

Initial and Public Review Draft

**Environmental Assessment/ Regulatory Impact Review/Initial
Regulatory Flexibility Analysis for an Amendment
to the GOA FMP**

**Revising Management of the
GOA Pacific Cod Jig Fishery**

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1 INTRODUCTION

The groundfish fisheries in the Exclusive Economic Zone (EEZ) off Alaska are managed by the National Marine Fisheries Service (NMFS) under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Under the authority of the MSA, the North Pacific Fishery Management Council (Council) developed Fishery Management Plans for the groundfish fisheries of the Gulf of Alaska management area (GOA) and Bering Sea and Aleutian Islands management area (BSAI). This Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis (EA/RIR/IRFA) examines the environmental, economic, and socioeconomic aspects of a proposed Federal regulatory action. The action would open Federal waters to directed fishing for Pacific cod with jig gear concurrent with the State of Alaska Guideline Harvest Limit (GHL) fishery for Pacific cod in the GOA. Catches in Federal waters would accrue to the State jig GHL, which is specified as a percentage of the GOA Pacific cod ABC (see Appendix A for details on the State GHL fishery).

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 2**. 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. 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 3** of this document, as well as a description of the affected human environment and information on the impacts of the alternatives on that environment. **Chapter 4** addresses requirements of the Regulatory Flexibility Act (RFA). The RFA requires an analysis of potential adverse economic impacts accruing to small entities that would be directly regulated by the proposed action. **Chapter 5** addresses other applicable laws, including the Magnuson Stevens Act and Marine Mammal Protection Act. The references and literature cited are in **Chapter 6**, the list of preparers is in **Chapter 7**, and the list of agencies and individuals consulted is in **Chapter 8**.

2 REGULATORY IMPACT REVIEW

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

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

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

- Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, local or tribal governments or communities;
- Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- Raise novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth in this Executive Order.

2.1 Introduction and Problem Statement

The Council has recently taken two actions that modify management of the GOA Pacific cod fisheries. Both actions have the potential to increase opportunities for vessel operators using jig gear. In December 2009, the Council adopted GOA Amendment 83, which establishes GOA Pacific cod sector allocations. The action allocates jig gear a percentage of the Western and Central GOA Pacific cod TACs that is higher than the sector’s historical catches, with a stairstep provision to increase the jig allocations if they are fully harvested. Similarly, there is a step down provision to reduce the jig allocations (but not below their initial level) if they are not fully harvested in subsequent years. In April 2009, the Council adopted GOA Amendment 86, which adds Pacific cod endorsements to GOA fixed gear LLP licenses. The action also exempts jig gear from the LLP requirement in the Western and Central GOA.

In addition, the Council’s final motion on sector allocations tasked staff to develop a discussion paper addressing two options to make further changes to management of the GOA Pacific cod jig fishery. The first option was to combine the State jig GHL and Federal/parallel jig TAC allocation into a single account, managed under a parallel/Federal structure. This would occur if the Alaska Board of Fisheries (BOF) rolled all or a portion of the State waters jig GHL into the Federal/parallel jig allocation. The Council’s action with respect to this option would be limited to determining how to manage a combined jig GHL/TAC fishery. The second option was to establish a “reverse parallel fishery”, which would allow

LLP-exempt jig vessels to operate in Federal waters during the State GHL Pacific cod fishery, with harvests accruing to the State GHL.

The Council reviewed this discussion paper at its December 2010 meeting and decided to initiate an analysis. The Council forwarded a problem statement and two alternatives for analysis, including the status quo fishery and the proposed reverse parallel fishery. The Council chose not to consider further analysis of a combined State waters GHL and TAC fishery for jig gear, because this management approach has the potential to complicate management of the fisheries, and possibly disallow some elements of the fisheries. For example, some measures in the State GHL fisheries, such as exclusive registration, may not be permissible under the Magnuson-Stevens Act. In addition, the proposed Alternative 2 is simpler to implement and achieves the objective of providing increased access to Federal waters for operators using jig gear. At this meeting, the Council is scheduled to take final action on the proposed amendment.

Purpose and Need

The purpose of considering these two management options for the jig fishery is to address concerns expressed during public testimony and Council deliberations as the Council developed the GOA Pacific cod sector allocations in Amendment 83. State Pacific cod GHLs have not been fully harvested in some years. Typically, pot GHLs are fully harvested, but jig harvests have been very low in some years. Unharvested jig GHL may be rolled over to the pot GHL fishery after the Federal/parallel TAC fishery closes in the fall. However, in some years, the parallel waters B season has remained open to vessels using fixed gear from September 1 until December 31, and the B season TACs have not been fully harvested. During these years, State managers did not have the opportunity to re-open the State waters season in the fall and roll over unused jig GHL to the pot GHL fishery. Participants in the jig GHL fishery have indicated that jig catches were low in years when Pacific cod were concentrated offshore (outside of State waters). Allowing jig gear participants in the GOA State GHL fishery to fish in adjacent Federal waters, with catches accruing to the jig GHL, may increase the likelihood that the jig GHL is fully harvested.

If this action is implemented, operators using jig gear would likely have year-round access to Federal waters. Currently, State GHL fisheries are only prosecuted in State waters. In the absence of this action, jig operators would only have access to Federal waters during the parallel/Federal waters A and B seasons, and the timing of the jig fishery may still be a factor limiting jig catches. The Federal/parallel waters Pacific cod TAC fishery has typically been conducted during compressed A and B seasons. Jig vessels have a slower harvest rate and are at a disadvantage when competing with other gear types for the TAC. The Council's action on GOA Pacific cod sector allocations addressed this concern by providing the jig sector with an allocation that is higher than the sector's historical share of the catch, and by including a staircase provision to increase the jig allocation if it is fully harvested. When sector allocations are implemented, the jig A season will open January 1 and close when the jig allocation is harvested, or on March 15. The Board of Fisheries will meet in Fall 2011 to determine when the State GHL jig fishery will open following closure of the A season. The jig B season will open on June 10 and remain open until the B season allocation is fully harvested, or on December 31. As a result, in the absence of this action, Federal waters would likely be closed to jig gear from approximately March 15 through June 10.

Purpose and Need Statement

The Council adopted the following statement of purpose and need:

The Council has taken two recent actions that will potentially increase opportunities for jig vessels. The GOA Fixed Gear LLP Recency action exempts jig vessels, subject to gear limits, from the LLP requirement in the Western and Central GOA. The GOA Pacific Cod Sector Allocation action allocated a percentage of the Western and Central GOA Pacific cod TACs that is higher than the sector's historical catch levels with a staircase provision to increase the allocations if they are fully harvested. A number of factors have contributed to limiting jig harvests in both state and federally managed fisheries. The timing of the Pacific cod A and B seasons may have limited the participation of jig vessels in the parallel and Federal fisheries of the GOA. Additionally, the State waters jig allocation has gone uncaught in some years, potentially due to the lack of availability of Pacific cod inside three miles. The jig fishery provides entry level opportunity into GOA fisheries and contributes to a diversified fishing portfolio for combination fishing vessels throughout coastal Alaskan communities. Restructuring management of the jig fishery could ensure that the jig fleet has access to fully harvest both state and federal fisheries allocations.

2.2 Description of the Alternatives

In order to address the problem described in the purpose and need statement, the Council identified two alternatives for analysis. The exact text of the Council's motion is shown in Table 1. **Alternative 1** is the status quo fishery, once the GOA Pacific cod sector allocations are implemented. **Alternative 2** would open Federal waters Pacific cod jig fisheries concurrent with the State GHL jig fisheries. Federal waters catches while the State GHL fishery is open would accrue to the State GHL. In the Alternative 2, the Council will need to specify which management areas in the GOA will open concurrent with the GOA State waters GHL fisheries.

Table 2-1 Council motion on GOA Pacific cod jig fishery management

Alternative 1: Status quo

Distinct Parallel/Federal and State waters fisheries will continue to exist and the two fisheries will be managed as follows when the GOA Pacific cod sector allocations action is implemented:

The Federal TAC will be divided into an A/B season of 60%/40%. The A season will open on Jan 1 and close when the TAC is reached or on March 15. The State jig fishery will open either when the Federal season closes due to TAC or on March 15. The Federal B season will open on June 10.

Alternative 2: Reverse parallel fishery

Federal openings of the Pacific cod jig fisheries in the EEZ will be concurrent with State of Alaska seasons when the State GHL fishery is opened. Catch in Federal waters during the State GHL season will be deducted from the State GHL allocation. Catch in Federal waters or State waters when the State GHL is not open will be deducted from the Federal jig TAC.

2.3 Background

2.3.1 GOA Pacific cod jig fishery

The Council has recently taken two actions to modify management of the GOA Pacific cod fisheries, and both actions potentially increase opportunities for vessel operators using jig gear. The Council's action

on fixed gear recency exempts operators using jig gear from the groundfish LLP requirement in the Western and Central GOA, subject to a gear limit of 5 jig machines, 1 line per machine, and 30 hooks per line. However, LLPs with at least 1 jig landing of Pacific cod (in the directed fishery) during 2002-2008 in the Western or Central GOA qualify for a jig gear Pacific cod endorsement, and are not subject to the gear limits that apply to vessels fishing under the LLP exemption (i.e., the 5 jig machine limit, etc.).

The Council’s action on GOA Pacific cod sector splits allocates jig gear 1% of the Central GOA Pacific cod TAC and 1.5% of the Western GOA Pacific cod TAC. In addition, there is a staircase provision to increase the jig allocations by 1% if at least 90% of the respective allocations are harvested in any given year. Similarly, there is a step down provision to decrease the jig allocations by 1% if at least 90% of the previous allocation (prior to the most recent staircase increase) is not harvested during two consecutive years. The allocations would not drop below their initial level. Other provisions include:

- The jig allocation will be capped at 6% of the respective area TACs.
- The jig allocation will be apportioned 60%/40% to the A/B seasons.
- The A season will open on January 1 and will close when the A season jig allocation is reached or on March 15, whichever occurs first.
- The B season will open on June 10 or after the State GHF season closes, whichever occurs later.

