

Executive Summary

This document analyzes proposed management measures that would apply exclusively to the Individual Fishing Quota (IFQ) fishery in the Gulf of Alaska (GOA) for sablefish (*Anoplopoma fimbria*), also known as black cod. A proposed FMP and regulatory amendment would allow the use of pot longline gear for the sablefish IFQ fishery in the GOA. The measures under consideration include: redefining legal gear to include pot longline gear; a vessel pot limit, requiring removal of pot longline gear with an exemption for smaller vessels; gear specification requirements; requiring retention of Pacific halibut (*Hippoglossus stenolepis*) if sufficient IFQs are held by fishermen to cover both the sablefish and halibut IFQ caught using pot longline gear; and restrictions to limit the retention of halibut in sablefish IFQ pot longline gear to incidental catch only (e.g., maximum retainable amount (MRA)), and gear marking requirements.

Purpose and Need

Interactions with sperm whales in the Central and Eastern Gulf, and killer whales in the Western Gulf affect the ability of sablefish quota share holders to harvest their sablefish IFQs by reducing catch per unit of effort and increasing fishing costs. Research into developing technological solutions to deter whales and changes in fishing strategies has not resolved the problem. Additional sablefish mortality associated with whale depredation is difficult to quantify, but increases total mortality and uncertainty in sablefish abundance indices. The use of pot gear for sablefish could reduce sperm whale and killer whale interactions with fishing gear in the Gulf of Alaska. The Council seeks to reduce the problems associated with whale depredation while minimizing gear conflicts that could result from allowing pot and longline gear to fish in the same regulatory areas.

Alternatives

Staff recommends that the North Pacific Fishery Management Council (Council) adopt a streamlined suite of elements and options for analysis for revision to the GOA Groundfish FMP and Federal regulations, as follows. The language below does not change the intent of the Council's original motion. An option under Alternative 2, Element 4 is suggested by staff in order to reflect the Council's intent that retained halibut bycatch in sablefish IFQ pot longline gear be "incidental" in nature.

Alternative 1. No action.

Revised Alternative 2. Allow the use of pot longline gear in the GOA sablefish IFQ fishery

Element 1. Limit of 0 to 400 pots (per vessel).

Element 2. Gear retrieval

Option 1. Require vessels to remove their pot gear when making a landing.

Suboption. Provide an exemption for vessels less than 60', 50', or 40'.

Option 2. Require the location of pots left on the grounds or lost on the grounds to be submitted when landings are made.

Element 3. Gear specifications.

Option 1. Require the use of neutrally buoyant groundline.

Option 2. Require both ends of the pot longline set to be marked.

Element 4. Retention of incidentally caught halibut.

Allow the retention of halibut caught incidentally in sablefish pots, provided the sablefish IFQ holder also holds sufficient halibut IFQ.

Option 1. Allow the retention of halibut caught incidentally in sablefish pots up to an MRA percentage, provided the sablefish IFQ holder also holds sufficient halibut IFQ.

Environmental Assessment

The proposed action to allow a new gear type to harvest sablefish (and possibly incidental amounts of halibut) IFQ in the GOA is limited in scope and will not likely affect all environmental components of the GOA. No effects are expected on the physical environment, habitat, groundfish (other than sablefish), ecosystem component species (other than halibut), and ecosystem components of the environment because current or proposed fishing regulations, harvest limits, and habitat protections as described in previous NEPA documents would not be changed by any of the alternatives. Five potentially affected components are shown in Table 2: sablefish, halibut, marine mammals (specifically sperm and killer whales), seabirds, and socioeconomics. The effects of the alternatives on the resource components would be caused by: (1) increased efficiency in harvesting sablefish and halibut IFQ; (2) decreased unaccounted mortality of sablefish (and potentially halibut) that are lost to whale depredation during IFQ fishing operations; and (3) potential decrease in whale and seabird interactions (i.e., entanglements) with pot longline gear (compared with the status quo gear of HAL longline gear) in the GOA. No increase in sablefish or halibut catches would occur, as those fisheries are managed under IFQs and those harvests are effectively capped. The socioeconomic environment may be affected by increased efficiency in harvesting sablefish IFQ (e.g., catch per unit effort, reduced fuel/bait costs, reduced opportunity costs), but could also be affected by the redistribution of effort among members of the existing harvest fleet.

