessels and December 31 for fixed gear vessels. NMFS inseason managers monitor catch in the fisheries and time the closure of the directed fisheries to allow full harvest of the TAC. To meet that goal, the closure must be timed to leave only enough of the TAC to support incidental catch of Pacific cod in other fisheries during the remainder of the season. Managers attempt to time the A season closure to leave a sufficient portion of the A season TAC for incidental catch by other directed fisheries. Incidental catch continues to accrue to the A season TAC until the A season ends on June 10. Any A season overage or incidental catch between the end of the A season (June 10) and the beginning of the B season (September 1) counts against the B season TAC.

Table 3-3 Regulatory changes impacting management of the GOA Pacific cod fishery, 1992 – 2008.

1992	GOA Amendment 20 established 90% inshore & 10% offshore processing sector apportionments. Catcher processors and motherships <125 ft LOA may elect annually to participate in the inshore sector. Inshore vessels are limited to processing <126 mt of pollock and Pacific cod (in the aggregate) per week. Later amendments extended these apportionments.
1993	BSAI/GOA Amendment 19/24 established Jan 20 start date for trawl gear in both the BSAI and GOA. Intent was to reduce halibut and Chinook salmon bycatch.
1994	BSAI Amendment 24. Established BSAI Pacific cod sector allocations. Later amendments (Am 46, Am 68, Am 77, Am 85) modified these allocations. Allocations to trawl, pot, and hook-and-line sectors were based on catch history. The allocation to the jig sector was higher than historic catch, with the intent of increasing entry level opportunities in the fishery.
1995	BSAI/GOA Amendment 23/28 established a moratorium on new vessel entry to the groundfish fisheries. A moratorium permit was issued to any vessel that made a legal landing during a specified qualification period.
1997	The Alaska Board of Fish established the GOA State waters Pacific cod fishery with initial GHs of 15% of WGOA ABC and 15% of CGOA ABC.
1998	BSAI/GOA Amendment 49/49. Increased Retention/Increased Utilization regulations require 100% retention of pollock and Pacific cod beginning in 1998, and shallow water flatfish beginning in 2003, while the directed fisheries for these species are open. When the directed fisheries are closed, all catch up to the maximum retainable amount (MRA) must be retained.
1998	The American Fisheries Act was implemented, and AFA-permitted CPs were prohibited from participating in the GOA groundfish fisheries.
2000	Sideboards that limit the GOA groundfish catch of 95 non-exempt AFA CVs were established. 16 AFA CVs were exempted from the sideboard, because they are <125 ft LOA, have annual BSAI pollock landings of <5,100 mt, and made at least 40 landings of GOA groundfish from 1995-1997.
2000	BSAI/GOA Amendment 60/58. Groundfish LLP implemented. Vessels must hold a groundfish LLP with the appropriate gear (trawl or fixed gear), area (WG or CG), and operation type (CV or CP) endorsement to participate in the WGOA or CGOA groundfish fisheries in Federal waters. No LLP license is required to participate in the parallel waters fisheries.
2001	The WGOA and CGOA Pacific cod TACs were apportioned seasonally under the Steller sea lion management measures. 60% of each TAC is apportioned to the A season (Jan 1- June 10) and 40% is apportioned to the B season (Sept 1 - Dec 31). Incidental catch between the A and B seasons accrues to the B season TAC.
2006	GOA Pacific cod crab sideboards were implemented that limit the catch of 85 non-AFA vessels that qualified for initial allocations of <i>C. opilio</i> under the BSAI crab rationalization program (recent Council revisions exempt 3 vessels).
2007	Amendment 80 sideboards implemented – limit groundfish catch of Am 80 trawl CPs in the GOA. Pacific cod sideboards are 2.2% of the Western GOA TAC and 4.0% of the Central GOA TAC.
2008	BSAI/GOA Amendment 92/82. Trawl recency- final action taken by the Council in April 2008. When implemented, will reduce number of trawl CV licenses to 96 Central GOA license (from 176) and 77 WGOA licenses (from 160). Will reduce the number of CP licenses to 20 Central GOA and 19 Western GOA licenses from 27 and 26, respectively.

Incidental catch when the directed groundfish fisheries are closed is limited to a Maximum Retainable Amount (MRA). The MRA limits the amount of non-directed species catch that may be retained to a percent of directed species catch. For Pacific cod, the MRA with respect to all directed species, with the exception of arrowtooth flounder, is 20%. The MRA for Pacific cod in the directed arrowtooth flounder

fishery in the GOA is 5%. When Pacific cod is not open for directed fishing, a vessel must retain Pacific cod up to the amount of the MRA.⁷ There is no MRA for Pacific cod for catcher vessels participating in the Rockfish Pilot Program. Catcher vessels participating in the Rockfish Pilot Program receive an allocation of 2.09% of the Central GOA TAC. The MRA for Pacific cod is 4% for catcher processors participating in the Rockfish Pilot Program. Any Pacific cod caught in excess of the MRA must be discarded. Under the Improved Retention/Improved Utilization regulations, all Pacific cod catch must be retained when the fisheries are open for directed fishing, and all catch up to the MRA must be retained when the fisheries are closed to direct fishing.

The directed fisheries for Pacific cod in State waters (0 nm to 3 nm) are open concurrently with the directed fisheries in Federal waters (3 to 200 nm). These fisheries in State waters (referred to as the ‘parallel fisheries’) are prosecuted under the same rules as the Federal fisheries, with catch counted against the Federal TAC. In addition, beginning in 1997 the State of Alaska has undertaken its own Pacific cod fisheries inside of 3 nm (referred to as the ‘State waters fisheries’), which is allocated a portion of the Federal ABC.

3.2.2 Catch history

In both the Western and Central GOA, total catch as a percentage of the Federal TAC has generally declined since the Pacific cod TAC was seasonally apportioned in 2001, although nearly 98% of the Central GOA TAC was harvested in 2008 (Table 3-4). In the Western GOA, less than 80% of the TAC was harvested during 2005 through 2008. The inshore and offshore TACs, and the A and B season apportionments, have not been utilized equally in the management areas. Inshore TACs have typically been fully harvested in the Central GOA, but in the Western GOA, only 68% to 77% of the inshore TAC was harvested during 2006-2008 (see Table 3-5).

Table 3-4 Total catch of Pacific cod in the Federal Pacific cod fisheries in the Western and Central GOA.

Year	Western Gulf			Central Gulf		
	Total catch	Federal TAC	Percent of TAC harvested	Total catch	Federal TAC	Percent of TAC harvested
1995	22,516	20,100	112.0%	45,465	45,650	99.6%
1996	19,823	18,850	105.2%	47,589	42,900	110.9%
1997	23,949	24,225	98.9%	43,678	43,690	100.0%
1998	19,817	23,170	85.5%	41,424	41,720	99.3%
1999	23,158	23,630	98.0%	44,554	42,935	103.8%
2000	21,867	20,625	106.0%	32,188	34,080	94.4%
2001	14,161	18,300	77.4%	27,324	30,250	90.3%
2002	17,168	16,849	101.9%	25,057	24,790	101.1%
2003	16,235	15,450	105.1%	24,828	22,690	109.4%
2004	15,554	16,957	91.7%	27,350	27,116	100.9%
2005	12,408	15,687	79.1%	22,705	25,086	90.5%
2006	14,743	20,141	73.2%	23,029	28,405	81.1%
2007	13,407	20,141	66.6%	25,998	28,405	91.5%
2008	14,919	19,449	74.9%	27,763	28,426	97.7%

Source: NMFS Blend (1995-2002) and Catch Accounting (2003-2008) databases.

During recent years, a substantial proportion of the offshore TACs in both management areas have not been harvested. Inseason management has opened the offshore TACs concurrently with the inshore TACs, but has closed the offshore TACs when the BSAI Pacific cod A season fisheries have ended, to

⁷ Pacific cod catch is also retained in the halibut and sablefish IFQ program. Vessels fishing IFQ are required to retain Pacific cod up to the MRA, except if Pacific cod is on prohibited retention (PSC) status

prevent the BSAI catcher processor fleet from directed fishing on the GOA offshore Pacific cod TACs. The reason for these closures is that the offshore TACs are relatively small and cannot support directed fishing by a large portion of the BSAI catcher processor fleet. In 2003, the offshore seasons were open to this fleet, and the Western GOA offshore A season TAC was overharvested (220%; see Table 3-6).

Table 3-5 Pacific cod catch and percent of the TAC harvested in the inshore and offshore sectors

Area	Year	Inshore			Offshore		
		TAC	Catch	Percent harvested	TAC	Catch	Percent harvested
Western Gulf	2001	16,470	12,461	75.7%	1,830	1,700	92.9%
	2002	15,164	15,541	102.5%	1,685	1,627	96.6%
	2003	13,905	14,029	100.9%	1,545	2,205	142.7%
	2004	15,261	14,274	93.5%	1,696	1,281	75.5%
	2005	14,118	11,978	84.8%	1,569	423	27.0%
	2006	18,127	13,648	75.3%	2,014	1,095	54.4%
	2007	18,127	12,265	67.7%	2,014	1,142	56.7%
	2008	17,504	13,452	76.9%	1,945	1,467	75.4%
Central Gulf	2001	27,255	25,255	92.7%	3,025	2,066	68.3%
	2002	22,311	22,665	101.6%	2,479	2,393	96.5%
	2003	20,421	22,601	110.7%	2,269	2,228	98.2%
	2004	24,404	25,533	104.6%	2,712	1,931	71.2%
	2005	22,577	22,234	98.5%	2,509	361	14.4%
	2006	25,565	21,609	84.5%	2,840	1,402	49.4%
	2007	25,565	24,860	97.2%	2,840	1,138	40.1%
	2008	25,583	26,518	103.7%	2,837	1,245	43.9%

Source: NMFS Catch Accounting (2003-2008) and Blend databases (2001-2002).

The A and B season TACs are not utilized equally (see Table 3-6). The A season TAC, which is harvested when Pacific cod are aggregated and roe peaks, is typically fully harvested. During recent years, A season catches have met or exceeded A season TACs in both the Western and Central GOA. Incidental catch between the A and B seasons is substantial, particularly by the inshore sector in the Central GOA. Incidental catch made between the A and B season counts against the B season TAC. During recent years, B season TACs have not been fully harvested. During some years, the trawl and hook-and-line B seasons have ended before the TAC is fully harvested, when halibut PSC limits have been reached. During 2005 through 2007, the hook-and-line, pot, and jig gear B seasons remained open until December 31, but inclement weather conditions, high operating costs, and difficulty finding fish limited B season harvests, particularly in the Western GOA.

Table 3-6 Pacific cod catch during the A and B seasons by the inshore and offshore sectors in the Western and Central GOA, 2003-2008
Western GOA

Year	Inshore						Offshore					
	A season			B season			A season			B season		
TAC	Catch	Percent harvested	TAC	Catch	Percent harvested	TAC	Catch	Percent harvested	TAC	Catch	Percent harvested	
2003	8,343	10,057	120.5%	5,562	3,972	71.4%	927	2040	220.1%	618	165	26.7%
2004	9,157	10,536	115.1%	6,104	3,738	61.2%	1017	626	61.6%	679	655	96.5%
2005	8,471	10,298	121.6%	5,647	1,686	29.9%	941	123	13.1%	628	300	47.8%
2006	10,876	12,299	113.1%	7,251	1,349	18.6%	1208	666	55.1%	806	429	53.2%
2007	10,876	10,836	99.6%	7,251	1,430	19.7%	1208	643	53.2%	806	500	62.0%
2008	10,502	10,577	100.7%	7,002	2,875	41.1%	1,167	1,190	102.0%	778	277	35.6%

Central GOA

Year	Inshore						Offshore					
	A season			B season			A season			B season		
	TAC	Catch	Percent harvested	TAC	Catch	Percent harvested	TAC	Catch	Percent harvested	TAC	Catch	Percent harvested
2003	12,253	15,679	128.0%	8,168	6,922	84.7%	1,361	1,440	105.8%	788	908	115.2%
2004	14,643	15,673	107.0%	9,761	9,860	101.0%	1,627	1,347	82.8%	1,085	584	53.8%
2005	13,547	12,688	93.7%	9,660	9,660	100.0%	1,414	91	6.4%	1,003	270	26.9%
2006	15,339	15,529	101.2%	10,226	6,083	59.5%	1,679	25	1.5%	1,136	1,378	121.3%
2007	15,339	15,234	99.3%	10,226	9,626	94.1%	1,704	43	2.5%	1,136	1,096	96.5%
2008	15,350	15,827	103.1%	10,233	10,692	104.5%	1,706	1,133	66.4%	1,131	113	10.0%

Source: NMFS Annual Catch Reports, 2003-2008.

3.2.3 Season lengths

Short A season lengths are another indication that the GOA Pacific cod fisheries are fully subscribed. During recent years, the A season has closed approximately one month after the trawl gear opening on January 20 (see Table 3-7). In 2004, 2005, and 2008, the Central GOA inshore A seasons closed just 11 days, 7 days, and 8 days, respectively, after the trawl season opened on January 20.

Table 3-7 Pacific cod A season closures for the Western and Central GOA, 2001-2008

Year	Western Gulf					Central Gulf				
	Inshore			Offshore		Inshore			Offshore	
	Date	Reason	Date	Reason	Date	Reason	Date	Reason		
2001	27-Feb	TAC	24-May	TAC	4-Mar	TAC	24-May (TRW)	HAL		
2002	26-Feb	TAC	9-Feb	TAC	9-Mar	TAC	25-Mar	TAC		
2003	17-Feb	TAC	20-Mar	TAC	9-Feb	TAC	1-Feb	TAC		
2004	24-Feb	TAC	8-Mar	TAC	31-Jan	TAC	2-Feb	TAC		
2005	24-Feb	TAC	22-Feb	TAC	26-Jan	TAC	22-Feb	TAC		
2006	2-Mar	TAC	19-Feb	TAC	28-Feb	TAC	19-Feb	TAC		
2007	8-Mar	TAC	14-Feb	TAC	27-Feb	TAC	14-Feb	TAC		
2008	29-Feb	TAC	4-Mar	TAC	1-Mar	TAC	9-Mar	TAC		
2009					27-Jan	TAC				

During some years, the B season has closed to hook-and-line and trawl gear before the TAC has been fully harvested. Halibut PSC limits closed all of the GOA hook-and-line B seasons and the Central GOA inshore trawl B season before the TACs were fully harvested during 3 of the past 8 years (see Table 3-8). The Western GOA inshore trawl season closed 6 of the past 8 years and the offshore trawl seasons closed 4 of the past 8 years due to halibut PSC limits. Both the trawl and hook-and-line sectors have worked with NMFS to better manage their B season halibut bycatch. The hook-and-line CP sector has been working with NMFS since 2006 to voluntarily manage B season halibut PSC through an informal halibut PSC cooperative (described in Section 3.5.6). Beginning in 2006, the trawl sector has extended its B season by working closely with NMFS inseason management to control halibut bycatch with a series of short openings during the B season. Table 3-8 shows the final B season closure date, but does not show the multiple, short trawl season openings during 2006 through 2008. This approach has been successful in limiting halibut PSC and allowing the trawl season to stay open longer, and has increased Central GOA B season catches. In 2008, the Central GOA inshore B season Pacific cod fishery closed when the TAC was fully harvested on October 3.

Table 3-8 Pacific cod B season closures for the trawl and hook-and-line sectors in the Western and Central GOA, 2001-2008

Area	Year	Inshore		Offshore		Inshore		Offshore	
		Date	Reason	Date	Reason	Date	Reason	Date	Reason
Western Gulf	2001	21-Oct	HAL	21-Oct	HAL	4-Sep	HAL	4-Sep	HAL
	2002	13-Oct	HAL	3-Oct	TAC	23-Nov	TAC	3-Oct	TAC
	2003	12-Sep	HAL	not opened	TAC	25-Sep	TAC	not opened	TAC
	2004	1-Oct	HAL	1-Oct	HAL	2-Oct	HAL	2-Oct	HAL
	2005	1-Oct	HAL	1-Oct	HAL	31-Dec	n/a	31-Dec	n/a
	2006	8-Oct	HAL	8-Oct	HAL	31-Dec	n/a	31-Dec	n/a
	2007	1-Nov	SSL reg	1-Nov	SSL reg	31-Dec	n/a	31-Dec	n/a
	2008	1-Nov	SSL reg	1-Nov	SSL reg	16-Oct	HAL	16-Oct	HAL
Central Gulf	2001	21-Oct	HAL	21-Oct	HAL	4-Sep	HAL	4-Sep	HAL
	2002	not opened	TAC	8-Oct	TAC	26-Sep	TAC	8-Oct	TAC
	2003	3-Sep	TAC	14-Oct	TAC	3-Sep	TAC	14-Oct	TAC
	2004	10-Sep	TAC	1-Oct	HAL	2-Oct	HAL	2-Oct	HAL
	2005	1-Oct	HAL	1-Oct	HAL	31-Dec	n/a	31-Dec	n/a
	2006	8-Oct	HAL	8-Oct	HAL	31-Dec	n/a	31-Dec	n/a
	2007	1-Nov	SSL reg	1-Nov	SSL reg	31-Dec	n/a	31-Dec	n/a
	2008	3-Oct	TAC	1-Nov	SSL reg	16-Oct	HAL	16-Oct	HAL

Source: NMFS Alaska region season closures summary. HAL = halibut PSC closure. TAC = TAC reached.

*The table shows the final B season closure date, and does not show the multiple openings of the trawl season.

3.2.4 Participation by fixed gear vessels and licenses

Pacific cod is the primary groundfish species targeted by the fixed gear sectors in the Western and Central GOA. During 2000 through 2008, Pacific cod comprised approximately 98% of retained groundfish harvests by vessels using fixed gear in the Western and Central GOA, excluding the IFQ halibut and sablefish fisheries. The number of vessels participating in a fishery is one measure of effort, although it does not capture variables such as the capacity of the fleet. Table 3-9 reports the number of fixed gear vessels that participated in the directed Pacific cod fisheries during 2000-2008 in the Western and Central GOA, excluding vessels that only had incidental catch of Pacific cod in the IFQ fisheries. There have been notable increases in participation in the directed Pacific cod fisheries in the GOA during the past several years, particularly in 2007 and 2008. For example, in both the Western and Central GOA, participation by pot and hook-and-line catcher vessels <50 ft LOA and 50-60 ft LOA increased in 2007 and 2008. In the Central GOA, the number of ≥60 ft pot CVs participating in the directed Pacific cod fisheries increased during the past several years, after several years of low participation in 2002 through 2004. Pot CV and CP participation peaked in the GOA 2000, when the start of the BSAI *C. opilio* fishery was delayed due to ice. In the Western GOA, pot CV participation by vessels ≥60 ft LOA declined somewhat during the past several years. In 2006, sideboards went into effect that limit Pacific cod harvests by recipients of initial allocations of BSAI *C. opilio* crab quota. These sideboard provisions limit participation by some pot vessels that historically fished in the GOA. Specifically, the sideboards prohibit 137 vessels from directed fishing for GOA Pacific cod, and limit Pacific cod harvests by 82 additional vessels to a sideboard limit. In addition to these sideboarded vessels, 36⁸ fixed gear groundfish LLP licenses are subject to the Pacific cod sideboards, and 11 licenses are prohibited from directed

⁸ The Council took final action in October 2008 to exempt 3 vessels and 3 licenses from the sideboards. Previously, 85 vessels and 39 fixed gear groundfish LLP licenses were subject to the sideboards.

fishing for Pacific cod in the GOA. Participation by hook-and-line CPs has fluctuated during 2000 through 2008. There was an increase in participation by the <125 ft hook-and-line CP sector in the Western GOA in the past several years. Finally, participation by jig vessels has also fluctuated over the years. Most of the jig participants fished in parallel waters and do not hold fixed gear licenses. The jig sector's participation in the GOA Pacific cod fisheries is discussed in detail in Section 3.5.4.

Table 3-9 Number of fixed gear vessels participating in the directed Pacific cod fisheries, excluding IFQ participants, from 2000 to 2008.

Western GOA

Year	HAL CP <125	HAL CP ≥125	HAL CV <50	HAL CV 50-60	HAL CV ≥60	Jig CV	Pot CP	POT CV <50	POT CV 50-60	POT CV ≥60
2000	10	2	2	0	1	2	2	9	28	44
2001	9	2	2	2	1	16	3	9	22	10
2002	7	4	1	2	0	26	2	3	30	15
2003	6	8	1	0	1	11	1	3	39	17
2004	3	4	1	3	0	22	1	7	46	28
2005	2	3	8	7	0	8	1	5	34	19
2006	7	5	2	3	0	1	0	7	26	18
2007	7	3	8	5	1	4	1	5	25	18
2008	10	2	5	3	2	8	1	2	41	16

Central GOA

Year	HAL CP <125	HAL CP ≥125	HAL CV <50	HAL CV 50-60	HAL CV ≥60	Jig CV	Pot CP	POT CV <50	POT CV 50-60	POT CV ≥60
2000	3	0	117	26	5	16	4	15	40	59
2001	1	0	92	18	2	14	3	7	27	28
2002	0	4	58	14	2	7	3	8	20	17
2003	2	2	53	10	2	7	0	5	17	13
2004	1	2	47	13	6	30	0	6	16	13
2005	1	1	52	13	6	25	0	7	18	22
2006	2	4	47	15	6	24	0	9	27	23
2007	2	2	62	19	5	18	1	7	33	23
2008	4	3	64	26	6	12	0	9	29	20

Source: ADFG Fish Tickets and NMFS Catch Accounting/Blend, 2000-2008. Note: Excludes IFQ fisheries

Table 3-10 reports the number of unique vessels in each sector that participated in the directed Pacific cod fisheries during 2000 through 2008. These unique vessel counts may be compared with the number of vessels that participated annually during 2000-2008 for some perspective on the frequency of new entrants into each sector. For example, there were 89 pot CVs <60 ft LOA that participated in the directed Pacific cod fishery during 2000-2008, and 55 of those vessels fished during 2000, indicating that 34 additional vessels have entered the <60 ft LOA pot sector since 2000. Participation in the jig sector has been even more variable. During 2000-2008, 84 different vessels fished using jig gear in the Central GOA, but the maximum number of participants in any one year was 30 vessels. Similarly, 248 hook-and-line vessels <60 ft LOA had catch in the Central GOA directed Pacific cod fisheries during 2000-2008, but only 60 to 143 vessels have fished during a given year, indicating that a large number of vessels participate during some, but not all years.

Table 3-10 Number of unique vessels in each sector that participated in the directed Pacific cod fisheries in the Western and Central GOA during 2000-2008. Excludes IFQ participants.

Number unique vessels from 2000-2008	HAL CP <125	HAL CP ≥125	HAL: CV<50	HAL CV 50-60	HAL CV ≥60	Jig CV	Pot <50	Pot CV 50-60	Pot CV ≥60	Pot CP
Western Gulf	17	15	22	14	5	70	18	75	81	5

Table 3-11 Annual catch (mt) per vessel by fixed gear vessels participating in the directed Pacific cod fisheries, excluding IFQ catch, from 2000 to 2008.

Western GOA

Year	HAL CP <125	HAL CP ≥125	HAL CV <50	HAL CV 50-60	HAL CV ≥60	Jig CV	Pot CP	POT CV <50	POT CV 50-60	POT CV ≥60
2000	*	*	*	0	*	*	*	24	32	89
2001	*	*	*	*	*	10	346	38	45	82
2002	777	223	*	*	0	7	*	59	94	114
2003	445	184	*	0	*	4	*	108	146	204
2004	714	179	*	*	0	8	*	34	98	178
2005	*	*	24	8	0	6	*	52	47	237
2006	276	144	*	*	0	*	0	30	62	227
2007	381	120	19	*	*	0	*	61	81	128
2008	*	*	7	*	*	6	*	*	*	111

Central GOA

Year	HAL CP <125	HAL CP ≥125	HAL CV <50	HAL CV 50-60	HAL CV ≥60	Jig CV	Pot CP	POT CV <50	POT CV 50-60	POT CV ≥60
2000	69	0	36	62	119	2	227	30	93	132
2001	*	0	47	*	*	1	196	35	67	51
2002	0	406	*	80	*	0	44	13	73	98
2003	*	*	45	*	*	2	0	16	92	120
2004	*	*	79	69	108	4	0	18	149	186
2005	*	*	55	74	58	5	0	17	178	220
2006	*	*	77	112	125	4	0	21	142	192
2007	*	*	65	86	89	2	*	16	123	179
2008	145	337	47	86	91	2	0	7	93	123

Source: ADFG Fish Tickets and NMFS Catch Accounting/Blend, 2000-2008. Note: Excludes IFQ fisheries

The annual catch (mt) per vessel within each sector in the GOA directed Pacific cod fisheries is reported in Table 3-11. In general, hook-and-line and pot CPs and ≥60 ft LOA pot CVs have the highest annual catch per vessel. Jig vessels have the lowest annual catch per vessel (less than 10 mt per vessel). Annual catches per vessel within each sector depend on a number of variables, including Pacific cod TACs, conditions in the Pacific cod fishery, the number of vessels participating in the fishery, weather conditions, the timing of halibut PSC closures, and conditions in other fisheries. These variables make it difficult to describe trends in annual catch per vessel. For example, annual catches by hook-and-line vessels have varied, and do not show a clear trend. During some years, halibut PSC closures have limited hook-and-line catches during the B season. Conversely, during some years, the trawl B season has closed early due to halibut PSC limits, and the fixed gear sectors have had the opportunity to catch more of the TAC. Annual catches per vessel have declined in several sectors. For example, in the Central GOA, annual catches by ≥60 ft pot CVs declined from 220 mt per vessel in 2005 to 123 mt per vessel in 2008, and catches by 50-60 ft pot CVs declined by nearly half, from 178 mt in 2005 to 93 mt in 2008. In the Western GOA, annual catches by ≥60 ft pot CVs declined from 237 mt per vessel in 2005 to 111 mt per vessel in 2008.

Trends in the numbers of Western and Central GOA fixed gear CV licenses participating in the directed Pacific cod fisheries are reported in Table 3-12. In 2000 the number of fixed gear licenses participating in the Central and Western GOA was particularly high, because of the late start of the *C. opilio* season described earlier. In the Central GOA, the number of licenses participating in the directed Pacific cod fishery dropped to 99 licenses in 2003, climbed to 118 licenses in 2006, then increased substantially to 154 licenses in 2007 and 157 licenses in 2008. In the Western GOA, fixed gear CV license participation in the directed Pacific cod fishery ranged from 33 to 64 licenses during 2000 through 2008. In 2008, 55

Western GOA CV licenses participated in the fishery. Table 3-12 also breaks down license participation into the different gear groups. In the Western GOA, pot CV license participation fluctuates on an annual basis, and there has not been a clear trend in participation. Hook-and-line CV participation increased to 7 licenses in 2008. In the Central GOA, hook-and-line license participation increased to 100 licenses in 2008, and pot participation increased to 60 licenses in 2007 and 56 licenses in 2008. Catch (mt) per license in both sectors decreased in 2008. Catch per license for Central GOA pot CVs was only 97 mt in 2008; pot CV catches had not dropped below 100 mt per license since 2002.

Table 3-12 Number of fixed gear CV licenses and catch (mt) per license from 2000 to 2008 in the directed Pacific cod fisheries. Excludes IFQ participants.

Western GOA

Year	All gear types		Hook-and-line		Jig		Pot	
	Number of licenses*	Catch (mt) per license	Number of licenses*	Catch (mt) per license	Number of licenses*	Catch (mt) per license	Number of licenses*	Catch (mt) per license
2000	47	55	1	*	1	*	46	56
2001	33	*	1	*	0	0	33	56
2002	35	*	1	*	5	9	31	105
2003	48	162	1	*	2	*	45	172
2004	64	133	0	0	6	10	59	143
2005	50	*	3	8	1	*	46	112
2006	39	*	2	*	0	0	37	108
2007	41	94	6	33	0	0	35	104
2008	55	99	7	70	4	2	47	105

Central GOA

Year	All gear types		Hook-and-line		Jig		Pot	
	Number of licenses*	Catch (mt) per license	Number of licenses*	Catch (mt) per license	Number of licenses*	Catch (mt) per license	Number of licenses*	Catch (mt) per license
2000	195	76	109	51	4	2	85	110
2001	147	60	89	59	4	1	56	63
2002	111	89	68	100	3	0	41	76
2003	99	66	66	51	3	3	31	100
2004	106	101	69	82	8	2	35	143
2005	120	107	73	63	6	6	44	186
2006	118	123	66	102	7	6	50	155
2007	154	98	93	76	6	4	60	133
2008	157	75	100	63	4	2	56	97

Source: ADFG Fish Tickets and RAM groundfish license file, December 2008

* License counts do not necessarily correspond to vessel counts in Table 3-9. The CV license counts may include vessels operating with stacked licenses (i.e., 2 or more licenses assigned to a single vessel). In Table 3-9, vessel counts may include vessels participating in the parallel waters fisheries without an LLP license. Licenses may have used more than one gear type.

Trends in the numbers of Western and Central GOA fixed gear CP licenses participating in the directed cod fisheries are reported in Table 3-13. In both the Western and Central GOA, the number of CP licenses participating with hook-and-line gear increased in 2006, 2007, 2008, to levels higher than previous years. Pot CP participation has remained fairly stable, with 1 to 2 licenses participating in each management area in each year. Catch (mt) per hook-and-line CP license in both management areas was substantially lower in 2005 through 2008 than during previous years. Halibut PSC closures in 2005 (for the BSAI hook-and-line CP fleet only) and 2008 (for all hook-and-line vessels) resulted in shortened B seasons. Participation was also higher in 2006 through 2008. There were not sufficient numbers of CP licenses participating with pot gear in most years to report catch per license.

Table 3-13 Number of fixed gear CP licenses and catch (mt) per license from 2000 to 2008 in the directed Pacific cod fisheries. Excludes IFQ participants.

Western GOA						
Year	All gear types		Hook-and-line		Pot	
	Number of licenses*	Catch (mt) per license	Number of licenses*	Catch (mt) per license	Number of licenses*	Catch (mt) per license
2000	8	446	8	446	0	0
2001	8	*	7	503	2	*
2002	6	*	5	871	1	*
2003	11	*	9	362	2	*
2004	9	*	7	408	2	*
2005	6	*	4	169	2	*
2006	12	*	11	220	1	*
2007	12	*	10	277	2	*
2008	14	*	12	254	2	*

Central GOA						
Year	All gear types		Hook-and-line		Pot	
	Number of licenses*	Catch (mt) per license	Number of licenses*	Catch (mt) per license	Number of licenses*	Catch (mt) per license
2000	4	133	2	*	2	*
2001	3	*	1	*	3	139
2002	4	*	3	369	1	*
2003	2	*	2	*	0	0
2004	3	347	3	347	0	0
2005	3	140	3	140	0	0
2006	9	*	7	145	2	*
2007	8	266	5	260	3	276
2008	10	*	9	195	1	*

Source: NMFS Catch Accounting/Blend and RAM groundfish license file, December 2008

* License counts do not necessarily correspond to vessel counts in Table 3-9. License counts may include vessels operating as CVs using CP licenses and vessels operating with stacked licenses (i.e., 2 or more licenses assigned to a single vessel). In Table 3-9, vessel counts may include vessels participating in the parallel waters fisheries without an LLP license. Licenses may have used more than one gear type.

3.2.5 Revenues in the GOA Pacific cod fisheries

Ex-vessel prices in the GOA Pacific cod fisheries increased substantially during 2007 (Table 3-14). Ex-vessel prices for fixed gear landings averaged \$0.494 per pound in 2007, an increase of \$0.10 per pound since 2006. Ex-vessel prices for trawl landings also averaged \$0.487 in 2007, an increase of \$0.12 per pound since 2006. Gross revenues for all catcher vessel landings of GOA Pacific cod totaled \$34.4 million in 2007, a 27% increase from 2006 revenues (Table 3-15). Participants in the 2008 GOA Pacific cod fisheries reported prices of up to \$0.68 per pound, including bonuses. CFEC price and gross revenues data for 2008 are not yet available. In 2009, poor market conditions worldwide resulted in price declines. Participants have reported that ex-vessel prices during the 2009 A season ranged from \$.30 to \$.33 in the GOA. Extensive information on economic conditions in the GOA Pacific cod fisheries can be found in the Economic SAFE Report (Hiatt et al., 2008).

Table 3-14 Ex-vessel prices (dollars) per pound in the GOA Pacific cod fisheries

Year	Fixed gear	Trawl gear
2001	\$0.299	\$0.258
2002	\$0.287	\$0.234
2003	\$0.304	\$0.282
2004	\$0.267	\$0.251
2005	\$0.297	\$0.269
2006	\$0.396	\$0.369
2007	\$0.494	\$0.487

Source: ADFG Fish Tickets and CFEC gross revenues data.

