FISHERY MANAGEMENT PLAN For The SALMON FISHERIES In The EEZ Off Alaska

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SUMMARY

This document describes the North Pacific Fishery Management Council's (Council's) plan for managing salmon fisheries in a significant portion of the U.S. Exclusive Economic Zone (EEZ or federal waters) off Alaska. The Council developed the *Fishery Management Plan for the Salmon Fisheries in the EEZ Off Alaska* (FMP) under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

The Secretary of Commerce originally approved the Fishery Management Plan for the High Seas Salmon Fishery off the Coast of Alaska East of 175 Degrees East Longitude and implemented it in 1979. The FMP established the Council's authority over the salmon fisheries in the EEZ, the waters from 3 to 200 miles offshore, then known as the United States Fishery Conservation Zone. The Council excluded from its coverage the Federal waters west of 175° east longitude (near Attu Island) because the salmon fisheries in that area were under the jurisdiction of the International Convention for the High Seas Fisheries of the North Pacific Ocean. The Council divided the United States Fishery Conservation Zone covered by the plan into a West Area and an East Area with the boundary at Cape Suckling. It authorized sport salmon fishing in both areas, prohibited commercial salmon fishing in the West Area (except in three traditional net fishing areas managed by the State of Alaska), and authorized commercial troll fishing in the East Area. Management measures for the salmon fisheries in the United States Fishery Conservation Zone were equivalent to State of Alaska regulations in the adjacent state waters.

The FMP has been amended several times and was comprehensively revised in 1990. With time, the 1979 FMP became outdated and some of Alaska's management measures changed. Thus, in 1990, the Council amended the plan to update it, correct minor errors, and remove itself from routine management of the salmon fisheries. Also, the Magnuson-Stevens Act was revised to require that fishery management plans consider fish habitat and accommodate vessel safety. Finally, the FMP needed to incorporate restrictions on Alaska salmon fisheries consistent with the 1985 *Treaty between the Government of Canada and the Government of the United States of America Concerning Pacific Salmon*. The 1990 FMP included these changes in a reorganized and shortened document with a more appropriate title, *Fishery Management Plan for the Salmon Fisheries in the EEZ Off the Coast of Alaska*.

In the 1990 FMP, the Council reaffirmed its decision that existing and future salmon fisheries occurring in the EEZ require varying degrees of federal management and oversight. The FMP (1) retained the prohibition on salmon fishing with nets but continued to authorize commercial hand-troll and power-troll salmon fishing in the East Area, (2) retained the prohibition on commercial salmon fishing in the West Area with the exception of commercial net salmon fisheries that occur in three delineated areas of the EEZ, (3) allowed sport fishing in both areas, and (4) delegated regulation of the sport and commercial fisheries in the EEZ to the State of Alaska. Since 1990, the Council has amended the FMP eleven times to address various Magnuson-Stevens Act requirements.

In 2010, the Council began a comprehensive review of the FMP and consideration of its management strategy and scope of coverage. Since 1990, State of Alaska fisheries regulations and federal and international laws affecting Alaska salmon have changed and the reauthorized Magnuson-Stevens Act expanded the requirements for fishery management plans. The Council also recognized that the FMP was vague with respect to management authority for the three directed commercial salmon fisheries that occur

in the West Area. The Council decided to update the FMP to comply with the current Magnuson-Stevens Act requirements and to more clearly reflect the Council's policy with regard to the State of Alaska's management authority over commercial fisheries in the West Area, the commercial troll fishery in the East Area, and the sport fishery.

In 2011, the Council recommended Amendment 12 to comprehensively revise the FMP. With Amendment 12, the Council affirmed that its salmon management policy is to facilitate State of Alaska salmon management in accordance with the Magnuson-Stevens Act, the Pacific Salmon Treaty, and other applicable federal law. Under this policy, the Council identified six management objectives to guide salmon management under the FMP and achieve the management policy. To reflect this policy, the Council modified the FMP's management area to exclude the three traditional net fishing areas and the sport fishery from the West Area. The Council maintained the prohibition on commercial fishing in the West Area. In the East Area, the Council maintained the FMP and reaffirmed that management of the salmon fisheries in the East Area is delegated to the State of Alaska. The Council also recommended a number of FMP provisions to update the FMP and bring it into compliance with the Magnuson-Stevens Act and other applicable federal, State of Alaska, and international law. This revised FMP includes these changes in a reorganized and shortened document with a more concise title, *Fishery Management Plan for the Salmon Fisheries in the EEZ Off Alaska*.

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Chapter 1 INTRODUCTION

This document describes the North Pacific Fishery Management Council's (Council's) plan for managing salmon fisheries in a significant portion of the U.S. Exclusive Economic Zone (EEZ or federal waters) off Alaska. The Council developed the *Fishery Management Plan for the Salmon Fisheries in the EEZ off Alaska* (FMP) under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act, 16 U.S.C. 1801 *et seq.*). The Secretary of Commerce approved the FMP and it became effective in 1979. The FMP was comprehensively revised in 1990 and in 2012.

The Magnuson-Stevens Act is the primary domestic legislation governing management of the nation's marine fisheries. The Magnuson-Stevens Act gives the Council responsibility for preparing and amending fishery management plans for any fishery in the EEZ off Alaska that requires conservation and management (16 U.S.C. 1852 (h)). The Magnuson-Stevens Act requires fishery management plans to be consistent with a number of provisions, including ten national standards, with which all fishery management plans must conform and which serve to guide fishery management. Besides the Magnuson-Stevens Act, U.S. fisheries management must be consistent with the requirements of other laws, such as the Marine Mammal Protection Act and the Endangered Species Act.

Under the Magnuson-Stevens Act, the Council is authorized to prepare and submit to the Secretary of Commerce for approval, disapproval, or partial approval, a fishery management plan and any necessary amendments for each fishery under its authority that requires conservation and management. The Council conducts public meetings to allow all interested persons an opportunity to be heard in the development of fishery management plans and amendments, and reviews and revises, as appropriate, the assessments and specifications with respect to the optimum yield from each fishery.