Sablefish

Table ES-1 Criteria used to determine significance of effects

Effect	Criteria			
	Significantly Negative	Not Significant	Significantly Positive	Unknown
Stock Biomass: potential for increasing and reducing stock size	Changes in fishing mortality are expected to jeopardize the ability of the stock to sustain itself at or above its MSST (minimum standing stock threshold)	Changes in fishing mortality are expected to maintain the stock's ability to sustain itself above MSST	Changes in fishing mortality are expected to enhance the stock's ability to sustain itself at or above its MSST	Magnitude and/or direction of effects are unknown
Fishing mortality	Reasonably expected to jeopardize the capacity of the stock to yield sustainable biomass on a continuing basis.	Reasonably expected not to jeopardize the capacity of the stock to yield sustainable biomass on a continuing basis.	Action allows the stock to return to its unfished biomass.	Magnitude and/or direction of effects are unknown
Spatial or temporal distribution	Reasonably expected to adversely affect the distribution of harvested stocks either spatially or temporally such that it jeopardizes the ability of the stock to sustain itself.	Unlikely to affect the distribution of harvested stocks either spatially or temporally such that it has an effect on the ability of the stock to sustain itself.	Reasonably expected to positively affect the harvested stocks through spatial or temporal increases in abundance such that it enhances the ability of the stock to sustain itself.	Magnitude and/or direction of effects are unknown

Continued use of currently allowed gear would not decrease fishing mortality on sablefish, as hooked fish would continue to be predated upon by whales; efforts to better quantify this mortality are underway. While unknown, mortality of sablefish by whales on hook-and-line gear is gauged to be on the order of a few hundred tons. Whale predation may occur on 5 percent to 10 percent of sets, but could be as high as

30 percent to 40 percent on an individual set of longline gear. Generally, sperm whale depredation occurs in the Central GOA and Eastern GOA, while killer whale depredation occurs in the Western GOA. Taking no action would not address the stated purpose and need for the action. The Council has identified the need to maximize the ability of sablefish QS holders to harvest their sablefish IFQ by increasing catch per unit of effort and reducing fishing costs; this concern is further addressed in the RIR.

Alternative 2 would allow, but not require, pot longline gear for use in the sablefish IFQ fishery in the GOA. There are no significant impacts identified for sablefish. Some (unquantified) benefit would occur under Alternative 2. Unaccounted fishing mortality due to whale depredation would be reduced as sablefish IFQ fishermen voluntarily switch from HAL longline gear to pot longline gear, but that effect would be masked by recent lack of recruitment to the stock. Additional savings in lost mortality would accrue to species also caught by sablefish IFQ fishermen using HAL gear, such as grenadiers and Pacific halibut.

Pacific Halibut

The sablefish and halibut IFQ fisheries are prosecuted simultaneously and harvests of both fish may be landed together, as long as sufficient IFQ are held by those on board to cover those harvests. Taking no action would not address the stated purpose and need for the action. All halibut would continue to be discarded if caught with pot longline gear if the Council takes no action on Element 4. Such a requirement is in conflict with one of the tenets of the halibut/sablefish IFQ program, which is to allow fishermen to retain all legal fish of both species if sufficient IFQ are held to cover that harvest.