Catch and participation in the GOA Pacific cod jig fisheries are summarized in Table 2-2 through Table 2-5. In most years, jig catches were less than 1% of the total parallel/Federal waters catches, and fewer than 30 vessels generally participated in the parallel/Federal waters jig fishery (Table 2-1). Catches in the A season were often smaller than B season catches, with the notable exception of the 2011 A season in the Central GOA (Table 2-1). The majority of jig catches in the parallel/Federal waters fishery were made in parallel waters (Table 2-3) and by vessels that do not hold LLP licenses (Table 2-4). Most catches were made by vessels less than 60 ft LOA. In contrast, participation in the State waters jig GHF fishery frequently exceeds 100 vessels, and catches in the jig GHF fishery are much higher than in the TAC fisheries (see Appendix A, Tables A-4 through A-8). The majority (>75%) of jig catches of Pacific cod from 2001-2010 were made during the months of March, April, and May during the State GHF fishery (Figure 2-1).

Table 2-2 Jig catch (mt) of Pacific cod in the Western and Central GOA

Year	Central GOA		Western GOA	
	Vessel count	Tons	Vessel count	Tons
2001	15	11	17	158
2002	8	3	31	193
2003	12	16	11	46
2004	36	118	23	183
2005	29	137	9	46
2006	26	95	1	*
2007	17	36	4	2
2008	10	18	9	54
2009	13	42	11	189
2010	24	103	31	323
2011	21	295	5	17

*Confidential. Note that 2011 catches are for January-February only.

Source: AKFIN Comprehensive Fish Ticket Dataset and Comprehensive Catch Accounting Dataset.

Table 2-3 Jig catch (mt) of Pacific cod in the Western and Central GOA during the A and B seasons

Year	Central GOA				Western GOA			
	A season		B season		A season		B season	
	Vessel count	Tons						
2001	14	*	1	*	3	1	16	157
2002	8	3	0	0	3	4	29	189
2003	11	*	1	*	0	0	11	46
2004	28	66	14	51	17	119	7	65
2005	23	96	12	40	6	43	3	3
2006	24	81	7	14	0	0	1	*
2007	11	17	8	19	1	*	3	*
2008	7	10	4	8	0	0	9	54
2009	10	15	5	27	0	0	11	189
2010	9	45	16	58	2	*	31	*
2011	21	295	0	0	5	17	0	0

*Confidential. Source: AKFIN Comprehensive Fish Ticket Dataset and Comprehensive Catch Accounting Dataset.

Table 2-4 Jig catch (mt) of Pacific cod in parallel and Federal waters

Year	Central GOA				Western GOA			
	Parallel waters		Federal waters		Parallel waters		Federal waters	
	Vessel count	Tons	Vessel count	Tons	Vessel count	Tons	Vessel count	Tons
2001-2005	61	267	14	18	64	608	11	18
2006-2010	53	270	10	25	38	561	5	7

Source: AKFIN Comprehensive Fish Ticket Dataset and Comprehensive Catch Accounting Dataset.

Table 2-5 Jig catch (mt) of Pacific cod reported by LLP status

Years	LLP status	Central GOA		Western GOA	
		Vessel count	Tons	Vessel count	Tons
2001-2005	N	55	221	65	*
	Y	11	64	2	*
2006-2010	N	47	224	40	568
	Y	11	70	0	0

Source: AKFIN Comprehensive LLP Dataset. *Confidential.

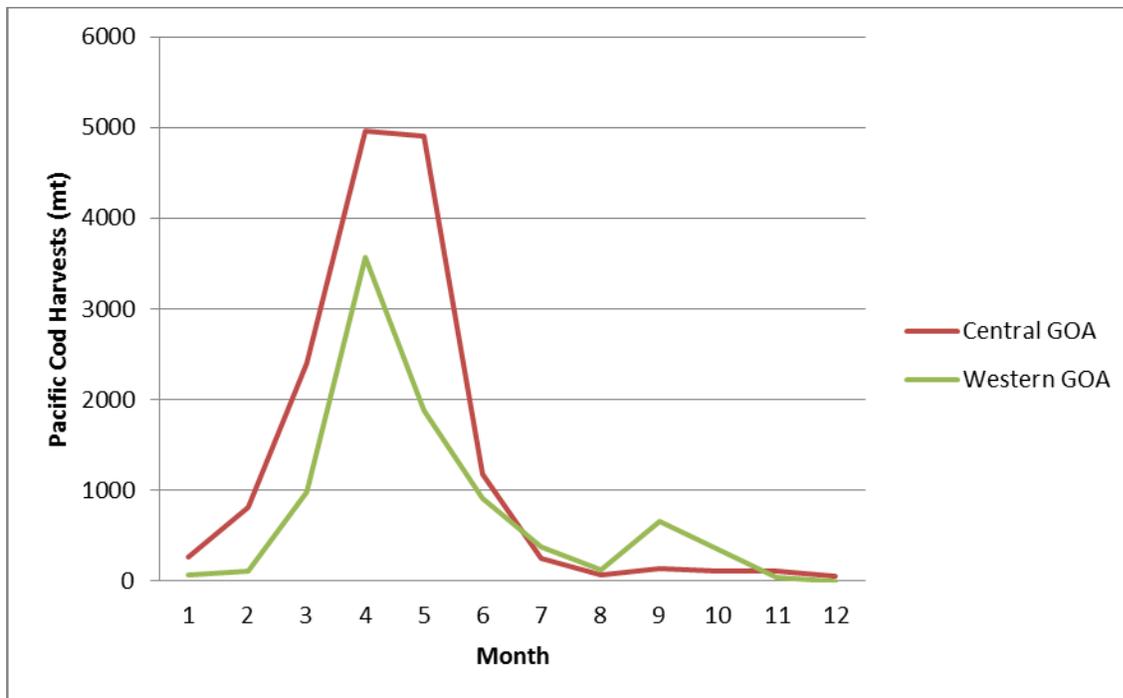


Figure 2-1 Total monthly catches (mt) of Pacific cod in the GOA with jig gear, 2001-2010

2.3.1.1 Revenues

Ex-vessel prices in the GOA Pacific cod fisheries increased substantially during 2007 and 2008, and then dropped by about 50% in 2009 (Table 2-27). Gross revenues for all catcher vessel landings of GOA Pacific cod totaled nearly \$42 million in 2008, an 18% increase from 2007, despite a decline in the TAC (Table 2-28). Participants in the 2008 GOA Pacific cod fisheries reported prices of up to \$0.68 per pound during the A season, including bonuses. During the 2008 B season and 2009, poor market conditions worldwide resulted in price declines. Extensive information on economic conditions in the GOA Pacific cod fisheries can be found in the Economic SAFE Report (NMFS 2010a).

Table 2-6 Ex-vessel prices (dollars) per pound in the GOA Pacific cod fisheries

Year	Hook-and-line	Jig	Pot	Trawl
2001	0.33	0.28	0.27	0.25
2002	0.29	0.23	0.23	0.21
2003	0.33	0.29	0.28	0.29
2004	0.30	0.28	0.25	0.25
2005	0.31	0.31	0.30	0.27
2006	0.41	0.43	0.40	0.36
2007	0.51	0.53	0.50	0.46
2008	0.60	0.59	0.58	0.52
2009	0.31	0.25	0.29	0.26

Source: ADF&G Fish Tickets and CFEC gross revenues data.

The relative economic dependence of participants in each of the harvest sectors on Pacific cod is reported in Table 2-7. The table reports total gross revenues and total economic dependence on the GOA Pacific cod jig fisheries as compared to other Alaska fisheries by all vessels that participated in the directed cod fisheries, averaged over the period from 2001 through 2009. In the Central GOA, jig vessels earned only 3.7% of gross revenues from the GOA Pacific cod TAC fisheries, but also earned an additional 25.7% of

revenues from the State GHL Pacific cod fisheries. Salmon accounted for 27.8% of gross revenues earned by jig vessels, and halibut 25.8%. In some years, dependence on the Pacific cod fisheries has been much higher. For example, in both 2008 and 2009, the GOA State waters GHL fisheries accounted for more than 60% of gross revenues by jig vessels that participated in the Pacific cod fisheries in the Central GOA. In the Western GOA, jig vessels earned 7.4% of gross revenues from the GOA Pacific cod TAC fisheries, and an additional 9.8% of revenues from the State GHL Pacific cod fisheries. Salmon (38.8%) and IFQ halibut (31.2%) accounted for the majority of gross revenues earned by jig vessels in the Western GOA.

Table 2-7 Total annual gross revenues and percent dependence by vessels that participated in the GOA Pacific cod fishery with jig gear on the GOA Pacific cod fishery and other fisheries off Alaska, averaged from 2001 through 2009.

Area	Revenues from jig TAC Fisheries	Percent of total revenues	Revenues from jig GHL Fisheries	Percent of total revenues	Revenues from salmon fisheries	Percent of total revenues	Revenues from halibut fisheries	Percent of total revenues	Revenues from other fisheries	Percent of total revenues
Central GOA	\$42,987	3.7%	\$299,193	25.7%	\$324,134	27.8%	\$301,001	25.8%	\$197,675	17.0%
Western GOA	\$64,242	7.4%	\$84,721	9.8%	\$334,873	38.8%	\$269,223	31.2%	\$110,263	12.8%

Source: AKFIN Comprehensive Fish Ticket Dataset. Only includes vessels that had directed landings in the GOA Pacific cod TAC fisheries.