Table 3-15 Ex-vessel gross revenues from the GOA Pacific cod fisheries (millions of dollars)

Year	Pot	Trawl	Hook-and-line	Jig	Total
2001	3.5	11.8	4.2	0.1	19.6
2002	3.9	7.2	4.4	0.1	15.6
2003	7.7	10.0	2.7	0.04	20.4
2004	8.2	8.4	3.6	0.2	20.4
2005	9.7	7.6	3.1	0.1	20.5
2006	12.6	8.7	5.7	0.1	27.1
2007	14.1	12.7	7.5	0.05	34.4

Source: ADFG Fish Tickets and CFEC gross revenues data.

First wholesale prices for Pacific cod products increased substantially in 2006 and 2007 (Table 3-16). The all products price is a weighted average of the prices for all products produced from Pacific cod. Table 3-17 shows the product mix from Pacific cod harvested in the GOA, and includes production by both at-sea processors and shoreside plants. Catcher processors produce mostly eastern and western cut headed and gutted products and several ancillary products. Shoreside processors produce fillets and headed and gutted products, along with a wide variety of ancillary products. Headed and gutted fish comprised the majority of products for at-sea processors, while fillets made up a larger fraction of the product mix for shoreside processors (Hiatt et al., 2007).

Table 3-16 First wholesale price (dollars per pound) of Pacific cod products by processing sector, includes BSAI and GOA fisheries

Year	Whole fish		Head & gut		Fillets		Other products		All products	
	At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside
2001	0.46	0.51	1.09	0.87	1.49	1.86	1.39	1.04	1.11	1.24
2002	0.29	0.41	0.97	0.99	1.58	2.28	1.03	0.79	0.98	1.31
2003	0.41	0.56	1.13	0.97	2.29	2.18	0.89	0.56	1.14	1.29
2004	0.43	0.54	1.09	1.04	2.20	2.13	1.02	0.80	1.09	1.26
2005	0.56	0.58	1.29	1.50	2.07	2.72	1.32	0.81	1.29	1.65
2006	0.65	0.79	1.67	1.38	3.35	3.12	1.21	0.94	1.66	1.76
2007	0.66	0.92	1.86	1.64	2.74	3.63	1.30	0.96	1.84	1.81

Table 3-17 Products produced from Pacific cod harvested in the GOA.

Year	Whole fish		Head & gut		Fillets		Other products		Total
	Mt	Percentage	Mt	Percentage	Mt	Percentage	Mt	Percentage	Mt
2001	1.8	8.5%	9.0	42.8%	6.0	28.6%	4.3	20.2%	21.1
2002	1.1	5.0%	7.1	33.8%	6.7	32.0%	6.1	29.2%	21.0
2003	2.2	9.7%	4.5	19.7%	8.6	38.0%	7.4	32.6%	22.6
2004	0.8	3.5%	10.3	45.3%	6.5	28.8%	5.1	22.3%	22.6
2005	0.9	4.9%	6.4	35.1%	5.9	32.4%	5.0	27.6%	18.2
2006	0.6	2.5%	7.1	32.2%	8.1	36.8%	6.3	28.5%	22.1

Source: 2007 Economic SAFE (Hiatt et al., 2008).

Gross revenues by catcher vessels that used fixed gear in the directed Pacific cod fisheries in the Central or Western GOA are summarized in Table 3-18. Revenues are reported based on the sector that a vessel participated in during a given year in the Central or Western GOA directed Pacific cod fisheries. Table 3-18 also shows each sector's economic dependence on the GOA Pacific cod fisheries relative to its dependent on other Alaska fisheries. Pot vessels that did not qualify for BSAI crab allocations were highly dependent on GOA Pacific cod (19.7% of revenues), as well as the State GOA Pacific cod fisheries (11.5%) and IFQ halibut (25.1%). Crab-qualified pot CVs earned 14.6% of revenues from GOA Pacific cod during 2001-2007, and 65.3% of revenues from crab. Hook-and-line CVs earned 8.4% from GOA Pacific cod and 58% from halibut IFQ. Finally, jig vessels earned only 6.5% from the GOA Pacific cod fisheries, but also earned an additional 19.3% of revenues from the State GOA Pacific cod fisheries, and 43.3% of revenues from salmon.

First wholesale revenues for catcher processors that participated in the GOA Pacific cod fisheries are summarized in Table 3-19. The table shows that the GOA Pacific cod fisheries are a relatively small proportion of total production by trawl catcher processors. Trawl catcher processors mostly catch GOA Pacific cod incidentally while participating in other directed fisheries, and revenues from GOA Pacific cod comprised only 1.5% of first wholesale revenues during 2001-2007. Revenues for hook-and-line catcher processors were mainly from the BSAI Pacific cod fishery during 2001-2007 (77.5%). GOA Pacific cod and sablefish comprised 8.9% and 8.2% of first wholesale revenues for hook-and-line catcher processors during 2001-2007. Relatively few pot catcher processors participate in the GOA and BSAI Pacific cod fisheries. During 2001-2007, those pot CPs that participated in the GOA Pacific cod fisheries earned the majority of first wholesale revenues from the GOA Pacific cod fisheries (58.4%), and the remainder of revenues from the BSAI Pacific cod fishery.

Table 3-20 reports annual gross revenues per fixed gear CV license. Annual revenues per CV license have generally increased in both GOA management areas as the price of Pacific cod has increased. The tables also report revenues that licenses earned in the Western GOA or Central GOA Pacific cod fisheries as a percentage of revenues from all Alaska commercial fisheries, including groundfish, halibut, shellfish, salmon, and herring. Revenues from the GOA directed Pacific cod fisheries have remained a fairly consistent percentage of total annual revenues by these licenses in Alaska fisheries. Fixed gear CV licenses that participated in the directed Pacific cod fisheries in the Western GOA earned 11% to 22% of annual fisheries revenues from Pacific cod. Central GOA licenses earned 14% to 18% of annual fisheries revenues from the directed Pacific cod fishery. Table 3-20 also reports annual gross revenues per fixed gear CV license based on the gear type used in the directed Pacific cod fishery. Licenses that used pot gear had the highest annual revenues per license of the fixed gear CV sectors (2007 revenues: \$149,305 in the CGOA and \$108,295 in the WGOA). These figures only include revenues from the directed Pacific cod fishery in that management area. In 2007, licenses with hook-and-line catch earned approximately \$85,000 per license in the CGOA and \$34,000 per license in the Western GOA directed Pacific cod fisheries. Licenses with jig catch generally had annual revenues of less than \$5,000 per license in the directed cod fisheries.

Table 3-21 reports annual wholesale revenues per fixed gear CP license. Annual revenues per CP license in the directed Pacific cod fisheries have generally declined over time in the Western GOA, although they increased in 2007 with higher Pacific cod prices. Annual revenues per CP license that used hook-and-line gear in the Western GOA directed Pacific cod fishery during 2000-2007 ranged from \$215,000 per license in 2005 to more than \$900,000 per license in 2002. In the Central GOA, revenues per hook-and-line CP license have ranged from just over \$100,000 per license to nearly \$500,000 per license in 2007. In both management areas, revenues from the GOA directed Pacific cod fisheries have ranged from 5% to more than 20% of total annual wholesale revenues by CP licenses in all Alaska fisheries (including groundfish and halibut and sablefish IFQ, but not including salmon or shellfish).

Table 3-18 Percentage of gross revenues from GOA Pacific cod and other fisheries by catcher vessels that participated in the GOA directed Pacific cod fisheries, averaged from 2001-2007.

Sector	Fishery	Vessels	Tons	Revenues	Percent of revenues
Hook-and-line CV	GOA Pacific Cod	132	5,564	\$4,422,751	8.4%
	State GOA Pacific Cod	24	1,006	\$815,727	1.5%
	BSAI Other Groundfish	13	961	\$1,416,293	2.7%
	BSAI Pacific Cod	17	1,040	\$815,479	1.5%
	GOA Other Groundfish	69	3,933	\$1,209,310	2.3%
	IFQ Halibut	105	4,630	\$30,578,179	58.0%
	IFQ Sablefish	54	1,498	\$7,295,575	13.8%
	Other	62	472	\$247,664	0.5%
	Salmon	62	5,025	\$3,517,411	6.7%
	Shellfish	20	508	\$2,410,427	4.6%
	Total	569	24,636	\$52,728,815	100.0%
Jig CV	GOA Pacific Cod	28	149	\$99,019	6.5%
	State GOA Pacific Cod	21	425	\$292,917	19.3%
	BSAI Other Groundfish	1	*	*	*
	BSAI Pacific Cod	3	*	*	*
	GOA Other Groundfish	6	7	\$3,305	0.2%
	IFQ Halibut	6	65	\$346,984	22.9%
	IFQ Sablefish	1	*	*	*
	Other	10	60	\$38,358	2.5%
	Salmon	13	1,115	\$655,908	43.3%
	Shellfish	4	12	\$57,595	3.8%
	Total	100	1,860	\$1,516,116	100.0%
Crab qualified Pot CV	GOA Pacific Cod	13	2,285	\$1,634,973	14.6%
	State GOA Pacific Cod	2	*	*	*
	BSAI Other Groundfish	8	30	\$81,569	0.7%
	BSAI Pacific Cod	8	1,856	\$1,363,502	12.2%
	GOA Other Groundfish	4	2	\$501	0.0%
	IFQ Halibut	2	*	*	*
	IFQ Sablefish	1	*	*	*
	Other	8	12	\$13,542	0.1%
	Salmon	1	*	*	*
	Shellfish	12	1,285	\$7,299,936	65.3%
	Total	56	5,714	\$11,176,266	100.0%
Non Crab qualified Pot CV	GOA Pacific Cod	87	9,583	\$6,913,255	19.7%
	State GOA Pacific Cod	62	5,973	\$4,047,893	11.5%
	BSAI Other Groundfish	8	443	\$421,760	1.2%
	BSAI Pacific Cod	13	2,476	\$1,603,858	4.6%
	GOA Other Groundfish	35	6,673	\$1,577,411	4.5%
	IFQ Halibut	36	1,431	\$8,823,240	25.1%
	IFQ Sablefish	11	330	\$1,555,630	4.4%
	Other	54	1,570	\$608,213	1.7%
	Salmon	37	11,967	\$5,219,824	14.9%
	Shellfish	30	787	\$4,356,802	12.4%
	Total	382	41,233	\$35,127,885	100.0%

Source: ADFG fish tickets and CFEC gross revenues data, 2001-2007

Table 3-19 Percentage of gross revenues from GOA Pacific cod and other fisheries by catcher processors that participated in the GOA Pacific cod fisheries, averaged from 2001-2007.

Gear	Area	Fishery	Total number of unique vessels (2000-2007)**	Average annual catch (mt)	Average annual revenues	Percent of revenues
Hook-and-line	BSAI	Atka Mackerel	10	1	\$827	0.0%
		Flatfish	32	1,244	\$878,138	1.3%
		Other Species	31	1,265	\$497,720	0.7%
		Pacific Cod	36	38,307	\$51,833,438	77.5%
		Pollock	36	1,238	\$999,429	1.5%
		Rockfish	31	56	\$45,771	0.1%
		Sablefish	24	181	\$949,223	1.4%
		BSAI Total			\$55,204,547	82.6%
Hook-and-line	GOA	Atka Mackerel	3	1	\$374	0.0%
		Flatfish	24	49	\$54,181	0.1%
		Other Species	26	114	\$66,384	0.1%
		Pacific Cod	36	4,502	\$5,918,465	8.9%
		Pollock	29	19	\$7,964	0.0%
		Rockfish	26	129	\$117,117	0.2%
		Sablefish	20	1,077	\$5,469,946	8.2%
		GOA Total			\$11,634,430	17.4%
		Hook-and-line total			\$66,838,977	100.0%
Pot	BSAI	Atka Mackerel	1	*	*	*
		Flatfish	1	*	*	*
		Other Species	4	*	*	*
		Pacific Cod	6	515	\$594,218	40.7%
		Pollock	4	3	\$2,229	0.2%
		Sablefish	2	*	*	*
		BSAI Total			\$603,132	41.3%
Pot	GOA	Atka Mackerel	2	*	*	*
		Other Species	6	5	\$3,659	0.3%
		Pacific Cod	8	655	\$852,861	58.4%
		Pollock	1	*	*	*
		Rockfish	2	*	*	*
		GOA Total			\$856,619	58.7%
		Pot Total			\$1,459,750	100.0%
Trawl	BSAI	Atka Mackerel	19	34,747	\$22,693,733	17.0%
		Flatfish	21	64,134	\$50,254,938	37.6%
		Other Species	21	789	\$309,549	0.2%
		Pacific Cod	21	18,396	\$24,439,183	18.3%
		Pollock	21	10,169	\$8,350,252	6.2%
		Rockfish	20	5,891	\$4,754,323	3.6%
		Sablefish	20	115	\$577,423	0.4%
		BSAI Total			\$111,379,401	83.3%
Trawl	GOA	Atka Mackerel	18	351	\$202,757	0.2%
		Flatfish	21	8,825	\$8,871,453	6.6%
		Other Species	17	190	\$115,465	0.1%
		Pacific Cod	21	1,530	\$2,006,816	1.5%
		Pollock	20	286	\$116,860	0.1%
		Rockfish	20	9,162	\$8,602,974	6.4%
		Sablefish	20	469	\$2,349,967	1.8%
		GOA Total			\$22,266,293	16.7%
		Trawl Total			\$133,645,693	100.0%

Source: Retained catch data from Catch Accounting/Blend database, 2001-2007. First wholesale price per ton from Economic SAFE (Hiatt, 2008). *Withheld for confidentiality. **Not all vessels fished during all years from 2001-2007.

Table 3-20 Annual gross revenues from Pacific cod for fixed gear CV licenses that participated in the directed GOA Pacific cod fisheries during 2000-2008.

Western GOA									
All gear types				Hook-and-line		Jig		Pot	
Year	Number of licenses	Annual revenues per license	Percent of annual revenues from WG Pcod	Number of licenses	Annual revenues per license	Number of licenses	Annual revenues per license	Number of licenses	Annual revenues per license
2000	47	*	*	1	*	0	\$0	46	\$37,090
2001	33	*	*	1	*	0	\$0	33	\$30,404
2002	35	\$44,197	14.7%	1	*	5	*	31	\$49,187
2003	48	\$92,385	21.8%	1	*	2	*	45	\$98,209
2004	64	\$70,092	15.2%	0	\$0	6	\$5,283	59	\$75,495
2005	50	\$61,950	10.7%	3	*	1	*	46	\$66,923
2006	39	*	*	2	*	0	\$0	37	\$90,545
2007	41	\$97,514	11.4%	6	\$34,626	0	\$0	35	\$108,295
2008	55	\$130,791	n/a	7	n/a	0	n/a	47	n/a

Central GOA									
All gear types				Hook-and-line		Jig		Pot	
Year	Number of licenses	Annual revenues per license	Percent of annual revenues from WG Pcod	Number of licenses	Annual revenues per license	Number of licenses	Annual revenues per license	Number of licenses	Annual revenues per license
2000	195	\$62,210	17.7%	109	\$45,113	4	\$1,668	85	\$84,789
2001	147	\$41,896	14.0%	89	\$43,570	4	\$722	56	\$40,680
2002	111	*	*	68	\$63,837	3	*	41	*
2003	99	*	*	66	\$37,900	3	*	31	*
2004	106	\$65,429	15.2%	69	\$54,672	8	\$1,303	35	\$90,076
2005	120	\$75,829	16.0%	73	\$44,256	6	\$4,455	44	\$132,775
2006	118	\$110,138	17.5%	66	\$91,879	7	\$5,400	50	\$137,889
2007	154	\$109,758	16.5%	93	\$85,155	6	\$4,168	60	\$149,305
2008	157	\$98,767	n/a	100	n/a	4	n/a	56	n/a

Source: ADFG Fish Tickets, CFEC gross revenues data, and RAM groundfish license file.

Table 3-21 First wholesale revenues per CP license in the directed GOA Pacific cod fisheries, 2000-2008.

Western GOA							
Year	All gear types			Hook-and-line		Pot	
	Number of licenses	Revenues per license	Percent of revenues from WG Pcod	Number of licenses	Revenues per license	Number of licenses	Revenues per license
2000	8	\$565,077	17.0%	8	\$565,077	0	\$0
2001	8	*	19.0%	7	\$602,040	2	*
2002	6	*	23.8%	5	\$911,895	1	*
2003	11	*	11.4%	9	\$423,330	2	*
2004	9	*	11.6%	7	\$490,861	2	*
2005	6	*	5.1%	4	\$215,126	2	*
2006	12	*	6.9%	11	\$371,981	1	*
2007	12	*	10.6%	10	\$543,162	2	*
2008	14	n/a	n/a	12	n/a	2	n/a

Central GOA							
Year	All gear types			Hook-and-line		Pot	
	Number of licenses	Revenues per license	Percent of revenues from WG Pcod	Number of licenses	Revenues per license	Number of licenses	Revenues per license
2000	4	\$168,608	20.5%	2	*	2	*
2001	3	*	5.4%	1	*	2	*
2002	4	*	11.6%	3	\$386,836	1	*
2003	2	*	24.1%	2	*	0	\$0
2004	3	\$346,793	22.8%	3	\$346,793	0	\$0
2005	3	\$102,634	6.5%	3	\$102,634	0	\$0
2006	9	*	4.9%	7	\$215,044	2	*
2007	8	\$392,367	13.1%	5	\$494,355	3	\$222,388
2008	10	n/a	n/a	9	n/a	1	n/a

Source: NMFS Blend/Catch Accounting, RAM groundfish license file (Dec 2008), and Hiatt et al (2007).

3.3 Analysis of the Alternatives, Components, and Options

This section provides an overview of the expected effects of the proposed action to add Pacific cod endorsements to Western and Central GOA fixed gear groundfish licenses. The tables show the number of fixed gear groundfish licenses that will be eligible to participate in the directed Pacific cod fisheries in Western and Central GOA under the various components and option. Following this overview is a discussion of the potential economic and socioeconomic effects which may occur as a result of the proposed action. Finally, effects on harvesters, processors, and communities are analyzed, followed by a description of the cumulative effects of the proposed amendment and other recent actions, and an analysis of the net benefits to the Nation.

3.3.1 Alternative 1 – No Action

Under the no action alternative, Pacific cod endorsements would not be added to Western and Central GOA fixed gear groundfish licenses. As a result, there would be no reduction in the number of fixed gear groundfish licenses eligible to participate in the directed Pacific cod fisheries in the Western and Central GOA. If this alternative is selected, fixed gear licenses that have not participated in the Western and Central GOA Pacific cod fisheries in recent years could enter the fisheries in the future and dilute revenues, increase costs, or both, for licenses with recent participation in the fisheries. Increased participation may result in negative economic impacts to current participants in the fisheries. The number

of licenses that might enter the fisheries in the absence of this action is unknown, and depends on future market conditions, the size of Pacific cod TACs, opportunities to participate in other fisheries, the future regulatory environment, and operating costs in the fisheries. Consequently, this analysis does not provide a quantitative estimate of the potential economic impacts of the no action alternative.

Current number of fixed gear groundfish licenses

The number of fixed gear licenses with Western and Central GOA endorsements is reported by operation type and maximum length overall (MLOA) in Table 3-22. The table also indicates the number of licenses that have other area endorsements in addition to a Western or Central GOA endorsement. There are 883 fixed gear catcher vessel licenses with Central GOA endorsements and 264 fixed gear catcher vessel licenses with Western GOA endorsements. Most of these licenses may only be used on vessels less than 60 feet LOA. Fewer than 25% of catcher vessel licenses with Central GOA endorsements also have BSAI or Western GOA endorsements. In contrast, more than half of catcher vessel licenses with Western GOA endorsements also have BSAI or Central GOA endorsements. There are 49 Central GOA and 31 Western GOA CP licenses, and the majority of these licenses also carry BSAI endorsements. Only a small number of catcher processor licenses are restricted for use on vessels less than 60 feet LOA. This is the universe of fixed gear licenses that would continue to have access to the directed Pacific cod fisheries in the Western and Central GOA in the absence of the proposed amendment.

Table 3-22 Number of GOA fixed gear LLP licenses with each area endorsement, operation type, MLOA, and gear designation.

	Number of endorsements		Licenses that also have an endorsement (or designation) for:					
	All licenses	Licenses with MLOA <60 feet	Central Gulf	Western Gulf	Aleutian Islands	Bering Sea	Southeast Outside	Trawl
Central Gulf CV	883	702	--	175	61	159	178	114
Central Gulf CP	49	5	--	27	41	45	5	8
Western Gulf CV	264	154	175	--	62	157	42	78
Western Gulf CP	31	1	27	--	30	31	3	4

Source: NMFS RAM groundfish license file, December 2008.

3.3.2 Alternative 2 – Add Pacific cod endorsements to licenses

This section describes the impacts of the proposed action on the universe of fixed gear licenses that are currently eligible to participate in the directed Pacific cod fisheries in Federal waters of the Western and Central GOA. The proposed action would add Pacific cod endorsements to fixed gear licenses. Licenses would be required carry a Pacific cod endorsement, in addition to the appropriate area endorsement, to participate in the directed Pacific cod fisheries in Federal waters of the Western and Central GOA. The action would result in an amendment to the GOA Fisheries Management Plan (FMP).

The tables in this section show the number of fixed gear licenses that meet the various landings and catch thresholds during 2000-2006 and 2002-2006, and also show the additional number of licenses that would qualify if landings during 2007 through either June 4, 2008 or December 8, 2008 are included in addition to landings during 2000-2006 or 2002-2006. Under Component 3 (see below), there is a provision that states that one of the qualifying periods included in the suboptions under Option 3 will be selected in addition to either 2000-2006 (Option 1) or 2002-2006 (Option 2). If Suboption 3 is also selected, any license that qualifies for a Pacific cod endorsement only when catch during the supplemental years in

Option 3 are included would receive a nontransferable Pacific cod endorsement. The endorsement would be extinguished if the license is transferred to another vessel or owner.

Component 3

Option 1: 2000-2006

Option 2: 2002-2006

Option 3: Add the qualifying period January 1, 2007 through:

Suboption 1: June 4, 2008

Suboption 2: December 8, 2008

- Either of these suboptions will be selected in addition to one of the qualifying periods in Option 1 or Option 2.

Suboption 3: If an LLP license qualifies only when the supplemental range of years in Suboption 1 or Suboption 2 is included, any Pacific cod endorsements granted to licenses under these suboptions would be extinguished upon transfer of the LLP license to another vessel or owner.

Licenses will be credited with retained catch from the directed Pacific cod fisheries in the Federal and parallel waters fisheries. Landings must be made with fixed gear (pot, hook-and-line, or jig) in the endorsement area. Catch in the IFQ and State waters fisheries is excluded. Note that licenses with Central GOA endorsements are also credited with landings in the West Yakutat management area, because under the LLP, the Central GOA endorsement authorizes licenses to fish in Federal waters of West Yakutat. Each table shows the number of licenses that would qualify under the 2 options in

Component 4

Option 1 – All directed Pacific Cod 1, 3, 5 landings (resulting in a Pcod endorsement)

Option 2 – All directed Pacific Cod 5, 10, 25, 100 mt (resulting in a Pcod endorsement)

Licenses that meet a landings threshold of 1, 3, or 5 landings or a catch threshold of 5, 10, 25, 100 mt in the respective management area would receive a Pacific cod endorsement. Directed Pacific cod catch is defined as landings made when the directed Pacific cod fisheries are open. Licenses are credited with landings made up to 7 days after the directed season closes in order to allow time for deliveries to be made or processing activity to be reported.

3.3.2.1 Catcher vessel licenses

The number of fixed gear catcher vessel licenses that meet each landings and catch threshold is reported in Table 3-23. The number of licenses that would qualify for a Pacific cod endorsement depends upon the catch definition, landings or catch threshold, and qualification period selected. There are currently 264 Western GOA fixed gear licenses, and 54 to 110 of these licenses would qualify for a Pacific cod endorsement. There are 883 Central GOA fixed gear licenses, and 110 to 306 of these licenses would qualify for a Pacific cod endorsement. If Pacific cod endorsements are added to licenses, the number of fixed gear catcher vessel licenses eligible to participate in the directed Pacific cod fishery would be reduced to 20% to 42% of current capacity in the Western GOA and 12% to 35% of current capacity in the Central GOA.

The number of qualifying Central GOA licenses varies substantially, and depends on the range of qualifying years used to determine catch history. If 2000-2001 catch history is included, approximately 30 to 60 additional Central GOA licenses meet the 1 landing threshold. The qualification period makes somewhat less of a difference for Western GOA licenses. In general, most Western GOA licenses with fishing history during 2000-2006 were also active during 2002-2006. Most Western and Central GOA licenses that have 3 or 5 landings also meet the 5 mt or 10 mt catch thresholds. However, only about 50%

to 65% of the licenses that meet the 1 landing threshold during a given qualifying period meet the 100 mt threshold during the same time period.

If landings during 2007 through June 4, 2008 or December 8, 2008 are included in addition to landings during one of the qualifying periods under Options 1 or 2, approximately 10% to 20% more CV licenses meet the one landing threshold (see Table 3-23). For example, 306 Central GOA licenses have at least one directed Pacific cod landing during 2000 through December 8, 2008, compared to only 269 during 2000-2006. Similarly, 110 Western GOA CV licenses have at least one directed Pacific cod landing during 2000-2008, compared to only 93 licenses during 2000-2006. Under Option 3, Suboption 3 would make the Pacific cod endorsement nontransferable if a license only qualified for a Pacific cod endorsement when one of the 2007-2008 qualifying periods is included. Any Pacific cod endorsement that is granted to a license under Option 3 could, under Suboption 3, be extinguished upon transfer of the license to another vessel or owner.

Catcher Vessel Licenses by Gear Type Used

The number of licenses that meet each landings and catch threshold based on catch made while using a specific gear type is reported in Table 3-24. It is important to note that the gear type columns are not mutually exclusive. Licenses may have qualified landings using more than one fixed gear type, and as a result, the number of licenses in the columns in Table 3-24 may sum to more than the number of qualifying licenses in Table 3-23. In the absence of specific fixed gear type endorsements (i.e., pot, hook-and-line, or jig endorsements), these licenses could continue to fish in the directed Pacific cod fisheries using any fixed gear type.

Each table shows the number of licenses meeting each threshold based on catch in the directed Pacific cod fisheries using a specific gear type. Under the proposed action, licenses would be required to carry Pacific cod endorsements, in addition to the appropriate area endorsements, to participate in the directed Pacific cod fisheries in Federal waters of the GOA. Pacific cod endorsements could also have a specific gear designation, similar to the BSAI Pacific cod endorsements created under Amendment 67. Pacific cod endorsements would limit the number of licenses eligible to participate in the directed Pacific cod fisheries in the Western and Central GOA. However, vessels without LLP licenses, and licenses without Pacific cod endorsements, could continue to participate in the directed Pacific cod fisheries in parallel waters. Licenses would qualify for Pacific cod endorsements based on catch in the directed Pacific cod fisheries in Federal and parallel waters. Under the current options being considered, incidental catch of Pacific cod outside of the directed season would not count toward the landings and catch thresholds.

Under the current landings and catch thresholds, the number of gear-specific Pacific cod endorsements that would be added to fixed gear catcher vessel licenses includes:

Central GOA

- 68 to 202 hook-and-line endorsements
- 42 to 124 pot endorsements
- 0 to 24 jig endorsements

Western GOA

- 0 to 14 hook-and-line endorsements
- 54 to 96 pot endorsements
- 0 to 12 jig endorsements

The number of gear-specific Pacific cod endorsements that could be added to licenses under the different options (shown in Table 3-24) may be compared with the number of licenses participating on an annual basis using each gear type (see Table 3-12). In the Western GOA, up to 59 licenses per year have participated using pot gear, and as many as 96 licenses would qualify for pot endorsements at the 1 landing threshold during 2000 through Dec 8, 2008. As many as 7 hook-and-line vessels and 6 jig vessels have participated in the Western GOA directed Pacific cod fishery per year, and up to 14 hook-and-line and 12 jig endorsements could be added to licenses. In the Central GOA, up to 109 licenses participated using hook-and-line gear per year, and up to 202 licenses qualify for hook-and-line endorsements. A maximum of 85 licenses used pot gear in one year, and up to 124 licenses qualify for pot endorsements. Finally, up to 8 Central GOA licenses have jig landings in one year and up to 24 licenses would qualify for a jig endorsement.

The Council could choose different catch or landings thresholds for different gear types and MLOA designations to account for differences in catch history among licenses in each sector. In Component 4, options for defining the catcher vessel sectors include:

- Hook-and-line CV
Option: Hook-and-line CV ≥ 60
Hook-and-line CV < 60
- Pot CV
Option: Pot CV ≥ 60
Pot CV < 60
- Jig

In past actions, the Council has selected different qualifying thresholds for vessels based on gear, operation type, and vessel length. For example, the qualification criteria used to establish BSAI Pacific cod endorsements under Amendment 67 are shown in Table 3-2. In the BSAI, vessels with pot history needed 100,000 lbs (45 mt) of catch in each of 2 years during 1995-1999 to qualify for a pot catcher vessel endorsement, and vessels with hook-and-line history needed 7.5 mt of catch in any one year during 1995-1999 to qualify for a hook-and-line catcher vessel endorsement.

In determining the criteria that licenses will need to meet to qualify for GOA Pacific cod endorsements, the Council could take into consideration the differences in catch history among the gear types. For example, approximately 65% to 75% of Western GOA licenses that have at least one directed Pacific cod landing using pot gear also meet the highest (100 mt) catch threshold. Under most options, more than 50% of Central GOA licenses with at least 1 pot or hook-and-line landing in the directed Pacific cod fishery in the Central GOA meet the 100 mt threshold. However, in the Western GOA, no licenses with hook-and-line catch history in the directed Pacific cod fishery meet the 100 mt threshold during any of the qualification periods. Similarly, most licenses with jig history have less than 10 mt of Pacific cod catch during all of the qualifying periods.

Some catcher vessel licenses have catch history using more than one fixed gear type. Under the current set of options being considered by the Council, these licenses could potentially qualify for more than one gear-specific Pacific cod endorsement. Note that under Amendment 67, licenses could qualify for up to 2 BSAI Pacific cod endorsements (pot and hook-and-line CP or CV). If licenses are allowed to qualify for more than one Western or Central GOA Pacific cod endorsement, the endorsements could be made non-severable to prevent license holders from selling their Pacific cod endorsements, which could result in an expansion of the fleet. Allowing individual licenses to hold more than one gear endorsement would give those licenses the flexibility to use different fixed gear types during a given fishing year or over a series of years.

Below is a summary of the number of licenses that meet the minimum catch threshold of 1 landing of directed Pacific cod during 2000-2006 or 2000-Dec 8, 2008 using more than one fixed gear type:

Central GOA

- 18 or 30 licenses have both pot and hook-and-line landings
- 10 or 12 licenses have both hook-and-line and jig landings
- 3 licenses have both pot and jig landings
- 1 license has pot, hook-and-line, and jig landings

Western GOA

- 2 or 5 licenses have both pot and hook-and-line landings
- 1 license has both hook-and-line and jig landings
- 4 or 7 licenses have both pot and jig landings
- 1 license has pot, hook-and-line, and jig landings

Catcher Vessel Licenses by Gear Type Used and MLOA

Table 3-25 reports the number of licenses that meet the landings and catch thresholds while using a specific gear type, reported by the MLOA designation on the license. This table provides an estimate of the number of licenses that would be eligible to fish the catcher vessel Pacific cod sector allocations, if separate allocations are established for vessels of different lengths (e.g. vessels <60 ft LOA and ≥60 ft LOA). However, it should be noted that the number of licenses shown in each size category in Table 3-25 is based on the MLOA designation on the license, and is not based on the length of the vessel assigned to the license. In some cases, the MLOA designation on the license is larger than the LOA of the vessel assigned to that license. Also, note that some vessels have multiple (i.e., stacked) licenses, and the number of licenses in each length category may be greater than the number of vessels in that length category with recent participation in the fisheries. These estimates provide some perspective on how the catcher vessel sectors could be divided by vessel length for the purpose of establishing Pacific cod sector allocations. For example, dividing the pot catcher vessel sector at 60 feet LOA results in a fairly even distribution of licenses that could potentially fish the <60 ft LOA and ≥60 feet LOA allocations. In contrast, the hook-and-line sector is mostly comprised of licenses with an MLOA of <60 feet, and few active licenses are ≥60 feet MLOA. Hook-and-line vessels ≥60 feet LOA have historically taken a relatively small proportion of the Pacific cod catch in the Western GOA (less than 1%) and Central GOA (1 to 2%). Dividing the hook-and-line catcher vessel allocation at 50 feet LOA would result in a more even distribution of licenses eligible to fish those allocations

The tables also show the number of additional licenses that would qualify in each gear and MLOA class if catch during 2007 through June 4, 2008 or December 8, 2008 is included in addition to catch during one of the qualifying periods in Options 1 or 2. In the Central GOA, the majority of additional licenses that qualify are 50-60 ft MLOA and have pot history (6 or 10 additional licenses with 1 landing) or hook-and-line history (17 or 22 additional licenses with 1 landing). Similarly, in the Western GOA, the majority of additional licenses that qualify have an MLOA of 50-60 ft and have pot history (8 additional licenses with 1 landing).