1.1 History of the FMP

On December 1, 1978, the Council adopted the *Fishery Management Plan for the High Seas Salmon Fishery off the Coast of Alaska East of 175 Degrees East Longitude* for managing the federal waters salmon fisheries and submitted it to the Secretary of Commerce for approval and implementation with federal regulations. The Council had determined that unless it managed the salmon fisheries in the waters under its jurisdiction, certain salmon stocks would likely be overharvested. The FMP was intended to maintain the then recent levels of fishing effort on the salmon stocks. The Secretary of Commerce approved, with one exception, the FMP on April 30, 1979, and it was implemented on May 18, 1979, with emergency regulations (44 FR 29080). NMFS published the FMP on June 8, 1979 (44 FR 33250).

The FMP established the Council's authority over the salmon fisheries in the federal waters off Alaska, from 3 to 200 miles offshore, then known as the U.S. Fishery Conservation Zone. The Council excluded from FMP coverage the federal waters west of 175° east longitude (near Attu Island) because the salmon fisheries in that area were under the jurisdiction of the *International Convention for the High Seas Fisheries of the North Pacific Ocean* and the *North Pacific Fisheries Act* (16 U.S.C. 1921 *et seq.*).

The FMP divided the federal waters off Alaska into two areas (East Area and West Area) at the longitude of Cape Suckling (143°53.6' W). It maintained the 1952 prohibition on the commercial net salmon fishing and the 1973 prohibition on commercial troll salmon fishing in the West Area (with three small exceptions for traditional coastal net fisheries) and recognized that the salmon stocks in the West Area are fully utilized by the inshore salmon fishery. The FMP established values for the maximum sustainable yield (MSY), an allowable biological catch (ABC), and optimum yield (OY), and set the total allowable level of foreign fishing equal to zero for both areas.

The FMP management measures focused primarily on the troll fishery in the East Area and the sport fishery. The FMP's primary function was to limit entry in the commercial troll fishery in federal waters by (1) placing a moratorium on commercial power troll permits, (2) establishing a separate federal permit for those power trollers who do not have Alaska limited entry permits but who have fished in the U. S. Fishery Conservation Zone and landed their catch outside of Alaska, and (3) requiring trollers to have either a State of Alaska or a federal limited-entry troll permit. The Council intended the rest of the FMP management measures for the sport fishery and the commercial troll fishery in the East Area to be complementary with the State of Alaska regulations for the salmon fisheries in adjacent state waters. The FMP adopted the State of Alaska's harvest restrictions and management measures.

The Council allowed the sport fishery to be open all year, but restricted sport gear and harvest by adopting the then current State of Alaska regulations.

The Council intended to prohibit hand trolling in the federal waters (to be consistent with the existing state ban on hand trolling in waters seaward of the surfline), but the Secretary of Commerce disapproved that provision. The Secretary of Commerce determined that the prohibition on hand trolling was inconsistent with National Standard 4 because prohibiting fishing by certain hand trollers who had historically fished in this area would have treated hand trollers different from power trollers without serving a conservation or management purpose (44 FR 29080, May 18, 1979).

Amendment 1

On May 2, 1980, the Secretary of Commerce approved Amendment 1, with one exception (45 FR 34020, May 21, 1980). Amendment 1 made several changes to conform the FMP and implementing regulations to state regulations so that there was uniformity between state and federal waters. The Council again attempted to prohibit hand trolling, but the Secretary of Commerce disapproved that provision of Amendment 1 based on inconsistency with National Standard 4.

Amendment 2

On June 5, 1981, the Secretary of Commerce approved Amendment 2, with one exception (46 FR 57299, November 23, 1981). This amendment (1) made several changes to conform the FMP and implementing regulations to the state regulations so that there was uniformity between state and federal waters, (2) modified the objectives of the plan, and (3) reduced the ABC and OY for Chinook salmon in the East Area by 15 percent. The Council had proposed to modify its reporting requirements to require that fishermen landing their catch outside of Alaska submit an Alaska fish ticket before leaving the state. Although the Secretary of Commerce approved this provision, it was disapproved by the Office of Management and Budget, which found that this requirement imposed an unjustified burden on fishermen.

Amendment 3

In 1990, the Secretary of Commerce approved Amendment 3 (55 FR 47773, November 15, 1990). Amendment 3 completely revised the FMP. In 1986, the Council decided to amend its FMP for a third time to (a) update the FMP to contain the best available scientific information, (b) correct minor errors, (c) increase management flexibility, and (d) make the plan consistent with the 1985 *Treaty between the Government of Canada and the Government of the United States of America Concerning Pacific Salmon* (Pacific Salmon Treaty) and the Pacific Salmon Treaty Act (16 U.S.C. 3631 *et seq.*).

In June 1988, the Council reviewed a draft FMP as it would be modified by Amendment 3 and requested its salmon plan team revise the draft to extend jurisdiction of the FMP over federal waters west of 175° east longitude, revise the definitions of MSY and OY, and delegate regulation of the salmon fisheries to the State of Alaska. In addition, the Council also (a) considered temporary adjustments because of weather or other ocean conditions affecting the safety of vessels, (b) included a section on habitat, and (c) changed the name of the U.S. Fishery Conservation Zone to the U.S. Exclusive Economic Zone (EEZ) as required by the 1986 amendments to the Magnuson-Stevens Act.

In 1990, the Council adopted Amendment 3 and reaffirmed its decision to maintain a fishery management plan for managing the EEZ salmon fisheries because existing and future salmon fisheries occurring in the EEZ require varying degrees of federal management and oversight under the Magnuson-Stevens Act.

Amendment 4

On March 1, 1991, the Secretary of Commerce approved Amendment 4 (56 FR 12365, March 25, 1991). Amendment 4 defines status determination criteria for the stocks of salmon covered by the FMP as the definitions and policies on overfishing promulgated by the Pacific Salmon Commission and the State of Alaska.

Amendment 5

On January 20, 1999, the Secretary of Commerce approved Amendment 5 (64 FR 20216, April 26, 1999). Amendment 5 describes and identifies essential fish habitat for Alaska salmon and risks to that habitat to promote the protection and conservation of habitat used by FMP species at crucial stages of their life cycles.