2.3.2 Federal Fisheries Permit (FFP) requirements

Vessel operators who fish in Federal waters during the State jig GHL fishery would be required to hold a Federal fisheries permit (FFP). This requirement applies to all vessel operators fishing for groundfish in Federal waters of the Bering Sea, Aleutian Islands, and Gulf of Alaska. In addition, any vessel operator who fishes in Federal waters of the BSAI or GOA for any non-groundfish species (e.g., IFQ halibut, crab, salmon, scallops, herring), and who is required to retain any bycatch of groundfish, must obtain an FFP (679.4).

Operators who hold an FFP must comply with groundfish observer program regulations and with NMFS recordkeeping and reporting requirements. In addition, vessel operators who hold FFPs must carry a Vessel Monitoring System (VMS) if they participate in the directed Atka mackerel, Pacific cod, or pollock fisheries in Federal waters of the BSAI or GOA, but jig gear is currently exempt from the VMS requirement. The catch reporting, observer, and VMS requirements that apply to vessel operators holding an FFP are also applicable in State waters. However, vessel operators who fish exclusively in the parallel and State waters fisheries do not need an FFP, and operators who do not hold FFPs are not subject to NMFS recordkeeping and reporting requirements, or Federal observer or VMS requirements. The FFP is issued on a 3-year cycle and is in effect from the date of issuance through the end of the current NMFS 3-year cycle.

Currently, most operators using jig gear are exempt from participating in the groundfish observer program because nearly all vessels participating in this sector are less than 60 ft LOA. However, revisions to the program adopted by the Council in October 2010 include all Federally-permitted vessels that participate in the groundfish fisheries (NPFMC 2010). Vessels that use jig gear are predominantly small (<60 ft LOA) and would fall into the <100% observer coverage category in the restructured program. Initially, vessels in the <100% observer coverage category will pay a 1.25% fee assessed based on the ex-vessel value of groundfish landings in the non-GHL fisheries, if they hold an FFP. Therefore, operators participating in the Pacific cod jig GHL fishery in Federal waters of the GOA would not pay an ex-vessel fee on GHL Pacific cod landings. Incidental catches of other groundfish species that are landed by

vessels with FFPs during the Pacific cod GHL fishery and taken off a Federal TAC will be assessed the 1.25% ex-vessel fee, as these landings do not accrue to a GHL fishery. However, it is important to note that the potential for a ‘reverse parallel’ fishery, in which the State GHL fisheries are conducted in Federal waters, was not considered in the observer program restructuring analysis (NPFMC 2010). If the net amount of Pacific cod harvested in the GOA jig GHL fishery does not increase as a result of this action, then exempting Federal waters GHL catches from the 1.25% ex-vessel fee may not result in any unforeseen consequences to the expected observer fee proceeds.

2.4 Analysis of the Alternatives

2.4.1 Effects on harvesters

Under **Alternative 1**, no further changes would be made to management of the GOA Pacific cod jig fishery, beyond those in the FMP amendments recently adopted by the Council. The GOA Pacific cod State GHL jig fishery would continue to be prosecuted exclusively in State waters, and jig operators would only have access to Federal waters during the parallel/Federal waters A and B seasons. When sector allocations are implemented, the A season for jig gear will open on January 1 and close when the jig allocation is harvested, or on March 15. The State GHL fishery will open when the A season for jig gear closes. The B season for jig gear will open on June 10 and remain open until the B season allocation is fully harvested, or on December 31. Thus, under Alternative 1, Federal waters would likely be closed to jig gear from approximately March 15 through June 10.

If Alternative 1 is selected, catches in the State GHL jig fisheries would likely continue to fluctuate as the availability of Pacific cod in State waters varies. In years when jig harvests in the GHL fishery are low, participants in the pot GHL fishery may continue to have access to rollovers of jig GHL. However, in some recent years, State managers have chosen not to reopen the State waters GHL fishery in the fall and roll over unharvested jig GHL to the pot sector because the Federal/parallel waters B season has been open from September 1 through December 31, and B season TACs have not been fully harvested. The parallel fishery is open to more gear types than the GHL fishery. The amount of GHL that might remain unharvested in the absence of this action is unknown, and depends on future market conditions, the size of groundfish TACs, opportunities to participate in other fisheries, the future regulatory environment, and variable operating costs (e.g., fuel) in the fisheries. Consequently, this analysis does not provide a quantitative estimate of the potential economic impacts of the no action alternative.

Under **Alternative 2**, the State waters jig GHL could be fished in both State and Federal waters. If this alternative is selected, operators using jig gear would likely have year-round access to Federal waters. Currently, the State waters jig GHL consists of 8.06% of the Central GOA ABC and 3.75% of the Western GOA ABC (Appendix A, Table A-1). In some years, as described previously, a portion of the jig GHL has remained unharvested. Alternative 2 has the potential to minimize the amount of unharvested jig GHL by providing opportunities for jig vessels to fish in both State and Federal waters during months when weather conditions are relatively favorable. Under current State regulations, unharvested jig GHL may be rolled over to the pot sector on August 15 (Chignik) and September 1 (Kodiak and Cook Inlet). These rollovers may no longer be available to the pot GHL fishery if the jig GHL is fully harvested as a result of this action.

Vessel operators who fish in Federal waters during the State jig GHL fishery would be required to hold a Federal fisheries permit (FFP). As discussed previously in Section 2.3.2., all operators who possess an FFP are subject to Federal recordkeeping and reporting requirements and will be required to participate in the restructured observer program. The Council recently exempted jig gear from the LLP requirement in the GOA. The LLP exemption applies to vessels using up to 5 jigging machines, 30 hooks per line, and 1 line per machine.

Alternative 2 has the potential to attract new effort into the GOA State GHL Pacific cod jig fishery. However, as with the status quo alternative, this outcome depends on a number of factors, including future market conditions, stock conditions, the future regulatory environment, operating costs, and opportunities to participate in other fisheries. The proposed action does not displace currently participating operations from the GOA Pacific cod fisheries. Instead, it seeks to create opportunities for operators to fully harvest the GOA Pacific cod GHL. Future crew employment opportunities may increase if more vessels participate in the GOA jig GHL fishery. At the same time, crew employed by the existing jig fleets participating in these fisheries may benefit from increased economic opportunity resulting from the proposed action. For example, those vessels that remain eligible to participate in the fishery will likely experience increased fishing opportunities and higher per capita incomes.

2.4.2 Effects on processors

The GOA Pacific cod GHL fisheries are not currently allocated among processing sectors. Harvests in the GOA Pacific cod jig fishery are primarily delivered to shoreside processors, and these delivery patterns are expected to continue under either of the alternatives. Only one jig CP has operated in the GOA in recent years. Few motherships have operated in the GOA in recent years, and mothership deliveries were limited under the GOA Pacific cod inshore/offshore processing allocations. The Amendment 83 sector allocations superseded the inshore/offshore allocations. As part of this action, the Council capped mothership deliveries as a percentage of the subarea TACs. These caps provide a disincentive for motherships to operate in the GOA. Consequently, catcher vessel deliveries are expected to continue to be processed primarily by shoreside processors.

Under Alternative 2, it is possible that increased harvests in the GOA Pacific cod jig GHL fishery would occur. Because nearly all catches in the GOA jig GHL fishery are delivered to shoreside plants, any benefits from this action resulting from increased processing activity would likely accrue to the shoreside processing sector. Finally, more vessels in the jig GHL fishery may mean that more onshore fleet support services would be needed in Kodiak, Sand Point, Homer, and other coastal communities, as compared the status quo, Alternative 1.

2.4.3 Effects on communities

Fisheries impact communities through the economic and socioeconomic activities generated by participants in the various harvesting sectors, processing sectors, and supporting industries. Estimates of the number of vessel owners participating in the GOA Pacific cod jig fisheries, by residency, were generated to provide perspective on the level of participation in the status quo GOA Pacific cod jig fisheries by residents of Alaska and other States. This information is used to examine the potential impacts of the proposed action on the distribution of Pacific cod catch (and revenues) to communities. These community-level estimates should be interpreted with caution, because available data may not fully reflect the actual residence of participants. For example, a vessel owner may not reside in the community that is used as a registered mailing address, or may only reside in that community on a seasonal basis. Impacts of the proposed sector allocations are likely to depend on the relative size of the local and regional economy. Small communities could be greatly impacted by even a small increase in participation in the fisheries that would have a negligible impact on a larger community.

The majority of participants in the both the State GHL jig fishery and the parallel/Federal waters TAC jig fishery are from small coastal communities in Alaska. Table 2-7 reports catches by vessel owner residence in the parallel/Federal waters TAC fisheries, and Table 2-8 reports catch by residence for the State waters GHL fisheries. If participation patterns under Alternative 2 stay the same as the status quo, any increases in jig catches would likely be distributed primarily to residents of Alaska. In the Central

GOA, the majority of jig catches are made by residents of Kodiak, and in the Western GOA, Sand Point residents harvest the majority of jig catches.

Table 2-8 Jig catch (mt) in the GOA parallel/Federal waters Pacific cod fisheries by vessel owner residency.

	Vessel Owner State	Vessel Owner City	2001-2005		2006-2010	
			Vessel Count	Tons	Vessel Count	Tons
Central GOA	Alaska	Anchorage	9	64	6	32
		Kodiak	38	188	43	247
		Other Alaska	14	31	4	3
	Alaska Total		61	283	53	282
	Other State		6	2	5	13
Western GOA	Alaska	Anchorage	2	*	6	29
		Akutan	2	*	4	99
		False Pass	4	79	0	0
		King Cove	5	78	3	*
		Kodiak	7	67	3	*
		Sand Point	22	221	16	231
		Other Alaska	9	26	6	45
		Alaska Total		51	482	38
	Other State		15	144	3	*

Source: AKFIN Comprehensive Fish Ticket Database and Comprehensive Catch Accounting Database.