Licenses that only qualify when 2007 and 2008 catch history is included

Under Component 3, Suboption 3 states that if an LLP license qualifies for a Pacific cod endorsement only when the supplemental range of years (Jan 1, 2007 through Jun 4, 2008 or Dec 8, 2008) in Suboption 1 or Suboption 2 of Component 3 are included, any Pacific cod endorsement granted to a license would be extinguished upon transfer of the LLP license to another vessel or owner. The rationale for including Suboption 3 is that licenses that only have recent (2007 and 2008) history in the Western or Central GOA Pacific cod fisheries may have made these landings specifically for the purpose of qualifying for a Pacific cod endorsement. Those participants who entered the fishery in 2007 and 2008 would receive a Pacific cod endorsement under Suboption 1 or Suboption 2, and could continue to participate in the fishery. **It is important to note that Suboption 3 currently states that the Pacific cod endorsement would not be transferable to another vessel or owner.**

Designating licenses that qualify under Suboption 1 or Suboption 2 as non-transferable to another vessel or owner could have several effects. First, it would maintain the existing fleet of vessels in the Pacific cod fishery that are currently assigned to licenses that qualify based on 2007 or 2008 catch history. For example, a high capacity 58 ft LOA vessel could not later be assigned to a license to replace a lower capacity boat that is currently assigned to a license. However, it would also prevent a license holder from replacing a vessel for safety or other considerations. If a boat sinks or otherwise becomes inoperable, the Council may wish to specify vessel replacement provisions for these licenses. If the Council wishes to choose Suboption 3, but to allow the owner to transfer the license to another vessel, **Suboption 3 could be revised so that a license cannot be transferred to another owner, but can be transferred to another vessel.** This would allow license holders to replace the vessel assigned to the license with a different vessel. Suboption 3 would also preclude a license holder who receives a Pacific cod endorsement based on 2007 or 2008 history from opportunistically selling the license with the endorsement to another person. The intent of including 2007 and 2008 history is to allow those participants who have only recently entered the fishery to be able to continue to participate in the fishery. It is not intended to allow recent entrants to qualify for an endorsement in order to sell the license with the endorsement to another person.

Table 3-26 provides a summary of the CV licenses that qualify at the 1 landing threshold only when catch history from 2007 through December 8, 2008 is included. Approximately half of the additional CV licenses that qualify have an MLOA of 58 or 59 ft. There are 37 Central GOA CV licenses that qualify at the 1 landing threshold; 32 of these licenses have an MLOA of <60 ft, and 19 have an MLOA of 58 or 59 ft. Three of the 37 licenses are currently assigned to 'Super 8' vessels greater than 100 gross tons. The licenses are mostly held by Alaska residents (25 of the 37 licenses, including 10 held by Kodiak residents). There are 17 Western GOA CV licenses that qualify at the 1 landing threshold only when 2007 and 2008 catch history is included; 10 licenses have an MLOA of <60 ft, and 7 licenses have an MLOA of 58 or 59 ft (including 1 'Super 8' vessel that is greater than 100 gross tons). The licenses are also mostly held by Alaska residents (7 of 10 licenses). Four Western GOA and 4 Central GOA CV licenses that qualify are stacked on two vessels (2 licenses per vessel). If these licenses are transferable, the stacked licenses could be assigned to different vessels or sold to different persons in the future, which would result in an increase in the size of the fleet eligible to participate in the Western and Central GOA Pacific cod fishery.

There are also additional CP licenses that qualify for a Pacific cod endorsement at the 1 landing threshold when catch through Dec 8, 2008 is credited to licenses. Three additional Western GOA licenses and 7 additional Central GOA licenses meet the 1 landing threshold. Most of these licenses have hook-and-line CP landings, and would qualify for a hook-and-line Pacific cod endorsement. There is a comparison of annual participation and revenues in the GOA Pacific cod fisheries and other Alaska fisheries by CV and

CP licenses that only qualify when 2007 and 2008 catch is included and licenses that qualify based on 2000-2006 catch in Section 3.4.1.2.

Table 3-23 Number of fixed gear catcher vessel licenses that meet the landings and catch thresholds based on landings in the Western or Central GOA directed Pacific cod fisheries.

Western GOA – 264 CV licenses

Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	110	106	93	101	96	82
3 landings	100	95	83	95	90	76
5 landings	91	87	74	86	82	68
5 mt	105	100	85	99	94	77
10 mt	97	93	79	93	89	73
25 mt	91	88	74	85	82	66
100 mt	68	63	55	68	63	54

Central GOA – 883 CV licenses

Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	306	297	269	245	234	198
3 landings	272	266	240	220	215	179
5 landings	249	246	219	203	200	164
5 mt	273	267	237	222	216	180
10 mt	255	250	223	210	205	171
25 mt	221	220	190	189	188	154
100 mt	171	169	151	142	139	110

Source: ADFG Fish Tickets (2000-2007), NMFS Catch Accounting (2008) and RAM groundfish license file, December 2008.

Table 3-24 Number of fixed gear catcher vessel licenses that meet the landings and catch thresholds based on landings using a specific gear type in the Western or Central GOA directed Pacific cod fisheries.

Western GOA licenses - 264 CV licenses

Hook-and-line						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	14	12	7	14	12	7
3 landings	11	8	4	10	7	3
5 landings	9	5	1	9	5	1
5 mt	13	11	6	12	10	5
10 mt	11	9	3	11	9	3
25 mt	9	6	0	9	6	0
100 mt	3	0	0	3	0	0

Jig						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	12	9	9	11	8	8
3 landings	7	7	7	7	7	7
5 landings	5	5	5	5	5	5
5 mt	7	6	6	7	6	6
10 mt	3	3	3	3	3	3
25 mt	*	*	*	*	*	*
100 mt	0	0	0	0	0	0

Pot						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	96	94	83	86	84	72
3 landings	88	87	77	82	81	69
5 landings	82	81	71	76	75	64
5 mt	91	89	78	84	82	69
10 mt	88	86	75	83	81	68
25 mt	82	81	71	76	75	63
100 mt	65	63	55	65	63	54

Source: ADFG Fish Tickets (2000-2007), NMFS Catch Accounting (2008) and RAM groundfish license file, December 2008.
*Withheld for confidentiality.

Note: Gear type columns are not mutually exclusive, and the number of licenses in the columns in Table 3-24 may sum to more than the number of qualifying licenses in Table 3-23.

Central GOA licenses – 883 CV licenses

Hook-and-line gear						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	202	196	169	161	154	123
3 landings	177	172	149	142	138	111
5 landings	157	155	133	125	123	98
5 mt	180	176	149	145	141	112
10 mt	162	159	135	133	130	104
25 mt	134	134	112	116	116	94
100 mt	96	94	84	84	81	68

Jig						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	24	22	19	20	18	15
3 landings	10	10	9	7	7	6
5 landings	9	9	7	7	7	5
5 mt	9	8	7	8	7	6
10 mt	4	4	4	4	4	4
25 mt	*	*	0	*	*	0
100 mt	0	0	0	0	0	0

Pot						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	124	120	111	94	90	78
3 landings	109	106	100	85	82	70
5 landings	98	98	91	78	78	66
5 mt	109	106	99	85	82	72
10 mt	106	103	96	83	80	69
25 mt	93	91	83	76	74	62
100 mt	75	75	66	59	59	42

Source: ADFG Fish Tickets (2000-2007), NMFS Catch Accounting (2008) and RAM groundfish license file, December 2008.
*Withheld for confidentiality.

Note: Gear type columns are not mutually exclusive, and the number of licenses in the columns in Table 3-24 may sum to more than the number of qualifying licenses in Table 3-23.

Table 3-25 Number of catcher vessel licenses that meet the landings and catch thresholds based on catch in the directed Pacific cod fisheries in the Western and Central GOA using a specific gear type, reported by the MLOA on the license.

Western GOA- 264 CV licenses

Hook-and-line gear									
	<50 feet	50-59 feet	≥60 feet	<50 feet	50-59 feet	≥60 feet	<50 feet	50-59 feet	≥60 feet
	2000- Dec 2008			2000- June 2008			2000-2006		
1 landing	4	6	4	3	6	3	0	6	1
3 landings	4	4	3	3	4	1	0	3	1
5 landings	3	3	3	2	2	1	0	1	0
5 mt	3	6	4	*	6	*	0	6	0
10 mt	3	4	4	*	4	*	0	3	0
25 mt	*	*	4	*	*	*	0	0	0
100 mt	0	*	*	0	0	0	0	0	0

Jig gear									
	<50 feet	50-59 feet	≥60 feet	<50 feet	50-59 feet	≥60 feet	<50 feet	50-59 feet	≥60 feet
	2000- Dec 2008			2000- June 2008			2000-2006		
1 landing	4	7	1	4	5	0	4	5	0
3 landings	3	4	0	3	4	0	3	4	0
5 landings	2	3	0	2	3	0	2	3	0
5 mt	3	4	0	*	*	0	*	*	0
10 mt	*	*	0	*	*	0	*	*	0
25 mt	*	*	0	*	*	0	*	*	0
100 mt	0	0	0	0	0	0	0	0	0

Pot gear									
	<50 feet	50-59 feet	≥60 feet	<50 feet	50-59 feet	≥60 feet	<50 feet	50-59 feet	≥60 feet
	2000- Dec 2008			2000- June 2008			2000-2006		
1 landing	2	67	27	2	67	25	2	59	22
3 landings	2	62	24	2	61	24	2	53	22
5 landings	1	59	22	1	58	22	1	51	19
5 mt	*	63	*	*	63	*	*	55	*
10 mt	*	*	25	*	*	24	*	*	21
25 mt	0	58	24	0	57	24	0	50	21
100 mt	0	46	19	0	44	19	0	37	18

Source: ADFG Fish Tickets (2000-2007), NMFS Catch Accounting (2008) and RAM groundfish license file, December 2008.

*Withheld for confidentiality.

Note: Length classes are based on the MLOA on each license, and not on the vessel assigned to that license. A vessel may have an LOA less than the MLOA on its license. The number of licenses qualifying in each MLOA length class may differ from the number of vessels in each LOA length class that have participated in the fisheries.

Central GOA- 883 CV licenses

Hook-and-line gear									
	<50 feet	50-59 feet	≥60 feet	<50 feet	50-59 feet	≥60 feet	<50 feet	50-59 feet	≥60 feet
	2000- Dec 2008			2000- June 2008			2000-2006		
1 landing	104	84	14	103	79	14	97	62	10
3 landings	100	68	9	99	64	9	92	51	6
5 landings	89	59	9	88	58	9	82	45	6
5 mt	97	72	11	96	69	11	90	52	7
10 mt	87	64	11	86	62	11	79	49	7
25 mt	71	54	9	71	54	9	67	39	6
100 mt	54	37	5	53	36	5	50	30	4

Jig gear									
	<50 feet	50-59 feet	≥60 feet	<50 feet	50-59 feet	≥60 feet	<50 feet	50-59 feet	≥60 feet
	2000- Dec 2008			2000- June 2008			2000-2006		
1 landing	13	10	1	12	9	1	11	7	1
3 landings	5	4	1	5	4	1	5	3	1
5 landings	4	4	1	4	4	1	4	2	1
5 mt	*	5	*	*	4	*	*	3	*
10 mt	*	*	*	*	*	*	*	*	*
25 mt	0	0	*	0	0	*	0	0	0
100 mt	0	0	0	0	0	0	0	0	0

Pot gear									
	<50 feet	50-59 feet	≥60 feet	<50 feet	50-59 feet	≥60 feet	<50 feet	50-59 feet	≥60 feet
	2000- Dec 2008			2000- June 2008			2000-2006		
1 landing	7	66	51	7	62	51	7	56	48
3 landings	6	57	46	6	54	46	6	49	45
5 landings	6	53	39	6	53	39	5	48	38
5 mt	5	58	46	5	55	46	5	50	44
10 mt	4	58	44	4	55	44	4	50	42
25 mt	4	51	38	4	49	38	4	43	36
100 mt	3	39	33	3	39	33	*	*	30

Source: ADFG Fish Tickets (2000-2007), NMFS Catch Accounting (2008) and RAM groundfish license file, December 2008.
*Withheld for confidentiality.

Note: Length classes are based on the MLOA on each license, and not on the vessel assigned to that license. A vessel may have an LOA less than the MLOA on its license. The number of licenses qualifying in each MLOA length class may differ from the number of vessels in each LOA length class that have participated in the fisheries.

Table 3-26 Catcher vessel licenses qualifying only under Component 3, Suboption 2 (catch through December 8, 2008) at the 1 landing threshold.

	<60 ft MLOA		Total <60 ft MLOA	>60 ft MLOA	Total
	<100 gross tons	≥100 gross tons			
Central GOA CV licenses	29	3	32*	5	37
Western GOA CV licenses	9	1	10**	7	17

*19 of 32 Central GOA <60 ft MLOA licenses have an MLOA of 58 or 59 ft

**7 of 10 Western GOA <60 ft MLOA licenses have an MLOA of 58 or 59 ft

3.3.2.2 Catcher processor licenses

The number of catcher processor licenses that meet the various landings and catch thresholds is reported in Table 3-27. For the purpose of this analysis, catcher processor licenses were credited with both catcher processor and catcher vessel landings. The same rule was used for the trawl recency action. Catch Accounting data was used to determine the number of landings and retained catch (mt) by catcher processors. The Council elected to use Catch Accounting data rather than Weekly Production Reports for the GOA Pacific cod sector allocations to catcher processors. Catch Accounting data was used in this analysis to be consistent with the sector split analysis, but the Council could choose to use Weekly Production Reports instead. For the purpose of determining whether licenses meet the recency criteria, Catch Accounting data and Weekly Production Reports should produce similar results. One advantage of using Catch Accounting data to generate the estimates in this analysis is that landings by all vessels are stored in a single database, making it easier to ensure that catcher processors are credited for any landings made as catcher vessels.

The Council elected to exclude IFQ catch from qualifying catch for the purpose of determining recent participation in the groundfish fisheries. However, the Catch Accounting and Weekly Production Report databases have not historically tracked IFQ catch in a consistent manner. NMFS staff suggested excluding all halibut and sablefish targeted catch as a proxy for identifying IFQ catch. This approach may exclude some qualified groundfish catch, particularly directed Pacific cod catch, when Pacific cod comprised more than 20%, but less than 50% of a vessel's catch while it was targeting halibut or sablefish. Directed fishing is defined as any fishing activity that results in the retention of greater than the maximum retainable amount (MRA) for that species (679.2). For this reason, these trips were identified and groundfish and directed cod catch was credited to licenses.

There are 31 Western GOA catcher processor licenses, and between 19 and 24 licenses meet the 1 landing threshold during the qualifying periods in Options 1 through 3, and would qualify for a Pacific cod endorsement. The majority of Western GOA licenses that have catch history during the various qualifying periods also meet the highest catch threshold (100 mt) and landings threshold (5 landings). Three licenses qualified only when catch through December 2008 was included. There are 49 Central GOA licenses, and 12 to 21 licenses meet the 1 landing threshold during the qualifying periods in Options 1 through 3 and would qualify for a Pacific cod endorsement. In general, a smaller proportion of Central GOA CP licenses that meet the one landing threshold also meet the highest catch and landings thresholds. There were 7 licenses that qualified only when catch (at the 1 landing threshold) through December 2008 was included.

The number of catcher processor licenses that would qualify for gear-specific Pacific cod endorsements includes:

Western GOA

- 13 to 22 hook-and-line catcher processor endorsements
- Up to 5 pot catcher processor endorsements
- 3 licenses have both hook-and-line and pot landings during 2000-Dec 8, 2008

Central GOA

- 7 to 18 hook-and-line catcher processor endorsements
- Up to 4 pot catcher processor endorsements
- 1 license has both hook-and-line and pot landings during 2000-2006 and 2000-Dec 8, 2008

The number of gear-specific Pacific cod endorsements that could be added to CP licenses under the different options (shown in Table 3-27) may be compared to the number of CP licenses participating on

an annual basis using each gear type (see Table 3-13). In the Western GOA, 4 to 12 hook-and-line CPs participated in the fishery during 2000-2008; up to 24 CP licenses could receive a hook-and-line Pacific cod endorsement. In the Central GOA, 1 to 9 hook-and-line CPs participated in the fishery during 2000-2008, and as many as 14 CP licenses could receive a hook-and-line Pacific cod endorsement. As many as 5 Western GOA and 4 Central GOA CP licenses qualify for a pot Pacific cod endorsements. Typically, fewer than 3 pot CPs participate in the directed Pacific cod fishery in either management area in a given year.

Table 3-27 Number of fixed gear catcher processor licenses qualifying under various landings and catch thresholds based on catch in the directed Pacific cod fisheries in the Western and Central GOA.

Western GOA – 31 CP licenses

All gear						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	24	22	21	23	21	19
3 landings	24	21	20	22	19	17
5 landings	20	19	18	18	17	16
5 mt	23	21	20	22	20	18
10 mt	22	20	19	21	19	17
25 mt	21	20	19	20	19	17
100 mt	18	18	*	*	*	*

Hook-and-line gear						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	22	19	18	20	17	16
3 landings	21	17	16	20	16	14
5 landings	17	15	15	16	14	13
5 mt	21	18	17	19	16	15
10 mt	20	17	16	18	15	14
25 mt	18	16	15	17	15	14
100 mt	16	15	15	15	14	14

Pot gear						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	5	5	5	4	4	3
3 landings	5	5	5	3	3	3
5 landings	4	4	3	3	3	3
5 mt	5	5	5	4	4	3
10 mt	5	5	5	4	4	3
25 mt	5	5	5	4	4	3
100 mt	4	4	*	*	*	*

Source: Catch Accounting/Blend data and RAM LLP license file, December 2008. *Withheld for confidentiality.

Note: Gear type columns are not mutually exclusive, because some licenses have catch history using more than one gear type. The number of licenses in the gear columns may sum to more than the total number of licenses qualifying.

Central GOA – 49 CP licenses

All gear						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	21	21	14	19	19	12
3 landings	18	18	12	17	17	11
5 landings	14	14	11	12	12	9
5 mt	21	21	14	18	18	*
10 mt	19	19	12	18	18	*
25 mt	18	18	12	17	17	*
100 mt	15	15	*	14	14	*

Hook-and-line gear						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	18	18	12	16	16	10
3 landings	15	15	10	14	14	9
5 landings	10	10	8	9	9	7
5 mt	18	18	12	15	15	9
10 mt	16	16	10	15	15	9
25 mt	15	15	10	14	14	9
100 mt	11	11	7	11	11	7

Pot gear						
Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	4	4	3	3	3	2
3 landings	4	4	3	3	3	2
5 landings	4	4	3	3	3	2
5 mt	4	4	3	3	3	*
10 mt	4	4	3	3	3	*
25 mt	4	4	3	3	3	*
100 mt	4	4	*	3	3	*

Source: Catch Accounting/Blend data and RAM LLP license file, December 2008. *Withheld for confidentiality.

Note: Gear type columns are not mutually exclusive, because some licenses have catch history using more than one gear type. The number of licenses in the gear columns may sum to more than the total number of licenses qualifying.

Table 3-28 shows the number of hook-and-line catcher processor licenses in each length class that qualify under the various catch thresholds. Vessel length (of the vessel currently assigned to each license) rather than the MLOA on the license was used in this table, because there is currently one fixed gear GOA catcher processor license with an MLOA of ≥ 125 feet that is assigned to a vessel < 125 feet in length. If Pacific cod sector allocations for hook-and-line catcher processors are established based on vessel length, Pacific cod endorsements could specify the maximum vessel length allowed (in addition to the MLOA on the license). This provision would cap the number of hook-and-line catcher processors in each size class that could fish the proposed Pacific cod sector allocations. In the absence of this provision, licenses with an MLOA of ≥ 125 feet that are currently assigned to vessels < 125 feet in length could be transferred to a larger vessel, resulting in an increase in the number of vessels fishing the ≥ 125 feet LOA hook-and-line catcher processor allocation. There are 7 to 13 Western GOA licenses on < 125 ft vessels and 7 to 9 licenses on ≥ 125 ft vessels that have at least 1 directed cod landing during the different qualification periods. There are as many as 11 Central GOA licenses on < 125 ft vessels and as many as 7 licenses on ≥ 125 ft vessels that have at least 1 directed cod landing during the different qualification periods.

Table 3-28 Number of hook-and-line catcher processor licenses qualifying at various landings and catch thresholds based on catch in the directed Pacific cod fisheries in the Western and Central GOA, reported by the MLOA on the license.

Western GOA—31 CP licenses

	<125	≥ 125	<125	≥ 125	<125	≥ 125	<125	≥ 125	<125	≥ 125	<125	≥ 125
	2000- Dec 2008		2000- June 2008		2000-2006		2000- Dec 2008		2000- June 2008		2000-2006	
l1	13	9	10	9	9	9	12	8	9	8	8	8
l3	13	8	9	8	8	8	12	8	8	8	6	8
l5	10	7	8	7	8	7	9	7	7	7	6	7
h5	12	9	9	9	8	9	11	8	8	8	7	8
h10	12	8	9	8	8	8	11	7	8	7	7	7
h25	11	7	9	7	8	7	10	7	8	7	7	7
h100	9	7	8	7	8	7	8	7	7	7	7	7

Source: Catch Accounting/Blend data and RAM LLP license file, December 2008. *Withheld for confidentiality.

Note: Length classes are based on vessel length (of the vessel currently named on each license) rather than MLOA.

One license with an MLOA ≥ 125 ft is assigned to a vessel with an LOA of < 125 feet.

Central GOA—49 CP licenses

	<125	≥ 125	<125	≥ 125	<125	≥ 125	<125	≥ 125	<125	≥ 125	<125	≥ 125
	2000- Dec 2008		2000- June 2008		2000-2006		2000- Dec 2008		2000- June 2008		2000-2006	
l1	11	7	11	7	6	6	9	7	9	7	4	6
l3	8	7	8	7	4	6	7	7	7	7	3	6
l5	4	6	4	6	3	5	3	6	3	6	2	5
h5	11	7	11	7	6	6	8	7	8	7	3	6
h10	9	7	9	7	4	6	8	7	8	7	3	6
h25	8	7	8	7	4	6	7	7	7	7	3	6
h100	5	6	5	6	*	*	5	6	5	6	*	*

Source: Catch Accounting/Blend data and RAM LLP license file, December 2008. *Withheld for confidentiality.

Note: Length classes are based on vessel length (of the vessel currently named on each license) rather than MLOA.

One license with an MLOA ≥ 125 ft is assigned to a vessel with an LOA of < 125 feet.

3.3.2.3 Licenses subject to crab sideboards

In developing the BSAI crab rationalization program, the Council imposed sideboards on the GOA groundfish fisheries. Pot vessels generally participate in only the crab and Pacific cod fisheries. As a result, the only perceived increase in opportunity arising from the crab rationalization program was thought to be in the Pacific cod fisheries in the GOA that are prosecuted in January, when the Bering Sea *C. opilio* fishery is typically prosecuted. Only recipients of initial allocations⁹ in the Bering Sea *C. opilio* fishery are subject to the sideboards. The sideboards limit these vessels and licenses to their historic share of retained catch of GOA Pacific cod and other GOA groundfish during 1996-2000, excluding catch of fixed gear sablefish. Vessels that have limited history in the GOA groundfish fisheries – less than 50 mt of catch during 1996 to 2000 – are prohibited from directed fishing for Pacific cod in the GOA. Vessels that landed less than 100,000 pounds of Bering Sea *C. opilio* and more than 500 mt of Pacific cod in the GOA from 1996 to 2000 are exempt from the sideboards.

These sideboard provisions limit participation by some vessels that historically fished in the GOA. Specifically, the sideboards prohibit 137 vessels from directed fishing for GOA Pacific cod, and limit Pacific cod harvests by 82 additional vessels to a sideboard limit. In addition to these sideboarded vessels, 36¹⁰ fixed gear groundfish LLP licenses are subject to the Pacific cod sideboards, and 11 licenses are prohibited from directed fishing for Pacific cod in the GOA. The purpose of this discussion is to provide an estimate of the number of licenses that may qualify for a Pacific cod endorsement in each gear group, but are subject to the GOA Pacific cod sideboards for BSAI crab qualified vessels. These licenses may receive a gear-specific Pacific cod endorsement, but their participation in the GOA Pacific cod fisheries will be limited by the crab sideboards.

Of the 36 sideboarded licenses, 6 are CP licenses and 30 are CV licenses (see Table 3-29). The 6 CP licenses include 4 Central GOA and 4 Western GOA endorsed licenses. The 30 CV licenses include 20 Central GOA and 14 Western GOA endorsed licenses. All but one of the sideboarded CV licenses has an MLOA of ≥ 60 ft. The sideboard amounts are calculated as a percentage of the Western and Central GOA inshore and offshore Pacific cod TACs (see Table 3-30). If GOA Pacific cod sector allocations are established, and supersede the current inshore/offshore processing sector allocations, the GOA inshore and offshore crab sideboards will likely need to be recalculated into a combined sideboard amount.

Table 3-29 Number of licenses subject to crab sideboards or prohibited from directed fishing for Pacific cod

Operation Type	P. Cod Prohibited			P. Cod Sideboarded		
	Number of licenses	Number WG endorsed	Number CG endorsed	Number of licenses	Number WG endorsed	Number CG endorsed
Catcher Vessel	11	8	6	30	14	20
Catcher Processor	0	0	0	6	4	4

Source: RAM LLP license file, October 2008. Does not include 3 licenses recently exempted from the sideboards in Oct 2008.

⁹ Since allocations in the program are based on catch history associated with a license, the sideboard is constructed to limit catch using the license. This is done by sideboarding any vessel the catch of which led to a share allocation and any vessel named on the license that arose from the catch history of the vessel that led to that allocation.

¹⁰ The Council took final action in October 2008 to exempt 3 vessels and 3 licenses from the sideboards. Previously, 85 vessels and 39 fixed gear groundfish LLP licenses were subject to the sideboards.

Table 3-30 Crab sideboards for the Western and Central GOA Pacific cod fisheries.

Management Area	TAC	Percent of TAC
Western Gulf	Inshore	9.02%
	Offshore	20.46%
Central Gulf	Inshore	3.83%
	Offshore	20.74%

Source: NMFS Harvest Specifications.

All of the crab sideboarded Western GOA CV licenses that have directed Pacific cod landings during the potential qualifying periods have MLOA designations of ≥ 60 ft, and all of these licenses have only pot landings. Table 3-25 shows the number of Western GOA CV licenses with MLOA designations of ≥ 60 ft that qualify using pot gear during 3 of the proposed qualifying periods: 18 to 19 licenses at the 100 mt directed cod threshold, and 22 to 27 licenses at the 1 landing threshold. Of these licenses, 11 licenses that qualify at the 100 mt threshold are subject to the crab sideboards, and 13 licenses with 1 landing are sideboarded. The sideboarded Central GOA CV licenses that have qualified landings have pot or hook-and-line landings. Table 3-25 also shows the number of Central GOA CV licenses with MLOA designation of ≥ 60 ft that qualify with pot gear during the 3 periods shown: 30 to 33 licenses at the 100 mt directed cod threshold and 48 to 51 licenses at the 1 landing threshold. Of these licenses, 14 licenses qualifying at 100 mt are sideboarded, and 16 licenses with 1 landing are sideboarded. In addition, 1 sideboarded Central GOA license with an MLOA greater than 60 ft has at least one qualified hook-and-line landing. Finally, either 2 or 3 (depending on the threshold) of the ≥ 60 ft MLOA Western GOA CV licenses that have qualified pot landings are prohibited from participating in the GOA directed Pacific cod fisheries, and one ≥ 60 ft MLOA Central GOA license with qualified pot landings cannot participate in the directed Pacific cod fisheries.

In sum, 16 of the 93 to 110 Western GOA CV licenses that have at least one directed Pacific cod landing during the various qualifying periods are subject to the crab sideboards (13 licenses) or prohibited from directed fishing for Pacific cod (3 licenses), and all of these licenses have an MLOA designation of ≥ 60 ft. A total of 18 of the 269 to 306 Central GOA licenses that have at least one landing are subject to the crab sideboards (17 licenses) or are prohibited from directed fishing for Pacific cod (1 license). Six of the crab sideboarded licenses are CP licenses; none of the Pacific cod-prohibited licenses are CP licenses. Four of these sideboarded CP licenses have a Western GOA endorsement and at least 3 of these licenses have at least one directed Pacific cod landing in the Western GOA during 2000-2006 or 2000-Dec 8, 2008. Four licenses have a Central GOA endorsement, and at least 3 of these licenses have at least one directed Pacific cod landing in the Central GOA during 2000-2006 or 2000-Dec 8, 2008

3.3.2.4 Years included in catch history

The Limited License Program was implemented in 2000, and during the first two years of the program persons participating in the GOA groundfish fisheries were required to hold LLP licenses, but RAM did not require a vessel to be formally assigned to each license. Consequently, the official record of license use is incomplete during 2000-2001. For the purposes of this analysis, catch during 2000-2001 was assigned to both the original qualifying vessel and current vessel in cases where the license was transferred to a different vessel during this period. The rationale for this approach was that both vessels that held the license may have had catch history during this time. Double counting catch on these licenses during 2000-2001 may have resulted in more licenses appearing to meet the catch thresholds. For this reason, the Council should consider the data presented in the tables to be an estimate of the actual number of qualifying licenses.

If the qualification period includes 2000-2001, NMFS may need to rely on alternative forms of documentation, such as individual affidavits or private contracts, to document catch history on licenses that were transferred during this period. Use of these forms of documentation is also likely to make the action more difficult to implement. Excluding 2000 and 2001 from the qualification period would simplify implementation of the action. Beginning in 2002, licenses were required to be formally assigned to a vessel in order to participate in LLP fisheries, and a complete record of license transfers exists. The transfer data was used to assign catch from each vessel to all licenses assigned to the vessel from 2002 to the present. Table 3-31 summarizes the number of licenses that have been transferred from the original qualifying vessel.

Table 3-31 Number of GOA fixed gear licenses no longer assigned to the original qualifying vessel.

Area endorsement	Operation designation	Number of licenses	Number of licenses not on original vessel
Central Gulf	Catcher vessel	883	236
	Catcher processor	49	10
Western Gulf	Catcher vessel	264	87
	Catcher processor	31	7

Source: RAM groundfish LLP license file, December 2008

3.3.2.5 Definition of qualifying catch

Qualifying catch includes retained catch from the directed Pacific cod fisheries in parallel and Federal waters. Qualifying catch does not include incidental catch of groundfish from the IFQ fisheries or State waters fishery catch. The IFQ halibut and sablefish fisheries are exempt from the LLP requirement. Incidental catch of LLP groundfish species in the IFQ fisheries may be retained without a groundfish license. This exemption was included in the LLP to minimize discards, and is consistent with National Standard 9 of the Magnuson-Stevens Act.

Catch thresholds are currently based on retained catch. Retained catch is likely a better indicator of dependence than total catch, because discards provide no direct return. Also, retained catch can be estimated more precisely, because discards by catcher vessels are typically extrapolated from observer estimates of at-sea discards. Currently, these definitions of qualifying catch do not exclude catch used for meal production. Data provided in the draft preliminary review EA/RIR/IRFA for the GOA Pacific cod sector allocations indicated that catcher processors in the GOA did not produce meal from Pacific cod during 1995-2006, and typically less than 1% of Pacific cod harvests by catcher vessels are used for meal production. The Council has excluded catch destined for meal production from some allocation programs based on the rationale that meal is a relatively low value product and its inclusion could disadvantage some small catcher processors that do not have meal production capacity. This was not an issue in the GOA, and the Council elected to include catch destined for meal production as qualifying catch for the purposes of the proposed GOA Pacific cod sector allocations and this action.

Exemptions from the proposed action

The Council is considering several exemptions from the proposed action. These exemptions would (1) allow certain types of vessels to participate in the directed Pacific cod fisheries without a Pacific cod endorsement, and (2) exempt some licenses from the catch thresholds, allowing these licenses to qualify for a Pacific cod endorsement even if they do not have qualifying catch. In determining which exemptions will be selected, the Council may wish to consider balancing the objective of creating

opportunities for new entry with the need to protect long-term participants from an influx of additional effort into the fisheries. The exemptions currently under consideration include:

- An exemption from the Pacific cod endorsement requirement for vessels using jig gear that use a maximum of 5 jigging machines, 5 lines, and 30 hooks per line or one line of 150 hooks.
- An exemption from the Pacific cod endorsement requirement for vessels participating with fixed gear in the Western GOA B season directed Pacific cod fishery. A suboption would exempt only vessels using pot gear.
- An exemption from the catch thresholds for CP licenses that voluntarily stood down from the GOA Pacific cod fisheries during 2006, 2007, or 2008 as part of the informal hook-and-line CP halibut PSC cooperative.
- An exemption from the catch thresholds for licenses held by residents of CQE communities. A suboption would only exempt licenses with an MLOA designation of less than 60 ft. This exemption is discussed in Section 3.5.12.