Amendment 6

On January 2, 2002, the Secretary of Commerce approved Amendment 6 (67 FR 1163, January 9, 2002). Amendment 6 implements status determination criteria for the salmon stocks harvested in the Southeast Alaska troll fishery to prevent overfishing and ensure that conservation and management measures continue to be based on the best scientific information available. Amendment 6 modified Amendment 4 by amending the FMP to include new status determination criteria for the East Area.

Amendments 7 and 8

On May 3, 2006, the Secretary of Commerce approved Amendments 7 and 8 (71 FR 36694, June 28, 2006). These amendments revise the FMP by identifying and describing essential fish habitat, designating habitat areas of particular concern, and including measures to minimize to the extent

practicable adverse effects on essential fish habitat. These amendments protect important salmon habitat features to sustain managed salmon. These amendments replaced Amendment 5.

Amendment 9

On February 4, 2008, the Secretary of Commerce approved Amendment 9 (73 FR 9035, February 19, 2008). Amendment 9 revises the boundaries of the Aleutian Islands Habitat Conservation Area described in the FMP to ensure the boundaries accurately reflect the Council's intent to prohibit nonpelagic trawling in those areas with minimal or no fishing and sensitive habitat, and to allow nonpelagic trawling in areas historically fished by this gear type.

Amendment 10

On June 29, 2012, the Secretary of Commerce approved Amendment 10 (77 FR 75570, December 21, 2012). Amendment 10 amends the FMP to provide authority for NMFS to recover the administrative costs of processing applications for any future permits that may required under this FMP, except for exempted fishing permits and prohibited species donation permits.

Amendment 11

On June 29, 2012, the Secretary of Commerce approved Amendment 11 (77 FR 75570, December 21, 2012). In April 2011, the Council recommended Amendment 11 as part of its 5-year review for essential fish habitat. Amendment 11 changes the Council's time period to solicit HAPC proposals from every 3 years to every 5 years, to coincide with the EFH 5-year review. Additionally, Amendment 11 retains the flexibility for the Council to solicit HAPC proposals at any time. Amendment 11 also revises Appendix A to update the description of the non-fishing impacts to salmon EFH and the recommendations for entities conducting non-fishing activities in areas that are considered salmon EFH.

Amendment 12

On June 29, 2012, the Secretary of Commerce approved Amendment 12 (77 FR 75570, December 21, 2012). Amendment 12 comprehensively revises the FMP to facilitate State of Alaska salmon management in accordance with the Magnuson-Stevens Act, the Pacific Salmon Treaty, and other applicable federal law. Under this policy, the Council identified six management objectives to guide salmon management under the FMP and achieve the management policy. To reflect this policy, the Council modified the FMP's management area to exclude the three traditional net fishing areas and the sport fishery from the West Area. The Council maintained the prohibition on commercial fishing in the West Area. In the East Area, the Council maintained the FMP and reaffirmed that management of the salmon fisheries in the East Area is delegated to the State of Alaska. The Council also recommended a number of FMP provisions to update the FMP and bring it into compliance with the Magnuson-Stevens Act and other applicable federal, state, and international law.

Table 1 Amendments to the Salmon FMP.

Amendment	Date	Pertinent Function(s)	Federal Register document
FMP for the High Seas Salmon Fisheries off the Coast of Alaska East of 175 Degrees East Longitude	1979	 Establishes Council and NMFS authority over the salmon fisheries in federal waters from 3 to 200 miles seaward. Excludes waters west of 175°E. long. from the FMP. 	44 FR 29080 44 FR 33250
Amendment 1	1980	Makes several changes to conform the FMP and implementing regulations to state regulations	45 FR 34020
Amendment 2	1981	 Makes several changes to conform the FMP and implementing regulations to the state regulations. Modifies the objectives of the plan. Reduces the ABC and OY for Chinook salmon in the East Area by 15 percent. 	46 FR 57299
Amendment 3 FMP for the Salmon Fisheries in the EEZ off the Coast of Alaska	1990	 Extends FMP jurisdiction to EEZ west of 175°E. long. Delegates regulation of sport and commercial fisheries to state but maintains federal participation and oversight. 	55 FR 47773
Amendment 4 (modified by Amend 6)	1991	Establishes status determination criteria.	56 FR 12385
Amendment 5 (superseded by Amend 7)	1999	Implements Essential Fish Habitat (EFH) provisions contained in the Magnuson-Stevens Act.	64 FR 20216
Amendment 6 Revise Definitions of Overfishing, MSY, and OY	2002	Establishes new status determination criteria for the Southeast Alaska troll fishery in compliance with the Magnuson-Stevens Act, and consistent with state and federal cooperative management and based on the State of Alaska salmon management and the Pacific Salmon Treaty.	67 FR 1163
Amendments 7 and 8 Essential Fish Habitat (EFH) and Habitat Areas of Particular Concern (HAPC)	2006	 Describes and identifies salmon EFH and HAPCs. Makes conservation and enhancement recommendations for EFH and HAPCs. 	71 FR 36694
Amendment 9 Aleutian Islands Habitat Conservation Area	2008	Revises the boundaries of the Aleutian Islands Habitat Conservation Area described in the FMP	73 FR 9035
Amendment 10 Permit Fees	2012	Establishes a system to collect fees for permits	77 FR 75570
Amendment 11 Essential Fish Habitat	2012	 Updates description of EFH impacts from non-fishing activities, and EFH conservation recommendations for non-fishing activities. Revises the timeline associated with the HAPC process to a 5-year timeline. Updates EFH research priority objectives. 	77 FR 75570
Amendment 12 FMP for the Salmon Fisheries in the EEZ Off Alaska	2012	 Clarifies the Council's salmon management policy and objectives. Redefines the management area to remove the 3 historical net fishing areas and the sport fishery from the West Area. Delegates management of the salmon fisheries in the East Area to the State of Alaska. Updates the FMP to comply with the Magnuson-Stevens Act, and applicable federal, state, and international law. 	77 FR 75570

Chapter 2 DESCRIPTION OF THE FISHERY MANAGEMENT UNIT

The Fishery Management Unit (FMU) for the FMP, described in detail in this chapter, represents the Council's choice of biological, geographic, economic, technical, social, and ecological management perspectives that best achieve the FMP's management policy and objectives. Section 2.1 describes the geographic scope of the FMU; section 2.2 describes the species included in the FMU; and section 2.3 describes the fisheries within the FMU. Section 2.4 provides a description of the nature and extent of Indian treaty fishing rights within the FMU.