The Council has identified the need to maximize the ability of sablefish QS holders to harvest their sablefish IFQ by increasing catch per unit of effort and reducing fishing costs. The Council did not, however, identify management measures to limit halibut IFQ retention to *incidental* amounts as suboptions for analysis under Alternative 2, Element 4. The impacts identified for halibut will depend on the magnitude of sablefish IFQ catch switched from HAL longline to pot longline gear, and the limits potentially imposed on halibut retention under Alternative 2 Element 4. If the magnitude was found to be sufficiently high, data for a stock assessment selection curve would be needed to estimate the impact of the removals. If whale depredation is decreased, some (unquantified) benefit would occur under Alternative 2, Element 4. However, whale depredation of halibut is currently accounted for as part of natural mortality with the halibut assessment. Halibut discard mortality would continue to occur for those halibut not allowed to be retained. This mortality would accrue from two scenarios: (1) when no halibut may be retained in sablefish pot longline gear and (2) when halibut in excess of possible regulatory limits would be imposed to keep halibut retention at incidental amounts, not part of a directed fishery. The requirement to discard under 32 inch length halibut would continue.

Marine Mammals

Table ES-2 Criteria for determining significance of impacts to marine mammals

	Incidental take and entanglement in marine debris	Prey availability	Disturbance
Adverse impact	Mammals are taken incidentally to fishing operations or become entangled in marine debris.	Fisheries reduce the availability of marine mammal prey.	Fishing operations disturb marine mammals.
Beneficial impact	Decreased fishery interactions with fishing gear can be identified.	Availability of prey from fishing operations may provide additional, readily accessible, sources of food.	Decreased fishery interactions with fishing gear can be identified.
Significantly adverse impact	Incidental take is more than PBR or is considered major in relation to estimated population when PBR is undefined.	Competition for key prey species likely to constrain foraging success of marine mammal species causing population decline.	Disturbance of mammal is such that population is likely to decrease.
Significantly beneficial impact	No threshold can be identified.	Food availability increased substantially from baseline such that whale population levels survival or reproduction success is likely to increase.	Not applicable
Unknown impact	Insufficient information available on take rates.	Insufficient information as to what constitutes a key area or important time of year.	Insufficient information as to what constitutes disturbance.

A quantitatively unknown, but positive, effect is expected from allowing the use of longline pot gear in the GOA sablefish IFQ fishery, when compared with the status quo. Sperm whales and killer whales that depredate on longline fishing gear could be negatively impacted. Removing hooked sablefish from longline gear does not represent natural foraging for either whale species. Sperm whales and killer whales that depredate on longlining gear may be at greater risk of vessel strike and/or entanglement in fishing gear. If the sablefish IFQ fishery switches to longline pots, there will likely be decreased interactions between killer whales and sperm whales and fish sablefish fishery. This action would lead to a decrease in disturbances and likelihood of entanglements beyond those resulting from current avoidance techniques used by fishermen. Overall, Alternative 2 is expected to result in beneficial impacts on killer whales and sperm whales compared with the status quo.

Seabirds

Table ES-3 Criteria for determining significance of impacts on seabirds

	Incidental take	Prey availability
Insignificant	No substantive change in takes of seabirds during the operation of fishing gear.	No substantive change in forage used by seabirds.
Adverse impact	Non-zero take of seabirds by fishing gear.	Reduction in forage fish populations, or the availability of forage fish, to seabird populations.
Beneficial impact	Decreased fishery interactions with fishing gear can be identified.	Availability of offal from fishing operations may provide additional, readily accessible, sources of food.
Significantly adverse impact	Trawl and hook-and-line take levels increase substantially from the baseline level, or level of take is likely to have population level impact on species.	Food availability decreased substantially from baseline such that seabird population level survival or reproduction success is likely to decrease.
Significantly beneficial impact	No threshold can be identified.	Food availability increased substantially from baseline such that seabird population level survival or reproduction success is likely to increase.
Unknown impacts	Insufficient information available on take rates or population levels.	Insufficient information available on abundance of key prey species or the scope of fishery impacts on prey.