3.3.2.6 Exemptions for jig vessels

The proposed action includes an exemption for all vessels using jig gear from any Pacific cod endorsement requirement, subject to gear restrictions (5 jigging machines, 5 lines, and 30 hooks per line or one line of 150 hooks). These gear restrictions are consistent with the gear allowed in the GOA State waters Pacific cod jig fisheries. The purpose of the jig exemption is to ensure that there are adequate entry level opportunities for small vessels in the GOA Pacific cod fisheries. In the BSAI, vessels <60 ft LOA using a maximum of 5 jig machines, one line per jig machine, and 15 hooks per line may participate in the directed groundfish fisheries in Federal waters of the BSAI without an LLP license.

The Council initially discussed the possibility of limiting the jig exemption to vessels less than 58 feet LOA, and asked staff to bring back additional information on the number of vessels using jig gear in the Federal fisheries that hold LLP licenses. Table 3-32 shows the number of vessels using jig gear that have retained catch of Pacific cod from the Federal and parallel waters fisheries in the Western and Central GOA during 2000-2007, and the number of these vessels that hold an LLP license. The majority of vessels using jig gear during 2000-2007 did not hold an LLP license and were only eligible to fish in parallel waters. Also, most vessels that used jig gear are less than 58 feet LOA. Based on this information, and the limitations imposed by the proposed gear restrictions, the Council decided to exempt vessels of any length using jig gear from the Pacific cod endorsement requirement.

The Council also requested additional information on LLP licenses that have recent jig landings. Most jig landings are on licenses with an MLOA of less than 58 feet (Table 3-33). However, some licenses with larger MLOAs have groundfish and directed Pacific cod catch using jig gear. Table 3-32 reports the number of vessels participating in the fisheries in each length (LOA) class, and Table 3-33 reports the number of licenses with jig history based on the MLOA on the license. Note that there may be some differences between the number of vessels and licenses in each length class reported in the two tables. The MLOA may be greater than the actual length of the vessel assigned to the license. As a result, some licenses with an MLOA of ≥ 58 ft may be assigned to vessels <58 ft LOA.

Some licenses may have sufficient jig landings of directed Pacific cod to qualify for a Pacific cod endorsement. The Council indicated during its deliberations that its intent was to allow these licenses to qualify for a Pacific cod endorsement based on jig landings. These licenses could participate in the

fishery using jig gear and would not be restricted to the gear limits that apply to licenses that do not have a Pacific cod endorsement. Several licenses that could qualify for a Western or Central GOA Pacific cod endorsement based on jig landings also have pot or hook-and-line landings, and could potentially qualify for a pot or hook-and-line Pacific cod endorsement based on catch using these gear types.

Table 3-32 Number of vessels with Pacific cod catch using jig gear in the parallel and Federal fisheries in the Western and Central GOA during 2000-2007, and their LLP status.

Year	Central GOA						Western GOA					
	<58 feet		58-59 feet		≥60 feet		<58 feet		58-59 feet		≥60 feet	
	LLP	No LLP	LLP	No LLP	LLP	No LLP	LLP	No LLP	LLP	No LLP	LLP	No LLP
2000	5	11	0	1	0	0	3	1	0	0	0	0
2001	4	11	0	0	0	0	3	14	0	0	0	0
2002	2	4	0	0	1	0	8	20	1	0	0	1
2003	5	7	0	0	0	0	4	7	0	0	0	0
2004	7	26	0	0	0	2	8	15	0	0	0	0
2005	5	19	0	1	1	2	1	5	0	0	0	0
2006	6	16	0	0	1	1	0	1	0	0	0	0
2007	5	12	0	1	1	0	2	2	0	0	0	0

Source: ADFG fish tickets and RAM Groundfish license file, October 2008. Note: Includes all Pacific cod catch (both directed and incidental).

Table 3-33 Number of fixed gear catcher vessel licenses meeting the landings and catch thresholds with jig landings during 2000-2006, reported by the MLOA on the license.

Western GOA		<40 feet	40-49 feet	50-57 feet	≥58 feet
All Groundfish	1 landing	1	3	2	7
	3 landings	1	2	2	2
	5 landings	1	1	2	1
	5 mt	0	*	*	*
	10 mt	0	*	*	*
	25 mt	0	*	*	0
	100 mt	0	0	0	0
Directed cod	1 landing	1	3	2	3
	3 landings	1	2	2	2
	5 landings	1	1	2	1
	5 mt	0	*	*	*
	10 mt	0	*	*	*
	25 mt	0	*	*	0
	100 mt	0	0	0	0
Central GOA		<40 feet	40-49 feet	50-57 feet	≥58 feet
All Groundfish	1 landing	4	18	9	14
	3 landings	1	8	4	6
	5 landings	1	3	3	4
	5 mt	*	*	*	*
	10 mt	0	*	0	*
	25 mt	0	*	0	0
	100 mt	0	0	0	0
Directed cod	1 landing	3	8	4	4
	3 landings	1	4	2	2
	5 landings	1	3	1	2
	5 mt	*	*	*	*
	10 mt	0	*	0	*
	25 mt	0	0	0	0
	100 mt	0	0	0	0

Source: ADFG Fish Tickets and RAM Groundfish license file, October 2008. *Withheld for confidentiality.

The number of vessels using jig gear in the parallel and Federal fisheries in the GOA during a given year has been relatively small. However, if vessels less than 58 feet in length using jig gear were exempted from the LLP requirement, new vessels could potentially enter the jig fishery and fish in Federal waters without a license. This outcome may be desirable if the Council perceives a need to provide new entry level opportunities in the fisheries. The proposed exemption from the LLP requirement for vessels using jig gear, in tandem with the proposal to provide the jig sector an Pacific cod allocation of more than the sector's historic catch, will provide a substantial increase in opportunity for current as well as new participants in this sector. In addition, the potential for a stairstep increase in the jig allocation if the allocation is fully harvested would provide for growth in the jig sector. The data indicate that a large number of vessels that use jig gear and hold LLP licenses participate in the State waters Pacific cod fisheries, but not in the parallel and Federal waters fisheries. This suggests that LLP licenses may not be the most important factor limiting jig participation in the Federal fisheries. The timing of the Pacific cod A and B seasons may limit these vessels from participating in the parallel and Federal fisheries in the GOA. If Pacific cod sector allocations are implemented, jig vessels could potentially fish later in the A season, or possibly year-round in State and Federal waters, if the State and Federal jig allocations are jointly managed.

3.3.2.7 Exemption during Western GOA B season

In Component 2, the Council is considering an option to exempt vessels using fixed gear from the Pacific cod endorsement requirement during the Western GOA Pacific cod B season. Under a suboption, only vessels using pot gear would be exempted. Vessels would be required to hold a Western GOA fixed gear CV or CP license to participate in the fishery, but would not be required to have a Pacific cod endorsement on the license. The rationale for this exemption is that the Western GOA B season TAC has not been fully harvested since 2001, when Steller sea lion management measures were implemented and the TAC was seasonally apportioned between the A season (60%) and B season (40%). The intent of the exemption is to increase fishing opportunities during the B season and to increase the likelihood of fully harvesting the TAC. The proportion of the Western GOA B season inshore TAC and offshore TAC that was harvested during 2003 through 2008 is reported in Table 3-34. During most years, less than 50% of the B season TAC was harvested, although when A season overages are accounted for (e.g., more than 100% of the inshore TAC A season was harvested in 2003 through 2006), the amount of unharvested B season TAC is reduced.

Table 3-34 Pacific cod catch during the A and B seasons by the inshore and offshore sectors in the Western GOA, 2003-2008

Year	Inshore						Offshore					
	A season			B season			A season			B season		
	TAC	Catch	Percent harvested	TAC	Catch	Percent harvested	TAC	Catch	Percent harvested	TAC	Catch	Percent harvested
2003	8,343	10,057	120.5%	5,562	3,972	71.4%	927	2040	220.1%	618	165	26.7%
2004	9,157	10,536	115.1%	6,104	3,738	61.2%	1017	626	61.6%	679	655	96.5%
2005	8,471	10,298	121.6%	5,647	1,686	29.9%	941	123	13.1%	628	300	47.8%
2006	10,876	12,299	113.1%	7,251	1,349	18.6%	1208	666	55.1%	806	429	53.2%
2007	10,876	10,836	99.6%	7,251	1,430	19.7%	1208	643	53.2%	806	500	62.0%
2008	10,502	10,577	100.7%	7,002	2,875	41.1%	1,167	1,190	102.0%	778	277	35.6%

Source: NMFS catch reports.

During recent years, the Western GOA B season has remained open to all fixed gear vessels until the end of the calendar year, with the exception of years when the hook-and-line season was closed because the hook-and-line sector reached its halibut PSC limit (see Table 3-35). Typically, the majority of B season effort in the Western GOA Pacific cod fishery occurs in September and October. Table 3-36 shows the

amount of inshore and offshore Pacific cod TAC remaining on Sept 1 during 2003 through 2008, including any remaining A season TAC that was rolled over to the B season TAC, and excluding any A season overages that were subtracted from the B season TAC. Most B season harvests have occurred prior to Nov 1, although during most years, some vessels have continued to fish until the end of the calendar year. Table 3-37 reports inshore and offshore harvests by fixed gear vessels during the B season in the Western GOA from 2003-2008. The table shows that the majority of Western GOA B season harvests have been by catcher vessels that used pot gear. Catches and participation are highest during September and decrease in later months. If the Council chooses the minimum threshold of 1 directed Pacific cod landing during 2000 through Dec 8, 2008, 110 Western GOA CV licenses and 24 Western GOA CP licenses would qualify for a Pacific cod endorsement. The proposed B season exemption would apply to the estimated 154 Western GOA CV licenses and 7 Western GOA CP licenses that do not qualify for a Pacific cod endorsement. These licenses would be eligible to fish in the Western GOA directed Pacific cod fishery under the proposed exemption, either using any fixed gear type or using pot gear only.

Table 3-35 Pacific cod B season closures for the trawl and hook-and-line sectors in the Western GOA.

Area	Year	Inshore		Offshore		Inshore		Offshore	
		Trawl		Hook-and-line		Trawl		Hook-and-line	
		Date	Reason	Date	Reason	Date	Reason	Date	Reason
Western Gulf	2001	21-Oct	HAL	21-Oct	HAL	4-Sep	HAL	4-Sep	HAL
	2002	13-Oct	HAL	3-Oct	TAC	23-Nov	TAC	3-Oct	TAC
	2003	12-Sep	HAL	not opened	TAC	25-Sep	TAC	not opened	TAC
	2004	1-Oct	HAL	1-Oct	HAL	2-Oct	HAL	2-Oct	HAL
	2005	1-Oct	HAL	1-Oct	HAL	31-Dec	n/a	31-Dec	n/a
	2006	8-Oct	HAL	8-Oct	HAL	31-Dec	n/a	31-Dec	n/a
	2007	1-Nov	SSL reg	1-Nov	SSL reg	31-Dec	n/a	31-Dec	n/a
	2008	1-Nov	SSL reg	1-Nov	SSL reg	16-Oct	HAL	16-Oct	HAL

Table 3-36 Inshore and offshore catch of Pacific cod during the B season in the Western GOA.

Year	Inshore B season TAC available on Sept. 1 (mt)**	Catch from Sept 1 - Oct 31		Inshore B season TAC available on Nov. 1 (mt)	Catch from Nov 1 - Dec 31		Inshore B season TAC available on Dec. 31 (mt)
		mt	% of B season TAC		mt	% of B season TAC	
2003	3662	3786	103%	0	1	0%	0
2004	4665	3427	73%	1,238	258	6%	980
2005	3753	1396	37%	2,357	233	6%	2124
2006	5800	458	8%	5,342	865	15%	4477
2007	7224	1184	16%	6,040	181	3%	5859
2008	6896	2281	33%	4,615	492	7%	4123
Year	Offshore B season TAC available on Sept. 1 (mt)**	mt	% of B season TAC	Offshore B season TAC available on Nov. 1 (mt)	mt	% of B season TAC	Offshore B season TAC available on Dec. 1 (mt)
2003	0	28	n/a	0	0	n/a	0
2004	867	452	52%	415	0	0%	415
2005	1384	238	17%	1,146	0	0%	1146
2006	1282	168	13%	1,114	196	15%	918
2007	1225	309	25%	916	45	4%	871
2008	640	123	19%	517	16	3%	501

Source: NMFS Catch Accounting. ** May exceed the initial 40% B season apportionment when unused A season TAC was rolled over to the B season, or may be less than the initial 40% B season apportionment if there was an A season overage.

GOA B season pot vessel effort is not likely to have a direct impact on participants in other GOA management areas.

3.3.2.8 Exemption for participants in informal halibut PSC cooperative

In Component 3, there is an option to exempt hook-and-line catcher processors that voluntarily stood down from the GOA Pacific cod fisheries as part of the informal halibut PSC cooperative in 2006, 2007, or 2008 from the catch or landings thresholds. The rationale for this exemption is that these licenses did not have directed Pacific cod landings during these years because they voluntarily stood down from the GOA Pacific cod fishery so that other hook-and-line vessels had the opportunity to participate in the fishery. Most of the freezer longliner fleet fishes for Pacific cod in the BSAI, then moves into the GOA after the BSAI Pacific cod seasons close. In 2005, the BSAI freezer longliner fleet did not fish in the GOA during the B season, because NMFS inseason management was concerned that there was not sufficient halibut PSC to support this fleet. As a result, in 2006, 2007, and 2008 the freezer longliners set up an informal ‘PSC co-op’ with NMFS inseason management during the B season. Under this arrangement, the third seasonal apportionment of halibut PSC was informally divided between catcher processors and catcher vessels. The freezer longliners then further divided the catcher processor PSC among vessels fishing the B season.

There are 28 hook-and-line catcher processor licenses that participated in the informal PSC cooperative during 2006, 2007, or 2008, and 26 of these licenses voluntarily stood down from fishing in the GOA during at least one of these years. The 26 licenses include 22 Central GOA endorsed vessels and 16 Western GOA endorsed licenses. The exemption would allow any of these 26 catcher processor licenses that do not meet the landings thresholds in the directed Pacific cod fishery to qualify for a Pacific cod endorsement. If endorsements specify a gear type and operation type, these licenses would receive a hook-and-line CP endorsement.

Table 3-38 Number of fixed gear CP licenses that would qualify for a Pacific cod endorsement under the exemption for participants in the informal halibut PSC cooperative during 2006 through 2008, because they do not meet the landings or catch thresholds during the qualifying periods.

Western GOA

Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	1	1	1	1	1	2
3 landings	1	1	1	2	2	3
5 landings	2	2	3	3	3	4
5 mt	*	*	*	*	*	*
10 mt	*	*	*	*	*	*
25 mt	*	*	*	*	*	*
100 mt	*	*	*	*	*	*

Central GOA

Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	10	10	14	10	10	14
3 landings	11	11	15	11	11	15
5 landings	15	15	16	16	16	17
5 mt	10	10	14	11	11	15
10 mt	11	11	15	11	11	15
25 mt	11	11	15	11	11	15
100 mt	12	12	16	13	13	17

Source: NMFS Catch Accounting/Blend and RAM groundfish license file, Dec 2008.

Depending on the landings or catch (mt) threshold selected, there are 10 to 17 Central GOA endorsed licenses and up to 4 Western GOA endorsed licenses that would receive Pacific cod endorsements as a result of this exemption (see Table 3-38). The actual number of licenses that qualify under the exemption depends on the landings or catch threshold selected by the Council. In the absence of the exemption, these vessels would not qualify for a Pacific cod endorsement. If the GOA Pacific cod TACs are allocated to the sectors, these vessels would be eligible to fish off the hook-and-line CP allocation. The exemption would effectively increase the number of vessels that are eligible to fish off the hook-and-line CP allocation, and participation by these vessels would not directly impact other sectors. If the GOA Pacific cod TACs are not allocated to the sectors, the hook-and-line CPs that are exempted would compete with vessels in all sectors for access to the Western GOA and Central GOA TACs. As a result, in the absence of Pacific cod sector allocations, the exemption could have direct impacts on catch of vessels in other sectors.

3.3.2.9 Other exemptions

The Council considered, but rejected, an option to exempt vessels that are both under 60 ft and under a capacity limit (to be determined by the Council) from the Pacific cod endorsement requirement. Currently, vessels <26 ft LOA are exempt from the LLP requirement in the GOA. The Council has proposed expanding opportunities for small, entry-level vessels by exempting all vessels using jig gear from the LLP requirement in the GOA. The exemption for vessels using jig gear is currently a provision in the motion. In the BSAI, vessels <60 ft LOA using pot or hook-and-line gear are exempt from the BSAI Pacific cod endorsement requirement. The <60 ft LOA fixed gear fleet in the BSAI has historically been very small, and under Amendment 85, this sector received an allocation of 2% of the BSAI Pacific cod TAC. However, during recent years the number of vessels fishing in the <60 ft pot and hook-and-line sector has doubled, from 25 vessels in 2004 to 50 vessels in 2007.

The <60 ft LOA fixed gear fleet is relatively large in the GOA, and in recent years has harvested nearly 40% of the Western GOA and more than 40% of the Central GOA Pacific cod catch (Fig 3-1). The majority of fixed gear licenses with Western and Central GOA endorsements have MLOA designations of less than 60 ft. Exempting all vessels <60 ft MLOA from the Pacific cod endorsement requirement would mean that any of the estimated 456 to 488 CGOA and 74 to 84 WGOA fixed gear CV licenses with <60 ft MLOAs that do not have any qualified landings during 2000-2006 or 2000- Dec 8, 2008 could enter the GOA Pacific cod fisheries (Table 3-39). If sector allocations are implemented, these vessels would fish off the <60 ft LOA Pacific cod sector allocations to fixed gear vessels. Entry into the fisheries by these latent licenses would result in a substantial influx of effort into these sectors.

One concern that was expressed in public testimony is that smaller vessels may be less likely to meet the landings and catch thresholds. Table 3-39 and Table 3-40 report the number of licenses that meet the various landings and catch thresholds, summarized by the MLOA designation on each license. Overall, Central GOA licenses with MLOA designations of less than 50 feet were more likely to have at least one directed Pacific cod landing than licenses with larger MLOA designations. In the Western GOA, no licenses with MLOA designations of less than 50 ft meet the highest catch threshold (100 mt). In the Central GOA, 51 to 57 licenses with MLOA designations of less than 50 ft meet the 100 mt threshold.

If total catch (mt) rather than number of landings is used to determine which licenses meet the qualification thresholds for retaining Central and Western GOA endorsements, or for receiving a Pacific cod endorsement, the Council may wish to consider setting lower catch thresholds for licenses with small MLOAs. Such an approach may be desirable if these licenses have actively participated in the fisheries during the qualifying period, but were less likely to meet the higher catch thresholds. This approach may also be appropriate if opportunities in the parallel and State waters fisheries are perceived to be inadequate. Participants wishing to enter fisheries in Federal waters would need to purchase an LLP

license, and the availability of licenses allowing for that entry is critical. In developing this action, the Council will need to balance the interests of those wishing to limit entry to the fixed gear groundfish fisheries against the interests of creating adequate opportunities for potential future entrants.

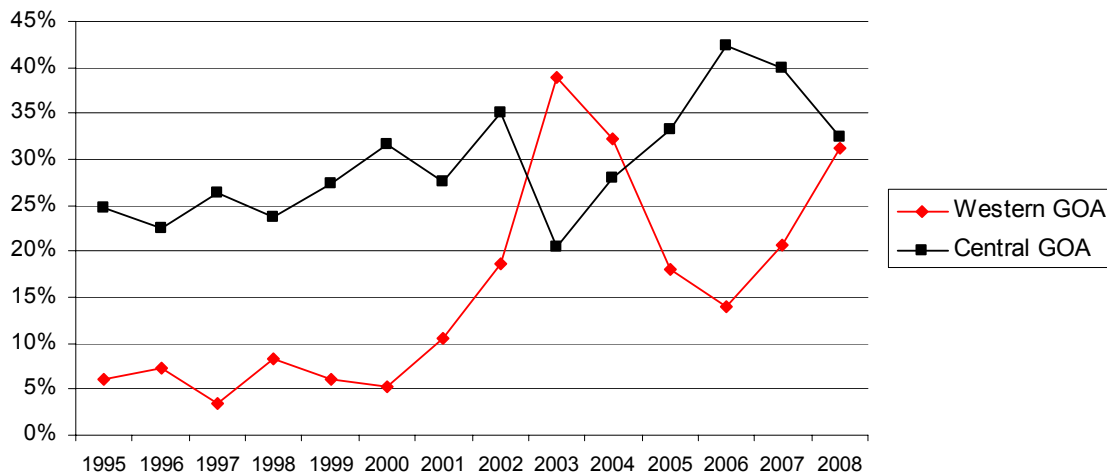


Figure 3-1 Percent of retained Pacific cod catch harvested by <60 ft LOA vessels using fixed gear in the Western GOA and Central GOA during 1995-2008.

Table 3-39 Percentage of licenses with at least one directed Pacific cod landing, by MLOA on license.

MLOA on license	Number of licenses	Western Gulf			Central Gulf			
		Percent with at least one fixed gear landing in the endorsement area			Percent with at least one fixed gear landing in the endorsement area			
		2000- Dec 2008	2000- June 2008	2000- 2006	Number of licenses	2000- Dec 2008	2000- June 2008	2000- 2006
<40 ft MLOA	13	23%	23%	4%	64	33%	33%	30%
40- 49 ft MLOA	22	27%	23%	23%	182	50%	49%	47%
50- 59 ft MLOA	119	60%	60%	54%	456	29%	28%	24%
≥60 ft MLOA	110	27%	25%	21%	181	33%	33%	30%

Source: ADFG Fish Tickets and RAM groundfish LLP license file, December 2008

Table 3-40 Number of fixed gear catcher vessel licenses meeting qualification thresholds reported by the MLOA on the license.

Western GOA- 264 CV licenses

	2000-December 8, 2008				2000-June 4, 2008				2000-2006			
	<40 feet	40-50 feet	50-60 feet	≥60 feet	<40 feet	40-50 feet	50-60 feet	≥60 feet	<40 feet	40-50 feet	50-60 feet	≥60 feet
1 landing	3	6	71	30	3	5	71	27	1	5	64	23
3 landings	3	5	64	28	3	4	63	25	1	4	55	23
5 landings	3	3	60	25	3	3	58	23	1	2	52	19
5 mt	3	5	67	30	*	*	67	27	0	3	60	22
10 mt	*	*	64	28	*	*	63	26	0	*	56	*
25 mt	*	*	60	27	*	*	59	26	0	*	52	*
100 mt	0	0	47	21	0	0	44	19	0	0	37	18

Source: ADFG Fish Tickets (2000-2007), NMFS Catch Accounting (2008) and RAM LLP groundfish license file, December 2008. *Withheld for confidentiality

Central GOA- 883 CV licenses

	2000-December 8, 2008				2000-June 4, 2008				2000-2006			
	<40 feet	40-50 feet	50-60 feet	≥60 feet	<40 feet	40-50 feet	50-60 feet	≥60 feet	<40 feet	40-50 feet	50-60 feet	≥60 feet
1 landing	21	91	134	60	21	89	127	60	19	86	109	55
3 landings	20	85	115	52	20	84	110	52	18	80	93	49
5 landings	19	76	107	47	19	75	105	47	17	71	88	43
5 mt	20	83	117	53	20	82	112	53	18	78	93	48
10 mt	18	75	110	52	18	74	106	52	16	69	91	47
25 mt	15	61	99	46	15	61	98	46	15	57	77	41
100 mt	13	44	76	38	13	43	75	38	12	39	65	35

Source: ADFG Fish Tickets (2000-2007), NMFS Catch Accounting (2008) and RAM LLP groundfish license file, December 2008.

3.3.2.10 Hardship provision

In past actions, the Council has adopted hardship provisions to make exceptions from participation requirements when unavoidable circumstances have precluded vessels from participating in a fishery. The proposed action would require licenses to have directed Pacific cod landings during the years following implementation of the LLP in order to qualify for a Pacific cod endorsement. Fishing under the LLP began in 2000. In some cases, the vessel that made the qualifying catch that gave rise to a license, and was originally assigned to the license, sank prior to or shortly after implementation of the LLP. The Council recognized that under these circumstances, a license may not have qualifying catch during the required time period. As a result, there is a hardship provision in Component 4 that would allow a license to qualify for a Pacific cod endorsement if the license had 5 or more Pacific cod landings in 1999, but was assigned to a vessel that sank in 1999 or 2000. These licenses will be credited with catch history during 1999 in order to qualify for a Pacific cod endorsement.

According to the U.S. Coast Guard vessel losses database, there were 50 commercial fishing vessels that sank during 1999 or 2000 off Alaska. Additional vessels that hold fixed gear licenses may have sunk in other regions, but are not accounted for here. Out of the 50 vessels that sank in 1999 or 2000, at least 5 vessels were original qualifying vessels on a Western or Central GOA fixed gear license. At least 3 of the 5 vessels had at least 5 fixed gear landings in the directed Pacific cod fishery in 1999 in the Central GOA. The licenses that were assigned to these vessels were not later reassigned to another vessel, and do not qualify based on catch made after 1999.

In sum, the proposed hardship provision would allow 3 licenses that have not participated in the GOA Pacific cod fisheries since 1999 to qualify for a Pacific cod endorsement. All three of the licenses would qualify in the Central GOA, and have at least 5 Pacific cod landings in 1999. If the vessels assigned to these licenses did not sink, these vessels might have participated in the Pacific cod fisheries in 2000, and qualified for a Pacific cod endorsement. Although these licenses have not participated in the fishery for a long period of time, the Council is considering options to establish a qualifying period that extends back to either 2000 or 2002. If the Council chooses a qualifying period that starts in 2000, there will likely be some licenses that qualify based on landings during 2000, and do not have landings in more recent years, similar to the licenses that would qualify under the hardship provision.

3.3.2.11 Component 5: Stacked licenses

The Council addressed the issue of ‘stacked’ licenses (i.e., more than one license assigned to a single vessel) during the trawl recency action. Licenses are stacked for several reasons, most often to increase the number of areas that a vessel can fish by adding area endorsements. A vessel may also hold multiple

LLPs to increase the number of gear or operation type endorsements it holds or to gain access to a fishery that requires a species and gear-specific endorsement, such as the BSAI fixed gear Pacific cod fishery. Stacking licenses is necessary because endorsements are not severable under the current LLP. If a vessel wishes to expand its operations into a new area or fishery and does not have the necessary endorsements on its current license, it needs to obtain another license with the appropriate area endorsement.

The Council considered several approaches to crediting catch to stacked licenses for the trawl recency action. Based on staff analysis and its own deliberations, the Council adopted a provision in Component 5 that credits catch to both licenses if they were stacked on a single vessel at the time the landing was made. The rationale for this approach is that both licenses were being used at the time of landing. Currently, groundfish catch is not assigned to a specific license. When vessels report catch on Fish Tickets or Weekly Production Reports, they are not required to report the LLP license that was assigned to the vessel at the time of landing. This data gap is problematic, because if a vessel holds multiple LLPs with duplicate area endorsements, and the vessel makes a landing in that area, there are no clear rules regarding which license is credited with that catch. Apportioning history among 2 or more stacked licenses would require the Council to develop detailed rules describing how catch should be apportioned, which could complicate and possibly delay implementation of the action. The landings threshold selected for the trawl recency action was low (2 landings), and it was not clear that apportioning landings among stacked licenses would have a sufficient impact on the number of qualifying licenses to justify complicating the action by creating specific rules for stacked licenses.

The proposed action differs in several respects from the trawl recency action. The current set of options under consideration include relatively minimal landings thresholds (1, 3, or 5 landings), but there are also tonnage thresholds (5, 10, 25, or 100 mt) that could potentially be selected. If the Council chooses a minimal landings threshold, double counting catch history is unlikely to result in many stacked licenses qualifying that would not qualify if catch were apportioned among stacked licenses. However, if the Council chooses more substantial catch thresholds, some stacked licenses would likely benefit from double counting of catch. Also, the Council is considering options to gear-specific Pacific cod endorsements to licenses. If vessels with stacked licenses are eligible to qualify for duplicate fixed gear Pacific cod endorsements on stacked licenses, they could potentially lease or sell the duplicate license and the fleet's capacity would increase.

In Amendment 67, a vessel with stacked licenses could only qualify for a Pacific cod endorsement on a single license. This provision was included to avoid increasing the capacity for additional entry into the fishery. In the absence of a provision that limits vessels with stacked licenses from qualifying for duplicate Pacific cod endorsements, vessels with duplicate endorsements could potentially sell those licenses to other vessels, resulting in an overall increase in effort in the Western and Central GOA Pacific cod fixed gear fisheries.

There are currently 18 stacked Western GOA catcher vessel licenses (assigned to 9 vessels, each with 2 licenses) and 98 stacked Central GOA catcher vessel licenses (assigned to 47 vessels; 43 vessels have 2 licenses, and 4 vessels have 3 licenses; Table 3-41). These totals only include fixed gear licenses that are currently stacked with other fixed gear licenses that have duplicate Western and/or Central GOA area endorsements. There is also one Central GOA catcher processor license that is currently stacked with a Central GOA catcher vessel license. There are no fixed gear catcher processor licenses with Western or Central GOA endorsements currently stacked with other catcher processor licenses, and agency records indicate that no GOA fixed gear CP licenses have been stacked in the past. Of the currently stacked licenses, 8 Western GOA licenses and 47 Central GOA licenses have at least one qualified fixed gear landing during 2000-2006. These currently stacked licenses, in addition to licenses that were stacked in the past, are potentially the universe of licenses at issue if the Council chooses to develop rules to apportion landings among stacked licenses.

Table 3-41 Number of currently stacked fixed gear catcher vessel licenses with Western and/or Central GOA area endorsements.

Area endorsement	Number of stacked licenses	Number of stacked licenses with at least one qualified fixed gear landing during 2000-2006
Central GOA	98	47 ¹
Western GOA	18	8 ²

Source: ADFG Fish Tickets and RAM groundfish LLP license file, December 2008

1 Licenses are stacked on 23 vessels. 22 vessels have 2 licenses, and 1 vessel has 3 licenses

2 Licenses are stacked on 4 vessels, each with 2 licenses

In past actions (e.g., Amendment 80), the Council has apportioned catch history among stacked licenses for the purpose of making allocations. Allocations were calculated by splitting catch evenly among all licenses held by a vessel at the time of landing. There are several complications that could arise if the Council chooses to apportion catch history among licenses for the proposed action. For example, if a vessel has two stacked licenses, and catch is split evenly between the two licenses, it is possible that neither license would meet the qualification threshold selected by the Council. The Council could include a provision that would give the license owner(s) the opportunity to choose which license would be credited with landings so that one of the stacked licenses could qualify. In the absence of an agreement among license owners, catch history could be split evenly. If a catcher processor license is stacked with a catcher vessel license, and there are different qualification criteria for these operation types, the license owners could potentially choose to split history between the two licenses so that both licenses qualified.

Table 3-42 Number of qualifying CV licenses when catch is fully credited to all licenses, and when catch is divided among stacked licenses.

Western GOA								
	Landings fully credited to stacked licenses				Landings divided equally among stacked licenses			
	2000-2006	2002-2006	2000-June 4, 2008	2002-June 4, 2008	2000-2006	2002-2006	2000-June 4, 2008	2002-June 4, 2008
1 landing	94	83	107	97	94	82	107	96
3 landings	83	76	96	91	83	76	91	86
5 landings	74	68	90	85	74	68	84	78
5 mt	85	77	101	95	85	77	101	94
10 mt	79	73	94	90	79	73	92	86
25 mt	74	66	88	82	74	66	86	80
100 mt	55	54	62	62	55	54	60	58

Central GOA								
	Landings fully credited to stacked licenses				Landings divided equally among stacked licenses			
	2000-2006	2002-2006	2000-June 4, 2008	2002-June 4, 2008	2000-2006	2002-2006	2000-June 4, 2008	2002-June 4, 2008
1 landing	269	198	297	234	268	197	289	224
3 landings	240	179	267	216	238	173	256	203
5 landings	219	164	246	200	215	154	231	182
5 mt	237	180	267	216	237	180	259	208
10 mt	223	171	250	205	223	170	243	196
25 mt	190	154	220	188	185	144	213	176
100 mt	151	110	170	140	139	97	148	111

Source: ADFG Fish Tickets and RAM Groundfish license file, October 2008.