2.1 Salmon Management Area

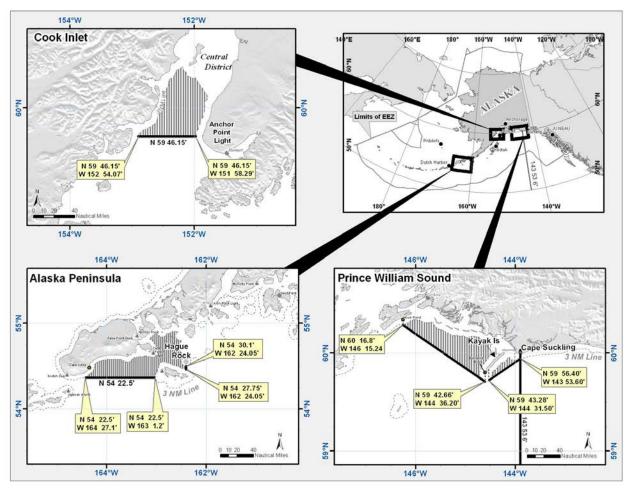
The salmon management area consists of all of the EEZ off Alaska, and the salmon fisheries that occur there, except for three defined areas that are excluded from the management area. The EEZ extends from 3 miles to 200 miles offshore. The salmon management area is divided into the East Area and the West Area (Figure 1). The border between the two areas is at the longitude of Cape Suckling (143°53.6' west longitude).

The East Area is the area of the EEZ in the Gulf of Alaska east of the longitude of Cape Suckling.

<u>The West Area</u> is the area of the EEZ off Alaska west of the longitude of Cape Suckling, including the Gulf of Alaska, Bering Sea, Chukchi Sea, and Beaufort Sea. The West Area does not include the three areas excluded from the management area.

<u>Areas Excluded from the Management Area</u> are the three traditional net fishing areas in the EEZ off Alaska that have commercial fisheries managed by the State of Alaska: the Cook Inlet Area, Prince William Sound Area, and the Alaska Peninsula Area (Figure 1). These areas technically extend into the EEZ, but the salmon fisheries that occur there are managed by the State of Alaska. This FMP does not manage these areas or the salmon fisheries that occur there.

Figure 1 The FMP's salmon management area, showing the East Area and the West Area and the three areas excluded from the salmon management area (shaded).



2.2 Salmon

The FMP includes all five species of Pacific salmon:

Chinook, Oncorhynchus tshawytscha

Coho, Oncorhynchus kisutch

Pink, Oncorhynchus gorbuscha

Sockeye, Oncorhynchus nerka

Chum, Oncorhynchus keta

For more information on the salmon, freshwater and marine distributions, life histories, and habitat, refer to Appendix A.

In the East Area, Chinook salmon originate from natural spawning grounds and hatcheries in Southeast Alaska, British Columbia, Washington, Oregon, and Idaho. Most coho, pink, chum, and sockeye in the East Area originate from Southeast Alaska natural spawning grounds and hatcheries, but some also originate in British Columbia.

In the West Area, Chinook salmon originate in North American fresh waters from coastal Oregon and the Columbia River to the streams of the Chukchi Sea and the uppermost reaches of the Yukon River. Harvestable coho originate primarily in Alaskan streams, ranging from those in southern Southeast to those in the northern parts of Western Alaska. Some coho in the West Area come from the Canadian portion of the Yukon River, and some probably come from Asia. The chum and pink salmon come from Asia and North America, whereas the sockeye come mostly from North America.

2.3 Fisheries

This FMP governs commercial fishing for salmon in the West Area, and governs commercial and sport (or recreational) fishing for the salmon in the East Area. The Magnuson-Stevens Act defines commercial fishing for salmon as fishing in which the salmon harvested, either in whole or in part, are intended to enter commerce or enter commerce through sale, barter or trade. The Magnuson-Stevens Act defines recreational fishing as fishing for sport of pleasure. Management measures applicable to these fisheries are described in chapter 6.

2.3.1 Sport (or Recreational) Salmon Fishery in the East Area

The FMP governs sport fishing for salmon in the East Area. The sport fishery for salmon takes place almost entirely within state waters (there is little reason for sport fishermen to fish for salmon seaward of state waters). In the East Area, the sport harvest of salmon from the EEZ is estimated to be a few thousand salmon, less than one percent of the combined state and federal marine waters sport harvest. Chinook and coho salmon are taken primarily in the charter boat fishery. A description of the sport fishery is provided in the Fishery Impact Statement in chapter 8.

2.3.2 Commercial Salmon Fishery in the East Area

The FMP governs commercial fishing for salmon in the East Area. Net fishing is prohibited in the East Area. Within the East Area, the troll fishery (hand-troll and power-troll) is the only commercial salmon fishery allowed. Management of the commercial troll fishery in the EEZ is delegated to the State of Alaska and the fishery is managed as a single unit throughout federal and state waters. From Alaska statehood in 1959 until 1979, this fishery was conducted and managed with little recognition of the boundary separating federal from state waters, although at one time the State of Alaska banned hand trolling seaward of the surf line. Upon implementation of the FMP in 1979, the portion of the fishery in the EEZ came under federal management. A description of the commercial troll fishery is provided in the Fishery Impact Statement in chapter 8.

2.3.3 Commercial Salmon Fishery in the West Area

The FMP governs commercial fishing for salmon in the West Area. Although the FMP governs commercial fishing for salmon in the West Area, no commercial fishing for salmon in the West Area has been permitted for a number of years. Commercial salmon fishing with nets has been prohibited in the majority of the West Area since 1952 with the *International Convention for the High Seas Fisheries of the North Pacific Ocean.* The North Pacific Fisheries Act of 1954 implemented the *International Convention for the High Seas Fisheries of the North Pacific Ocean.* The North Pacific Fisheries Act included an exception to the prohibition on commercial fishing for the three traditional net fishing areas managed by the State of Alaska. In 1970, under the authority of the North Pacific Fisheries Act of 1954, NMFS issued regulations that defined the North Pacific area and prohibited harvesting salmon in the North Pacific area (35 FR 7070, May 5, 1970). The regulations excluded from the North Pacific area the exclusive waters adjacent to Alaska where salmon net fishing was permitted under State of Alaska regulations.