A continued prohibition on the use of pot longline gear in the GOA would not minimize potential fishery interactions with seabirds. The longline fleet has traditionally been responsible for about 91% of the overall seabird bycatch in Alaska. Of special concern is the endangered Short-tailed Albatross (*Phoebastria albatrus*). Fishing vessels in the GOA encounter seabirds (e.g. albatrosses, fulmars, gulls, shearwaters) during the course of fishing. These interactions can result in direct mortality for seabirds if they become entangled in fishing gear or strike the vessel or fishing gear while flying. Interactions with longline fisheries are of particular concern, as seabirds are attracted to sinking baited hooks and can become hooked and drowned. A transition from hook-and-line gear to pot longline gear is expected to reduce seabird interactions and decrease the likelihood of incidental takes of seabirds, which is viewed as a beneficial outcome of the proposed action. These decreased fishery interactions likely result from decreased prey availability. While decreased prey availability may negatively impact seabirds in the short run because they must return to natural predatory behavior, it benefits their survival in the long run due to decreased opportunities for entanglements (potentially those resulting in injuries and drownings).

Cumulative Effects

Three reasonably foreseeable future actions are identified as likely to have an impact on a resource component within the considered action area and timeframe. First, the Council is considering a regulatory amendment that would allow the retention of halibut IFQ in sablefish pot gear in halibut management area 4A (BS and AI areas). Second, the Council is currently reviewing a discussion paper on two proposals to amend the regulations that set vessel IFQ caps in the halibut and sablefish fisheries. One proposal pertains to vessel category A (freezer vessel) IFQ. The proposal asks for consideration of allowing vessels that *exclusively* fish category A IFQ to be allowed to fish above the vessel cap. The area scope of this potential action (GOA, BSAI, or all areas) has not yet been defined. The second vessel cap proposal seeks a “floor” on the annual vessel IFQ caps for halibut IFQ fishing in management areas 3 and 4. Third, the Council is in the midst of selecting a preferred alternative for an action that would lower the existing MRAs for skates in the GOA. Considering the direct and indirect impacts of the proposed action when added to the impacts of past and present actions previously analyzed in other documents that are incorporated by reference and the impacts of the reasonably foreseeable future actions listed above, the cumulative impacts of the proposed action are determined to be not significant.

Regulatory Impact Review

Alternative 1

Depredation on sablefish HAL sets is known to occur in the BSAI and GOA IFQ fisheries, and is a major cost to the sablefish IFQ fishery. Fishermen endure lost catch, spend time waiting out whales in the area before hauling gear, or spend time a fuel relocating to avoid whales. Measures taken to avoid depredation reduce fishing efficiency through variable operational costs (fuel, labor) and through the opportunity cost of time lost that would have been available for additional fishing effort or dedicated to other fishing and non-fishing activities. Because the sablefish IFQ fishery is quota-based, the key cost of depredation to fishermen is the cost of the additional time and bait required to catch the same amount of fish. Gear damage from depredation is also a direct cost. In a study conducted with six longline vessels operating in the Western GOA and BSAI areas during 2011 and 2012, killer whale depredation resulted in an estimated additional \$980 per vessel-day for additional fuel, crew food and the opportunity cost of lost time. Based on data from the observed commercial fishery, the additional costs associated with catching the same amount of sablefish on killer whale depredated sets was estimated to be approximately $\$433 \pm 147$ per set for additional fuel alone (not including additional crew, bait or opportunity costs). The estimated reduction in CPUE for depredated sets in that area ranged between 35% to 69% for observed sets during the time period from 1998 through 2012. Estimated fuel costs associated with those sets were 82% higher. The study published in 2014 estimated opportunity costs of time lost to fishing at \$522 per vessel-day.

Use of pot gear in areas where it is permitted has increased in recent years, at least in part due to depredation concerns. In 2007, pot gear accounted for 81% of the BS fixed gear IFQ catch and 56% of the AI catch.