Table 2-9 Jig catch (mt) in the GOA State waters GHL Pacific cod fisheries by vessel owner residency.

	Vessel Owner State	Vessel Owner City	2001-2005		2006-2010	
			Vessel Count	Tons	Vessel Count	Tons
Central GOA	Alaska	Anchorage	27	500	15	554
		Chignik	4	16	0	0
		Chignik Lagoon	9	225	1	*
		Homer	28	448	22	293
		Kodiak	146	5003	120	5666
		Old Harbor	5	118	2	*
		Other	18	259	7	27
		Ouzinkie	6	61	3	*
		Seward	4	98	0	0
	Alaska Total		247	6729	170	6632
Washington		14	478	6	286	
Other State		11	232	5	297	
Western GOA	Alaska	Anchorage	14	397	8	117
		False Pass	5	51	1	*
		Homer	5	119	3	*
		King Cove	13	400	10	104
		Kodiak	14	946	3	*
		Other	17	279	7	208
		Sand Point	48	1875	38	1437
	Alaska Total		116	4068	70	2031
Washington		12	198	7	*	
Other State		23	1192	3	*	

Source: AKFIN Comprehensive Fish Ticket Database and Comprehensive Catch Accounting Database.

2.4.4 Effects on management, monitoring, and enforcement

No management, catch accounting, or enforcement issues are anticipated. Currently, in the Prince William Sound, Kodiak, and South Alaska Peninsula areas, the State waters Pacific cod fisheries open 7 days after the parallel waters A seasons for the Central GOA (Prince William Sound and Kodiak) and Western GOA (South Alaska Peninsula). The Cook Inlet fishery opens 24 hours after the Central GOA inshore A season closes, and the Chignik fishery opening date is set in regulation on March 1. The Board

of Fisheries is scheduled to meet in fall 2011 to consider revising the season opening dates for the 2012 fishing year, because GOA Pacific cod sector allocations are expected to be implemented in 2012 and will likely affect the timing of the parallel/Federal waters TAC fisheries.

State managers currently track State waters GHL harvests and close the fisheries when the GHLS are fully harvested (or when the parallel B season begins on September 1). NMFS also tracks GHL harvests in its Catch Accounting system, because GHLS are specified as a portion of the GOA Pacific cod ABCs. Both agencies would continue to track GHL harvests. Under Alternative 2, ADF&G managers would also track Federal waters jig GHL harvests and attribute these catches to the appropriate GHL. A map showing the location of State management areas in relation to NMFS management areas in Federal waters of the GOA is found in Appendix A (Figure A-1).

2.4.5 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), operators participating in the jig GHL fishery would continue to be limited to fishing in State waters, and in some years, a portion of the jig GHL may not be harvested. Alternative 2 has the potential to minimize the amount of unharvested jig GHL by providing jig vessels the opportunity to fish in both State and Federal waters. Implementation of the proposed action would require NOAA fisheries to track Federal waters catches in the GOA Pacific cod jig GHL fishery. This is not expected to impose any additional management costs. The agency already tracks overall catches of the GOA Pacific cod State GHL fishery, in addition to catches in the TAC fisheries, in order to ensure that the GOA Pacific cod ABC is not exceeded.

The main economic benefit from the proposed action is that it will increase the likelihood that the GOA Pacific cod GHLS are fully harvested. Therefore, the action has the potential to benefit vessel operators who participate in the GOA Pacific cod State GHL fishery as well as increase net benefits to the nation as a whole. The costs of the proposed action will be incurred by those vessel operators who must forgo the opportunity to receive any rollovers of unharvested jig GHL (i.e., pot vessel operators). The extent, nature, and distribution of such costs, as well as the number of such future would-be entrants, cannot be anticipated, *a priori*.

3 ENVIRONMENTAL ASSESSMENT

The purpose of this section is to analyze the environmental impacts of the proposed Federal action to open Federal waters to directed fishing for Pacific cod with jig gear concurrent with the State of Alaska Guideline Harvest Limit (GHL) fishery for Pacific cod in the GOA. Catches in Federal waters would accrue to the State jig GHL. An environmental assessment (EA) is intended to provide evidence of whether or not the environmental impacts of the action are expected to be significant (40 CFR 1508.9).

3.1 Purpose and need

The Council adopted the following statement of purpose and need:

The Council has taken two recent actions that will potentially increase opportunities for jig vessels. The GOA Fixed Gear LLP Recency action exempts jig vessels, subject to gear limits, from the LLP requirement in the Western and Central GOA. The GOA Pacific Cod Sector Allocation action allocated a percentage of the Western and Central GOA Pacific cod TACs that is higher than the sector's historical catch levels with a stairstep provision to increase the allocations if they are fully harvested. A number of factors have contributed to limiting jig harvests in both state and federally managed fisheries. The timing of the Pacific cod A and B seasons may have limited the participation of jig vessels in the parallel and Federal fisheries of the GOA. Additionally, the State waters jig allocation has gone uncaught in some years, potentially due to the lack of availability of Pacific cod inside three miles. The jig fishery provides entry level opportunity into GOA fisheries and contributes to a diversified fishing portfolio for combination fishing vessels throughout coastal Alaskan communities. Restructuring management of the jig fishery could ensure that the jig fleet has access to fully harvest both state and federal fisheries allocations.

3.2 Description of the Alternatives

In order to address the problem described in the purpose and need statement, the Council identified two alternatives for analysis. The exact text of the Council's motion is shown below. **Alternative 1** is the status quo fishery, once the GOA Pacific cod sector allocations are implemented. **Alternative 2** would open the Federal waters Pacific cod jig fisheries concurrent with the State GHJL jig fisheries. Federal waters catches while the State GHJL fishery is open would accrue to the State GHJL.

Council motion on BSAI Pacific cod parallel waters fishery

Alternative 1: Status quo

Distinct Parallel/Federal and State waters fisheries will continue to exist and the two fisheries will be managed as follows when the GOA Pacific cod sector allocations action is implemented:

The Federal TAC will be divided into an A/B season of 60%/40%. The A season will open on Jan 1 and close when the TAC is reached or on March 15. The State jig fishery will open either when the Federal season closes due to TAC or on March 15. The Federal B season will open on June 10.

Alternative 2: Reverse parallel fishery

Federal openings of the Pacific cod jig fisheries in the EEZ will be concurrent with State of Alaska seasons when the State GHJL fishery is opened. Catch in Federal waters during the State GHJL season will be deducted from the State GHJL allocation. Catch in Federal waters or State waters when the State GHJL is not open will be deducted from the Federal jig TAC.

3.3 Probable Environmental Impacts

3.3.1 Physical and Biological Impacts

Alternative 1

Under Alternative 1, the no action alternative, there would be no further changes to management of the GOA Pacific cod jig fishery beyond the recent FMP amendments adopted by the Council. Status quo management of the GOA Pacific cod fishery is evaluated annually as part of the decision-making on annual harvest specifications for the BSAI and GOA groundfish fisheries (NMFS 2007). Under status quo management, there is a low probability of overfishing the target species or generating significant adverse impacts to other species (target, non-specified, forage, or prohibited species) or to essential fish

habitat. Under Alternative 1, vessels using jig gear would not have access to Federal waters during the State GHL fishery. The majority of jig catches in the State GHL fishery are made during March through May, when Pacific cod are aggregated and weather conditions are relatively favorable. These GHL catches would continue to be made in State waters under the status quo alternative.

Vessels participating in the GOA Pacific cod State GHL fishery are required to comply with existing Federal regulations protecting Steller sea lion rookeries and haulouts.¹ In the GOA, extensive closures are in place for Steller sea lions including no transit zones and closures of critical habitat around rookeries and haulouts. Pacific cod is one of three prey species targeted by the groundfish fisheries that are under special restrictions for protection of SSLs. In 2000, a Biological Opinion concluded that the FMPs are likely to jeopardize the continued existence of the western distinct population segment (DPS) of Steller sea lions and adversely modify its designated critical habitat (NMFS 2000). In 2001, a Biological Opinion was released that provided protection measures to avoid jeopardy and adverse modification (JAM), and these measures were supplemented in 2003. In 2006, NMFS reinitiated a FMP-level Section 7 consultation on the effects of the groundfish fisheries on Steller sea lions, humpback whales, and sperm whales, and released a final Biological Opinion in 2010 (NMFS 2010b).

The BiOp determined that the status quo groundfish fisheries may cause JAM, and provided additional protection measures that restrict the groundfish fisheries in the Aleutian Islands. No changes were made to the protection measures in the GOA. The overall population trend for the WDPS of Steller sea lions is stable and may be increasing, but the trend is not statistically significant. The number of non-pups counted at trend sites increased by 12% between 2000 and 2008. However, counts increased by only 1% between 2004 and 2008 (DeMaster 2009). Population trends differ across the range of the WDPS. Non-pup counts have declined in the Aleutian Islands, with the decline being most severe in the west and becoming less of a decline towards the east. Pup and non-pup counts in the remainder of the WDPS range are either stable or increasing, ranging from 0% to 5% increases in population growth from 2000 to 2008 (NMFS 2010b).

Given the measures currently in place to protect the physical and biological environment, the potential effects of the status quo Pacific cod jig GHL fishery on an ecosystem scale would be limited. As a result, no significant adverse impacts to marine mammals, seabirds, habitat, or ecosystem relations are anticipated.

Alternative 2

Under Alternative 2, vessels using jig gear would have access to Federal waters during the State GHL fishery. Alternative 2 has the potential to disperse jig effort in the GOA Pacific cod State GHL fishery by allowing vessels to fish in both State and Federal waters. To the extent that this may decrease the proportion of the GOA Pacific cod ABC harvested in State waters, this action may have some beneficial impact on Steller sea lions. Closed areas around some SSL rookeries and haulouts already provide spatial controls over prey removals. However, tagging data show that SSLs forage outside of closed areas in both inshore and offshore waters. Reduced fishing activity in inshore waters will also reduce the opportunities for accidental contaminant spills or loss of fishing gear or other fishing debris, and reduce the potential for interactions between fishing activities and seabirds and marine mammals. Under this alternative, increased Federal waters effort and catch is possible, but significant adverse impacts on fish species or other components of the physical and biological environment are not likely to occur.