The 1979 Fishery Management Plan for the High Seas Salmon Fishery Off the Coast of Alaska East of 175 Degrees East Longitude continued the prohibition on commercial fishing in the West Area, with the exception of the three traditional net fishing areas. The area east of 175° east longitude was not under the FMP because a Japanese high-seas mothership fishery operated there under the jurisdiction of the International Convention for the High Seas Fisheries of the North Pacific Ocean.

In 1990, in revising the FMP, the Council extended the West Area, and the prohibition on commercial salmon fishing, to include the EEZ waters west of 175° east longitude.

With Amendment 12, the Council excluded the three historic net fishing areas, and the commercial salmon fisheries that occur there, from the West Area: the Cook Inlet Area, Prince William Sound Area, and the Alaska Peninsula Area (Figure 1).

2.4 Indian Treaty Fishing Rights

The Magnuson-Stevens Act requires that fishery management plans contain a description of the nature and extent of Indian treaty fishing rights (16 U.S.C. 1853(a)(2)). The only Indian treaty fishing rights related to the fisheries covered by this plan are those resulting from treaties negotiated between the United States and a number of Pacific Northwest Indian tribes in the late 1800s. No treaties were negotiated with Alaska Native Tribes. However, a proclamation by President Warren G. Harding on April 28, 1916, created the Annette Island Fishery Reserve and established an exclusive fishing zone (3,000 feet wide) around the Annette Islands. Within this zone, the fisheries by Metlakatla Indians are regulated by the

U.S. Department of the Interior and are managed by the U.S. Fish and Wildlife Service and the Metlakatla Community in cooperation with the Alaska Department of Fish and Game.

Some Chinook salmon caught in and adjacent to Alaska originate in Oregon, Idaho, and Washington and harvest of these salmon is subject to the treaties with Pacific Northwest Tribes. These treaties apply to all stocks of salmon under U.S. control or jurisdiction (including jurisdiction exercised by the States) that – absent prior interception – would pass through or be available at any of the treaty tribes' usual and accustomed fishing grounds.

The Pacific Salmon Treaty resolved issues regarding harvests off Alaska by requiring agreement on allowable Chinook salmon harvests in and adjacent to Southeast Alaska and British Columbia through the Pacific Salmon Commission process. Pacific Northwest Tribes participate directly in the Pacific Salmon Commission process through membership on the Commission and numerous technical and policy committees that support activities of the Commission.

Chapter 3 MANAGEMENT POLICY AND OBJECTIVES

The Council and NMFS, in cooperation with the State of Alaska, are committed to the long-term management of the salmon fishery off Alaska. The goal is to promote stable management and maintain the health of the salmon resource and environment.

The Magnuson-Stevens Act is the primary domestic legislation governing management of the nation's marine fisheries. The Magnuson-Stevens Act requires fishery management plans to be consistent with a number of provisions, including ten national standards, with which all fishery management plans must conform and which guide fishery management. In summary, these national standards state a fishery management plan shall: (1) prevent overfishing while achieving, on a continuing basis, the optimum yield from each U.S. fishery; (2) base conservation and management measures on the best scientific information available; (3) manage the harvest of a fish stock (or interrelated stocks) throughout its range as a unit or in close coordination; (4) not discriminate between residents of different states and allocate fishing privileges in a manner that is fair and equitable, reasonably calculated to promote conservation, and prevents an individual, corporation or other entity from acquiring an excessive share of such privileges; (5) consider efficiency in the use of fishery resources, except that economic allocation cannot be the sole purpose; (6) take into account and allow for variations in catches; (7) minimize costs and avoid unnecessary duplication; (8) take into account the importance of fishery resources to fishing communities by providing for their sustained participation, and minimizing adverse economic impacts to the extent practicable; (9) minimize bycatch and bycatch mortality to the extent practicable; and (10) promote the safety of human life at sea to the extent practicable (16 U.S.C. 1851(a)(1)—(10)).

The Pacific Salmon Treaty requires each party to manage its fisheries in accordance with the principles and goals of the Treaty and the decisions of the Pacific Salmon Commission, for the international conservation and harvest sharing of Pacific salmon. Article III, Principles of the Treaty, requires each party to: (1) conduct its fisheries and salmon enhancement programs to prevent overfishing, provide for optimum production, and allow each party to receive benefits equivalent to the production of salmon originating in its waters; (2) cooperate with the other party in management, research, and enhancement; and (3) take into account the desirability of reducing interceptions, of avoiding undue disruption of existing fisheries, and annual variations in abundance of the stocks. The Treaty's abundance-based salmon management program for Chinook salmon establishes annual harvest regimes that are responsive to changes in production, account for fishery-induced mortalities, and are designed to meet MSY or other biologically-based escapement objectives.

Within the scope of the requirements of the Magnuson-Stevens Act and the Pacific Salmon Treaty, the Council has developed a management policy and objectives to guide its development of management recommendations to the Secretary of Commerce and to guide State of Alaska management of the salmon fishery in the East Area.

The Council recognizes that these objectives cannot be accomplished by any fishery management plan for the EEZ alone. To that end, the Council considers this plan to represent its contribution to a comprehensive management regime for the salmon fishery that will be achieved in concert with actions taken by the Pacific Salmon Commission and the State of Alaska.

3.1 Management Policy

The Council's salmon management policy is to facilitate State of Alaska salmon management in accordance with the Magnuson-Stevens Act, Pacific Salmon Treaty, and applicable federal law. This FMP represents the Council's contribution to a comprehensive management regime for the salmon fishery that will be achieved in concert with actions taken by the Pacific Salmon Commission and the State of Alaska. This policy ensures the application of judicious and responsible fisheries management practices, based on sound scientific research and analysis, proactively rather than reactively, to ensure the sustainability of fishery resources and associated ecosystems for the benefit of future, as well as current generations.