Alternative 2

The use of pot longlines in the GOA sablefish IFQ fishery would be consistent with the allowance of pot gear in the BSAI sablefish IFQ fisheries. The purpose and need statement for this action outlines three first-order considerations for weighing the action alternative against the status quo. First, the Council is seeking an alternative that would mitigate the reduced CPUE and increased fishing costs (direct and indirect) that are attributed in part to whale depredation off of HAL gear. Second, the Council acknowledges that depredation off of HAL gear constitutes unaccounted mortality in the sablefish stock. Mortality from whale depredation is a direct negative impact on the sablefish stock, but the inability to account for this mortality (assumed to be greater than natural sablefish mortality due to whale predation) increases uncertainty in the sablefish abundance indices that are critical to sound management. Third, the Council is seeking an alternative that would provide continued, equitable fishing opportunities for harvesters who do not choose to switch to pot gear, minimizing the likelihood and severity of excessive grounds preemption, gear conflicts, and consolidation in the GOA sablefish IFQ fleet.

The Council and industry committees have noted potential benefits of pot gear for sablefish fishing that include: mitigation of marine mammal interactions, reduced bycatch of seabirds and other fish species, reduced overall halibut mortality, and better accounting of total sablefish fishing mortality.

The potential economic and social costs of allowing pot gear in areas where HAL gear is also used include: the capital cost of purchasing pot gear and/or re-tooling a vessel, increased preemption of fishing grounds, gear conflict potentially resulting in gear damage or loss, and competitive imbalance between users of different gear types.

In some aspects, the relative benefit of pot gear fishing as opposed to HAL gear is either unclear or is conditional on factors that are not forecasted in this analysis. Those external factors include the local biomass distribution of sablefish in the future, changes in future product markets, and the future behavior

of marine mammals (particularly depredating whales). Based on available information, the analysts are not able to definitively state whether fishing with pot gear would generate a higher sablefish CPUE in the GOA (noting that CPUE is likely to differ across GOA subareas), whether pot fishing will increase or decrease per unit ex-vessel values for sablefish, or whether pot fishing will reduce expenditures on bait, fuel, and travel time to and between fishing grounds.

It is possible that many GOA sablefish QS holders would not be able to take advantage of the opportunity to use pot longline gear, either because their vessels are too small to fish pot gear safely or practicably, or because they cannot afford cost of acquiring pot gear and reconfiguring their boat. Vessel owners with higher fishing revenues or greater capital assets would find it easier to secure financing. IFQ crewmen who own sablefish QS, but not a vessel, may find it more difficult to step up to vessel ownership if jumping up all the way to a vessel capable of fishing pots becomes the only viable way to fish sablefish IFQ in the GOA. Vessels that already fish pots in other fisheries, such as the Pacific cod fishery, would face much lower conversion costs than the small boat fleet. On an area basis, the Southeast Alaska fleet would likely face the longest build-up period in establishing pot gear operations. Larger vessels can safely carry more pots, meaning that they have a competitive advantage and would also impose costs on smaller vessels by preempting more of the sablefish fishing grounds.

If fishing sablefish IFQ with pot gear emerges as a dominant strategy, perhaps concentrating depredation by whale populations onto remaining HAL gear, direct costs and opportunity costs for non-pot participants could increase relative to the status quo. In the extreme, fishing with HAL gear could become less profitable. If operating margins for non-pot participants fall below the profitability line, vessel owners could choose to forgo the cost of operating their own vessel and “walk on” to vessels able to fish pot gear, thus reducing the number of active vessels in the fleet. Operators unable to convert to pot gear might choose to sell their QS, which could also lead to consolidation in the fleet. Fleet consolidation would be the most imminent threat to the number of available crew jobs. Pot operations do not seem to have inherently more or less crew on board than do HAL vessels.

Presuming that the conversion of some of the GOA sablefish fleet to pot longline gear reduces unaccounted whale depredation, and consequently reduces uncertainty in sablefish stock abundance indices, future TAC levels may increase. Transfer prices for the QS that underlie annual sablefish IFQ are based on perception of the future harvest opportunities in the fishery, so higher TACs could have a positive effect on QS value. Current QS holders would benefit from the enhanced value of their tradable asset, though individuals looking to purchase QS on the transfer market – such as new entrants, holders of small QS amounts, or crew members – might encounter higher barriers to entry.