In addition, Alternative 2 has the potential to increase the number of jig vessels that carry FFPs. Vessels that participate in the State GHL fishery would be required to carry an FFP to fish in Federal waters during this fishery. Jig vessel operators who hold an FFP will be required to participate in the

¹See <http://alaskafisheries.noaa.gov/sustainablefisheries/sslpm/> for regulations and maps.

restructured Federal Observer program by paying a 1.25% ex-vessel fee on non-GHL groundfish landings, and are required comply with NMFS recordkeeping or reporting requirements. Both of these requirements enhance management and conservation of the fisheries, and are a likely consequence of Alternative 2.

3.3.2 Economic and Socioeconomic Impacts

The economic and socioeconomic impacts of the proposed action are addressed in the Regulatory Impact Review, in Chapter 2 of this document.

3.3.3 Cumulative Impacts

An analysis of the potential cumulative effects of a proposed action and its alternatives is a requirement of NEPA. Cumulative effects are those combined effects on the quality of the human environment that result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of what Federal or non-Federal agency or person undertakes such other actions (40 CFR 1508.7, 1508.25(a), and 1508.25(c)). Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time. The concept behind cumulative effects analysis is to capture the total effects of many actions over time that would be missed by only evaluating each action individually. At the same time, the CEQ guidelines recognize that it is not practical to analyze the cumulative effects of an action on the universe but to focus on those effects that are truly meaningful.

The 2004 Final Alaska Groundfish Fisheries Programmatic Supplemental Environmental Impact Statement (Groundfish PSEIS; NOAA 2004) assesses the potential direct and indirect effects of groundfish FMP policy alternatives in combination with other factors that affect physical, biological and socioeconomic resource components of the BSAI and GOA environment. To the extent practicable, this analysis incorporates by reference the cumulative effects analysis of the Groundfish PSEIS, including the persistent effects of past actions and the effects of reasonable foreseeable future actions.

Beyond the cumulative impacts analysis documented in the Groundfish PSEIS, no additional past, present, or reasonably foreseeable cumulative negative impacts on the biological 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 arise from the proposed action. The proposed action is consistent with the Council's long established policies for broad, ecosystem-based fishery management. Specifically, Alternative 2 could result in enhanced catch reporting and inseason management of the GOA Pacific cod fishery, which could improve ecosystem management.

While there are no expected cumulative adverse impacts on the biological and physical environment, fishing communities, fishing safety, or consumers, there may be economic effects on the jig sector as a result of the proposed action in combination with other actions. As discussed below, participants in the jig sector have experienced several regulatory changes in recent years that have affected their economic performance.

3.3.3.1 Past and Present Actions

The cumulative impacts from past management actions have created the conditions that have led to the proposed action. Some of the management actions that have contributed to the existing conditions are listed below:

- Establishment of GOA State GHL Pacific cod fishery in 1997
- Implementation of the License Limitation Program (LLP) in 2000
- Adoption of GOA Amendment 86 in 2009, which requires a Pacific cod endorsement on the LLP for fixed gear participations in the directed Pacific cod fishery in the Western and Central GOA
- GOA Pacific cod sector allocations, established in 2009 under Amendment 83

The GOA State GHL Pacific cod fishery was established in 1997 and consists of up to 25% of the Pacific cod ABC in each GOA management area. Management of the GHL fishery is described in detail in Appendix A. The LLP program, implemented in 2000, limits access to the groundfish fisheries in Federal waters to vessel operators who hold licenses with specific area, gear, and operation type endorsements. Pacific cod species endorsements were added to GOA fixed gear licenses in 2009 under Amendment 86, and further limit access to the GOA Pacific cod fisheries. Amendment 86 also exempted operators using jig gear from the LLP requirement, subject to gear limits. Finally, the Council adopted GOA Pacific cod sector allocations in 2009, which divide the Western and Central GOA Pacific cod TACS among gear and operation types. This amendment provided jig gear with an allocation that is higher than historical catch levels by this sector and changed the B season start date to June 10.

3.3.3.2 Reasonably Foreseeable Future Actions

The Council has initiated an analysis to change the season start dates of the trawl, pot, and hook-and-line Pacific cod fisheries in the Western and Central GOA.

4 INITIAL REGULATORY FLEXIBILITY ANALYSIS

4.1 Introduction

This Initial Regulatory Flexibility Analysis (IRFA) addresses the statutory requirements of the Regulatory Flexibility Act (RFA) of 1980, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 (5 U.S.C. 601-612). This IRFA evaluates the potential adverse economic impacts on small entities directly regulated by the proposed actions.

The RFA, first enacted in 1980, was designed to place the burden on the government to review all regulations to ensure that, while accomplishing their intended purposes, they do not unduly inhibit the ability of small entities to compete. The RFA recognizes that the size of a business, unit of government, or nonprofit organization frequently has a bearing on its ability to comply with 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 impacts on small entities as a group distinct from other entities, and on the consideration of alternatives that may minimize adverse economic impacts, while still achieving the stated objective of the action.

On March 29, 1996, President Clinton signed the SBREFA. Among other things, the new law amended the RFA to allow judicial review of an agency's compliance with the RFA. The 1996 amendments also updated the requirements for a final regulatory flexibility analysis, including a description of the steps an agency must take to minimize the significant economic impact on small entities. Finally, the 1996 amendments expanded the authority of the Chief Counsel for Advocacy of the Small Business Administration (SBA) to file *amicus* briefs in court proceedings involving an agency's alleged violation of the RFA.

In determining the scope, or ‘universe’, of the entities to be considered in an IRFA, NMFS generally includes only those entities 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, or portion thereof, of the industry (e.g., user group, gear type, geographic area), that segment would be considered the universe for the purpose of this analysis.

4.1.1 IRFA requirements

Until the Council makes a final decision on a preferred alternative(s), a definitive assessment of the proposed management alternatives, within the context of RFA, cannot be conducted. In order to allow the agency to make a certification decision, or to satisfy the requirements of an IRFA of the preferred alternative, this section addresses the requirements for an IRFA. Under 5 U.S.C., Section 603(b) of the RFA, each IRFA is required to contain:

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

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

4.1.2 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) small government jurisdictions.

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

The SBA has established size criteria for all major industry sectors in the United States, including fish harvesting and fish processing businesses. Effective January 5, 2006, a business involved in fish harvesting is a small business if it is independently owned and operated, not dominant in its field of operation (including its affiliates), and if it has combined annual gross receipts not in excess of \$4.0 million for all its affiliated operations worldwide.² A seafood processor is a small business if it is independently owned and operated, not dominant in its field of operation, and employs 500 or fewer persons on a full-time, part-time, temporary, or other basis, at all its affiliated operations worldwide. A business involved in both the harvesting and processing of seafood products is a small business if it meets the \$4.0 million criterion for fish harvesting operations. Finally, a wholesale business servicing the fishing industry is a small business if it employs 100 or fewer persons on a full-time, part-time, temporary, or other basis, at all its affiliated operations worldwide.

The SBA has established “principles of affiliation” to determine whether a business concern is “independently owned and operated.” In general, business concerns are affiliates 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 percent 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 has the power to control less than 50 percent 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, controls 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

²Effective January 6, 2006, SBA updated the Gross Annual Receipts thresholds for determining "small entity" status under the RFA. This is a periodic action to account for the impact of economic inflation. The revised threshold for "commercial fishing" operations (which, at present, has been determined by NMFS HQ to include catcher-processors, as well as catcher vessels) changed from \$3.5 million to \$4.0 million in annual gross receipts, from all its economic activities and affiliated operations, worldwide.

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 not-for-profit enterprise that is independently owned and operated, and is not dominant in its field.

Small governmental jurisdictions. The RFA defines “small governmental jurisdictions” as governments of cities, counties, towns, townships, villages, school districts, or special districts with populations of fewer than 50,000.

4.2 Description of the Reasons Why the Action is Being Considered

The Council adopted the following Statement of Purpose and Need in December 2010:

The Council has taken two recent actions that will potentially increase opportunities for jig vessels. The GOA Fixed Gear LLP Recency action exempts jig vessels, subject to gear limits, from the LLP requirement in the Western and Central GOA. The GOA Pacific Cod Sector Allocation action allocated a percentage of the Western and Central GOA Pacific cod TACs that is higher than the sector’s historical catch levels with a stairstep provision to increase the allocations if they are fully harvested. A number of factors have contributed to limiting jig harvests in both state and federally managed fisheries. The timing of the Pacific cod A and B seasons may have limited the participation of jig vessels in the parallel and Federal fisheries of the GOA. Additionally, the State waters jig allocation has gone uncaught in some years, potentially due to the lack of availability of Pacific cod inside three miles. The jig fishery provides entry level opportunity into GOA fisheries and contributes to a diversified fishing portfolio for combination fishing vessels throughout coastal Alaskan communities. Restructuring management of the jig fishery could ensure that the jig fleet has access to fully harvest both state and federal fisheries allocations.

4.3 Objective Statement of Proposed Action and its Legal Basis

Under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the Secretary of Commerce and the North Pacific Fishery Management Council have the responsibility to prepare fishery management plans and associated regulations for the marine resources found to require conservation and management. NMFS is charged with carrying out the Federal mandates of the Department of Commerce with regard to marine fish, including the publication of Federal regulations. The Alaska Regional Office of NMFS, and Alaska Fisheries Science Center, research, draft, and support the management actions recommended by the Council.