Under this policy, all management measures will be based on the best scientific information available. This management policy recognizes the need to balance many competing uses of marine resources and different social and economic objectives for sustainable fishery management, including protection of the long-term health of the resource and the optimization of yield. This policy uses and improves upon the Council's and State's existing open and transparent process of public involvement in decision-making.

3.2 Management Objectives

The Council has identified the following six management objectives to carry out the management policy for this FMP. The Council, NMFS, and the State of Alaska will consider the following objectives in developing amendments to this FMP and associated management measures. Because adaptive management requires regular review, the management objectives identified in this section will be reviewed periodically by the Council. The Council, NMFS, and the State of Alaska will also review, modify, eliminate, or consider new management measures, as appropriate, to best carry out the management objectives for this FMP.

3.2.1 Objective 1 - Prevent overfishing and achieve optimum yield

Manage the commercial and sport salmon fisheries in the East Areas in concert with the Pacific Salmon Commission, and in accordance with the conservation and harvest sharing goals of the Pacific Salmon Treaty, to prevent overfishing and obtain the number and distribution of spawning fish capable of producing the optimum yield on a sustained basis (wild and hatchery). Prevent overfishing and achieve optimum yield in the West Area by prohibiting the commercial harvest of salmon. Prohibiting commercial harvest enables the State of Alaska to manage salmon fisheries to achieve escapement goals and maximize economic and social benefits from the fishery.

3.2.2 Objective 2 - Manage salmon as a unit throughout their range

Manage salmon fisheries in the EEZ in a manner that enables the State of Alaska to manage salmon stocks seamlessly throughout their range. In the East Area, this objective is achieved by delegating management of the sport and commercial troll fishery to the State of Alaska, to manage consistent with state and federal laws, including the Pacific Salmon Treaty. In the West Area, this objective is achieved by prohibiting commercial fishing for salmon in the West Area so that the State of Alaska can manage Alaska salmon stocks as a unit.

3.2.3 Objective 3 - Minimize Bycatch and Bycatch Mortality

To the extent practicable, manage salmon fisheries to minimize bycatch and minimize the mortality of unavoidable bycatch. Decrease where possible the incidental mortalities of salmon hooked and released, consistent with allocation decisions and the objective of providing the greatest overall benefit to the people of the United States.

3.2.4 Objective 4 - Maximize economic and social benefits to the nation over time.

Economic benefits are broadly defined to include, but are not limited to: profits, income, employment, benefits to consumers, and less tangible or less quantifiable benefits such as the economic stability of coastal communities, recreational value, non-consumptive use value, and non-use value. To ensure that economic and social benefits derived for fisheries covered by this FMP are maximized over time, the following will be examined in the selection of management measures:

- Control of fishing effort and salmon catches.
- Fair and equitable allocation of harvestable surplus of salmon.
- Economic impacts on coastal communities and other identifiable dependent groups (e.g., subsistence users).

This examination will be accomplished by considering, to the extent that data allow, the impact of management measures on the size of the catch during the current and future seasons and their associated prices, harvesting costs, processing costs, employment, the distribution of benefits among members of the harvesting, processing and consumer communities, management costs, and other factors affecting the ability to maximize the economic and social benefits as defined in this section. Other benefits are tied to economic stability and impacts of commercial fishing, as well as, unguided and charter recreational fishing associated with coastal communities, subsistence fishing supporting traditional social and cultural 'communities,' and passive-use 'communities'.

3.2.5 Objective 5 - Protect wild stocks and fully utilize hatchery production

Manage salmon fisheries to ensure sustainability of naturally spawning stocks while providing access to hatchery production.

3.2.6 Objective 6 - Promote Safety

Promote the safety of human life at sea in the development of fisheries management measures. Upon request, and from time to time as appropriate, the Council, NMFS, or the State of Alaska may provide for temporary adjustments, after consultation with the U.S. Coast Guard and fishery participants, for vessels that are otherwise excluded because of weather or ocean conditions causing safety concerns while ensuring no adverse effect on conservation in other fisheries or discrimination among fishery participants.

Chapter 4 ROLES OF AGENCIES IN IMPLEMENTING THIS PLAN

The salmon and salmon fisheries off Alaska are international in scope and are subject to the Pacific Salmon Treaty as well as the Magnuson-Stevens Act and the laws of the State of Alaska. Thus, the Council must coordinate its management of the salmon fisheries in the management area with a number of regional, national, and international agencies. Chief among these are the U.S. Department of Commerce (including the National Oceanographic and Atmospheric Administration (NOAA) and the National Marine Fisheries Service (NMFS)), the State of Alaska, the Pacific Salmon Commission, and the North Pacific Anadromous Fish Commission.

4.1 Role of the North Pacific Fishery Management Council

The Council accepts the harvest levels set by the Pacific Salmon Commission and the State of Alaska, as long as those levels are consistent with the Council's policy and the objectives of this plan. Further, it accepts the allocations of harvests among the various groups of fishermen set by the Alaska Board of Fisheries, as long as those allocations are consistent with the Council's policy and objectives and the national standards of the Magnuson-Stevens Act.

This FMP delegates regulation of the commercial troll and sport salmon fisheries in the East Area to the State of Alaska. Under this delegation, the State of Alaska may regulate the commercial troll and sport salmon fisheries and fishing vessels in the East Area as long as the state law and regulations are consistent with this FMP, the Magnuson-Stevens Act, and other applicable federal law. Chapter 9 describes the ways in which the Council and NMFS will monitor management measures for consistency and the process that will be followed if NMFS determines that a state management measure is inconsistent with the FMP, the Magnuson-Stevens Act, or other applicable federal law.

The Council will amend the FMP when necessary and reserves the right to withdraw its delegation of authority to the State of Alaska. Further, the Council reserves the right to specify management measures applicable to the East Area that differ from those of the State if, in accordance with the procedure specified in chapter 9, it determines that a state management measure is inconsistent with this FMP or the Magnuson-Stevens Act.