Because the GOA sablefish fishery is an area-based IFQ fishery that is typically fully harvested, the gear used to make the catch should not affect the total amount of deliveries to processors in each area. There is some potential for the redistribution of catch if larger vessels if consolidation occurs. Sablefish caught with pot gear are not expected to be larger or smaller, on the whole, than those caught with HAL gear. As a result, processors would not likely have to alter their mix of product forms to suit a different average sized fish. The impact of a shift to pot longline gear on delivered sablefish quality is not clear. If reduced unaccounted whale depredation mortality decreases due to the use of pot gear, processors would benefit from increased TACs in the same manner as harvesters. However, marginal returns may be diminishing with increased sablefish production. Nominal average annual ex-vessel prices for sablefish in all areas have been in decline since their peak in 2011. Ex-vessel prices have many determinant factors in addition to the quantity supplied to the market. Nevertheless, one might conclude that demand for sablefish on the world market is not ever-expanding.

Potential impacts on communities follow the same logic as those described for processors. If fleet consolidation were to occur, communities that rank highly in processor reliance but not in processor

engagement (i.e. the community receives a small amount of deliveries, but that activity makes up a significant portion of the community's economic activity) would be among the most at risk. Those communities include Elfin Cove, Port Alexander, Akhiok, Excursion Inlet, and False Pass. GOA communities with shipyard operations might benefit from the removal of pot gear restrictions, as vessels may need to be re-fitted or modified in order to carry, launch, and haul longline pots.

Net Benefits Summary

Two general outcomes are possible under the proposed action, each of which would have different net benefit impacts. The first possible outcome is that HAL gear remains the only legal gear for the harvest of GOA sablefish IFQ. Net benefits would not change from the status quo under this outcome. The IFQ fishery would continue to operate in its current manner: whale depredation would continue to impose direct and opportunity costs on IFQ fishermen, and HAL bycatch of other groundfish species and seabirds would be unchanged from their present rates. The second possible outcome is that longline pot gear would be permitted in the GOA sablefish IFQ fishery, but would not be required. Given the diversity in the size of the vessels and the resources of the vessel owners in the fleet, it is likely that the fishery will be prosecuted with two different gear types deployed in the same management areas.

The likely benefits of replacing some HAL effort with longline pot effort are aligned with the Council's purpose and need for this action. Specifically, reducing the amount of prey availability for marine mammals and seabirds (sablefish and other groundfish hooked on HAL gear) should reduce interactions with fishing gear. Marine mammals and seabirds would experience a marginal benefit, in which the Council has expressed an interest, and those sablefish IFQ harvesters who use pot longline gear will have mitigated the depredation events that depress their CPUE. Bycatch of other groundfish species that are commonly taken with HAL gear but encountered less often with pot gear (e.g. halibut, rockfish, and skates) would decrease in the aggregate. More of those bycatch species would be available to other directed fisheries, benefitting sablefish IFQ participants who are active in those fisheries, as well as other stakeholder groups. The amount of sablefish that are depredated off of HAL gear without being accounted in stock abundance indices would decrease as less HAL gear is deployed, thereby improving stock management and potentially leading to greater harvestable biomass in future time periods.

Participants who are not able to fish longline pot gear on their vessels – due to either financial or operational constraints – would not experience the same benefit of reduced whale depredation. In fact, it is possible that they would experience greater rates of depredation as the sablefish hooked on HAL gear becomes concentrated on fewer vessels in a given area. Therefore, some distributional impacts are likely to result from the action alternative; those impacts are likely to affect smaller vessels in the sablefish IFQ fleet. Furthermore, allowing two gear types in the same areas could increase the likelihood of gear conflicts in which HAL gear is at risk of damage or loss.