The GOA Pacific cod fishery is managed under the GOA Groundfish Fishery Management Plan. The proposed action would open Federal waters to directed fishing for Pacific cod with jig gear concurrent with the State of Alaska Guideline Harvest Limit (GHL) fishery for Pacific cod in the GOA. Catches in Federal waters would accrue to the State jig GHL. The intent of the amendment is to increase the likelihood that the jig GHL is fully harvested by expanding the spatial extent of the jig GHL fishery into Federal waters.

4.4 Estimate of the Number of Small Entities Impacted by the Proposed Rule

In order to estimate the number of small entities that would be directly regulated by the proposed action, the most recent earnings data available (2009) from all commercial fisheries in and off Alaska were summed for each jig vessel that participated in the GOA Pacific cod fisheries (including both the TAC and GHL fisheries) during 2009. All of the 133 unique vessels that participated in the fisheries with jig gear in 2009 had gross earnings from all fisheries in and off Alaska of less than \$4 million. As a result, 133 vessels directly regulated by this action are considered small entities for the purposes of the RFA. It

is possible that some of these vessels are also linked by affiliation, as defined under SBA criteria, which may then qualify them as large entities, but information is not available to identify ownership status of all vessels at an entity level. Therefore, the IRFA may overestimate the number of small entities directly regulated by the proposed action.

4.5 Recordkeeping and Reporting Requirements

Alternative 2 would require vessel operators who fish in Federal waters during the State GHJ Pacific cod fishery to hold an FFP. Implementation of this alternative would potentially mean that additional vessels that do not currently participate in other Federal waters fisheries would be required to hold an FFP, and would therefore be subject to NMFS recordkeeping and reporting requirements for as long as they hold the FFP.

4.6 Relevant Federal Rules that may Duplicate, Overlap, or Conflict with the Proposed Rule

No relevant Federal rules have been identified that would duplicate, overlap, or conflict with the proposed action.

4.7 Description of any Significant Alternatives to the Proposed Rule that Accomplish the Stated Objectives at a Lower Cost to Small Entities

An IRFA also requires a description of any significant alternatives to the proposed action(s) that accomplish the stated objectives, are consistent with applicable statutes, and that would minimize any significant economic impact of the proposed rule on small entities. The Council identified two alternatives under this proposed action. Alternative 1 is the status quo, and makes no change to the existing regulations that apply to vessels participating in the GOA Pacific cod fishery. Alternative 2 would allow vessels participating in the GOA Pacific GHJ fishery to fish in Federal waters during that fishery. The intent of the amendment is to expanding fishing opportunities during the GOA Pacific cod jig GHJ fishery.

All of the directly regulated entities under this action are considered small entities, as defined under the RFA. Within the universe of small entities that would be directly regulated by this action, impacts may accrue differently (i.e., some small entities may be negatively affected, while others may be positively affected). Thus, the action represents tradeoffs in terms of impacts on small entities. However, the intent of the action is to provide regulatory relief for the small entities that comprise the GOA jig fleet by expanding fishing opportunities during the jig GHJ fishery.

Based upon the best available scientific data, and consideration of the objectives of this action, it appears that there are no alternatives to the proposed action that have the potential to accomplish the stated objectives of the Magnuson-Stevens Act and any other applicable statutes, and have the potential to minimize any significant adverse economic impact of the proposed rule on small entities.

5 CONSISTENCY WITH APPLICABLE LAW AND POLICY

This section examines the consistency of the LLP trawl recency alternatives with the National Standards and Fishery Impact Statement requirements in the Magnuson-Stevens Act and Executive Order 12866.

5.1 National Standards

Below are the ten National Standards as contained in the Magnuson-Stevens Act, and a brief discussion of the consistency of the proposed alternatives with each of those National Standards, as applicable.

National Standard 1

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

None of the alternatives considered in this action would result in overfishing of groundfish in the BSAI or GOA. The alternatives would also not impact, on a continuing basis, the ability to achieve the optimum yield from each groundfish fishery.

National Standard 2

Conservation and management measures shall be based upon the best scientific information available.

The analysis for this action is based upon the best and most recent scientific information available.

National Standard 3

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

The proposed action is consistent with the management of individual stocks as a unit or interrelated stocks as a unit or in close coordination.

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.

The proposed alternatives treat all vessels the same. The proposed alternatives would be implemented without discrimination among participants and are intended to promote conservation of the Pacific cod resource in the GOA.

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.

This action will potentially improve efficiency in utilization of the Pacific cod resource in the GOA by increasing the likelihood that the GOA Pacific cod ABC will be fully harvested.

National Standard 6

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

None of the proposed alternatives is expected to affect the availability of and variability in the groundfish resources in the BSAI and GOA in future years. The GOA Pacific cod harvest would be managed to and limited by the TAC, regardless of the proposed action considered in this action.

National Standard 7

Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

This action does not duplicate any other management action.

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.

This action is not expected to have adverse impacts on communities or affect community sustainability. The action is expected to increase access to the Pacific cod ABC to jig vessels that are homeported in communities in Alaska as well as other States.

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 proposed action is not expected to impact bycatch or bycatch mortality.

National Standard 10

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

The proposed action is not expected to have a substantial impact on safety at sea. Vessels participating in the jig fishery are predominantly small (<60 ft LOA), and opening Federal waters to these vessels concurrent with the GOA State GHL fisheries has the potential to increase the distance these vessels travel from port. However, operators report that in the status quo fishery, vessels often travel long distances from port while traversing State waters in search of Pacific cod. Consequently, this action is not expected to have a net effect on safety at sea.

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

Section 303(a)(9) of the Magnuson-Stevens Act requires that any management measure submitted by the Council take into account potential impacts on the participants in the fisheries, as well as participants in adjacent fisheries. The impacts on participants in the GOA Pacific cod jig fishery have been discussed in previous sections of this document (see Section 2). The proposed alternatives are not anticipated to have effects on participants in other fisheries.

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APPENDIX A STATE GHL PACIFIC COD FISHERIES

In 1997, the State of Alaska began managing its own Pacific cod fisheries inside of 3 nm (referred to as the 'State waters fishery'), which are allocated a percentage of the Federal GOA Pacific cod ABC. State fisheries are managed under a guideline harvest level (GHL), which limits total catch in the fishery in a manner similar to the Federal TAC. If a GHL is fully harvested, it can be increased on an annual basis up to 25% of the Pacific cod ABC in each GOA management area, the maximum level permitted by State regulation. In 1997, 15% of the Pacific cod ABC in the Central GOA and Western GOA and 25% of the Eastern GOA was allocated among the State waters fisheries. State waters allocations in the Western and Central GOA have increased to 25% of the Pacific cod ABCs and are currently at the maximum level permitted by State regulation. The Eastern GOA allocation to state waters was lowered to 10% of the ABC in 2004, because this allocation had not been fully utilized by the fishery (see Table A-1). However, this has now increased to 25% under stair-step provisions.

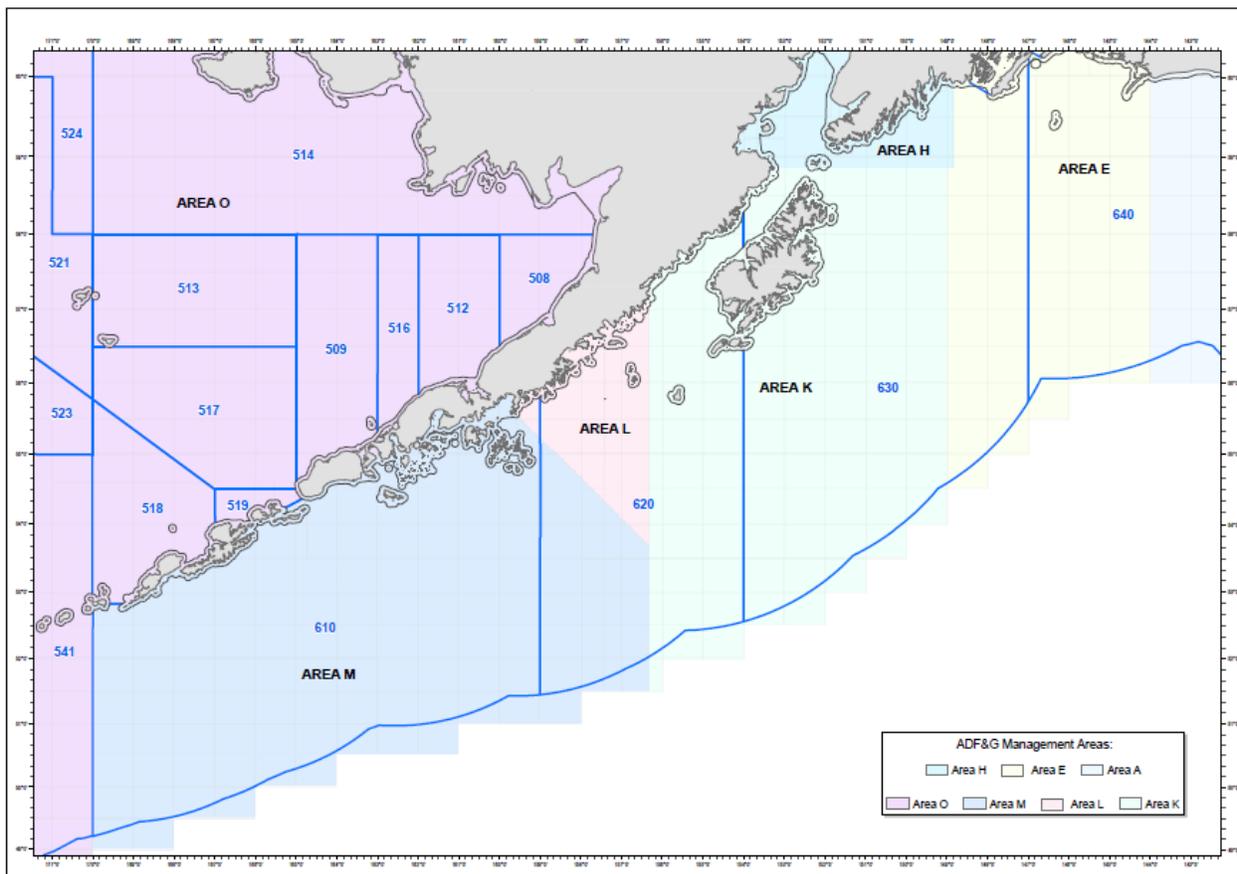


Figure A-1 Map of State management areas (South Alaska Peninsula, Chignik, Kodiak, Cook Inlet, and Prince William Sound) and Federal management areas (Western, Central, and Eastern) in the GOA.