4.2 Role of the U.S. Department of Commerce, NOAA, and NMFS

The Magnuson-Stevens Act assigns to the Secretary of Commerce (Secretary) the authority to approve fishery management plans and implement them with federal regulations and to provide the regional fishery management councils with a number of services. The Secretary has delegated fishery management authority and responsibility to NOAA, an agency with the Department of Commerce, and NOAA, in turn has delegated some of its authority and responsibility to NMFS, an agency within NOAA. In its regular activities, the Council works with the Secretary, the Department of Commerce, and NOAA through the NMFS Alaska Region.

Staff of the NMFS Alaska Region assists the Council staff in performing analyses and drafting documents, and may consult with the State of Alaska on regulations and inseason adjustments of regulations for the salmon fisheries in the East Area.

NMFS may assess and collect fees to recover the administrative costs incurred by the federal government in processing applications for federal permits required to participate in the fisheries managed under this FMP, as authorized by the Magnuson-Stevens Act (16 U.S.C 1853(b)).

Enforcement of federal fishing regulations for fisheries in the management area is primarily the responsibility of the NOAA Office of Law Enforcement and the U.S. Coast Guard. The NOAA Office of Law Enforcement, Alaska Region, enforces the regulations that implement this FMP, in cooperation with the U.S. Coast Guard and the Alaska Department of Public Safety. Enforcement of State of Alaska fishing regulations is primarily the responsibility of the Fish and Wildlife Protection Division of the Alaska Department of Public Safety. Many agents are deputized that can enforce both sets of regulations.

The NOAA Office of General Counsel, Alaska Region, provides legal advice and prosecutes violators of federal regulations.

4.3 Role of the State of Alaska

Four agencies/entities of State of Alaska are involved in managing the salmon fisheries under its jurisdiction. The Alaska Board of Fisheries (Board) sets policy and promulgates the regulations for allocation of salmon resources, the Alaska Department of Fish and Game (ADF&G) manages the fisheries according to the policies and regulations of the Board and state law, the Alaska Commercial Fisheries Entry Commission (CFEC) limits the number of permit holders eligible to participate in the fisheries, and the Alaska Department of Public Safety enforces the regulations.

With regulation of the commercial troll and sport salmon fisheries in the East Area delegated to the State of Alaska, the State will manage those salmon fisheries and participating vessels regardless of whether the vessels in the East Area are registered under the laws of the State of Alaska (16 U.S.C 1856(a)(3)).

4.3.1 Alaska Board of Fisheries

The Council relies on the Board to establish fishing regulations and allocate harvests among groups of fishermen through a public forum that provides for public and agency input. The Council considers that the public review and comment process of the Board will satisfy most, if not all, of the Council's needs for public review, thereby making maximum use of limited state and federal resources and preventing duplication of effort.

Each year, the Board solicits proposed changes to the regulations governing Alaska's fisheries. Usually, chief among those submitting proposals is ADF&G. The Board distributes these proposals to the public for review and comment and then conducts open public meetings to evaluate and take action on the proposals. The fishing community has come to rely on this regularly scheduled participatory process as the basis for changing Alaska's fishing regulations.

Among those things considered by the Board are fishing periods and areas for the salmon fisheries, and the allocation of harvests among the various groups of fishermen.

The Board system provides for extensive public input, is flexible enough to accommodate changes in salmon abundance and fishing patterns, and is familiar to salmon fishermen, fish processors, and other members of the public.

4.3.2 Alaska Department of Fish and Game

Under this FMP, the Council delegates the regulation of the commercial troll and sport salmon fisheries in the East Area to the State of Alaska. Under this delegation, state regulations apply to all fishing vessels participating in these fisheries regardless of whether the vessel is registered under the laws of the State of Alaska.

ADF&G manages the fisheries during the fishing season (e.g. inseason) and issues emergency regulations to achieve conservation objectives and to implement allocation policies established by the Board. ADF&G also monitors the fisheries and collects data on the stocks and the performance of the fisheries.

ADF&G has managed salmon fisheries in federal waters since statehood in 1959 and has made substantial investments over the years in facilities, communications, information systems, vessels, equipment, experienced personnel capable of carrying out extensive management, research, and enforcement programs. With the implementation of the FMP in 1979, the State of Alaska has played the major role in managing the salmon fisheries in the EEZ, and the Council, for the most part, has coordinated its management with the state.

Under the Magnuson-Stevens Act (16 U.S.C. 1852(g)(1)(E) and (h)(6)), this FMP establishes the State of Alaska's salmon management process as the peer review process to provide scientific information to advise the Council on conservation and management, and to establish fishing level recommendations, for the commercial troll and sport salmon fisheries in the East Area. As part of their normal duties, ADF&G regional staff prepare annual reports on the status of the stocks and the fisheries for each of the management regions. ADF&G provides these reports to the Council for the commercial and sport fisheries in the East Area. These reports provide the scientific information used to advise the Council about the conservation and management of the salmon fisheries occurring in the East Area.

4.3.3 Alaska Commercial Fisheries Entry Commission

The CFEC is an independent, quasi-judicial state agency responsible for helping promote the conservation and sustained yield management of Alaska's fishery resources and the economic health and stability of commercial fishing by regulating entry into the fisheries. Its primary duties are limiting the number of persons eligible to hold permits; issuing permits and vessel licenses to qualified individuals in both limited and unlimited fisheries; providing due process hearings and appeals; performing critical research; and providing data to governmental agencies, private organizations and the general public. In 1974, the CFEC undertook the process of limiting the number of power trollers that may participate in the commercial salmon fisheries in Southeast Alaska. The first limited permits were issued in 1975. In 1982, the process of limiting hand trollers was undertaken with the first limited permits issued in 1983.

4.3.4 Alaska Department of Public Safety

The Fish and Wildlife Protection Division of the Alaska Department of Public Safety enforces state regulations in cooperation with the NOAA Office of Law Enforcement and the U.S. Coast Guard. Many agents are deputized that can enforce both state and federal regulations.

4.4 Role of the Pacific Salmon Treaty and the Pacific Salmon Commission

In 1985, the United States and Canada (collectively "the Parties") entered into the *Treaty between the Government of Canada and the Government of the United States of America Concerning Pacific Salmon* (Pacific Salmon Treaty), for the cooperative management, research, and enhancement of Pacific salmon. The Pacific Salmon Treaty is important to the way many Pacific coast salmon fisheries are managed, encompasses many salmon stocks covered by this FMP, and addresses the conservation and allocation of many Pacific salmon stocks that originate in the waters of one country and are subject to interception by the other.