In sum, the Council's current motion for the proposed action credits catch to both licenses if they were stacked on a single vessel at the time the landing was made, and all of the license tables in this document

fully credit all catch to stacked CV licenses. Table 3-42 shows the results of dividing catch history evenly among stacked CV licenses. These results may be compared to those in Table 3-42 to see the number of licenses that do not qualify when catch history is divided among stacked licenses. Few Western GOA fixed gear licenses are stacked, and Table 3-42 shows that in most cases, the same number of licenses qualify when stacked history is split among licenses. In contrast, a large number of active Central GOA licenses are stacked, and splitting catch history reduces the total number of licenses that qualify under each of the options. For example, at the 1 landing threshold, 269 Central GOA licenses qualify during 2000-2006 when catch is split among stacked licenses, compared with 268 licenses when history is split among stacked licenses. At the 100 mt threshold for directed Pacific cod, 151 Central GOA licenses qualify when catch history is fully credited to all stacked licenses, and only 139 licenses qualify when history is divided among stacked licenses. Dividing catch history makes more of a difference when the qualifying period extends to June 4, 2008. For example, 297 Central GOA licenses qualify at the 1 landing threshold when landings are fully credited to stacked licenses. Only 289 Central GOA licenses qualify when catch history is divided among stacked licenses.

If the Council wishes to treat stacked licenses in a different way, there are a number of questions that would need to be addressed, including:

(1) What is the definition of a stacked license? Currently, staff assumes that licenses are stacked, for the purpose of the proposed action, if 2 or more licenses assigned to a single vessel at any point in time all have: (a) fixed gear designations, and (b) at least one duplicate area endorsement (Western GOA or Central GOA). Stacked licenses may have different operation type designations, i.e. one license could have a catcher vessel designation and the other license a catcher processor designation. Stacked licenses may have additional area endorsements (AI, BS, SE), a trawl designation, and BSAI Pacific cod endorsements that do not duplicate each other.

(2) What are the rules for apportioning catch among stacked licenses? Catch could simply be split evenly among stacked licenses (as the default rule), or license owners could be given the option to agree upon another method for apportioning catch. These rules would not only apply to licenses that are stacked at the time this action is implemented, they would also apply retroactively (to 2000 or 2002, depending upon the qualification period selected) to any fixed gear licenses that were stacked at any point in time. If license owners are given the opportunity to choose how catch will be apportioned, implementation of the action would likely be delayed. Even if a default rule is used, and catch is split evenly among stacked licenses, apportioning catch would complicate implementation of the action.

(3) How would the Council address ownership issues? Stacked licenses may be held by different persons, and the vessel assigned to those licenses may be owned by another person. Stacked licenses may not be connected in any way except through the vessel assigned to those licenses. License owners may enter into temporary partnerships to combine the endorsements and designations on their licenses and maximize their opportunities to participate in the fisheries. If the Council simply splits catch history evenly among stacked licenses for the purpose of the proposed action, it could avoid the complications that could arise if multiple license owners were allowed to choose which license is credited with catch history.

3.3.2.12 Component 6: Capacity endorsement

The Council asked that staff explore ways in which vessel capacity limits could be used in addition to vessel length to restrict participation in certain sectors. The problem identified is that new, high capacity 58 ft LOA vessels are being built and are entering the GOA Pacific cod fisheries, and existing 58 ft LOA vessels are being rebuilt with expanded capacity. Most of these high capacity 58 ft LOA vessels are relatively recent entrants to the GOA Pacific cod fishery. The GOA State waters Pacific cod fisheries

limit the proportion of the GHL that may be harvested by vessels >58 ft LOA (see Table 3-5). This creates an incentive for 58 ft LOA vessels to maximize their hold capacity. In addition, vessels <60 ft LOA are not required to participate in the Federal observer program. For these reasons, the incentive exists for additional vessels in this class to enter the GOA Pacific cod fisheries. If the catcher vessel allocations are split at 60 feet, this may leave smaller, lower capacity vessels vulnerable to an influx of effort by high capacity, <60 ft LOA vessels.

Table 3-43 shows the number and catch history of 58 to 59 ft LOA vessels \geq 100 gross tons and <100 gross tons in the Western and Central GOA Pacific cod fisheries during 2001-2008. Prior to 2008, there were only 1 or 2 pot or hook-and-line vessels that exceed 100 gross tons participating in the Western and Central GOA Pacific cod fisheries, and catch data for these vessels cannot be reported due to confidentiality restrictions. In 2008, there was an increase in effort by 58 to 59 ft LOA vessels in these sectors, and their catch is reported in the table.

Table 3-43 Catch by 58 to 59 ft LOA vessels less than 100 gross tons and greater than 100 gross tons in the Western and Central GOA.

Western GOA													
Year	Hook-and-line				Pot				Trawl				
	<100 gross tons		\geq 100 gross tons		<100 gross tons		\geq 100 gross tons		<100 gross tons		\geq 100 gross tons		
	Vessels	Catch	Vessels	Catch	Vessels	Catch	Vessels	Catch	Vessels	Catch	Vessels	Catch	
2003	6	14	0	0	21	3,384	1	*	21	717	3	*	
2004	9	14	0	0	29	2,702	2	*	18	1,255	2	*	
2005	14	65	1	*	22	654	2	*	22	3,213	2	*	
2006	11	60	1	*	15	734	0	0	22	3,813	2	*	
2007	17	155	1	*	15	872	2	*	23	3,684	2	*	
2008	23	260	3	24	27	1,655	4	530	22	3,897	3	693	
Central GOA													
2003	24	522	1	*	11	998	0	0	8	414	1	*	
2004	27	589	2	*	9	1,464	1	*	5	61	1	*	
2005	30	550	2	*	9	2,044	1	*	4	3	0	0	
2006	28	1,514	1	*	15	2,587	1	*	4	34	0	0	
2007	39	1,378	2	*	21	3,201	2	*	2	*	0	0	
2008	50	1,421	6	507	17	2,024	4	174	1	0	2	*	

Source: ADFG Fish Tickets (2003-2007) and NMFS Catch Accounting (2008).

There are several sources of data on vessel measurements. Vessels that obtain Federal fisheries permits (FFPs) are required to submit accurate measurements of the vessel's length overall (LOA)¹¹ in feet, registered length in feet, and gross tonnage. However, these measurements are self-reported, and no documentation is required to verify the measurements. Vessels that obtain CFEC permits are also required to submit length and tonnage measurements, but these measurements are also self-reported. The U.S. Coast Guard (USCG) maintains a vessel database with length, breadth, depth, and gross and net tonnage measurements. When vessels initially register with the USCG, they are required to submit documentation to verify these measurements.

These existing data sources are incomplete and, in many cases, inconsistent. For example, there were 1,473 unique vessels that participated in the GOA Pacific cod fisheries during 1995 through 2007

¹¹ The LOA of a vessel is defined as the centerline longitudinal distance, rounded to the nearest foot, measured between: (a) the outside foremost part of the vessel visible above the waterline, including bulwarks, but excluding bowsprits and similar fittings or attachments, and (b) the outside aftermost part of the vessel visible above the waterline including bulwarks, but excluding rudders, outboard motor brackets, and similar fittings or attachments (see <http://alaskafisheries.noaa.gov/ram/FFPAPP.pdf>).

(excluding vessels that participated exclusively in the State waters fisheries). Of these 1,473 vessels, nearly half of the CFEC, NMFS, and USCG gross tonnage measurements differ. These inconsistencies are a clear indication that a consistent method for measuring gross tonnage needs to be identified, and that existing data sources need to be updated and verified if capacity is going to be used to limit entry to sectors.

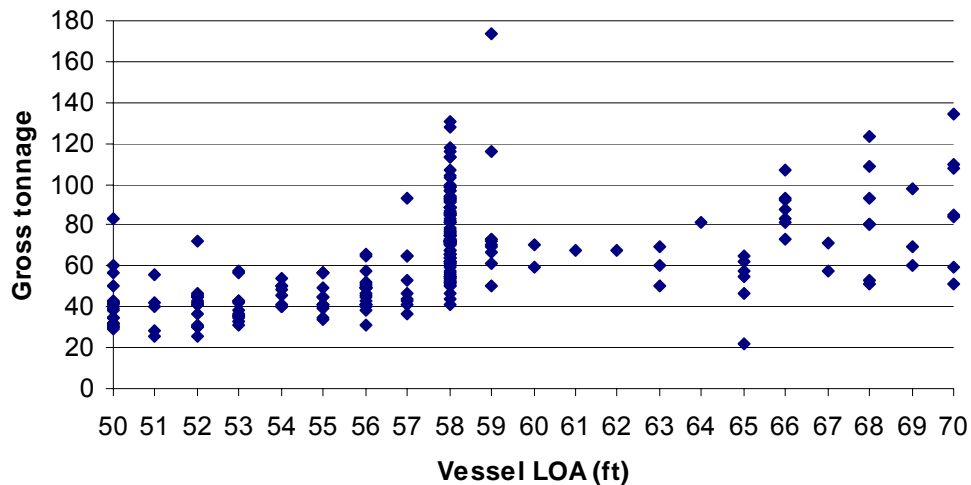


Figure 3-2 Gross tonnage of catcher vessels 50-70 ft LOA that participated in the GOA Pacific cod fisheries during 1995-2007.

Source: Vessel length overall is from NMFS; Gross tonnage is from USCG vessel database.

Figure 3-2 shows a plot of vessel length overall versus gross tonnage (using LOA from the NMFS database and gross tonnage from the USCG database), and includes all vessels 50 to 70 ft LOA that participated in the GOA Pacific cod fisheries during 1995 through 2007. In general, there is a linear relationship between vessel length and gross tonnage. There is a substantial spike in gross tonnage for vessels 58 ft and 59 ft LOA. The 58 ft LOA vessels range up to 129 tons.

Under Component 6, a width restriction would be added to each CV and CP fixed gear LLP license that is eligible to access Pacific cod under this action. The width restriction would be 1 ft of width for each 3 ft of length, and is based on the LOA of the vessel assigned to the license on December 8, 2008. The licenses that are assigned to vessels on December 8, 2008 that exceed the width restriction will be grandfathered at their present LOA. For vessels under construction on December 8, 2008, the width restriction for the license shall be equal to the vessel width upon completion. Vessels would be required to report width measurements to RAM. There is also an option under Component 6 to add a simple gross tonnage maximum to licenses, rather than a width restriction. Simple gross tonnage for vessels with ship-shaped and cylindrical hulls is calculated as the product of 0.67 times the length overall, width, and depth of the vessel (46 CFR Subpart E).

Vessels would be required to report these measurement(s) to RAM, and RAM would add the width or simple gross tonnage endorsement to each license. A license could not be assigned to a vessel that exceeds the width or simple gross tonnage limit, in addition to the MLOA, on the license. This would prevent new, high capacity 58 ft LOA vessels from entering the GOA groundfish fisheries, and would also prevent existing vessels from being rebuilt beyond a specified capacity, unless the vessel obtains an LLP with a sufficiently large width or simple gross tonnage endorsement.

One problem with basing the width or simple gross tonnage restriction on the LOA of the vessel assigned to the license is that not all licenses are assigned to a vessel. RAM does not require a vessel assignment to each license. One possible solution is to base the width restriction on the MLOA on the license, because every license has an MLOA endorsement, even if no vessel is currently assigned to the license. Another potential solution is to base the width restriction on the measurements of the current vessel for licenses assigned to a vessel as of December 8, 2008, and on the LOA of the original qualifying vessel for licenses not assigned to a vessel as of this date. The simple gross tonnage calculation would require both width and depth measurements, in addition to LOA. **The Council may wish to specify how a simple gross tonnage endorsement would be assigned to licenses that were not assigned to a vessel as of December 8, 2008.**

The rationale for basing the width restriction on the LOA rather than on the MLOA is that it is a more conservative method of calculating the width restriction. The MLOA designation is 1.2 times the length of the original qualifying vessel for vessels <60 ft LOA, up to 60 ft; and 1.2 times the length of the original vessel for vessels 60 to 125 ft LOA, up to 125 ft. For vessels 125 feet or greater in length, the MLOA designation is equal to the vessel length. If the width restriction is calculated based on the MLOA rather than the LOA of the vessel assigned to the licenses, the width endorsement on the license would be larger for vessels <125 ft LOA. This may be desirable if the Council perceives a need to provide some flexibility in the width of the vessel assigned to a license. The combination of the MLOA designation and width restriction on each license may make it more difficult for licenses to be sold or transferred to another vessel. Providing some cushion in the width restriction, similar to that provided the MLOA restriction, may make it more feasible for a license to be sold or transferred.

NMFS is preparing a discussion paper that will be provided to the Council at the April 2009 meeting and that addresses two aspects of the capacity endorsement issue:

- (1) Providing a regulatory definition of width and depth
- (2) Discussing enforcement issues

The intent of the paper is to discuss aspects of the practicability of adding a capacity endorsement to fixed gear groundfish licenses. Specifically, NMFS enforcement has several concerns regarding enforceability of the capacity limit and potential safety considerations.

3.3.2.13 Component 7: CQE exemption

There are 21 communities eligible under the Community Quota Entity (CQE) Program located in the Western and Central GOA management areas, including West Yakutat.¹² Under the LLP, the Central GOA endorsement area also authorizes vessels to fish in the West Yakutat management area, and communities located in this area are also included in this discussion. To be eligible under the program, a community must have fewer than 1,500 residents, lack direct road access, have direct access to saltwater, and have historic participation in the halibut and sablefish fisheries. These communities were identified under Amendment 66 to the GOA FMP and are eligible to purchase catcher vessel halibut and sablefish Quota Share (QS) on the open market. Table 3-44 lists the CQE communities located in Southwest and Southcentral Alaska, and shows the 2000 U.S. Census population in each community and the number of Western and Central GOA fixed gear licenses held by residents of these communities. Note that only 11 of the 21 eligible communities in Table 3-44 have formed the non-profit entity (i.e., CQE) necessary to participate in the program and purchase quota share.

¹²An additional 21 communities located in Southeast Alaska (Area 2C) are eligible under the CQE Program.

Table 3-44 Community Quota Entity (CQE) eligible communities in Southwest and Southcentral Alaska, and the number of fixed gear LLP licenses held by community residents.

Name	Population	Management Area	WG licenses	CG licenses
Akhiok*	80	Central Gulf	0	0
Chenega Bay*	86	Central Gulf	0	0
Chignik	79	Central Gulf	0	3
Chignik Lagoon	103	Central Gulf	1	5
Chignik Lake	145	Central Gulf	0	0
Halibut Cove	35	Central Gulf	0	1
Ivanof Bay	22	Western Gulf	0	0
Karluk	27	Central Gulf	0	0
King Cove*	792	Western Gulf	23	5
Larsen Bay*	115	Central Gulf	0	1
Nanwalek*	177	Central Gulf	0	0
Old Harbor*	237	Central Gulf	0	9
Ouzinkie*	225	Central Gulf	0	10
Perryville*	107	Western Gulf	1	1
Port Graham*	171	Central Gulf	0	1
Port Lions	256	Central Gulf	0	8
Sand Point*	952	Western Gulf	29	16
Seldovia	286	Central Gulf	0	10
Tatitlek	107	West Yakutat	0	1
Tyonek	193	Central Gulf	0	0
Yakutat*	680	Central Gulf	0	3
Total			54	74

Source: Population from 2000 U.S. Census. Residency information is based on the license holder's address information reported in the RAM groundfish LLP license file in December 2008, and does not necessarily indicate that an individual license holder meets the definition of an eligible CQE resident.

*Eligible communities that have formed CQEs.

Currently, residents in 14 of the 21 CQE communities own a total of 54 licenses with Western GOA endorsements and 74 licenses with Central GOA endorsements. It is important to note that residency information is based on the license holder's address information reported in the RAM groundfish LLP license file in December 2008, and does not necessarily indicate that an individual license holder meets the definition of an eligible CQE resident. Table 3-45 shows the number of licenses in each community that had at least one fixed gear landing of directed Pacific cod during 2000-2006 or 2000 through December 8, 2008. Residents of King Cove and Sand Point hold most (52) of the Western GOA licenses, and the majority (>65%) of these licenses had at least one landing during both time periods. Residents of two other communities in Southwest Alaska, Perryville and Chignik Lagoon, own the other 2 Western GOA licenses. One license (owned by the Chignik Lagoon resident) was active in the Western GOA fixed gear fisheries.

The majority of Central GOA licenses held by residents of CQE communities are owned by residents of Sand Point (16 licenses), Seldovia (10 licenses), Ouzinkie (10 licenses), Old Harbor (9 licenses), and Port Lions (8 licenses). However, only 1 of 16 Central GOA licenses held by Sand Point residents had at least one directed Pacific cod landing during 2000-2006 or 2000-2008. Overall, only 3 of 30 Central GOA licenses held by residents of Southwest Alaska CQE communities had at least one directed Pacific landing in the Central GOA during 2000-2006 or 2000-2008, whereas either 16 or 17 of 43 Central GOA licenses held by residents of Southcentral Alaska CQE communities had at least one directed Pacific cod landing during the same time periods, respectively. In sum, residents of 3 CQE communities currently hold Western GOA licenses that have recent directed Pacific cod landings, and residents of 8 CQE communities hold Central GOA licenses with recent directed Pacific cod landings.

Table 3-45 Number of licenses held by residents of eligible CQE communities that have at least 1 landing of directed Pacific cod.

City	CQE	WG licenses	1 landing from 2000- Dec 2008	Percent	1 landing from 2000- 2006	Percent	CG licenses	1 landing from 2000- Dec 2008	Percent	1 landing from 2000- 2006	Percent
Chignik	Y	0	0	0%	0	0%	3	1	33%	1	33%
Chignik Lagoon	Y	1	1	100%	1	100%	5	1	20%	1	20%
Halibut Cove	Y	0	0	0%	0	0%	1	0	0%	0	0%
King Cove	Y	23	16	70%	16	70%	5	0	0%	0	0%
Larsen Bay	Y	0	0	0%	0	0%	1	1	100%	1	100%
Old Harbor	Y	0	0	0%	0	0%	9	7	78%	7	78%
Ouzinkie	Y	0	0	0%	0	0%	10	3	30%	2	20%
Perryville	Y	1	0	0%	0	0%	1	0	0%	0	0%
Port Graham	Y	0	0	0%	0	0%	1	0	0%	0	0%
Port Lions	Y	0	0	0%	0	0%	8	2	25%	2	25%
Sand Point	Y	29	19	66%	19	66%	16	1	6%	1	6%
Seldovia	Y	0	0	0%	0	0%	10	4	40%	4	40%
Tatitlek	Y	0	0	0%	0	0%	1	0	0%	0	0%
Yakutat	Y	0	0	0%	0	0%	3	0	0%	0	0%
Total		54	36	67%	36	67%	74	20	27%	19	26%

Source: ADFG Fish Tickets (2000-2007), NMFS Catch Accounting (2008) and RAM groundfish license file, December 2008.

The Council has the option, in Component 7, to exempt licenses held by residents of CQE communities from being required to meet the selected catch or landings thresholds in order to qualify for a Pacific cod endorsement. The intent of this exemption is to help minimize potential adverse economic impacts of this action on these small, remote, fishing communities, and to ensure that community residents who currently hold licenses continue to have access to the Pacific cod fishery. Component 7 states that licenses **currently** held by CQE residents are exempt from the landings thresholds. **The Council should provide a specific date when a license must be held by a CQE resident in order to qualify for the exemption.** If Component 7 is selected, licenses held by residents of CQE communities that do not qualify for a Pacific cod endorsement under the general criteria would instead receive a hook-and-line or pot gear endorsement through either (a) a one-time designation at the time the endorsement is issued, or (b) a designation at the time the first Pacific cod landing is made based on the gear type used. **If the license receives an endorsement through a one-time designation, the Council may wish to clarify whether the license holder would have the option to choose either a pot or hook-and-line endorsement. The alternative is to assign a gear endorsement to licenses that qualify under the exemption.**

There are currently 54 Western GOA and 74 Central GOA licenses held by residents of GOA CQE communities. Most of these licenses have an MLOA designation of <60 ft (53 Western GOA licenses and 69 Central GOA licenses). There is an option to apply the proposed exemption only to licenses with an MLOA designation of <60 ft. Depending on the catch or landings threshold selected by the Council, some licenses may qualify for a Pacific cod endorsement without the exemption. If the 1 landing threshold is selected, as many as 36 Western GOA licenses held by CQE residents would qualify for a Pacific cod endorsement based on directed cod landings, and up to 18 Western GOA licenses would qualify under the CQE exemption (Table 3-46). In the Central GOA, as many as 20 licenses held by CQE residents meet the 1 landing threshold (including 3 of the 5 CGOA ≥60 ft MLOA licenses), and up to 54 licenses would qualify for a Pacific cod endorsement under the CQE exemption. If a higher landings threshold or if one of the catch thresholds is selected, the CQE exemption would allow additional licenses to receive a Pacific cod endorsement. Table 3-46 shows the number of Western GOA and Central GOA licenses held by CQE residents that qualify under the various thresholds. The majority of the licenses that do not have GOA directed Pacific cod landings have landings in other fisheries during 2000 through 2006. In Appendix A, Table A-2 reports the participation and average annual revenues of licenses held by CQE community residents in the GOA Pacific cod fishery and in other Alaska fisheries.

Table 3-46 Catcher vessel licenses currently held by residents of CQE communities that meet the landings and catch (mt) thresholds identified in Component 4.

Western GOA (54 current licenses)

Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	36	36	36	33	32	32
3 landings	34	34	34	32	32	32
5 landings	32	32	31	29	29	28
5 mt	35	35	34	32	32	31
10 mt	31	31	31	29	29	29
25 mt	29	29	29	26	26	26
100 mt	25	25	23	25	25	23

Central GOA (74 current licenses)

Threshold	2000- Dec 2008	2000- June 2008	2000- 2006	2002- Dec 2008	2002- June 2008	2002- 2006
1 landing	20	20	19	12	12	11
3 landings	18	18	15	11	11	8
5 landings	15	15	12	11	11	8
5 mt	17	17	14	11	11	8
10 mt	13	13	10	10	10	7
25 mt	12	12	10	8	8	6
100 mt	9	9	9	5	5	5

Source: ADFG Fish Tickets (2000-2007), NMFS Catch Accounting (2008) and RAM groundfish license file, December 2008.

Administrative issues

Staff from NMFS RAM division expressed a number of concerns regarding administration of the CQE exemption. Component 7 currently states that licenses that receive a Pacific cod endorsement as a result of the CQE exemption would be subject to several restrictions that do not apply to licenses that qualify for a Pacific cod endorsement by meeting the selected catch threshold:

- (1) A license that receives a Pacific cod endorsement as a result of the CQE exemption cannot be leased.
- (2) A license that receives a Pacific cod endorsement as a result of the CQE exemption can only be transferred to an individual who has lived continuously in the permit holder's CQE community for 24 consecutive months prior to the transfer and who intends to remain a resident of the community. Residency of license holders would be affirmed annually.
- (3) If a license holder with a restricted transfer LLP is no longer a resident of the CQE community or dies without a designated qualified LLP community beneficiary, the CQE will designate a qualified individual in the CQE community to hold the restricted transfer LLP.

Prohibiting licenses from being leased is not practicable, because there is no regulatory definition of leasing for LLP licenses. A license must be carried on board the vessel to which the license is assigned while the vessel is participating in fisheries subject to the LLP requirement, but there is no owner on board requirement. If the vessel owner or skipper is not the owner of the LLP license assigned to the vessel, there is not a clear definition of what constitutes a leasing agreement.

The residency restrictions would be complicated to administer in several respects. NMFS could require license holders to submit an affidavit affirming their residency on an annual basis, but there are no immediate consequences to not submitting the affidavit. For example, if a license holder moves out of a CQE community and does not submit the annual affidavit affirming their residency, RAM would first have to notify the individual that the failure to submit the affidavit will result in RAM revoking the Pacific cod endorsement. Once the license holder is notified, the holder would have 60 days to file an appeal. If the LLP holder does not appeal, RAM would revoke the Pacific cod endorsement and re-issue the license without it. If the LLP holder appeals, then the Office of Administrative Appeals (OAA) would review the case and the LLP holder would continue to hold the endorsement until OAA made a final decision. OAA has no time frame for resolving appeals. The license would have interim status during the appeals process, and the license holder would be eligible to participate in the fisheries using the license and Pacific cod endorsement.

It should be noted that the requirement under Component 7 that the license can only be transferred to an individual who has lived continuously in the permit holder's CQE community for 24 consecutive months prior to the transfer may ensure that benefits flow to residents of small communities. This requirement may be difficult to meet in some small communities, as many of those communities do not have year-round economies, effectively requiring residents to live outside of the community for a period or season, even if their principal home is in the community. In addition, as communities attempt to provide fishing opportunities as an incentive for residents to return to the community, this requirement would preclude a person from taking advantage of this opportunity until the individual had lived in the community for 24 continuous months.

Note also that this requirement differs from the existing CQE Program requirement that a 'resident' is defined as 1) a U.S. citizen and 2) someone who has maintained a domicile in the community for 12 consecutive months preceding the time when the assertion of residency is made (and who is not claiming residency in any other community). The common legal definition of domicile is the residence where a person has a permanent home to which they intend to return whenever they are absent; every person has only a single domicile at any time. Thus, the criteria for residency in the existing CQE Program do not appear to require that a person must have 'lived continuously' in the community for 12 months; rather, residency is based on having the principal home in the community, and the intent to return to that home¹³. Should Component 7 be selected, the Council may wish to consider revising the requirement that a license be transferred to a person who has lived continuously in the community so that it mirrors the residency requirement in the existing CQE Program.

Possible alternative approaches to Component 7

One approach that would minimize the administrative burden on NMFS, while still providing a direct benefit to current residents of CQE communities, is to modify Component 7 so that licenses held by residents of CQE communities as of a specific date are exempt from the landings thresholds, based on a one-time application for the exemption. License holders would not be required to remain residents of the CQE community in order to retain the Pacific cod endorsement. Under this approach, NMFS would not be required to track the residency of license holders who receive the exemption. Requiring NMFS to track the residency of license holders in perpetuity significantly complicates administration of the exemption.

¹³While this definition still inhibits a young person from returning home and immediately fishing CQE quota until they have established a principal residence for 12 months, it does not appear to require an individual to have lived continuously at that residence during that time period.

This approach may provide a direct benefit to the *individuals* who receive an endorsement. However, in the long term it would provide less benefit to the community if license holders leave the community. (This possibility is what motivated the overall approach to the CQE Program, in that the community (CQE) holds the fishing privileges (i.e., halibut and sablefish QS) such that the benefits of the QS remain in the community regardless of whether individual residents relocate.) In order to preclude license holders who receive an endorsement as a result of the exemption from opportunistically selling the license to another individual, these licenses could be designated non-transferable. If the license is sold to another owner, the Pacific cod endorsement would be removed. This restriction would give the original license holder the option to access the directed Pacific cod fisheries in the future, but would not allow the holder to sell that option to another person. Eventually, however, if designated non-transferable, all of these licenses would be extinguished.

License holders would have to affirm their residency at the time of application to RAM for a Pacific cod endorsement. An eligible community resident could be defined, for purposes of this exemption, as any individual who (1) is a citizen of the United States, (2) has maintained a domicile in one of the 21 CQE eligible communities located in Southwest or Southcentral Alaska for a specified period of time immediately preceding the time when the assertion of residence is made, and who is not claiming residency in another community, state, territory, or country. This is similar to the definition of residency used in the IFQ program. For the purposes of that program, a person needs to have maintained a domicile in the community for 12 consecutive months to qualify as a resident.

A second alternative approach that has been proposed in AP and Council deliberations is to give each CQE a specific number of fixed gear licenses. For example, CQE communities in the Central GOA management area would receive a limited number of licenses with a Central GOA endorsement, a fixed gear designation, an MLOA of 60 ft, and a pot and/or hook-and-line Pacific cod endorsement. The licenses would be held by the CQEs and used by community residents, similar to the existing CQE Program structure. The license could be made non-transferable to prevent the CQE from selling the license.

The regulations that allow CQEs to hold and lease quota share are already in place under GOA Amendment 66, and could be modified to fit this approach. Currently, the CQE takes on the burden of finding a community resident who is willing to lease the shares under contract, and both the CQE and the resident must certify that the lessee is a resident on the transfer application to NMFS (i.e., lease of IFQ from the CQE to the resident). Providing inaccurate information is considered fraud under Federal law. While there is no regulatory definition of leasing for LLP licenses, and no requirement for a transfer application, if the Council opts to give each CQE a specific number of fixed gear licenses, the Council could establish that a condition of the CQE receiving the license is attesting that the individuals that will use the license to fish are residents of the community the CQE represents. The additional administrative burden of this approach on NMFS is minimal, because NMFS only requires the CQE attest to individuals' residency, but would not need to require individuals to submit proof of residency in order to use the CQE license. Regardless of the overall approach, the Council may want to consider mirroring any residency requirements to the existing CQE Program.

There are a number of benefits and drawbacks to giving CQE communities fixed gear licenses. The main benefit is that it would provide opportunities for new entrants, who reside in the community, to participate in the directed Pacific cod fishery. Only 14 of the 21 Southcentral and Southwest Alaska CQE communities currently have residents who hold fixed gear licenses, and not all of these communities have residents who will qualify for a Pacific cod endorsement. Providing licenses to each CQE would give residents in each community the opportunity to access the Pacific cod fishery. One possible drawback is that many CQE communities currently have active participants in the GOA Pacific cod fisheries who will

likely qualify for Pacific cod endorsements and do not need the exemption. Giving additional licenses to the CQE to lease to community residents could increase competition for access to the local fishery if participation increases. Also, there are currently no regulations that prevent CQEs from purchasing groundfish licenses. Finally, the Council may wish to consider whether each CQE should receive the same number of licenses, or if the number of licenses should be proportional to the population in the community.

3.3.2.14 Restrictions on movement between fixed and trawl gear sectors

The Council has considered several options to preclude licenses from using more than one gear type in the GOA groundfish fisheries. The intent of these options is to protect vessels that use a particular gear and operation type from an influx of vessels that have historically used another gear or operation type. Specific endorsements or designations added to fixed gear licenses could prohibit cross over among sectors.

The Council considered, but rejected, options that would have limited licenses to using either fixed or trawl gear in the GOA groundfish fisheries. The options would have precluded catcher vessel licenses with both fixed and trawl gear designations from participating in both sectors. These licenses would be required to make either an annual election or a one-time election to participate in the trawl or fixed gear fisheries. Currently, there are 114 Central GOA licenses and 78 Western GOA licenses with dual gear designations (Table 3-47). However, once the trawl recency action has been implemented, only 63 Central GOA and 54 Western GOA licenses will have dual gear designations. Of these licenses, 30 Central GOA and 40 Western GOA licenses have at least one directed Pacific cod landing with fixed gear during 2000-2008 and could qualify for a Pacific cod endorsement under the proposed action. However, some of these licenses will lose their Central or Western GOA trawl area endorsements under the trawl recency action.

Table 3-47 Fishing activity by catcher vessel licenses that have both fixed and trawl gear designations.

	Number of licenses with fixed and trawl gear designations (number qualifying under trawl recency)	Number of licenses with at least 1 directed Pcod landing during 2000-2008 (number from 2000-2006)	Number of licenses with at least 1 directed Pcod landing during 2000-2008 that also qualify under trawl recency (number qualifying from 2000-2006)		Number of licenses that used fixed and trawl gear <u>during the same year in the same management area</u>
			<60 ft MLOA	≥60 ft MLOA	
Central Gulf	114 (63)	30 (25)	5 (5)	12 (9)	4-6 licenses per year during 2000-2008
Western Gulf	78 (54)	40 (38)	32 (32)	3 (2)	10-15 licenses per year during 2000-2008

Source: ADFG Fish Tickets (2000-2007), NMFS Catch Accounting (2008) and RAM groundfish license file, December 2008.

Table 3-47 shows that 17 Central GOA licenses with dual gear designations both have at least one directed Pacific cod landing during 2000 through December 8, 2008 and qualify under the trawl recency action, and 35 Western GOA licenses meet both these criteria. The majority of the Central GOA licenses that meet these criteria have MLOA designations of ≥60 ft (12 of 17 licenses); the majority of Western GOA licenses with dual gear designations and catch history have MLOA designations of <60 ft (32 of 35 licenses). Most of these licenses used both pot and trawl gear, although several used hook-and-line and

trawl gear. Within a given year, there were typically 4 to 6 Central GOA licenses and 10 to 15 Western GOA licenses that used both fixed and trawl gear to harvest Pacific cod during the same year.

The catch data indicate that a number of these vessels use both gear types during a given fishing year on a regular basis, and that this harvest strategy is part of the annual fishing operations of these vessels. This is a particularly common practice in the Western GOA, where there are a number of vessels that regularly fish for Pacific cod with both trawl and pot gear during the same year. A typical pattern is for vessels to fish with pot gear when the fixed gear season opens on January 1 and to switch to trawl gear on January 20 when the trawl season opens. This strategy also allows these vessels to have a longer B season. The Pacific cod B season often closes to trawl gear in early October when the final trawl halibut PSC apportionment has been used. Vessels then switch back to pot gear and continue fishing late into the year. In recent years, the GOA Pacific cod B seasons have remained open to vessels using fixed gear until December 31.