Because pot longline fishing for sablefish has not been permitted in the GOA during the existing IFQ management regime, the analysis lacks some information that would allow for a definitive assessment of whether or not pot fishing will actually generate greater net benefits. GOA data on sablefish catch rates with longline pot gear, and ex-vessel prices for pot-caught sablefish are not available. On the other hand, it is known that fitting a vessel with longline pot gear will be costly. Lacking that information, it is not clear that investments in setting up a pot longline operation will return a net benefit in the form of reduced gear damage and reduced opportunity costs incurred when avoiding whale depredation.

Based on the analysis and criteria under E.O. 12866, there may likely be some distributional impacts among the various participants affected. Precisely what, when, and how great these impacts might be is an empirical question. The qualitative benefits of reduced whale and seabird interactions are likely to be

achieved under the action alternative. The balance of benefits between pot longline and HAL sablefish fishermen is, at this point, less obvious due to limited data.

Management and Enforcement Considerations

If the proposed action alternative (Alternative 2) to allow the use of pot longline gear in the GOA sablefish IFQ fishery is recommended by the Council, then management, monitoring and enforcement of the fishery would be conducted by Inseason Management, the Observer Program and OLE as is currently done in the HAL fishery for sablefish in the GOA. However, the methods used to manage the fishery under the status quo alternative could not be used to fully monitor and enforce the 4 elements proposed under Alternative 2. Neither OLE nor the Observer Program has the resources to expand duties to fully monitor the proposed gear limitation elements under Alternative 2. However, a few OLE monitoring procedures and Observer Program data collection tasks that are already conducted could be extended to the GOA sablefish pot longline fishery in order to inform limited aspects of the action alternative elements. Accommodating new observer duties is only possible if the duty closely aligns with existing protocol, because observer time is fully committed to performing duties in support of existing program goals and regulations. Additional duties, such as those that would be necessary to fully monitor Elements 1 through 4 of the action alternative, cannot be performed using current resources.

Comparison of Alternatives for Decision making

Table ES-4 Summary of alternatives and major impacts

	Alternative 1	Alternative 2		
	Status quo. No action.	Allow pot longline gear in sablefish IFQ fishery	Status quo options	Proposed Options (as noted below)
Differences in Alternatives (Sections 2.1 and 2.2)				
FMP amendment	No	Yes	No	No
Regulatory amendment	No	Yes	No	Yes
Gear	None	Hook-and-line longline and pot longline gears only		Adoption of any changes to “groundfish pot” longline gear would create a “sablefish pot” and a new gear code.
Element 1. Pot limits	None		None	Maximum number of pots = 400
Element 2. Gear retrieval	None		None	Require pot removal during landing
			None	Require reporting of lost pots
Element 3. Gear specifications	None		None	Require neutrally buoyant groundline
			None	Require pot longline to be marked at both ends
Element 4. Halibut Retention	None		None	Require halibut retention; Set halibut MRA for GOA sablefish fishery
Environmental Impacts				
Whales	No changes. (Section 3.5)	Minimize gear interactions		Marking of both end of pot longlines could double the chance of whale entanglements
Seabirds	No changes.	Minimizes gear interactions		Marking of both end of pot longlines could double the chance of seabird entanglements
Sablefish	No changes.	Minimizes unaccounted for mortality.		
Halibut	No changes.	Minimizes discard mortality		
Economic Impacts				
Fishing effort		Reduces fishing costs from reduced gear, bait, harvest, fuel, ice, and time to retain the same amount of sablefish IFQ harvest Additional efficiencies associated with retaining halibut incidental harvest against IFQs		Exemption from pot removal requirement could allow additional vessels to use longline pot gear
Distributional impacts	No changes.	Vessels that do not use pot gear might experience greater depredation, opportunity costs		
Interagency Coordination				
Requires complementary action by the Alaska Board of Fisheries	No	Yes	No	Elements 1 – 3 could require complementary state action for consistency.
Requires complementary action by the International Pacific Halibut Commission	No	Yes	No	Element 4 would require the IPHC to amend its regulations to identify pots as legal gear in the GOA.