Credit: Lee Hulbert, ADF&G.

Table A 1 Allocations of GOA State waters Pacific cod GHGs among management areas and gear types

Federal Management Area	State Management Area	Percent of Area ABC	Pot/Jig Allocation	Pot allocation as a percent of ABC	Jig allocation as a percent of ABC
Central GOA	Cook Inlet	3.75%	75/25	2.81%	0.94%
	Chignik	8.75%	90/10	7.88%	0.88%
	Kodiak	12.50%	50/50	6.25%	6.25%
	Total Central GOA	25%		16.94%	8.06%
Western GOA	Alaska Peninsula	25%	85/15 ¹	21.25%	3.75%
Eastern GOA	Prince William Sound ²	25%	none	n/a	n/a

¹ Pot gear is capped at 85%. ² Longline gear was allowed in the Prince William Sound area in 2009.

Table A-2 summarizes the GOA State waters Pacific cod fishery regulations. There is no LLP requirement in the State waters fisheries, but there are gear and vessel length restrictions. The GOA State waters Pacific cod fisheries are open only to pot and jig gear in all GOA management areas except Prince William Sound, which added longline gear in 2009. The GHGs in the other management areas are allocated between the pot and jig sectors, and vessel size restrictions limit harvests by vessels greater than 58 ft LOA in some areas or exclude these vessels from participating in the fisheries. Currently, the Kodiak allocation is apportioned 50% to the pot sector and 50% to the jig sector. In the Kodiak and Cook Inlet management area, vessels greater than 58 ft LOA are capped at 25% of the GHG, prior to September 1. The Cook Inlet allocation is apportioned 75% to the pot sector and 25% to the jig sector. The Chignik allocation is apportioned 90% to the pot sector and 10% to the jig sector, and the fishery is limited to vessels less than or equal to 58 ft LOA. The South Alaska Peninsula GHG is not explicitly allocated between pot and jig gear, but the pot sector is capped at 85% of the GHG, and the fishery is limited to vessels 58 ft LOA and under. In summary, the State waters fisheries allocate a total of 16.94% of the Central GOA ABC to the pot sector and 8.06% of the Central GOA ABC to the jig sector. In addition, the pot and jig sectors are allocated 21.25% and 3.75%, respectively, of the Western GOA ABC (see Table A-1).

Table A 2 Summary of GOA State waters Pacific cod fishery regulations.

Area	Pot allocation	Jig allocation	Allocation to ≤58 ft vessels	Allocation to >58 ft vessels	Super exclusive	Exclusive	Gear Limit
Kodiak	50%	50%	None	Capped at 25% prior to Sept 1	No	Yes-prior to Oct 31	60 pots/5 jigs
Cook Inlet	75%	25%	None	Capped at 25% prior to Sept 1	No	Yes-prior to Oct 31	60 pots/5 jigs
Chignik	90%	10%	100%	0%	Yes	No	60 pots/ 5 jigs
South Peninsula	Capped at 85%	none	100%	0%	No	Yes-prior to Oct 31	60 pots/ 5 jigs
Prince William Sound	60% before Oct. 1	None	None	None	No	Yes-prior to Oct 31	60 pots/ 5 jigs

Source: ADF&G, Nick Sagalkin and Karla Bush.

In the Prince William Sound, Kodiak and South Alaska Peninsula areas, the State waters Pacific cod fisheries open 7 days after the parallel waters A seasons for the Central GOA (Prince William Sound and Kodiak) and Western GOA (South Alaska Peninsula) (Table A-3). The Cook Inlet fishery opens 24 hours after the Central GOA inshore A season closes, and the Chignik fishery opening date is set in regulation on March 1. The State waters fisheries close when the GHG has been harvested, or on September 1, when the parallel waters Pacific cod fishery opens. The Cook Inlet fishery has a seasonal pot closure from May 1 to June 15. There is no overlap between the parallel and State waters seasons in the Kodiak, Prince

William Sound, Cook Inlet, and South Alaska Peninsula areas. The seasons may overlap in the Chignik area, if the Central GOA parallel waters A season extends past March 1.

Table A 3 Recent season opening dates of the GOA Pacific cod State waters fisheries

	Kodiak	Chignik	Cook Inlet	Alaska Peninsula
Year	Jig/Pot	Jig/Pot	Jig/Pot	Jig/Pot
2003	16-Feb	1-Mar	10-Feb	24-Feb
2004	7-Feb	1-Mar	1-Feb	2-Mar
2005	2-Feb	1-Mar	27-Jan	3-Mar
2006	7-Mar	1-Mar	1-Mar	9-Mar
2007	6-Mar	1-Mar	28-Feb	15-Mar
2008	27-Feb	1-Mar	21-Feb	7-Mar
2009	3-Feb	1-Mar	28-Jan	4-Mar
2010	7-Feb	1-Mar	1-Feb	5-Mar

Source: ADF&G.

State waters harvests from 1997 through 2010 are reported by State management area and gear type in Tables A-1 through A-6. Pot allocations have generally been fully harvested in all management areas except Prince William Sound. Jig harvests were relatively high in some areas during 2003 through 2005, but declined substantially in 2006 through 2008. A combination of poor weather conditions, low availability of Pacific cod in State waters, and high operating costs contributed to low levels of jig effort in those years. Total catch was substantially below the GHLS in all four Western and Central GOA management areas in 2006 and 2007; and in Kodiak and Cook Inlet during 2008. Most unharvested State waters GHL was unused jig GHL. However, in 2009 in the Kodiak management area, jig vessels harvested the entire jig GHL, and more than 90% of the overall GHLS were harvested in all GOA management areas. Unharvested GHL is rolled over to other sectors on August 15 (Chignik), September 1 (Kodiak and Cook Inlet), or October 1 (PWS) if it is determined that an allocation will not be fully harvested. However, during 2005 through 2007, the parallel waters B season remained open to vessels using fixed gear from September 1 until December 31. During these years, State managers did not have the opportunity to re-open the State waters season in the fall and roll over unused jig GHL to the pot sector.

Table A 4 Harvest, effort, and value from Kodiak, Chignik, and South Alaska Peninsula Area state waters Pacific cod seasons, 2000–2009.

Year	Vessels	Landings	GHL ^a	Pounds Harvested ^b	Price Per Pound ^c	Fishery Value ^d
Kodiak Area						
2000	204	1,707	12.0	8,562,816	\$0.39	\$3,335,844
2001	103	669	10.6	4,843,741	\$0.34	\$1,638,642
2002	82	552	8.7	8,825,851	\$0.29	\$2,556,887
2003	128	837	8.0	8,154,867	\$0.33	\$2,685,922
2004	156	1,122	9.9	10,033,889	\$0.31	\$3,102,824
2005	158	1,011	9.1	8,548,163	\$0.32	\$2,734,882
2006	113	646	10.4	6,330,518	\$0.42	\$2,657,285
2007	95	643	10.4	6,439,757	\$0.51	\$3,278,695
2008	111	988	10.4	10,548,875	\$0.59	\$6,217,710
2009	130	971	8.7	8,591,477	\$0.32	\$2,233,575
Chignik Area						
2000	25	163	6.7	1,794,759	\$0.30	\$538,414
2001	26	179	6.0	2,648,655	\$0.26	\$688,645
2002	25	199	4.9	4,227,547	\$0.20	\$832,946
2003	28	257	4.5	4,467,571	\$0.27	\$1,206,244
2004	28	297	5.8	5,750,461	\$0.23	\$1,322,156
2005	22	248	6.4	5,787,467	\$0.25	\$1,446,687
2006	12	202	7.3	3,439,521	\$0.34	\$1,169,437
2007	16	242	7.3	5,699,461	\$0.45	\$2,564,576
2008	23	262	7.3	6,838,934	\$0.56	\$3,829,803
2009	12	123	6.1	5,681,230	\$0.24	\$1,363,034
South Alaska Peninsula Area						
2000	90	650	15.1	15,044,104	\$0.30	\$4,476,218
2001	121	727	13.4	13,464,020	\$0.25	\$3,362,729
2002	107	598	12.4	12,716,258	\$0.22	\$2,792,697
2003	92	604	11.4	11,560,663	\$0.27	\$3,117,330
2004	88	595	12.5	12,514,240	\$0.23	\$2,869,261
2005	73	528	11.5	11,436,172	\$0.25	\$2,846,795
2006	54	386	14.8	11,739,736	\$0.36	\$4,215,888
2007	60	465	14.8	12,678,151	\$0.47	\$5,940,742
2008	97	700	14.3	13,302,050	\$0.57	\$7,547,258
2009	72	514	11.9	11,594,124	\$0.26	\$3,011,443
Total						
2000	314	2,519	33.8	25,401,678	\$0.33	\$8,338,732
2001	246	1,574	30.0	20,956,415	\$0.27	\$5,648,153
2002	209	1,348	26.0	25,769,656	\$0.23	\$5,905,402
2003	248	1,698	23.9	24,183,101	\$0.28	\$6,764,929
2004	272	2,014	28.2	28,298,589	\$0.26	\$7,340,492
2005	253	1,787	27.0	25,771,801	\$0.27	\$6,944,517
2006	180	1,234	32.5	21,509,775	\$0.37	\$7,946,561
2007	232	1,348	32.5	24,817,369	\$0.47	\$11,640,842
2008	230	1,939	32.0	30,671,115	\$0.57	\$17,452,389
2009	213	1,608	26.7	25,866,831	\$0.27	\$7,145,614

Note: Weights are in whole pounds. Discards at sea are excluded.