3.4 Expected effects of the alternatives

3.4.1 Effects on harvesters

Under the no action alternative, there would be no reduction in the number of fixed gear licenses eligible to participate in the directed Pacific cod fisheries in the Western and Central GOA. If this alternative is selected, any of the currently existing fixed gear licenses could enter the Western and Central GOA Pacific cod fisheries in the future and dilute revenues, increase costs, or both, for licenses that have participated in the fisheries during recent years. Increased participation may result in negative economic impacts to current participants in the fisheries. If Pacific cod endorsements are not added to fixed gear licenses, licenses with no recent catch history in the GOA Pacific cod fisheries could enter the fisheries and erode the catch of recent participants. Finally, if gear-specific Pacific cod endorsements are not added to licenses, and Pacific cod sector allocations are implemented, participants in each of the fixed gear sectors will be vulnerable to an influx of effort into those sectors. If effort increases substantially in a particular sector, the erosion of catch resulting from latent licenses re-entering the fisheries will be exacerbated. The number of licenses that enter the Pacific cod fisheries in the absence of this action is unknown, and the specific effect of that entry depends on future market conditions, the size of Pacific cod TACs, opportunities to participate in other fisheries, the future regulatory environment, and operating costs in the fisheries. Consequently, this analysis does not provide a quantitative estimate of the potential economic impacts of the no action alternative.

If the Council chooses the minimum landings threshold of 1 directed Pacific cod landing, this action would result in any recent (as defined by the qualifying period selected) participants in the fisheries receiving a Pacific cod endorsement. The primary effect of this action on the harvesting sector would be to limit the potential for future entry of latent licenses into the GOA Pacific cod fisheries. If the Council chooses a higher landings threshold, this action has the potential to exclude some recent participants who do not have sufficient landings to meet the threshold from continuing to participate in the directed Pacific cod fisheries in the GOA.

This action would reduce fixed gear capacity in the GOA Pacific cod fisheries to include only licenses that meet the catch history threshold in the fisheries. Extinguishing latent licenses may prevent future revenues from Pacific cod harvests in the respective management areas from being diluted by future increases in fishing effort by latent licenses. Those LLP holders exhibiting dependence and participation in the fixed gear Pacific cod fisheries, (i.e., those meeting the selected threshold criteria), would be protected from possible future increases in effort and dilution of their gross revenue share. However, this action may not result in increased production efficiencies to licenses that would generally be expected

from a comprehensive rationalization program. Following implementation of the amendment, each qualified LLP holder will still have an incentive to expand their fishing effort and maximize their respective share of the gross revenues in the GOA Pacific cod fisheries. The action will not necessarily result in an ‘optimum’ harvesting capacity in any of the sectors or management areas. The Council is considering a range of potential catch and landings thresholds, qualification periods, and catch definitions. The number of gear-specific Pacific cod endorsements that will be added to licenses under any of these options was not based on a predetermined optimum capacity for the pot, hook-and-line, and jig gear Pacific cod fleet. The action is a more modest approach to revolving participation issues than a fully rationalized fixed gear Pacific cod fishery.

Pacific cod is the primary species targeted by the fixed gear sectors. Increases in Pacific cod prices in recent years have the potential to attract re-entry of latent effort into the fisheries. In the absence of this action, latent LLP licenses would not necessarily re-enter the fisheries in the future. The re-entry of these latent licenses would depend on future market conditions, conditions in the fisheries, the future regulatory environment, and opportunities to participate in other fisheries. The proposed action is not likely to result in any immediate reduction of effort. Therefore, the short term effects on efficiency should be negligible. In the longer term, the proposed action has the potential to limit overcrowding in the GOA Pacific cod fisheries. However, in the absence of this action, the number of latent licenses that would have re-entered the fixed gear Pacific cod fisheries is not known. Therefore, the economic effects of the proposed action cannot be precisely quantified.

The action would potentially reduce the number of fixed gear catcher vessel licenses eligible to participate in the directed Pacific cod fisheries to 20% to 42% of the current number in the Western GOA and 12% to 35% of the current number in the Central GOA. The number of catcher processor licenses would be reduced to 52% to 77% of the current number in the Western GOA and 22% to 43% in the Central GOA. If catch history during 2007 through June 4, 2008 or December 8, 2008 is included, additional licenses would qualify for Pacific cod endorsements. The action would cap the number of participants in the directed Pacific cod fisheries at the number of available licenses, and new entrants will have to purchase an existing license.

Prices of licenses

Reducing the pool of licenses eligible to access the directed Pacific cod fisheries has the potential to increase the prices of remaining licenses. The price of a license may depend on the combination of area, gear (trawl and/or fixed gear), and species endorsements, and the MLOA on the license. It also may depend on whether the license has recent catch history. Anecdotal reports have indicated that Central GOA fixed gear licenses with an MLOA of <60 ft, and without catch history, sell for approximately \$3,000 to \$5,000. Licenses with an MLOA of 50 ft or less are valued on the lower end of this range, and licenses with an MLOA of 58 ft to 60 ft may be valued at the higher end of this range. Licenses with either a Central GOA or Western GOA area endorsement (but not a BS or AI endorsement), an MLOA of less than 60 ft, and recent catch history may be valued at \$20,000 to \$25,000. Licenses with both Central and Western GOA endorsements are likely more valuable.

3.4.1.1 Licenses with no qualified GOA fixed gear landings

The proposed action would limit access to the GOA Pacific cod fisheries, but would not limit participation in other fisheries by vessels that hold licenses with other area endorsements or gear designations. Table 3-48 provides an overview of the fishing activities of Western and Central GOA fixed gear licenses that do not qualify under any of the landings or catch thresholds. For this purpose of the table, non-qualified licenses were defined as licenses that do not meet the minimum recency threshold of one directed Pacific cod landing in the endorsement area during 2000 through 2006. Most non-

qualified catcher vessel licenses have catch in other fisheries in Alaska. This other catch includes fixed gear landings of groundfish in areas other than the LLP endorsement area, and any trawl catch, IFQ catch, State waters groundfish catch, and non-groundfish catch (e.g., salmon, shellfish, and herring). Out of 883 Central GOA catcher vessel licenses, there are 614 licenses with no directed Pacific cod landings, and 500 of these licenses had landings in other fisheries during 2000-2006. Of 264 Western GOA catcher vessel licenses, there are 171 licenses with no WGOA directed Pacific cod landings, and 127 of these licenses had landings in other fisheries during 2000-2006. Notably, there are very few licenses that had no commercial landings in Alaska fisheries during 2000-2006. Only 114 Central GOA catcher vessel licenses and 27 Western GOA catcher vessel licenses did not have landings in any commercial fishery in Alaska during 2000-2006.

Similarly, Table 3-48 shows that most catcher processor licenses that did not have qualified landings during 2000-2006 are active participants in other groundfish fisheries in Alaska, including the BSAI fixed gear fisheries and the BSAI and GOA trawl fisheries. There are 10 catcher processor licenses with Western GOA endorsements that have no WGOA directed Pacific cod landings, and 8 of these licenses had landings in other Alaska fisheries. There are 35 catcher processor licenses with Central GOA endorsements that have no CGOA directed Pacific cod landings, and 33 of these licenses had landings in other Alaska fisheries.

Table 3-48 Summary of fishing activity of licenses with at least one directed Pacific cod landing and licenses with no qualified landings.

	Number of licenses with at least one directed Pacific cod landing in the endorsement area during 2000-2006			Catch history of licenses with no directed Pacific cod landings during 2000-2006	
	Number of licenses	At least one directed Pcod landing	No directed Pcod landings	At least one non-qualified landing in another fishery	No landings in any fishery
Central Gulf CV	883	269	614	500	114
Central Gulf CP	49	14	35	33	2
Western Gulf CV	264	93	171	144	27
Western Gulf CP	31	21	10	8	2

Note: Non-qualified landings include fixed gear landings in management areas other than the endorsement area, and trawl, State waters, IFQ, and other fisheries.

3.4.1.2 Gross revenues from GOA Pacific cod and other fisheries

Catcher Vessel Licenses

Many fixed gear licenses with GOA endorsements were active in other Alaska commercial fisheries in addition to the GOA fixed gear Pacific cod fisheries. Groundfish licenses may have up to five area endorsements (Bering Sea, Aleutian Islands, Western GOA, Central GOA, and Southeast Outside), two gear designations (trawl and fixed gear), and two BSAI Pacific cod endorsements, and these endorsements and designations allow licenses to participate in a suite of groundfish fisheries. In addition, many license owners hold halibut and sablefish IFQ, BSAI crab quota, and other permits that allow them to participate in other fisheries in Alaska.

Gross revenues data indicate that the majority of fixed gear catcher vessel and catcher processor licenses that did not have any qualified fixed gear landings during the proposed qualifying periods elected to participate in other Alaska fisheries during this period. Table 3-49 reports the number of licenses that had at least one directed Pacific cod landing in the Western or Central GOA during 2000-2006 (top line, left

hand column) and did not have one directed Pacific cod landing in the Western or Central GOA during 2000-2006 (top line, right hand column). The table also reports the number of licenses that participated in other fisheries in Alaska, based on the activity of the vessel(s) assigned to the license during 2000 through 2006. The table reports total revenues to licenses that participated in each fishery and average annual revenues per license across all fisheries from 2000 through 2006. Note that 'licenses', per se, are not participating in each of the fisheries; the analysis is based on the fishing activities of the vessel(s) assigned to each license. Table 3-49 provides an indication of the level of participation by active and inactive fixed gear licenses in the various fisheries.

Several fisheries overlap temporally with the Western and Central GOA Pacific cod fisheries. Requiring licenses to have a Pacific cod endorsement to enter the directed Pacific cod fisheries in the GOA would not impact the status quo fishing operations of these licenses. The intent of the action is to give licenses that have recent participation in the Pacific cod fisheries the endorsement, so that those licenses continue to have access to the fisheries. However, licenses that do not qualify for a Pacific cod endorsement would not have the opportunity to enter these fisheries in the future. Allowing these licenses to have the option to access the directed Pacific cod fisheries in the Western and Central GOA in the future should be balanced against the interests of current participants, who may have made long-term investments in the fisheries and historic catch shares in the GOA Pacific cod fisheries.

Most catcher vessel licenses that did not have directed Pacific cod landings in the Western or Central GOA during the proposed qualifying periods were active in other Alaska commercial fisheries. Out of 264 Western GOA licenses, there are 171 licenses that did not have any qualified landings during 2000-2006. However, 144 of the 171 licenses had landings in other Alaska fisheries. Western GOA licenses that did not have directed Pacific cod landings, but were active in other fisheries, had revenues mainly from the IFQ halibut (35.4%) and sablefish (21.4%) fisheries, and the BSAI trawl fisheries (31.1%). Less than 1% of revenues were from GOA Federal (0.8%) or State waters (0.3%) fixed gear fisheries. In contrast, most Western GOA licenses that had at least one fixed gear groundfish landing during 2000-2006 also participated in the State waters Pacific cod fisheries (72 of 93 licenses), and many licenses had landings in the Central GOA fixed gear Federal fisheries (20 licenses). The majority of active Western GOA licenses also had shellfish, salmon, and IFQ halibut landings. Gross revenues for licenses with qualified Western GOA landings were from IFQ halibut landings (29.5%), shellfish (33.4%), and salmon (19.9%). Notably, GOA trawl groundfish fisheries comprised 18.8% of revenues for licenses with at least one qualified landing, and landings from the Western GOA directed Pacific cod fishery comprised only 11.0% of gross revenues.

Of 883 Central GOA licenses, 614 licenses did not have at least one directed Pacific cod landing during 2000-2006; 500 of these non-qualified licenses had landings in other Alaska fisheries. Similar to non-qualified Western GOA licenses, the majority of revenues by these licenses were from IFQ halibut (35.0%) and sablefish (21.3%), and the BSAI trawl fisheries (13.6%). Only a small proportion of revenues by these licenses were from the fixed gear groundfish fisheries in the Western GOA (0.7%) or from the GOA State waters Pacific cod fisheries (1.4%). Most Central GOA licenses that made at least one directed Pacific cod landing during 2000-2006 also participated in the halibut IFQ fisheries (226 of 269 licenses). These licenses also fished for salmon (164 licenses), IFQ sablefish (141 licenses), State GOA Pacific cod (140 licenses), and shellfish (123 licenses). Revenues by active licenses were from halibut IFQ landings (45.1%), followed shellfish (10.3%). Directed Pacific cod landings from the Central GOA comprised 10.0% of gross revenues by Central GOA licenses with at least one qualified landing during 2000-2006.

When comparing annual gross revenues per license, the most apparent difference between catcher vessel licenses with directed Pacific cod landings and licenses without qualified landings is that they are participating in a different suite of fisheries. Western GOA CV licenses with at least one qualified

landing during 2000-2006 had annual gross revenues of \$274,608 per license. In contrast, Western GOA CV licenses without qualified landings had substantially higher revenues, averaging \$622,658 per license. Western GOA licenses without qualified cod landings but that were active in the BSAI trawl fisheries had on average over \$1 million in gross revenues per year in that fishery during 2000-2006. There was not a large difference between annual gross revenues for Central GOA CV licenses with qualified fixed gear landings (\$319,458) and without qualified landings (\$353,067). However, there was again a sharp contrast in gross earnings in the BSAI trawl fisheries. Non-qualified licenses had more than twice (\$725,929) the revenues that qualified licenses earned (\$305,379) in the BSAI trawl fisheries, indicating that non-qualifying licenses are making a choice to participate in the BSAI trawl fisheries rather than the GOA Pacific cod fisheries.

Western and Central GOA CV licenses that did not have at least one directed Pacific cod landing during 2000-2006, and would only qualify for a Pacific cod endorsement if catch during 2007 and 2008 is included, have different participation patterns in the fisheries. Table 3-50 compares 2007 participation, catch, and revenues data, and 2008 participation and catch data (revenues data were not available for 2008), for licenses with at least one landing during 2000-2006 and licenses that only had a landing in 2007 or 2008. The table shows the number of licenses that participated in the Central GOA or Western GOA Pacific cod fisheries in 2007 and 2008, participation by those licenses in other Alaska fisheries, and catch and revenues by those licenses in each fishery. Central GOA licenses that only have directed Pacific cod landings during 2007 earned only 7% of revenues from the Central GOA Pacific cod fishery in 2007, compared with 17% for vessels that had a landing during 2000-2006. In contrast, Western GOA licenses that first entered the directed Pacific cod fishery in 2007 earned 22% of revenues from that fishery, compared to 10% for vessels that had landings during 2000-2006. Revenues for the 2008 fisheries were not available. Catch data for 2008 shows that Western and Central GOA licenses that have qualified landings during 2000-2006 harvested more Pacific cod per license in each management area than licenses that only qualify based on 2007-2008 landings.

During 2000-2007, the majority of first wholesale revenues for catcher processor licenses with fixed gear landings in the GOA fisheries were from the BSAI fixed gear fisheries (Table 3-51). Revenues from Western GOA directed Pacific cod (5.5%) and Central GOA directed Pacific cod (2.7%) were a small proportion of total revenues for licenses that have qualifying catch in the respective management areas. Nearly all catcher processor licenses that did not have directed Pacific cod landings during 2000-2006 were active in other fisheries in Alaska. The majority of revenues for these licenses were from the BSAI trawl and BSAI fixed gear fisheries and GOA trawl fisheries. Only 2 Western GOA and 2 Central GOA CP licenses did not have any landings in any commercial fisheries in Alaska during 2000 through 2006.

Annual revenues by fixed gear CP licenses that had qualified Western GOA landings during 2000-2006 (\$3.45 million) were substantially greater than licenses without qualified landings (\$1.57 million). Central GOA CP licenses with and without qualified landings during 2000-2006 had approximately \$2.4 million in wholesale revenues per year. The 21 Western GOA CP licenses that made at least one directed Pacific cod landing during 2000-2006 had average annual revenues of \$189,041 in that fishery during 2000-2006. The 14 Central GOA CP licenses with at least one landing during 2000-2006 had average annual revenues of \$62,902 in that fishery during 2000-2006. The majority of CP licenses that did not have qualified Pacific cod landings during 2000-2006 were active in other fisheries (33 of 35 non-qualified CGOA licenses; 6 of 10 nonqualified WGOA licenses). Western GOA CP licenses that did not have qualified GOA fixed gear landings participated in the BSAI and/or GOA trawl fisheries during 2000-2006. Central GOA CP licenses that did not have qualified GOA landings participated in the BSAI fixed gear and the IFQ halibut and sablefish fisheries.

Table 3-49 Participation, average annual revenues per licenses, and total revenues in Alaska fisheries during 2000-2006 by fixed gear CV licenses with at least 1 directed Pacific cod landing during 2000-2006 and with no GOA directed Pacific cod landings during 2000-2006.

Western GOA	Western Gulf licenses with at least one Western Gulf directed Pacific cod landing during 2000-2006 (93 licenses)				Western Gulf licenses with no qualified Western Gulf directed Pacific cod landings during 2000-2006 (171 licenses)			
Fishery	Number of licenses in fishery	Percent revenues	Total revenues 2000-2006	Annual revenues per license	Number of licenses in fishery	Percent revenues	Total revenues 2000-2006	Annual revenues per license
Federal WG Pcod- Fixed Gear	93	11.0%	\$19,650,003	\$30,184	0	0.0%	\$0	\$0
Federal CG Pcod- Fixed Gear	20	3.2%	\$5,735,002	\$40,964	29	0.8%	\$5,158,527	\$25,411
Federal GOA Groundfish- Trawl	35	18.8%	\$33,644,062	\$137,323	25	6.3%	\$39,365,495	\$224,946
State GOA Pacific Cod	72	12.6%	\$22,506,883	\$44,657	22	0.3%	\$1,591,976	\$10,338
BSAI Fixed Gear	42	8.7%	\$15,480,123	\$52,653	52	1.9%	\$12,206,408	\$33,534
BSAI Trawl	11	2.0%	\$3,598,632	\$46,735	26	31.1%	\$195,299,784	\$1,073,076
Herring	11	0.6%	\$1,083,821	\$14,076	6	0.2%	\$1,158,735	\$27,589
IFQ Halibut	46	29.5%	\$52,776,776	\$163,903	96	35.4%	\$222,403,332	\$330,957
IFQ Sablefish	15	5.6%	\$10,068,941	\$95,895	75	21.4%	\$134,442,989	\$256,082
Other	81	0.3%	\$470,682	\$830	59	0.2%	\$981,816	\$2,377
Salmon	63	19.9%	\$35,602,608	\$80,732	55	2.3%	\$14,492,161	\$37,642
Shellfish	82	33.4%	\$59,688,306	\$103,987	45	7.4%	\$46,653,903	\$148,108
All fisheries	93	100.0%	\$178,769,889	\$274,608	144	100.0%	\$627,639,129	\$622,658
No landings in any fishery	0	0.0%	\$0	\$0	27	0.0%	\$0	\$0
Central GOA	Central Gulf licenses with at least one Central Gulf directed Pacific cod landing during 2000-2006 (269 licenses)				Central Gulf licenses with no qualified Central Gulf directed Pacific cod landings during 2000-2006 (614 licenses)			
Fishery	Number of licenses in fishery	Percent revenues	Total revenues 2000-2006	Annual revenues per license	Number of licenses in fishery	Percent revenues	Total revenues 2000-2006	Annual revenues per license
Federal CG Pcod- Fixed Gear	269	10.0%	\$74,271,566	\$30,815	0	0.0%	\$0	\$0
Federal WG Pcod- Fixed Gear	59	0.7%	\$5,421,101	\$11,900	48	0.7%	\$8,042,967	\$23,937
Federal GOA Groundfish- Trawl	16	4.1%	\$30,399,054	\$234,864	67	9.0%	\$110,960,249	\$236,589
State GOA Pacific Cod	140	3.5%	\$25,661,171	\$20,514	95	1.4%	\$17,373,455	\$26,125
BSAI Fixed Gear	90	4.4%	\$32,819,768	\$48,379	74	1.6%	\$20,180,519	\$38,959
BSAI Trawl	9	2.7%	\$20,074,960	\$305,379	33	13.6%	\$167,689,679	\$725,929
Herring	19	1.0%	\$7,792,837	\$53,813	44	1.2%	\$14,557,579	\$47,265
IFQ Halibut	226	45.1%	\$334,726,144	\$176,788	339	35.0%	\$432,463,156	\$182,243
IFQ Sablefish	141	9.2%	\$68,289,880	\$57,712	231	21.3%	\$263,645,381	\$163,046
Other	243	0.6%	\$4,324,153	\$2,238	188	0.2%	\$2,975,985	\$2,261
Salmon	164	8.4%	\$61,994,701	\$44,733	319	11.6%	\$143,832,669	\$64,412
Shellfish	123	10.3%	\$76,650,158	\$71,700	183	4.4%	\$54,012,859	\$42,165
All fisheries	269	100.0%	\$742,425,494	\$319,458	500	100.0%	\$1,235,734,497	\$353,067
No landings in any fishery	0	0.0%	\$0	\$0	114	0.0%	\$0	\$0

*Note: Licenses may have participated in more than one fishery during 2000-2006. Licenses participated in each fishery during at least one year from 2000-2006, but may not have participated during every year. Revenues from each fishery are averaged across the period from 2000-2006, including years when a license did not participate in the fishery, to provide an index of dependence over the time period. Annual revenues and dependence on the GOA Pacific cod fisheries are shown in Table 3-20.

Source: ADFG Fish Tickets, CFEC gross revenues data, and RAM groundfish LLP license file from December 2008

Note: Revenues from Western and Central GOA license tables are not additive; licenses may have both area endorsements.

Table 3-50 Annual participation, annual revenues per license, and annual catch per license in Alaska fisheries during 2007-2008 by fixed gear CV licenses with at least 1 GOA directed Pacific cod landing during 2000-2006 and with no GOA directed Pacific cod landings during 2000-2006 (but at least 1 landing during 2007-2008).

Western GOA		Revenues and catch(mt) by licenses that have at least 1 landing during 2000-2006				Revenues and catch(mt) by licenses that only have 1 landing during 2007-Dec 8, 2008			
Year	Fishery	Number of licenses	Percent revenues from CG Pcod	Catch (mt) per license	Revenues per license	Number of licenses	Percent revenues from CG Pcod	Catch (mt) per license	Revenues per license
2007	Federal WG Pcod- Fixed Gear	35	10.0%	87	\$89,406	6	21.9%	134	\$144,810
	Federal CG Pcod- Fixed Gear	2	*	*	*	3	*	*	*
	Federal GOA Groundfish- Trawl	10	8.1%	518	\$251,694	0	0.0%	0	*
	State GOA Pacific Cod	24	10.3%	132	\$133,813	2	*	*	*
	BSAI Fixed Gear	10	8.2%	203	\$255,874	3	*	*	*
	IFQ Halibut	15	21.8%	49	\$452,528	3	*	*	*
	IFQ Sablefish	4	*	*	*	1	*	*	*
	Other	30	0.1%	1	\$893	5	0.1%	36	\$780
	Salmon	20	19.8%	551	\$308,299	0	0.0%	111	*
	Shellfish	8	19.4%	123	\$756,016	1	*	*	*
All fisheries	35	100.0%	754	\$890,641	6	100.0%	247	\$681,028	
2008	Federal WG Pcod- Fixed Gear	41	--	96	--	14	--	61	--
	Federal CG Pcod- Fixed Gear	3	--	86	--	7	--	107	--
	Federal GOA Groundfish- Trawl	11	--	950	--	0	--	0	--
	State GOA Pacific Cod	31	--	143	--	8	--	75	--
	BSAI Fixed Gear	9	--	257	--	10	--	243	--
	BSAI Trawl	1	--	*	--	0	--	0	--
	IFQ Halibut	16	--	15	--	11	--	15	--
	IFQ Sablefish	4	--	49	--	7	--	67	--
	Other	39	--	*	--	14	--	24	--
	All fisheries	41	--	544	--	14	--	423	--
Year	Central GOA	Number of licenses	Percent revenues from CG Pcod	Catch (mt) per license	Revenues per license	Number of licenses	Percent revenues from CG Pcod	Catch (mt) per license	Revenues per license
2007	Federal CG Pcod- Fixed Gear	134	17%	108	\$121,246	20	7.1%	29	\$32,789
	Federal WG Pcod- Fixed Gear	11	1%	86	\$92,956	0	0.0%	0	\$0
	Federal GOA Groundfish- Trawl	1	*	*	*	2	*	*	*
	State GOA Pacific Cod	48	6%	114	\$124,019	4	4.7%	98	\$108,602
	BSAI Fixed Gear	21	2%	68	\$95,919	1	*	*	*
	BSAI Trawl	0	0%	0	\$0	1	*	*	*
	Herring	3	*	*	*	0	0.0%	0	\$0
	IFQ Halibut	105	50%	47	\$444,566	10	53.5%	52	\$491,508
	IFQ Sablefish	60	10%	29	\$158,008	4	6.6%	26	\$152,663
	Other	126	1%	6	\$4,675	19	0.3%	4	\$1,559
	Salmon	67	6%	99	\$85,110	4	7.5%	254	\$173,208
	Shellfish	12	5%	74	\$385,153	3	*	*	*
All fisheries	134	100%	292	\$693,762	20	100.0%	\$253	\$459,274	
2008	Federal CG Pcod- Fixed Gear	127	--	83	--	30	--	41	--
	Federal WG Pcod- Fixed Gear	7	--	70	--	6	--	209	--
	Federal GOA Groundfish- Trawl	1	--	*	--	1	--	*	--
	State GOA Pacific Cod	48	--	124	--	11	--	49	--
	BSAI Fixed Gear	13	--	92	--	9	--	46	--
	IFQ Halibut	91	--	12	--	23	--	16	--
	IFQ Sablefish	34	--	36	--	15	--	55	--
	Other	125	--	*	--	29	--	*	--
All fisheries	127	--	495	--	30	--	219	--	

*Note: Licenses may have participated in more than one fishery during 2000-2006. Revenues data not available for 2008.
 Source: ADFG Fish Tickets (2007), NMFS Catch Accounting (2008), and RAM groundfish license file from December 2008

Table 3-51 Participation, average annual revenues per license, and total wholesale revenues from Alaska fisheries during 2000-2006 by fixed gear CP licenses with at least 1 GOA directed Pacific cod landing during 2000-2006 and with no GOA directed Pacific cod landings during 2000-2006.

Western GOA (31 licenses)	Western Gulf licenses with at least one Western Gulf directed Pacific cod landing (21 licenses)				Western Gulf licenses with no qualified Western Gulf directed Pacific cod landings (10 licenses)			
Fishery	Number of licenses in fishery	Percent revenues	Total revenues 2000-2006	Annual revenues per license	Number of licenses in fishery	Percent revenues	Total revenues 2000-2006	Annual revenues per license
WG Fixed Gear	21	5.5%	\$26,465,697	\$189,041	0	0.0%	\$0	\$0
CG Fixed Gear	6	0.6%	\$2,780,310	\$66,198	0	0.0%	\$0	\$0
Gulf Trawl	0	0.0%	\$0		3	9.8%	\$8,640,833	\$411,468
BSAI Fixed Gear	20	84.9%	\$410,003,073	\$2,928,593	4	34.1%	\$29,975,493	\$1,070,553
BSAI Trawl	0	0.0%	\$0		4	39.4%	\$34,593,091	\$1,235,468
IFQ	15	8.9%	\$42,919,584	\$408,758	3	16.7%	\$14,634,022	\$696,858
Other	20	0.1%	\$563,711	\$4,027	3	0.0%	\$0	\$0
Total	21	100.0%	\$482,732,375	\$3,448,088	8	100.0%	\$87,843,439	\$1,568,633
No landings in fisheries	0	0.0%	\$0	\$0	2	0.0%	\$0	\$0
Central GOA (49 licenses)	Central Gulf licenses with at least one Central Gulf directed Pacific cod landing (14 licenses)				Central Gulf licenses with no qualified Central Gulf directed Pacific cod landings (35 licenses)			
Fishery	Number of licenses in fishery	Percent revenues	Total revenues 2000-2006	Annual revenues per license	Number of licenses in fishery	Percent revenues	Total revenues 2000-2006	Annual revenues per license
CG Fixed Gear	14	2.7%	\$6,164,413	\$62,902	0	0.0%	\$0	\$0
WG Fixed Gear	6	1.7%	\$3,973,999	\$94,619	16	4.2%	\$23,702,800	\$211,632
Gulf Trawl	0	0.0%	\$0	\$0	5	3.7%	\$20,714,822	\$591,852
BSAI Fixed Gear	13	91.6%	\$212,580,485	\$2,336,049	22	67.0%	\$377,505,918	\$2,451,337
BSAI Trawl	0	0.0%	\$0	\$0	6	15.8%	\$89,041,838	\$2,120,044
IFQ	9	3.9%	\$9,076,583	\$144,073	22	9.1%	\$51,522,950	\$334,565
Other	12	0.1%	\$273,381	\$3,255	21	0.2%	\$865,682	\$5,889
Total	14	100.0%	\$232,068,861	\$2,368,050	33	100.0%	\$563,354,010	\$2,438,762
No landings in fisheries	0				2	0.0%	\$0	\$0

Source: Catch Accounting/Blend – retained catch data; Economic SAFE Report (Hiatt 2007) – First wholesale prices per ton.

*Note: Licenses may have participated in more than one fishery during 2000-2006. Licenses participated in each fishery during at least one year from 2000-2006, but may not have participated during every year. Revenues from each fishery are averaged across the period from 2000-2006, including years when a license did not participate in the fishery, to provide an index of dependence over the time period. Annual revenues and dependence on the GOA Pacific cod fisheries are shown in Table 3-21. Revenues from Western and Central GOA license tables are not additive; licenses may have both area endorsements.

Table 3-52 Annual participation, annual revenues per license, and annual catch per license in Alaska fisheries during 2007-2008 by fixed gear CP licenses with at least 1 GOA directed Pacific cod landing during 2000-2006 and with no GOA directed Pacific cod landings during 2000-2006 (but at least 1 landing during 2007-2008).

Western GOA		Revenues and catch(mt) by licenses that have at least 1 landing during 2000-2006				Revenues and catch(mt) by licenses that only have 1 landing during 2007-Dec 8, 2008			
Year	Fishery	Number of licenses	Percent revenues from CG Pcod	Catch (mt) per license	Revenues per license	Number of licenses	Percent revenues from CG Pcod	Catch (mt) per license	Revenues per license
2007	Federal WG Pcod- Fixed Gear	11	10.9%	285	\$549,816	1	*	*	*
	Federal CG Pcod- Fixed Gear	2	*	*	*	0	0.0%	0	\$0
	BSAI Fixed Gear	9	77.1%	2,414	\$4,747,207	1	*	*	*
	IFQ Halibut or Sablefish	7	9.8%	161	\$779,101	1	*	*	*
	Other	10	*	*	*	0	0.0%	0	\$0
	All fisheries	11	100.0%	2,440	\$5,039,298	1	*	*	*
2008	Federal WG Pcod- Fixed Gear	11	--	281	--	3	--	42	--
	Federal CG Pcod- Fixed Gear	1	--	*	--	2	--	*	--
	BSAI Fixed Gear	10	--	2,282	--	1	--	*	--
	IFQ Halibut or Sablefish	6	--	137	--	3	--	211	--
	Other	9	--	*	--	3	--	4	--
	All fisheries	11	--	2,459	--	3	--	300	--
Central GOA		Revenues and catch(mt) by licenses that have at least 1 landing during 2000-2006				Revenues and catch(mt) by licenses that only have 1 landing during 2007-Dec 8, 2008			
Year	Fishery	Number of licenses	Percent revenues from CG Pcod	Catch (mt) per license	Revenues per license	Number of licenses	Percent revenues from CG Pcod	Catch (mt) per license	Revenues per license
2007	Federal CG Pcod- Fixed Gear	4	23.0%	345	\$417,605	4	10.5%	187	\$367,129
	Federal WG Pcod- Fixed Gear	1	*	*	*	2	9.2%	*	*
	BSAI Fixed Gear	1	*	*	*	3	91.8%	2,199	\$4,283,668
	IFQ Halibut or Sablefish	1	*	*	*	1	6.6%	*	*
	Other	4	0.7%	38	\$12,770	4	1.6%	38	\$54,981
	All fisheries	4	100%	1,107	\$1,819,274	4	100.0%	1,735	\$3,500,122
2008	Federal CG Pcod- Fixed Gear	5	--	157	--	5	--	201	--
	Federal WG Pcod- Fixed Gear	1	--	*	--	2	--	*	--
	BSAI Fixed Gear	3	--	3,783	--	3	--	3,139	--
	IFQ Halibut or Sablefish	1	--	*	--	2	--	*	--
	Other	5	--	67	--	5	--	3	--
	All fisheries	5	--	2,539	--	5	--	2,000	--

*Note: Licenses may have participated in more than one fishery during 2000-2006. Revenues data not available for 2008.

Source: ADFG Fish Tickets (2007), NMFS Catch Accounting (2008), and RAM groundfish license file from December 2008

Western and Central GOA CP licenses that did not have at least one directed Pacific cod landing during 2000-2006, and would only qualify for a Pacific cod endorsement if catch during 2007 and 2008 is included, have different participation patterns in the fisheries. Table 3-52 compares 2007 participation, catch, and revenues data, and 2008 participation and catch data (revenues data were not available for 2008), for licenses with at least one landing during 2000-2006 and licenses that only had a landing in 2007 or 2008. The table shows the number of licenses that participated in the Central GOA or Western GOA Pacific cod fisheries in 2007 and 2008, participation by those licenses in other Alaska fisheries, and catch and revenues by those licenses in each fishery. Central GOA licenses that only have directed Pacific cod landings during 2007 earned only 10.5% of revenues from the Central GOA Pacific cod fishery in 2007, compared with 23.0% for vessels that had a landing during 2000-2006. Western GOA revenues for licenses that first entered the fishery in 2007 cannot be reported due to confidentiality. Catch data for 2008 shows that Western GOA licenses that have qualified landings during 2000-2006 harvested

substantially more Pacific cod per license in each management area than licenses that only qualify based on 2007-2008 landings.

3.4.2 Effects on processors

Pacific cod landings by fixed gear LLP license holders in the Western and Central GOA are primarily delivered to shoreside processors in Kodiak, King Cove, Sand Point, and Dutch Harbor. During some years, there have been deliveries to at-sea processors operating offshore. The proposed action is not expected to directly impact the distribution of landings among shoreside processing communities or at-sea processors. The proposed action, in tandem with the recent trawl recency action, may stabilize the number of participants in the fixed gear and trawl gear fisheries in the GOA. The proposed Pacific cod sector allocations also have the potential to stabilize the distribution of catch between catcher vessels and catcher processors, as well as stabilize the distribution of catch among gear types. Catcher vessels could continue to deliver to shoreside or at-sea processors, and this action would not directly impact that choice.

3.4.3 Effects on management, monitoring, and enforcement

Implementation of the proposed action will require NOAA Fisheries to process and adjudicate the qualifying and non-qualifying licenses, and add Pacific cod endorsements to licenses that meet the qualification criteria. Also, it will be necessary for NOAA Fisheries to make changes to databases used to administer and record license information.

Pacific cod is the primary target fishery of fixed gear vessels in the GOA; Pacific cod comprises more than 98% of retained catch by fixed gear vessels in the GOA, excluding halibut and sablefish IFQ catch. The Pacific cod endorsement would limit participation in the directed Pacific cod fisheries, and it is possible that some participants that do not have a Pacific cod endorsement may use retained incidental catch to supplement their catch revenue in less lucrative target fisheries. However, aside from the IFQ fisheries, fixed gear catch in other target fisheries is relatively low. When the directed Pacific cod season is closed, vessels targeting other species are only allowed to retain incidentally harvested Pacific cod up to the MRA (20%). It is unlikely that many vessels will prosecute other fixed gear fisheries only as a means of accessing incidental catch of Pacific cod. Currently, a relatively small number of fixed gear vessels target other groundfish species in the GOA, and some of these vessels likely already have LLP licenses and would qualify for fixed gear Pacific cod endorsements. Requiring fixed gear LLP licenses to have Pacific cod endorsements would further reduce the number of open access fisheries available to the fixed gear sectors. However, vessels that do not have an LLP license with a fixed gear Pacific cod endorsement could continue to harvest Pacific cod in the parallel and State waters fisheries.

3.4.4 Effects on communities

Impacts of the proposed action on communities are difficult to assess, because licenses may be freely bought and sold by residents of any state or community. Licenses are held by individuals, not communities, and individual license holders may sell or lease licenses to residents of other communities. In-depth profiles of GOA fishing communities may be found in Community Profiles for North Pacific Fisheries (NMFS 2005). This document includes profiles of 136 fishing communities in Alaska. The profiles provide demographic information on each community, and describe the history, geography, and local economy of each community. In addition, they provide detailed descriptions of each community's involvement in the North Pacific fisheries, including data on the number and type of fishing permits held by residents, and participation by those permit holders in the different fisheries. Finally, each profile

provides information on subsistence and sport fishing activities in each community. The profiles may be found at: <http://www.afsc.noaa.gov/REFM/Socioeconomics/Projects/CPU.php>

The State of Alaska’s Community Information Summaries, which are compiled by the Alaska Department of Commerce, Community, and Economic Development (DCCED), include information on community location, population, taxes, climate, history, culture, demographics, utilities, schools, health care, economy, and transportation. The summaries may be found at: http://www.commerce.State.ak.us/dca/commdb/CF_CIS.htm

The number of catcher vessel licenses that meet the 1 directed Pacific cod landing threshold during 2000 through 2006 and 2000 through December 8, 2008 is reported by the current residency of license holders in Table 3-53. Alaska residents hold the greatest number of Western and Central GOA fixed gear licenses. Licenses owned by Alaska residents are more likely to have 1 landing during 2000-2006 or 2000-2008 than licenses owned by residents of other states. Nearly half of Western GOA licenses held by Alaska residents had at least one directed Pacific cod landing (42% to 46%), slightly more than licenses owned by residents of other states. Between 35% and 40% of Central GOA licenses that are held by Alaska residents had directed Pacific cod landings. Most Central GOA licenses that had directed Pacific cod landings during 2000 through Dec 2008 are held by Alaska residents (240 of 306 active licenses). The majority of Western GOA licenses with directed Pacific cod landings during 2000 through Dec 2008 are also held by Alaska residents (71 of 110 licenses), and 33 active licenses are held by residents of Washington.

Table 3-53 Number of CV licenses with 1 directed Pacific cod landing during 2000-2006 or 2000-Dec 8, 2008 by license owner’s residence.

	WG licenses	WG licenses with 1 landing from 2000-2006	Percent of licenses with 1 landing from 2000-2006	WG licenses with 1 landing from 2000-2008	Percent of licenses with 1 landing from 2000-2008
Alaska	153	64	42%	71	46%
Oregon	8	1	13%	4	50%
Washington	92	26	28%	33	36%
Other State	11	2	18%	2	18%
Grand Total	264	93	35%	110	42%

	CG licenses	CG licenses with 1 landing from 2000-2006	Percent of licenses with 1 landing from 2000-2006	CG licenses with 1 landing from 2000-2008	Percent of licenses with 1 landing from 2000-2008
Alaska	607	215	35%	240	40%
Oregon	48	11	23%	13	27%
Washington	183	21	11%	30	16%
Other State	45	22	49%	12	27%
Grand Total	883	269	30%	306	35%

Source: ADFG Fish Tickets (2000-2007), NMFS Catch Accounting (2008), and RAM groundfish license file, December 2008

The number of catcher processor licenses that meet the 1 directed Pacific cod landing threshold during 2000 through 2006 or 2000 through December 8, 2008 is reported by the residency of license holders in Table 3-54. Out of 49 Central GOA CP licenses, 12 are held by residents of Alaska and 37 are held by residents of other states. A substantially higher percentage of licenses held by Alaska residents and residents of other states meet the 1 landing threshold during 2000-2008 than during 2000-2006. Out of 31 Western GOA CP licenses, 3 are held by Alaska residents, and all 3 of these licenses have at least one groundfish landing during 2000-2008. The other 28 licenses are held by residents of other states, and 21

of these licenses have at least one landing during 2000-2008. No CP licenses are held by residents of CQE communities. Additional information on homeport locations of CPs that participate in the GOA Pacific cod fisheries, ownership of CPs by CDQ groups, and contributions of CPs to local tax revenues may be found in the draft initial EA/RIR/IRFA for the GOA Pacific cod sector allocations (NPFMC, 2008).

Table 3-54 Number of CP licenses with 1 directed Pacific cod landing during 2000-2006 or 2000-Dec 8, 2008 by license owner's residence.

	WG licenses	WG licenses with 1 landing from 2000-2006	Percent of licenses with 1 landing from 2000-2006	WG licenses with 1 landing from 2000-2008	Percent of licenses with 1 landing from 2000-2008
Alaska	3	2	67%	3	100%
Other States	28	19	68%	21	75%
Grand Total	31	21	68%	24	77%
	CG licenses	CG licenses with 1 landing from 2000-2006	Percent of licenses with 1 landing from 2000-2006	CG licenses with 1 landing from 2000-2008	Percent of licenses with 1 landing from 2000-2008
Alaska	12	3	25%	5	42%
Other States	37	11	30%	16	43%
Grand Total	49	14	29%	21	43%

Source: NMFS Catch Accounting and RAM groundfish license file, December 2008. *Western GOA licenses held by Alaska residents from Juneau (1), Petersburg (1), and Seward (1). Central GOA licenses held by Alaska residents from Anchorage (1), Juneau (1), Kenai (1), Kodiak (4), Petersburg (3), Seward (1), and Sitka (1).

Overall, the majority of Central GOA licenses that have at least 1 directed Pacific cod landing during 2000-2006 or 2000-Dec 8, 2008 are held by residents of Kodiak, Homer/Anchor Point, Cordova, and Anchorage (Table 3-55). Central GOA licenses held by residents of Kodiak Island communities and Homer area communities (including Anchor Point, Homer, and Nikolaevsk) were among the most likely to have landings. Licenses held by residents of Southeast Alaska communities were among the least likely to have landings in the fisheries. Sitka and Petersburg residents each hold more than 30 Central GOA licenses. None of the 34 licenses held by Sitka residents and only 2 of 32 licenses held by Petersburg residents had at least directed Pacific cod landing during 2000-2006 or 2000-2008. Western GOA licenses that have been active in the fisheries and are held by Alaska residents are primarily owned by residents of Sand Point, King Cove, and Kodiak. Western GOA licenses held by residents of Southcentral and Southeast Alaska were less likely to have directed Pacific cod landings in the Western GOA fisheries. For example, no Western GOA licenses held by Sitka residents (7 licenses) and only 2 of 14 licenses held by Homer residents had directed Pacific cod landings in the Western GOA.

Finally, a summary of the number of catcher vessel owners from Alaska communities that have participated in the fixed gear fisheries in the GOA is included in Appendix A. Table A-1 reports the number of catcher vessel owners who have participated in the Federal waters, parallel waters, and State waters Pacific cod fisheries using fixed gear during 1995-2006, by community of residence. Note that this table includes landings from the Western GOA, Central GOA, and West Yakutat, because the LLP authorizes licenses with Central GOA endorsements to fish in Federal waters of West Yakutat. The tables also report gross revenues from the fisheries, and the percentage of total revenues from all Alaska fisheries comprised by the GOA Pacific cod fisheries in each community. This provides a measure of the relative economic importance of the GOA Pacific cod fisheries to these communities.

Table 3-55. Number of catcher vessel licenses with at least one directed Pacific cod landing in the endorsement area during 2000-2006 or 2000-Dec 8, 2008, reported by license owner's community of residence (Alaska communities only).

City	CQE	WG licenses	1 landing from 2000-2008	Percent	1 landing from 2000-2006	Percent	CG licenses	1 landing from 2000-2008	Percent	1 landing from 2000-2006	Percent
Adak		1	0	0%	0	0%	2	1	50%	1	50%
Akutan		2	1	50%	1	50%	0	0	0%	0	0%
Anchor Point		12	5	42%	5	42%	30	8	27%	6	20%
Anchorage		1	1	100%	1	100%	1	0	0%	0	0%
Chignik		0	0	0%	0	0%	3	1	33%	1	33%
Chignik Lagoon	Y	1	1	100%	1	100%	5	1	20%	1	20%
Clam Gulch		0	0	0%	0	0%	3	1	33%	1	33%
Cold Bay		2	1	50%	1	50%	0	0	0%	0	0%
Copper Center		0	0	0%	0	0%	1	0	0%	0	0%
Cordova		5	0	0%	0	0%	30	5	17%	4	13%
Craig		0	0	0%	0	0%	1	0	0%	0	0%
Delta Junction		2	1	50%	0	0%	7	7	100%	7	100%
Douglas		0	0	0%	0	0%	2	0	0%	0	0%
Dutch Harbor		3	2	67%	2	67%	4	1	25%	1	25%
Eagle River		0	0	0%	0	0%	2	1	50%	1	50%
Elfin Cove		0	0	0%	0	0%	1	0	0%	0	0%
Fairbanks		0	0	0%	0	0%	1	0	0%	0	0%
False Pass		3	2	67%	2	67%	3	0	0%	0	0%
Fritz Creek		0	0	0%	0	0%	3	1	33%	1	33%
Girdwood		2	1	50%	1	50%	8	2	25%	1	13%
Gustavus		1	0	0%	0	0%	0	0	0%	0	0%
Haines		0	0	0%	0	0%	3	0	0%	0	0%
Halibut Cove	Y	0	0	0%	0	0%	1	0	0%	0	0%
Homer		13	3	23%	0	0%	114	73	64%	67	59%
Hoonah		0	0	0%	0	0%	2	0	0%	0	0%
Juneau		3	1	33%	1	33%	13	1	8%	1	8%
Kasilof		0	0	0%	0	0%	8	0	0%	0	0%
Kenai		0	0	0%	0	0%	3	0	0%	0	0%
Ketchikan		2	1	50%	1	50%	7	1	14%	1	14%
King Cove	Y	23	16	70%	16	70%	5	0	0%	0	0%
Klawock		0	0	0%	0	0%	1	0	0%	0	0%
Kodiak		22	10	45%	9	41%	135	92	68%	82	61%
Larsen Bay	Y	0	0	0%	0	0%	1	1	100%	1	100%
Nikiski		0	0	0%	0	0%	2	0	0%	0	0%
Nikolaevsk		0	0	0%	0	0%	14	8	57%	7	50%
Nome		1	0	0%	0	0%	2	1	50%	1	50%
Old Harbor	Y	0	0	0%	0	0%	9	7	78%	7	78%
Ouzinkie	Y	0	0	0%	0	0%	10	3	30%	2	20%
Palmer		1	1	100%	1	100%	4	1	25%	1	25%
Pelican		0	0	0%	0	0%	2	0	0%	0	0%
Perryville	Y	1	0	0%	0	0%	1	0	0%	0	0%
Petersburg		7	1	14%	1	14%	33	2	6%	2	6%
Port Graham	Y	0	0	0%	0	0%	1	0	0%	0	0%
Port Lions	Y	0	0	0%	0	0%	8	2	25%	2	25%
Sand Point	Y	29	19	66%	19	66%	16	1	6%	1	6%
Seldovia	Y	0	0	0%	0	0%	10	4	40%	4	40%
Seward		1	1	100%	0	0%	22	4	18%	2	9%
Sitka		7	0	0%	0	0%	34	0	0%	0	0%
Soldotna		0	0	0%	0	0%	2	1	50%	0	0%
St Paul Island		1	0	0%	0	0%	0	0	0%	0	0%
Sterling		0	0	0%	0	0%	2	0	0%	0	0%
Tatitlek	Y	0	0	0%	0	0%	1	0	0%	0	0%
Tenakee Springs		0	0	0%	0	0%	2	0	0%	0	0%
Unalaska		4	1	25%	0	0%	0	0	0%	0	0%
Valdez		0	0	0%	0	0%	6	0	0%	0	0%
Wasilla		1	1	100%	1	100%	9	2	22%	2	22%
Whittier		0	0	0%	0	0%	2	0	0%	0	0%
Willow		2	1	50%	1	50%	7	7	100%	7	100%
Wrangell		0	0	0%	0	0%	5	0	0%	0	0%
Yakutat	Y	0	0	0%	0	0%	3	0	0%	0	0%
Total Alaska		153	71	46%	64	42%	607	240	40%	215	35%

Source: ADFG Fish Tickets (2007), NMFS Catch Accounting (2008), and RAM groundfish license file from December 2008

3.4.5 Parallel waters issues

Parallel waters catch by vessels without LLP licenses

If Pacific cod endorsements are added to Western and Central GOA fixed gear licenses, these endorsements would limit entry to the directed Pacific cod fisheries in each management area. Specific gear designations included on these endorsements would limit the number of licenses eligible to participate in each sector. Several tables in this document provide estimates of the number of licenses that could receive Pacific cod gear and operation type endorsements. If Pacific cod sector allocations are implemented, these licenses would be eligible to fish off the respective gear and operation type allocations. However, there are several gaps in the limited entry provisions of the LLP that would allow vessels to fish off sector allocations without an LLP license or Pacific cod endorsement.

First, vessels are not required to hold an LLP license to fish in the parallel waters fisheries. Although the LLP limits entry into the groundfish fisheries in Federal waters, vessels can fish in parallel waters without an LLP license. If sector allocations are implemented, vessels without LLP licenses, and licenses without Pacific cod endorsements, could be restricted from fishing in Federal waters during the directed Pacific cod fisheries, but could continue to fish in the parallel waters fisheries. In years when fish are concentrated in inside waters, or when conditions in other fisheries are unfavorable, participation by vessels without LLP licenses may increase in the parallel waters fisheries. In the GOA, the presence of a local fleet that can readily access the parallel waters fisheries makes it more likely that during certain years, vessels without LLP licenses will fish for Pacific cod in parallel waters.

During recent years, vessels without LLP licenses have harvested a relatively small proportion of the catch in each management area. Table 3-56 shows the average number of vessels without LLPs that fished for Pacific cod during the parallel waters seasons in 2002-2007, retained catch, and the average percentage of catch within each sector by these vessels. These numbers are an estimate, and are intended to provide the Council with some perspective on the extent of participation in the Pacific cod fisheries by vessels without LLP licenses.

The table also provides some insight into the level of participation within each sector by vessels without licenses. If Pacific cod sector allocations are implemented, and Pacific cod endorsements are added to fixed gear licenses, vessels without licenses, or without Pacific cod endorsements on their licenses, will continue to be eligible to fish in the parallel waters. Most hook-and-line catcher vessels that do not have LLPs and that have retained catch of Pacific cod from the parallel waters fisheries were participating in the IFQ fisheries at the time they made these Pacific cod landings. Under the LLP, vessels participating in the IFQ fisheries that do not have LLP licenses are allowed to retain incidental catch of Pacific cod. This provision in the LLP is consistent with National Standard 9 of the Magnuson-Stevens Act, and was intended to reduce the waste that occurs when discards of groundfish are required. In the Central GOA, an average of 63 hook-and-line vessels per year during 2002-2007 that did not have LLP licenses had at least one landing of Pacific cod, but catch by these vessels amounted to only 2% of the catch by hook-and-line catcher vessels in the Central GOA. Overall, vessels without LLP licenses harvest a small proportion of the retained catch of Pacific cod in the Central GOA (2%) and Western GOA (5%). The majority of this catch was by pot vessels fishing without LLPs in the Western and Central GOA. Hook-and-line vessels without LLPs harvested 11% of the Western GOA hook-and-line catch during 2002-2007, but hook-and-line catcher vessels typically catch less than 1% of the Western GOA catch. The majority of the jig catch in each management area is harvested by vessels without LLP licenses, but these vessels generally harvest less than 1% of the Western and Central GOA catch.

Table 3-56 Average number of vessels fishing in the parallel waters fisheries without an LLP license, retained catch (mt), and percent of retained catch of Pacific cod within each sector by vessels without LLPs during 2002-2007.

Year	HAL CV		Jig CV		Pot CV		Trawl CV		All sectors	
	Vessels	Catch	Vessels	Catch	Vessels	Catch	Vessels	Catch	Catch	
Central GOA	2002-2007 average	63	106	15	45	5	211	1	*	362
Western GOA	2002-2007 average	11	16	9	50	7	629	1	*	695

Year	HAL CV		Jig CV		Pot CV		Trawl CV		All sectors
	Percent of sector catch	Percent of sector catch	Percent of sector catch	Percent of sector catch	Percent of sector catch	Percent of sector catch	Percent of sector catch	Percent of total catch	
Central GOA	2002-2007 average	2%	69%	3%	*	*	*	2%	
Western GOA	2002-2007 average	11%	64%	9%	*	*	*	5%	

Source: ADFG Fish Tickets and RAM groundfish license file, October 2008. *Withheld due to confidentiality.

Notes: Excludes State waters fisheries. Includes IFQ fisheries, because IFQ participants may retain groundfish without an LLP (and are required to retain Pacific cod up to the MRA).

Catcher processors acting as catcher vessels

Pacific cod endorsements could restrict vessels to using a specific gear type in the directed Pacific cod fisheries, but may not prevent catcher processors from fishing off catcher vessel allocations. Historically, few catcher processors in the GOA have acted as catcher vessels, but sector allocations could potentially create an incentive for catcher processors to opportunistically fish as catcher vessels. If this activity becomes more common than it has in the past, it could potentially erode the catch shares of vessels that can only act as catcher vessels and who contributed history to the catcher vessel allocations.

Under previous amendments (e.g., Amendment 85), catch is counted against allocations based on vessel activity. If a vessel catches and processes its own catch, that catch is deducted from the catcher processor allocation. If a vessel delivers its catch shoreside or to a mothership, that catch is deducted from the catcher vessel allocation. If the Council perceives that catcher processors may opportunistically fish off catcher vessel Pacific cod allocations in the GOA, it could modify the catch accounting system for the sector allocations. Instead of accounting for catch based on mode of operation, NOAA fisheries could account for catch based on the mode of operation on a vessel's Pacific cod endorsement. Currently, the Catch Accounting system does not track catch by LLP licenses. Modifying the Catch Accounting system to track licenses and license endorsements would require substantial programming effort. However, given the small number of catcher processor licenses which would likely qualify for a Pacific cod endorsement in the Western or Central GOA, this modification to the Catch Accounting system may be practicable. Licenses may only be transferred once per year. The Catch Accounting system would link catch by each vessel holding a Pacific cod catcher processor endorsement to the appropriate sector allocation account. In this way, vessels holding Pacific cod catcher processor endorsements could only fish off the catcher processor allocations, regardless of their mode of operation. Revisions to the Catch Accounting system could be minimized by continuing to base other aspects of the Catch Accounting system (e.g., estimates of bycatch, discards, and PSC) on the mode of operation of the vessel.

The Council is currently considering options in the proposed GOA Pacific cod sector allocation action to preclude vessels from opportunistically fishing off both the catcher processor and catcher vessel sector allocations in the GOA Pacific cod fisheries. Those options are included in Component 2 of the sector allocation motion:

Option: Restrict vessels from participating in the GOA Pacific cod fishery using more than one operation type.

Suboption 1: Restrict CP licenses to the operation type on their license (licenses with a catcher processor designation could only fish off the catcher processor sector allocation).

Suboption 2: Add a CV/CP Pacific cod endorsement to both trawl and non-trawl CP licenses that have operated as catcher vessels during the qualifying period. These CP/CV licenses will elect to participate as either a CP or CV in the GOA Pacific cod fishery either:

- (i) annually
- (ii) as a permanent, one-time election

Finally, it is important to note that the State of Alaska does not legally recognize the distinction between Federal allocations to catcher vessels and catcher processors using the same gear type to harvest fish in the same management area. For example, the BSAI Pacific cod fishery is allocated by gear type and processing sector. The State recognizes allocations by gear type, but does not recognize the separate pot and hook-and-line CP and CV allocations.¹⁴ If the directed fishery for one of the pot or hook-and-line sectors is open in Federal waters, any vessel using that gear type and meeting any applicable vessel length restrictions is eligible to participate in the parallel waters fishery. In 2008, pot catcher processors continued to fish in the Aleutian Islands parallel waters fishery even after the Amendment 85 pot CP allocation had been fully harvested, because the adjacent Federal waters fishery was still open to pot catcher vessels. In the same way, catcher vessels may fish in the parallel waters fishery even if it is only open to catcher processors in adjacent Federal waters.

The Council is currently considering two options to address these parallel waters issues in the GOA Pacific cod sector allocations motion. Those options are in Component 10 of the sector allocation motion. Option 2 is essentially the same approach that the Council is currently considering for the BSAI Pacific cod fixed gear parallel waters fishery, but also includes vessels using trawl gear:

Option 1. Aleutian Islands sablefish model (parallel fishery catch cap)

Option 2. Limiting access to the parallel zone for Federal fishery participants

Require any pot and longline vessel with an LLP or an FFP to have a Pacific cod endorsement and the appropriate area endorsement to participate in the Western GOA or Central GOA Pacific cod parallel water fishery. Require any trawl vessel with an LLP or an FFP to have the appropriate gear and area endorsement to participate in the Western GOA or Central GOA Pacific cod parallel water fishery.

- i. Suboption: In addition, require the above Federally licensed vessels that fish in the parallel waters to adhere to Federal seasonal closures of the Western/Central GOA corresponding to the sector in which the vessel operates.

¹⁴ State v. Grunert, 139 P.2d 1226 (Alaska 2006); Grunert v. State, 109 P.2d 924 (Alaska 2005). In the 2005 case, the Alaska Supreme Court ruled that the Board of Fisheries could not allocate within a single fishery. 109 P.2d at 931-32. In the 2006 case, the Court held that ‘fisheries’ could only be distinguished by differences in the gear that is actually used to harvest the fish. 139 P.2d at 1235-39.

- ii. Suboption: In the Western/Central GOA, vessels can only surrender and/or reactivate their FFP:
 - a. Once per calendar year
 - b. Once every eighteen months
 - c. Once every two years
- iii. Suboption: FFP cannot be surrendered during the 3 year term of the permit.

The Council and NOAA fisheries have broad authority over vessels that hold Federal permits and licenses. Vessels that hold Federal fisheries permits or LLP licenses may be subject to Federal groundfish regulations, even while fishing in State waters adjacent to the GOA or BSAI. For example, vessels that hold FFPs are subject to Federal recordkeeping and reporting, observer, and VMS requirements while fishing in Federal, parallel, or State waters fisheries. In 2006, sideboards were implemented that limit harvests of GOA Pacific cod by vessels that received initial allocations of *C. opilio* crab quota. The sideboard regulations were written such that vessels cannot circumvent sideboard closures by fishing in parallel waters fisheries. Vessels that hold *either* an FFP or an LLP are subject to the sideboards while participating in any groundfish fishery in the parallel waters fisheries in the GOA (680.22). The Council is currently considering options to extend the LLP and Pacific cod endorsement requirement to the BSAI Pacific cod parallel waters fishery for CPs only, and to require CPs to surrender Federal permits and licenses if they choose to fish in the BSAI Pacific cod parallel waters fishery. The Council is scheduled to take final action on the proposed regulatory amendment in June 2009.

3.4.6 Harvest cooperative formation

Long term allocations of the Western and Central GOA Pacific cod TACs to the sectors and provisions that limit entry to the directed Pacific cod fisheries may provide opportunities for the formation of harvest cooperatives. Individual sectors may be more likely to form cooperatives if all eligible participants are easily identified through a restrictive license limitation program, and if separate allocations are made to each sector. Pacific cod endorsements on fixed gear licenses would limit entry to the directed Pacific cod fisheries in Federal waters, but would not restrict vessels without LLP licenses, or without Pacific cod endorsements on licenses, from participating in the directed Pacific cod fisheries in the parallel waters fisheries. NOAA Fisheries does not currently have a mechanism to allocate catch history to cooperatives in the GOA Pacific cod fisheries. All vessel owners within a sector would need to voluntarily join a cooperative and abide by its bylaws, or additional regulations would need to be implemented to provide NOAA fisheries with the necessary authority to allocate Pacific cod to individual cooperatives.

In the GOA Pacific cod fisheries, the hook-and-line catcher processor sector may be the sector that is most likely to form a harvest cooperative. Most of the freezer longliner fleet fishes for Pacific cod in the BSAI, then moves into the GOA after the BSAI Pacific cod seasons close. In 2005, the BSAI freezer longliner fleet did not fish in the GOA during the B season, because NMFS inseason management was concerned that there was not sufficient halibut PSC to support this fleet. As a result, in 2006, 2007, and 2008 the freezer longliners set up an informal 'PSC co-op' with NMFS inseason management during the B season. Under this arrangement, the third seasonal apportionment of halibut PSC was informally divided between catcher processors and catcher vessels. The freezer longliners then further divided the catcher processor PSC among vessels fishing the B season. This informal cooperation in sharing PSC suggests that this sector has the potential to establish a formal harvest cooperative.

The freezer longliner fleet is relatively small, and the proposed action could potentially limit the number of participants in this sector by adding gear-specific Pacific cod endorsements to fixed gear licenses. There are currently 53 fixed gear catcher processor licenses with Central and/or Western GOA area

endorsements; 49 of these licenses have Central GOA endorsements and 31 licenses have Western GOA endorsements. A total of 16 to 22 Western GOA licenses and 10 to 18 Central GOA licenses have at least one hook-and-line landing in the directed Pacific cod fisheries during the different qualifying periods, and could potentially qualify for Pacific cod hook-and-line catcher processor endorsements. If the landings or catch thresholds are set higher, even fewer licenses would qualify for Pacific cod endorsements. If Pacific cod sector allocations are established, total catch by hook-and-line catcher processors would be capped by the allocations. If vessels in this sector form a harvest cooperative subsequent to the implementation of sector allocations, this sector could potentially take advantage of increased production efficiencies of fishing cooperatively, but would not be able to increase the sector's overall harvest shares of the Western and Central GOA TACs. However, if vessels fish the catcher processor allocations cooperatively, some vessels in this fleet could opportunistically act as catcher vessels and fish off the hook-and-line catcher vessel allocations. Again, if the Council perceives this to be a potential problem, NOAA fisheries could account for catch based on the operation type on a license's Pacific cod endorsement, rather than based the vessel's activity.

3.4.7 Interactions with other recent or proposed actions

A number of past actions have limited effort by individual vessels or sectors in the BSAI and GOA groundfish and crab fisheries. The halibut and sablefish IFQ program, BSAI crab rationalization program, Amendment 67 (BSAI Pacific cod fixed gear endorsements), and Amendments 64 and 85 (BSAI Pacific cod sector allocations) limit entry to some fisheries and sectors. For example, the halibut and sablefish IFQ program and BSAI crab rationalization program provide exclusive allocations to fixed gear vessels and limit entry by holders of latent licenses excluded from those programs. In effect, these programs foreclose certain fisheries to new entry. Holders of latent licenses who wish to reenter the fisheries have access to fewer fisheries.

Rationalization programs may expose participants in remaining open access fisheries to increased effort by these displaced participants. In addition, such programs can result in increased effort in open access fisheries by recipients of exclusive allocations. Sideboards are often imposed on participants in rationalized programs to prevent these spillover effects. For example, in developing the BSAI crab rationalization program, the Council imposed sideboards on the GOA fisheries. Pot vessels generally participate in only the crab and Pacific cod fisheries. As a result, the only perceived increase in opportunity arising from the crab rationalization program was thought to be in the Pacific cod fisheries in the GOA that are prosecuted in January, when the Bering Sea *C. opilio* fishery is typically prosecuted. Only recipients of initial allocations¹⁵ in the Bering Sea *C. opilio* fishery are subject to the sideboards. There are 82 sideboarded vessels and 37 sideboarded groundfish licenses. The sideboards limit these vessels and licenses to their historic share of retained catch of GOA Pacific cod and other GOA groundfish during 1996-2000, excluding catch of fixed gear sablefish. Vessels that have limited history in the GOA groundfish fisheries – less than 50 mt of catch during 1996 to 2000 – are prohibited from directed fishing for Pacific cod in the GOA. Vessels that landed less than 100,000 pounds of Bering Sea *C. opilio* and more than 500 mt of Pacific cod in the GOA from 1996 to 2000 are exempt from the sideboards. No sideboards were specified under the halibut and sablefish IFQ program, as the potential for spillover effects from these fisheries was considered to be limited.

The proposed GOA Pacific cod sector allocations would limit effort by each sector in the fisheries by capping the percentage of the Western and Central GOA TACs available to each sector. Increased effort in one sector, via the re-entry of latent effort into the fisheries, would reduce catch (and revenues) for

¹⁵ Since allocations in the program are based on catch history associated with a license, the sideboard is constructed to limit catch using the license. This is done by sideboarding any vessel the catch of which led to a share allocation and any vessel named on the license that arose from the catch history of the vessel that led to that allocation.

other participants in that sector. The adverse impacts of the entry of latent effort are often exacerbated for sectors with substantial latent capacity. For example, the majority of fixed gear catcher vessel licenses with Western or Central GOA endorsements do not have any recent (2000-2006 or 2000-2008) landings in the directed Pacific cod fisheries in the GOA. Re-entry of these licenses into the fisheries has the potential to intensify competition for the TACs. If Pacific cod sector allocations are accompanied by provisions that limit entry into the directed Pacific cod fisheries, for example by adding Pacific cod endorsements to fixed gear licenses, the fixed gear sectors would be protected from potential re-entry of latent fixed gear licenses into the directed Pacific cod fisheries. However, new provisions that limit access to the GOA Pacific cod fisheries would also reduce the number of open access fisheries. The remaining open access fisheries would be even more vulnerable to increased competition as displaced participants enter these fisheries.