^a GHL = guideline harvest level (millions of pounds).

^b Pounds harvested for Chignik exclude jig harvest in 2006 and 2008 due to confidentiality; jig vessel numbers and jig landing data are also excluded for these years.

^c Price per pound calculated from whole pounds sold excluding bait and meal.

^d Value calculated by multiplying pounds of sold product (not pounds harvested) by price per pound.

Source: Sagalkin et al., 2010.

Table A 5 Kodiak Area State waters Pacific cod harvest and effort by gear type, 1997–2009.

Year	Gear	GHL ^a (millions)	Vessels	Landings	Pounds	Price Per Pound ^b
1997	Jig	4.25	73	482	1,978,772	\$0.23
	Pot	4.25	40	232	5,580,372	\$0.22
1998	Jig	4.05	91	661	2,112,817	\$0.23
	Pot	4.05	49	310	6,070,140	\$0.22
1999 ^c	Jig	5.85	118	793	2,294,837	\$0.38
	Pot	5.85	79	462	8,400,138	\$0.32
2000	Jig	6.00	143	1226	2,814,481	\$0.40
	Pot	6.00	69	481	5,748,334	\$0.39
2001	Jig	5.30	69	433	1,252,692	\$0.36
	Pot	5.30	34	236	3,591,049	\$0.33
2002	Jig	4.35	51	340	1,389,838	\$0.28
	Pot	4.35	33	212	7,436,013	\$0.29
2003	Jig	4.00	102	688	3,195,605	\$0.35
	Pot	4.00	42	149	4,959,262	\$0.32
2004	Jig	4.95	124	961	4,210,284	\$0.34
	Pot	4.95	47	161	5,823,605	\$0.29
2005	Jig	4.56	122	849	4,570,327	\$0.33
	Pot	4.56	51	162	3,977,835	\$0.30
2006	Jig	5.21	79	477	1,446,881	\$0.43
	Pot	5.21	41	169	4,883,637	\$0.41
2007	Jig	5.21	63	459	1,256,212	\$0.52
	Pot	5.21	34	184	5,183,545	\$0.50
2008	Jig	5.22	76	647	2,042,082 ^d	\$0.61
	Pot	5.22	37	341	8,506,792 ^d	\$0.59
2009	Jig	4.35	94	833	4,450,423	\$0.32
	Pot	4.35	38	138	4,141,054	\$0.32

Note: Weights are reported in whole pounds. Discards at sea are excluded.

^a GHL = guideline harvest level.

^b Price per pound calculated from whole pounds sold excluding bait and meal.

^c Beginning in 1999, vessels > 58' using pot gear were capped at 25% of the total GHL.

^d Pot harvest prior to the allocation rollover (September 1) was 5.42 million pounds. Jig harvest prior to the allocation rollover was 1.98 million pounds.

Source: Sagalkin et al., 2010.

Table A 6 Chignik Area State waters Pacific cod harvest and effort by gear type, 1997–2009.

Year	Gear	GHL ^a (millions)	Vessels	Landings	Pounds	Price Per Pound ^b
1997	Jig	2.95	4	14	35,002	\$0.18
	Pot	2.95	10	60	1,098,970	\$0.18
1998	Jig	2.85	11	59	167,283	\$0.18
	Pot	2.85	44	236	5,440,796	\$0.17
1999	Jig	4.10	11	56	218,408	\$0.32
	Pot	4.10	32	396	6,207,176	\$0.29
2000	Jig	1.01	5	12	38,453	\$0.35
	Pot	5.70	20	151	1,756,305	\$0.30
2001	Jig	0.90	13	55	277,411	\$0.27
	Pot	5.10	15	124	2,371,243	\$0.26
2002	Jig	0.74	14	60	324,227	\$0.20
	Pot	4.17	12	139	3,903,320	\$0.20
2003	Jig	0.68	16	106	433,067	\$0.28
	Pot	3.83	15	151	4,034,504	\$0.26
2004	Jig	1.10	14	53	141,697	\$0.24
	Pot	5.80	17	244	5,608,763	\$0.23
2005	Jig	0.63	8	42	136,872	\$0.24
	Pot	5.75	15	206	5,650,595	\$0.25
2006	Jig	0.73	1	2	Confidential	Confidential
	Pot	6.57	12	202	3,439,521	\$0.34
2007	Jig	0.73	0	0	0	ND
	Pot	6.57	16	242	5,699,461	\$0.45
2008	Jig	0.73	2	3	Confidential	Confidential
	Pot	6.58	23	262	6,838,934 ^c	\$0.56
2009	Jig	0.61	1	1	Confidential	Confidential
	Pot	5.47	11	122	Confidential	\$0.24

Note: Weights are in whole pounds. Discards at sea are excluded. Data are confidential in cases where fewer than 3 vessels participated.

^a GHL = guideline harvest level.

^b Price per pound calculated from whole pounds sold excluding bait and meal.

^c Pot harvest prior to the allocation rollover (September 1) was 6.69 million pounds

Source: Sagalkin et al., 2010.

Table A 7 South Alaska Peninsula Area State waters Pacific cod harvest and effort by gear type, 1997–2009.

Year	Gear	GHL ^a	Vessels	Landings	Pounds	Price Per Pound ^b
1997	Jig	4.70	45	178	349,468	\$0.17
	Pot	4.70	55	477	9,132,055	\$0.18
1998	Jig	1.35	28	124	437,708	\$0.16
	Pot	7.65	51	309	8,192,804	\$0.17
1999	Jig	1.95	27	166	706,952	\$0.29
	Pot	11.05	53	388	11,115,028	\$0.26
2000	Jig	2.28	28	145	757,953	\$0.28
	Pot	12.90	65	505	14,286,151	\$0.30
2001	Jig	2.01	69	417	3,402,427	\$0.24
	Pot	11.39	55	311	10,421,593	\$0.25
2002	Jig	1.86	66	322	2,046,686	\$0.24
	Pot	10.50	50	276	10,669,572	\$0.21
2003	Jig	1.80	65	413	3,633,007	\$0.27
	Pot	9.69	41	191	7,927,656	\$0.27
2004	Jig	1.90	51	317	1,671,461	\$0.24
	Pot	10.60	44	278	10,842,778	\$0.23
2005	Jig	1.73	39	261	1,229,832	\$0.25
	Pot	9.80	39	267	10,206,340	\$0.25
2006	Jig	2.22	12	36	99,552	\$0.36
	Pot	12.58	43	350	11,640,183	\$0.36
2007	Jig	2.22	14	59	254,178	\$0.47
	Pot	12.58	46	406	12,423,973	\$0.47
2008	Jig	2.14	51	299	1,382,268	\$0.57
	Pot	12.15	48	390	11,901,039	\$0.57
2009	Jig	1.78	26	185	1,093,382	\$0.23
	Pot	10.11	47	329	10,500,742	\$0.26

Note: Weights are reported in whole pounds. Discards at sea are excluded.

^a GHL = guideline harvest level (millions of pounds).

^b Price per pound calculated from whole pounds sold excluding bait and meal.

Source: Sagalkin et al., 2010.

Table A 8 Cook Inlet Area State waters Pacific cod harvest and effort by gear type, 1997–2010.

Year	Jig catch (lbs)	Pot catch (lbs)	Total catch (lbs)	GHL (millions of lbs)	Percent of GHL harvested
1997	561,947	276,966	838,913	2.55	33%
1998	188,209	542,260	730,469	2.43	30%
1999	127,229	1,390,678	1,517,907	2.64	58%
2000	13,885	1,135,903	1,149,788	2.16	53%
2001	19,428	875,923	895,351	1.92	47%
2002	18,163	1,310,684	1,328,847	1.57	85%
2003	429,684	1,023,854	1,453,538	1.44	101%
2004	326,298	1,785,386	2,111,684	2.37	89%
2005	90,734	2,227,417	2,318,151	2.74	85%
2006	1,406	1,476,115	1,477,521	3.13	47%
2007	5,545	1,476,804	1,482,349	3.13	47%
2008	14,456	2,379,085	2,393,541	3.13	76%
2009	138,960	2,393,574	2,532,534	2.61	97%
2010	48,754	3,074,871	3,123,625	4.05	77%

Source: ADF&G.

Table A 9 Prince William Sound Area State waters Pacific cod harvest and effort by gear type, 1997–2010.

Year	Jig catch (lbs)	Pot catch (lbs)	Hook-and-line (lbs)	Total catch (lbs)	GHL (millions of lbs)	Percent of GHL harvested
1997	8,378	192,142	0	200,520	0.88	23%
1998	33,177	385,817	0	418,994	0.86	49%
1999	79,147	314,987	0	394,134	0.93	42%
2000	22,377	268,765	0	291,142	2.95	10%
2001	228	0	0	228	2.62	0%
2002	0	0	0	0	1.90	0%
2003	0	*	0	*	0.70	*
2004	0	*	0	*	0.97	*
2005	0	*	0	*	0.90	*
2006	0	*	0	*	0.91	*
2007	*	*	0	*	0.91	*
2008	7,557	0	0	7,557	0.59	1%
2009	0	0	704,866	704,866	0.49	144%
2010	0	0	825,226	825,226	0.78	105%

Source: ADF&G. *confidential.