3.4.8 Net benefits to the Nation

Overall, this action is likely to have a limited effect on net benefits realized by the Nation. Under the status quo (Alternative 1), all existing fixed gear licenses would continue to have access to the directed Pacific cod fisheries in Federal waters of the GOA. Licenses not currently active in the fisheries would have the potential to enter the Pacific cod fisheries at some future time, increasing overall effort in the fisheries. This increase in effort could contribute to losses of production efficiency. Costs could rise slightly if participants perceive a need to increase effort to secure their historic catch shares. The increase in effort could contribute to more aggressive fishing and processing practices, both of which contribute to lower quality and less value added production. The extent of these potential effects is very difficult to predict and depends on several factors, including future TAC levels, market conditions, and operating costs.

Under the proposed action (Alternative 2), Pacific cod endorsements would be added to fixed gear groundfish licenses that have recent catch history in the Western or Central GOA directed Pacific cod fisheries. As a result, licenses that do not receive a Pacific cod endorsement would not be eligible to enter the Western or Central GOA Pacific cod fisheries in the future, removing the potential for an influx of effort into the fisheries. Preventing these licenses from entering the Pacific cod fisheries in the future could contribute to production efficiency if a substantial increase in effort by latent licenses were to occur in the absence of this action. Limiting effort in the fisheries could contribute to slowing down the fisheries, although if TACs continue to decline and market conditions for Pacific cod continue to improve, the pace of the fisheries is unlikely to slow down.

Minor changes in consumer surplus could accompany any change in production outputs. Specifically, changes in product outputs and quality could have effects on consumers. The difference in consumer surplus across the alternatives is likely to be quite small. The status quo, which would maintain the existing number of licenses eligible to enter the Pacific cod fisheries, would have the lowest consumer surplus, as it would not change the conditions for entry into the fisheries. In addition, the change in U.S. consumer surplus is likely to be diluted, since much of the production from these fisheries is exported for overseas secondary processing and consumption. As a result, some portion of any consumer surplus benefit resulting from the proposed action is unlikely to be realized as a U.S. benefit.

Implementation of the action alternative would require NOAA fisheries to process and adjudicate the qualifying and non-qualifying licenses. The license limitation file administered by NOAA fisheries will need to be updated to reflect the changes to existing licenses. Also, NOAA fisheries will need to update and make changes to databases used to store license information in order to track Pacific cod endorsements that have non-transferable status. These costs would not be incurred under the no action alternative. The addition of gear-specific Pacific cod endorsements to fixed gear licenses will introduce new administrative costs for NOAA fisheries, and possibly create new enforcement costs.

The main economic benefit from the proposed action is that it will prevent the future entry of latent fixed gear LLP licenses into the Western and Central GOA directed Pacific cod fisheries, and will primarily benefit LLP license owners who are economically dependent on the GOA Pacific cod fisheries. The action may have modest distributional effects among persons eligible to enter licenses into the directed Pacific cod fisheries that are subject to the LLP.

4.0 INITIAL REGULATORY FLEXIBILITY ANALYSIS (IRFA)

4.1 Introduction

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

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

Based upon a preliminary evaluation of the proposed program alternatives, it appears that “certification” would not be appropriate. Therefore, this IRFA has been prepared. Analytical requirements for the IRFA are described below in more detail.

The IRFA must contain:

1. A description of the reasons why action by the agency is being considered;
2. A succinct Statement of the objectives of, and the legal basis for, the proposed rule;
3. A description of, and where feasible, an estimate of the number of small entities to which the proposed rule will apply (including a profile of the industry divided into industry segments, if appropriate);
4. A description of the projected reporting, record keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;
5. An identification, to the extent practicable, of all relevant Federal rules that may duplicate, overlap, or conflict with the proposed rule;
6. A description of any significant alternatives to the proposed rule that accomplish the Stated objectives of the Magnuson-Stevens Act and any other applicable statutes, and that would minimize any significant adverse economic impact of the proposed rule on small entities. Consistent with the Stated objectives of applicable statutes, the analysis shall discuss significant alternatives, such as:

- a. The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
- b. The clarification, consolidation or simplification of compliance and reporting requirements under the rule for such small entities;
- c. The use of performance rather than design standards;
- d. An exemption from coverage of the rule, or any part thereof, for such small entities.

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

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

4.2 Definition of a Small Entity

The RFA recognizes and defines three kinds of small entities: 1) small businesses; 2) small non-profit organizations; and 3) and small government jurisdictions.

Small businesses: Section 601(3) of the RFA defines a “small business” as having the same meaning as a “small business concern,” which is defined under Section 3 of the Small Business Act. A “small business” or “small business concern” includes any firm that is independently owned and operated and not dominate in its field of operation. The U.S. Small Business Administration (SBA) has further defined a “small business concern” as one “organized for profit, with a place of business located in the United States, and which 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 that where the form is a joint venture there can be no more than 49% participation by foreign business entities in the joint venture.”

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 and not dominant in its field of operation (including its affiliates), and if it has combined annual receipts not in excess of \$4.0 million for all its affiliated operations worldwide. A seafood processor is a small business if it is independently owned and operated, not dominant in its field of operation (including its affiliates) and employs 500 or fewer persons, on a full-time, part-time, temporary, or other basis, at all its affiliated operations worldwide. A business involved in both the harvesting and processing of seafood products is a small business if it meets the \$4.0 million criterion for fish harvesting operations. A wholesale business servicing the fishing industry is a small business if it employs 100 or fewer persons on a full-time, part-time, temporary, or other basis, at all its affiliated operations worldwide.

The SBA has established “principles of affiliation” to determine whether a business concern is “independently owned and operated.” In general, business concerns are affiliates of each other when one concern controls or has the power to control the other or a third party controls or has the power to control both. The SBA considers factors such as ownership, management, previous relationships with or ties to another concern, and contractual relationships, in determining whether 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 with other concerns owned by these entities, solely because of their common ownership.

Affiliation may be based on stock ownership when: (1) A person is an affiliate of a concern if the person owns or controls, or has the power to control 50% or more of its voting stock, or a block of stock which affords control because it is large compared to other outstanding blocks of stock, or (2) If two or more persons each owns, controls or have the power to control less than 50% of the voting stock of a concern, with minority holdings that are equal or approximately equal in size, but the aggregate of these minority holdings is large as compared with any other stock holding, each such person is presumed to be an affiliate of the concern.

Affiliation may be based on common management or joint venture arrangements. Affiliation arises where 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 upon the ostensible subcontractor. All requirements of the contract are considered in reviewing such relationship, including contract management, technical responsibilities, and the percentage of subcontracted work.

Small organizations: The RFA defines "small organizations" as any nonprofit 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, towns, townships, villages, school districts, or special districts with populations of fewer than 50,000.

4.3 Reason for considering the proposed action

The Council developed a purpose and need statement defining the reasons for considering the proposed action (see Chapter 1). The Western and Central GOA Pacific cod fisheries subject to the Limited License Program are currently managed as a limited access race for fish. There are substantial numbers of latent fixed gear licenses with Western and Central GOA endorsements. Participants who have made significant long-term investments, have extensive catch histories, and are highly dependent on the GOA Pacific cod fisheries subject to the LLP need protection from the re-entry of latent effort into the fisheries. Adding Pacific cod endorsements to licenses in order to limit access to the directed Pacific cod fisheries in the GOA would prevent new entrants into the fisheries from impinging on historic levels of catch by recent participants in the fisheries.

4.4 Objectives of, and the legal basis for, the proposed action

The objective of the proposed action is to add Pacific cod endorsements to fixed gear licenses with recent catch history in order to limit entry to the Western and Central GOA Pacific cod fisheries to those

participants with recent catch history. The problem statement notes that many fixed gear vessel owners have made significant investments, have long catch histories, and are dependent on WGOA and CGOA Pacific cod resources. The proposed amendment may increase stability in the GOA fixed gear fisheries.

The legal basis for this action is the Magnuson-Stevens Fishery Conservation and Management Act (MSA). One of the stated purposes of the MSA is to promote domestic commercial fishing under sound conservation and management principles and to achieve and maintain the optimum yield from each fishery.

4.5 Number and description of affected small entities

The proposed action directly regulates persons who hold fixed gear groundfish LLP licenses with Western or Central GOA area endorsements. Licenses without recent participation in the Western or Central GOA Pacific cod fisheries will no longer be eligible to participate in the directed Pacific cod fisheries in Federal waters of the GOA. There are 972 fixed gear catcher vessels licenses subject to the proposed action; 883 of these licenses have Central GOA endorsements and 264 licenses have Western GOA endorsements (175 licenses have both area endorsements). The contact licensee information on each license was used to determine ownership affiliation. Based on this information, there are 909 entities that own these catcher vessel licenses, and 20 of these are large entities based on 2007 gross revenues. There are 53 fixed gear catcher processor licenses subject to the proposed action, including 49 licenses with Central GOA endorsements and 31 licenses with Western GOA endorsements (27 licenses have both area endorsements). These licenses are owned by 47 entities, 28 of which are large entities based on 2007 first wholesale revenues. In sum, the proposed action would directly impact 889 small entities that own fixed gear catcher vessel licenses with Western and/or Central GOA area endorsements, and 19 small entities that own fixed gear catcher processor licenses with Western and/or Central GOA area endorsements. It is likely that additional licenses are affiliated through partnerships with other entities, and would be considered large entities for the purpose of this action, but in the absence of complete ownership information, these affiliations cannot be determined.

4.6 Recordkeeping and reporting

Implementation of the proposed action to add Pacific cod endorsements to licenses would not change the overall reporting structure and record keeping requirements for vessels in the GOA groundfish fisheries. Currently, NOAA fisheries does not require vessel owners to report the LLP license used while participating in the groundfish fisheries subject to the LLP. This action would not add any new reporting requirements for vessels.

4.7 Relevant Federal rules that may duplicate, overlap, or conflict with the proposed action

There do not appear to be any Federal rules that duplicate, overlap, or conflict with the proposed action.

4.8 Description of significant alternatives to the proposed action

The Council is currently considering two alternatives for this action. Under **Alternative 1**, no Pacific cod endorsements would be added to Western or Central GOA fixed gear LLP licenses. Under **Alternative 2**, fixed gear LLP licenses with Western and Central GOA endorsements that meet minimum catch thresholds would receive a Pacific cod endorsement. The proposed action could potentially apply different catch thresholds to licenses, depending on the operation type or size of the vessel. Options to

exclude jig vessels from the LLP requirement or from the Pacific cod endorsement requirement would be advantageous to jig vessels, which are among the smallest entities participating in the fisheries.

5.0 CONSISTENCY WITH OTHER APPLICABLE LAWS

5.1 Consistency with National Standards

Below are the ten National Standards in the Magnuson-Stevens Act (Act), and a brief discussion of the consistency of the proposed alternatives with those National Standards.

National Standard 1 – Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery.

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.

The GOA groundfish fisheries will continue to be managed under the current harvest specifications process. Groundfish stocks in the GOA are not currently in danger of being overfished and are considered stable. Overall levels of groundfish catch by the fixed gear sectors in the GOA are not likely to be affected by the proposed action. The proposed action would add Pacific cod endorsements to fixed gear licenses with Western or Central GOA endorsements if the licenses have landings during recent years. Recent participants in the fisheries would continue to have access to the directed Pacific cod fisheries subject to the LLP. The distribution of catch among sectors or participants and the overall net benefits to the Nation are not expected to change to an identifiable degree.

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

This analysis is based on the most current, comprehensive data available, recognizing that some information (such as operation costs) is unavailable.

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.

The Western and Central GOA groundfish TACs are established on an annual basis during the harvest specifications process. NOAA fisheries conducts annual GOA stock assessments for the groundfish species and makes acceptable biological catch recommendations to the Council. The Council sets the groundfish TACs based on the most recent stock assessment and survey information. Separate quotas for each groundfish species in the GOA would continue to be monitored inseason by NMFS.

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.

Residency within a specific state is not a criterion for receiving a Pacific cod endorsement. Licenses which meet minimum landings thresholds will remain eligible to participate in the Western and Central GOA Pacific cod fisheries, and exceptions to these eligibility standards will not be made for individual persons or entities based on residency in a specific state.

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 wording of this standard was changed in the 1996 Magnuson-Stevens Act authorization, to ‘consider’ rather than ‘promote’ efficiency. Efficiency in this context refers to economic efficiency, and the reason for the change is to de-emphasize the importance of economics relative to other considerations (Senate Report of the Committee on Commerce, Science, and Transportation on S. 39, the Sustainable Fisheries Act, 1996). The analysis presents information on economic considerations, but does not emphasize this standard over other considerations.

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

Adding Pacific cod endorsements to groundfish licenses in order to limit access to the directed Pacific cod fisheries in the Western and Central GOA is unlikely to reduce the ability of recent participants to increase effort in response to changes in fishing and market conditions. Overall harvest levels by the fixed gear sectors would not be constrained by the proposed action. In the event of lower Pacific cod quotas in the BSAI or changes in other fisheries, this action would protect the relative harvest levels of those license holders that have recently participated in the fisheries and are dependent on the GOA Pacific cod resource. In addition, provisions to exclude the jig sector from the Pacific cod endorsement requirement may increase future opportunities for participation and total catch by this sector.

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

The alternatives under consideration appear to be consistent with this standard.

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.

The RIR presents information on the impact of the proposed action on licenses held by residents of Alaska and other states, and provides detailed information on the number of qualifying licenses from Alaska communities. This action does not appear to have a disproportionate effect on residents of a particular state or on specific fishing communities. The RIR discusses the number of licenses held by residents of coastal fishing communities, including Community Quota Entity (CQE) communities that could qualify to for a Pacific cod endorsement. The analysis also discusses the relative importance of the Pacific cod fishery in comparison to other commercial fisheries to these communities.

In Component 7, the Council has the option to exempt licenses held by residents of CQE communities from the catch thresholds proposed by the action. These licenses would receive a Pacific cod endorsement even if they do not have recent landings in the fishery. The intent of this exemption is to help minimize any adverse economic impacts of this action on these small, remote communities, and to ensure that community residents who currently hold licenses continue to have access to the Pacific cod fishery.

Major ports in Alaska that process groundfish catch from the Western and Central GOA include Kodiak, Sand Point, King Cove, Homer, and Dutch Harbor, and the proposed action would not directly impact communities with processing facilities. Additionally, the greater Seattle, Washington metropolitan area is home to many catcher and catcher processor vessels operating in the fixed gear fisheries, as well as cold storage, transshipping, and secondary processing facilities. Information on these communities is available in the Steller Sea Lion SEIS (NMFS 2001b), the Draft Programmatic SEIS (NMFS 2001a), and the crab rationalization EIS (NPFMC 2004). Detailed information on Kodiak, Akutan, Dutch Harbor, and King Cove is available in the Comprehensive Baseline Commercial Fishing Community Profiles Final Report (EDAW 2005).

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.

The EA (Chapter 2) presents information on bycatch of prohibited species by the fixed gear sectors in the GOA Pacific cod fishery. This action, in combination with the proposed Pacific cod sector allocations, is not expected to change the overall amount or rate of PSC by the fixed gear sectors.

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

This action, in combination with the proposed Pacific cod sector allocations, may reduce the race for fish by limiting entry to the fixed gear sectors.

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

The Magnuson Stevens Act requires that any management measure submitted by the Council take into account potential impacts on participants in the fisheries subject to the proposed action, as well as participants in other fisheries. The impacts of alternatives on participants in the harvesting and processing sectors are discussed in Chapter 3. The proposed action is unlikely to affect the historic distribution of catch among sectors. License holders with minimal levels of catch during recent years will continue to have access to the directed Pacific cod fisheries. As a result, this action is unlikely to have a substantial effect on the number of participants or overall level of effort in the GOA Pacific cod fishery or other GOA groundfish fisheries prosecuted by the fixed gear sectors. Pacific cod seasons will likely continue to be short, particularly during the A season, and any new participants will need to forgo participation in other fisheries. Consequently, no impacts to participants in other fisheries are anticipated.

5.3 Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) of 1992 (16 U.S.C. 1361 *et seq.*) vests the Department of Commerce with authority to manage marine mammal populations. The Department of the Interior, USFWS, has management authority for all other marine mammal species in Alaska, including sea otter, walrus, and polar bear. The MMPA recognizes that certain species and populations of marine mammals

are or may be in danger of depletion due to human activities, and that marine mammals are resources of international significance and should be protected using best management practices.

The primary management objectives of the MMPA are to maintain the health and stability of the marine ecosystem and to maintain sustainable populations of marine mammals within the carrying capacity of the habitat. The MMPA is intended to work in concert with the provisions of the Endangered Species Act. The Secretary of Commerce is required to give full consideration to all factors regarding regulations applicable to the take of marine mammals, including the conservation, development, and utilization of marine resources, and the economic and technological feasibility of implementing the regulations. Impacts of commercial fishing activities on marine mammal populations must be analyzed in an EA or EIS, and the Council or NMFS may be requested to consider measures to mitigate adverse impacts. Under the proposed action, no changes in the temporal or spatial distribution of harvests or overall level of fishing effort are anticipated. Consequently, no additional impacts to marine mammal populations are expected to result from the proposed action.

5.4 Coastal Zone Management Act

Implementation of either of the alternatives would be conducted in a manner consistent with the Alaska Coastal Management Program and Section 30(c)(1) of the Coastal Zone Management Act of 1972 and its implementing regulations.

6.0 REFERENCES

Angliss, R. P., and R. B. Outlaw. 2007. Draft Alaska marine mammal stock assessments, 2007. U.S. Department of Commerce, NOAA Technical Memorandum.

EDAW (2005), with Northern Economics. Comprehensive Baseline Commercial Fishing Community Profiles: Unalaska, Akutan, King Cove, and Kodiak, Alaska.

Fitzgerald, S., K Kuletz, M Perez, K Rivera, and D Dragoo. 2006. Seabirds. *In* J Boldt, ed., Appendix C, Ecosystem Considerations for 2007. November 2006. NPFMC 605 West 4th Ave., Suite 306 Anchorage, AK 99501. Pp. 239-278.

Hiatt, Terry. 2008. Stock Assessment and Fishery Evaluation Report for the Groundfish Fisheries of the GOA and Bering Sea/Aleutian Island Area: Economic Status of the Groundfish Fisheries Off Alaska, 2007. NMFS Plan Team for the Groundfish Fisheries of the GOA.

NOAA. 2004a. Alaska Groundfish Fisheries Final Programmatic Supplemental Environmental Impact Statement, U.S. Dept. of Commerce, NOAA Fisheries, Alaska Region.

NOAA. 2004b. Alaska Groundfish Fisheries Final Programmatic Supplemental Environmental Impact Statement, Appendix B, Section 5.2, U.S. Dept. of Commerce, NOAA Fisheries, Alaska Region.

NMFS. 2008a. Stock Assessment and Fishery Evaluation Report for the Groundfish Resources of the GOA Region, 2008. NPFMC Plan Team for the Groundfish Fisheries of the GOA.

NMFS. 2008b. *Stock Assessment and Fishery Evaluation Report. Ecosystem Considerations.* NPFMC Plan Team for the Groundfish Fisheries of the BSAI and the GOA.

- NMFS. 2008c. BSAI and GOA Harvest Specifications for 2009-2010: Environmental Assessment (EA) and Initial Regulatory Flexibility Analysis (IRFA). NOAA NMFS Alaska Regional Office. Juneau, Alaska.
- NMFS. 2005. Environmental Impact Statement for the Essential Fish Habitat Identification and Conservation in Alaska. DOC, NOAA, NMFS P.O. Box 21668, Juneau, AK 99802.
- NMFS. 2003. Supplement to the Endangered Species Act – Section 7 Consultation: Biological Opinion and Incidental Take Statement of October 2001. NMFS, Alaska Region, Sustainable Fisheries Division.
- NMFS. 2001. Steller Sea Lion Protection Measures Final Supplemental Environmental Impact Statement (SEIS). NOAA, NMFS, Alaska Region..
- NMFS. 2000. Endangered Species Act – Section 7 Consultation: Biological Opinion and Incidental Take Statement (Biological Opinion). NMFS, Alaska Region, Sustainable Fisheries Division.
- NPFMC. 2008. Draft Initial EA/RIR/IRFA on the Proposed Action to Allocation the Western and Central GOA Pacific cod TACs among Sectors. NPFMC, Anchorage, Alaska.
- Sinclair, E., and T. Zeppelin. 2002. Seasonal and spatial differences in diet in the western stock of Steller sea lions (*Eumetopias jubatus*). *Journal of Mammalogy* 83(4).
- Thompson, G., M. Dorn, and D. Nichol. 2007. Assessment of the Pacific Cod Stock in the GOA. Stock Assessment and Fishery Evaluation Report for the Groundfish Resources of the GOA. National Marine Fisheries Service.
- USFWS. 2003a. Programmatic Biological Opinion on the effects of the Fishery Management Plans (FMPs) for the GOA (GOA) and Bering Sea/Aleutian Islands (BSAI) groundfish fisheries on the endangered short-tailed albatross (*Phoebastria albatrus*) and threatened Steller's eider (*Polysticta stelleri*). Anchorage Fish and Wildlife Field Office.
- USFWS. 2003b. Biological Opinion on the Effects of the Total Allowable Catch (TAC)-Setting Process for the GOA (GOA) and Bering Sea/Aleutian Islands (BSAI) Groundfish Fisheries to the Endangered Short-tailed Albatross (*Phoebastria albatrus*) and Threatened Steller's Eider (*Polysticta stelleri*). Anchorage Fish and Wildlife Field Office.

7.0 LIST OF PREPARERS

Jeannie Heltzel
Mark Fina, Ph.D.
Nicole Kimball

8.0 AGENCIES AND INDIVIDUALS CONSULTED

Jerry Bongen, Pot fisherman
Julie Bonney, Alaska Groundfish Data Bank
Tracy Buck, NOAA Fisheries
Len Carpenter, Alaska Jig Association
Kenny Down, Freezer Longline Coalition
Mary Furuness, NOAA Fisheries
Jessica Gharrett, NOAA Fisheries
Ken Hansen, NOAA Fisheries
Glenn Merrill, NOAA Fisheries
Tom Meyer, NOAA Fisheries
Jennifer Mondragon, NOAA Fisheries
Stefanie Moreland, Alaska Department of Fish and Game
Tom Pearson, NOAA Fisheries
Andy Smoker, NOAA Fisheries
Jeff Stephan, United Fisherman's Marketing Association

APPENDIX A. COMMUNITIES

Table A-1. Number of vessels using fixed gear participating in the Western GOA, Central GOA, and West Yakutat Pacific cod fisheries, gross revenues, and percent of total gross revenues from all Alaska fisheries comprised by GOA Pacific cod during 1995-2000 and 2001-2006, reported by vessel owner residency.

Community	CQE	Fishery	1995-2000				2001-2006			
			Num vessels	Total revenues	Catch (mt)	Percent of total revenues	Num vessels	Total revenues	Catch (mt)	Percent of total revenues
Anchor Point		Fed/parallel	24	1,681,284	2,716	12.3%	13	972,385	1,365	5.3%
Anchor Point		Fed/parallel/State	26	1,830,766	2,913	13.4%	14	1,241,131	1,704	6.8%
Chenega Bay	Y	Fed/parallel	1	*	*	*	0	0	0	0.0%
Chenega Bay	Y	Fed/parallel/State	1	*	*	*	0	0	0	0.0%
Chignik	Y	Fed/parallel	1	*	*	*	2	*	*	*
Chignik	Y	Fed/parallel/State	6	515,449	977	6.3%	8	1,194,015	1,936	17.2%
Chig. Lagoon	Y	Fed/parallel	3	*	*	*	2	*	*	*
Chig. Lagoon	Y	Fed/parallel/State	16	2,149,698	4,130	8.1%	15	4,230,835	7,479	22.4%
Chignik Lake	Y	Fed/parallel/State	2	*	*	*	0	0	0	0
Cordova		Fed/parallel	32	1,649,114	2,836	1.3%	6	52,365	81	0.0%
Cordova		Fed/parallel/State	34	1,671,046	2,867	1.3%	7	177,406	262	0.1%
Delta Junction		Fed/parallel	9	1,767,803	2,832	31.7%	7	1,957,306	2,649	27.1%
Delta Junction		Fed/parallel/State	9	1,781,583	2,851	31.9%	7	1,963,466	2,656	27.2%
Dutch Harbor		Fed/parallel	7	380,448	564	1.8%	6	110,093	177	1.1%
Dutch Harbor		Fed/parallel/State	10	487,991	786	2.3%	8	196,914	344	1.9%
False Pass		Fed/parallel	1	*	*	*	6	818,891	1,434	20.7%
False Pass		Fed/parallel/State	2	*	*	*	7	1,399,191	2,390	35.3%
Homer		Fed/parallel	111	7,846,627	12,476	4.2%	76	10,216,567	14,067	5.0%
Homer		Fed/parallel/State	130	8,922,949	13,987	4.8%	95	12,518,216	17,257	6.1%
Kenai		Fed/parallel	11	67,288	108	0.3%	2	*	*	*
Kenai		Fed/parallel/State	17	258,502	395	1.1%	7	58,733	99	0.3%
King Cove	Y	Fed/parallel	25	2,045,841	4,573	5.6%	20	3,805,941	6,658	13.0%
King Cove	Y	Fed/parallel/State	28	4,893,548	10,391	13.4%	26	9,094,674	15,683	31.2%
Kodiak		Fed/parallel	162	27,486,080	47,145	6.2%	150	25,249,675	36,002	5.3%
Kodiak		Fed/parallel/State	255	34,588,046	58,785	7.8%	240	38,817,734	56,256	8.1%
Larsen Bay	Y	Fed/parallel	4	116,288	208	6.3%	4	33,879	49	3.7%
Larsen Bay	Y	Fed/parallel/State	4	121,341	216	6.5%	6	137,070	194	15.2%
Nikolaevsk		Fed/parallel	11	533,757	763	6.8%	6	678,863	946	7.7%
Nikolaevsk		Fed/parallel/State	11	533,757	763	6.8%	6	678,863	946	7.7%
Old Harbor	Y	Fed/parallel	15	1,529,369	2,690	14.2%	8	752,900	1,045	9.1%
Old Harbor	Y	Fed/parallel/State	17	1,800,276	3,100	16.7%	9	1,198,157	1,688	14.4%
Ouzinkie	Y	Fed/parallel	6	168,034	302	6.1%	0	0	0	0.0%
Ouzinkie	Y	Fed/parallel/State	7	218,664	392	8.0%	6	58,524	84	1.9%
Palmer		Fed/parallel	5	277,233	430	1.8%	2	*	*	*
Palmer		Fed/parallel/State	7	498,363	804	3.2%	4	663,121	1,199	7.1%
Perryville	Y	Fed/parallel/State	5	83,867	129	1.6%	4	212,587	411	5.8%
Petersburg		Fed/parallel	2	*	*	*	4	96,696	120	0.0%
Petersburg		Fed/parallel/State	4	241,297	366	0.1%	7	580,784	930	0.2%
Port Lions	Y	Fed/parallel	5	29,271	56	0.8%	3	*	*	*
Port Lions	Y	Fed/parallel/State	6	75,068	111	2.0%	4	107,725	154	2.5%
Sand Point	Y	Fed/parallel	29	846,079	1,722	1.2%	44	3,581,618	6,350	5.8%
Sand Point	Y	Fed/parallel/State	69	3,761,617	7,455	5.1%	63	9,155,375	16,403	14.8%
Seldovia	Y	Fed/parallel	7	3,252,133	5,558	17.6%	3	*	*	*
Seldovia	Y	Fed/parallel/State	11	3,395,819	5,737	18.3%	5	1,436,581	1,949	10.1%
Seward		Fed/parallel	16	833,744	1,382	2.8%	8	97,388	140	0.3%
Seward		Fed/parallel/State	19	911,257	1,481	3.0%	9	240,982	349	0.6%
Sitka		Fed/parallel	11	939,677	1,659	0.6%	4	61,907	103	0.0%
Sitka		Fed/parallel/State	12	1,259,622	2,226	0.8%	9	235,911	348	0.1%
Tatitlek	Y	Fed/parallel	2	*	*	*	0	0	0	0.0%
Tatitlek	Y	Fed/parallel/State	2	*	*	*	0	0	0	0.0%
Unalaska		Fed/parallel	5	39,928	68	0.5%	4	341,777	422	4.0%
Unalaska		Fed/parallel/State	7	40,436	69	0.5%	4	341,777	422	4.0%
Wasilla		Fed/parallel	10	473,429	874	2.3%	9	463,560	760	2.4%
Wasilla		Fed/parallel/State	17	620,583	1,172	3.1%	11	865,876	1,417	4.5%
Willow		Fed/parallel	8	1,253,182	1,747	27.0%	6	1,655,327	2,327	28.3%
Willow		Fed/parallel/State	8	1,301,589	1,822	28.1%	7	1,691,034	2,380	28.9%

Source: ADFG Fish Tickets and CFEC gross revenues data. ¹ Fed/parallel includes fixed gear catch in the Federal and parallel waters fisheries in West Yakutat, Central GOA, and Western GOA. Fed/parallel/State includes fixed gear catch in the Federal, parallel waters, and State waters Pacific cod fisheries in West Yakutat, Central GOA, and Western GOA management areas.

Table A-2. Participation, total revenues, and annual revenues per license during 2000-2006 by fixed gear CV licenses held by residents of CQE communities that have at least 1 directed Pacific cod landing during 2000-2006 and with no GOA directed Pacific cod landings during 2000-2006.

	Western Gulf licenses with at least one Western Gulf directed Pacific cod landing during 2000-2006 (36 licenses)				Western Gulf licenses with no qualified Western Gulf directed Pacific cod landings during 2000-2006 (18 licenses)			
Fishery	Number of licenses in fishery	Percent revenues	Total revenues 2000-2006	Annual revenues per license	Number of licenses in fishery	Percent revenues	Total revenues 2000-2006	Annual revenues per license
Federal WG Pcod- Fixed Gear	36	10.0%	\$7,462,885	\$29,615	0	0	\$0	\$0
Federal CG Pcod- Fixed Gear	2	*	*	*	0	0	\$0	\$0
Federal GOA Groundfish- Trawl	18	19.0%	\$14,159,477	\$112,377	0	0	\$0	\$0
State GOA Pacific Cod	35	17.8%	\$13,240,376	\$54,042	6	4.2%	\$132,242	\$3,149
B SAI Fixed Gear	8	1.3%	\$986,655	\$17,619	1	*	*	*
B SAI Trawl	3	*	*	*	0	0.0%	\$0	\$0
Herring	5	0.6%	\$471,231	\$13,464	2	*	*	*
IFQ Halibut	21	19.2%	\$14,310,389	\$97,350	3	*	*	*
IFQ Sablefish	2	*	*	*	0	0.0%	\$0	\$0
Other	29	0.1%	\$76,821	\$378	1	*	*	*
Salmon	33	27.6%	\$20,558,845	\$88,999	12	82.6%	\$2,623,042	\$31,227
Shellfish	33	3.8%	\$2,851,049	\$12,342	1	*	*	*
All Fisheries	36	100.0%	\$74,474,601	\$295,534	14	100.0%	\$3,175,191	\$32,400
No landings in any Alaska fisheries	0	0.0%	\$0	\$0	4	0.0%	\$0	\$0
	Central Gulf licenses with at least one Central Gulf directed Pacific cod landing during 2000-2006 (19 licenses)				Central Gulf licenses with no qualified Central Gulf directed Pacific cod landings during 2000-2006 (55 licenses)			
Fishery	Number of licenses in fishery	Percent revenues	Total revenues 2000-2006	Annual revenues per license	Number of licenses in fishery	Percent revenues	Total revenues 2000-2006	Annual revenues per license
Federal CG Pcod- Fixed Gear	19	8.8%	\$2,951,398	\$22,191	0	0.0%	\$0	\$0
Federal WG Pcod- Fixed Gear	2	*	*	*	17	7.7%	\$5,017,110	\$42,161
Federal GOA Groundfish- Trawl	1	*	*	*	15	19.0%	\$12,312,457	\$117,261
State GOA Pacific Cod	13	8.6%	\$2,903,842	\$31,910	23	14.5%	\$9,416,027	\$58,485
B SAI Fixed Gear	3	*	*	*	4	1.1%	\$733,683	\$26,203
B SAI Trawl	1	*	*	*	2	*	*	*
Herring	5	5.0%	\$1,695,125	\$48,432	4	1.4%	\$932,870	\$33,317
IFQ Halibut	13	34.3%	\$11,547,575	\$126,896	28	16.4%	\$10,667,454	\$54,426
IFQ Sablefish	5	7.2%	\$2,405,572	\$68,731	2	*	*	*
Other	11	0.1%	\$35,045	\$455	22	0.1%	\$70,518	\$458
Salmon	13	20.4%	\$6,845,104	\$75,221	35	35.4%	\$22,980,569	\$93,798
Shellfish	12	9.8%	\$3,286,517	\$39,125	24	4.1%	\$2,674,335	\$15,919
All Fisheries	19	100.0%	\$33,634,176	\$252,889	44	100.0%	\$64,925,384	\$210,797
No landings in any Alaska fisheries	0	0.0%	\$0	\$0	11	0.0%	\$0	\$0

Source: ADFG Fish Tickets, CFEC gross revenues, and RAM groundfish license file, December 2008.