Pursuant to Article III, the Parties are required conduct their fisheries and salmon enhancement programs to prevent overfishing, provide for optimum production, and afford each Party equitable benefit from the salmon originating in its waters. To meet these objectives, the Pacific Salmon Treaty sets out an intricate system to coordinate management of transboundary Pacific salmon stocks. The Pacific Salmon Treaty establishes the Pacific Salmon Commission. The Pacific Salmon Commission has established Panels as specified in Annex I to the Pacific Salmon Treaty, and these Panels make recommendations to the Pacific Salmon Commission and perform functions as directed by the Pacific Salmon Commission or Pacific Salmon Treaty. The Parties report technical information to the Pacific Salmon Commission on conduct of domestic fisheries, the status of stocks subject to the Pacific Salmon Treaty, and any enhancement activities undertaken. The Panels and Technical Committees analyze this information and report fishery recommendations to the Pacific Salmon Commission. Based on the reports, the Pacific Salmon Commission recommends fishing regimes to the Parties. If the Parties adopt the Pacific Salmon Commission's recommendations, the fishery regimes are included in Annex IV. Article IV of the Pacific Salmon Treaty requires the Parties to establish and enforce regulations to implement the fishing regimes adopted by the Parties.

The original bilateral fishing arrangements under Annex IV of the Pacific Salmon Treaty expired in 1992, and from 1992 to 1998, Canada and the United States were not able to reach agreement on comprehensive, coast-wide fisheries arrangements. The Pacific Salmon Treaty was ultimately reauthorized in 1999, establishing 10-year fishery regimes. In May 2008, the Pacific Salmon Commission recommended new bilateral fishing agreements, which were approved by the United States and Canadian governments in December 2008. As with the 1999 Agreement, this agreement established fishing regimes that will be in force for a 10-year period (2009 through 2018). These new fishing regimes are contained in chapters 1, 2, 3, 5, and 6 of Annex IV.

Further, the Parties have established two bilateral Restoration and Enhancement Funds to support improvements in information for resource management, to rehabilitate and restore marine and freshwater habitat, and to enhance wild stock production through low technology techniques. The Funds are endowments with initial contributions from both Parties under a trust agreement, subject to continuation through the Pacific Salmon Treaty.

The Pacific Salmon Treaty Act, (16 U.S. C. 3631-3645) requires the Secretary of Commerce to promulgate regulations in consultation with the Secretary of the Interior, the Secretary of the Department in which the U. S. Coast Guard is operating and the appropriate Regional Fishery Management Council, necessary to carry out U.S. obligations under the Treaty. The Pacific Salmon Treaty Act further authorizes the Secretary of Commerce, in cooperation with the Regional Fishery Management Council, State of Alaska, and Indian tribes, to promulgate regulations in addition to, and not in conflict with, fisheries regimes and Fraser River Panel regulations adopted under the Treaty.

The chapters of Annex IV of primary relevance to the Council for this FMP are those for: Transboundary Rivers (Chapter 1), Southeastern Alaska (Chapter 2), Chinook Salmon (Chapter 3), Coho Salmon (Chapter 5); and the General Obligations of the Parties to the Treaty (Chapter 7). The General Obligations of both the United States and Canada: "With respect to intercepting fisheries not dealt with elsewhere in this Annex [IV], unless otherwise agreed, neither Party shall initiate new intercepting fisheries, nor conduct or redirect fisheries in a manner that intentionally increases interceptions." The Pacific Salmon Treaty expressly states that it does not affect or modify rights established in existing Indian treaties and other existing federal laws (Article XI).

4.5 Role of the North Pacific Anadromous Fish Commission and the Convention for the Conservation of Anadromous Stocks in the North Pacific Ocean

The North Pacific Anadromous Fish Commission (NPAFC) was established in 1993 under the Convention for the Conservation of Anadromous Stocks in the North Pacific Ocean (Convention). The Convention dissolved the prior International North Pacific Fisheries Commission, established through the 1952 International Convention for the High Seas Fisheries of the North Pacific Ocean between Canada, Japan, and the United States.

The member Parties include the United States, Canada, Japan, the Republic of Korea, and the Russian Federation (collectively "the Parties"), which are the major countries of origin and migration for Pacific anadromous fish stocks. The area to which the Convention applies is the "waters of the North Pacific Ocean and its adjacent seas, north of 33 degrees North Latitude beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured" (Article I). The Convention's principle objective is to "promote the conservation" of anadromous fish species in the Convention Area, including chum, coho, pink, sockeye, and Chinook salmon (Article VIII).

To promote conservation, the Convention prohibits direct fishing for anadromous fish in the Convention Area. The Convention also prohibits retention of anadromous fish taken as incidental catch during fishing for non-anadromous fish and requires minimization, to the maximum extent practicable, of any incidental taking of anadromous fish (Article III). The Parties are also encouraged to take appropriate measures to prevent trafficking in anadromous fish. The NPAFC Science Plan, however, allows fishing of anadromous fish for scientific research purposes. The Science Plan is a long-term, cooperative scientific research plan that endeavors to predict the annual variations in Pacific salmon production, in order to forecast returning salmon abundances for accurate salmon population conservation and management (Article VII).

Finally, pursuant the Convention, each member Party has the authority to board, inspect, and detain fishing vessels of other Parties found operating in violation of the Convention, though only the authorities of the Party to which the violating person or vessel belongs may try the offense and impose penalties (Article V). The Parties are to cooperate in exchange of information on any violation of the provisions of the Convention and on any enforcement action undertaken (Article VI).

4.6 Costs Likely to be Incurred in Managing the Salmon Fishery

The costs of managing the salmon fisheries in the management area can reasonably be discussed only in relative terms. For the past several years, the annual cost of managing the salmon fishery probably

amounts to the equivalent of one employee-year. That total includes the effort of the Council and Council staff, NMFS Alaska Region staff (including NMFS enforcement staff), NOAA Regional Counsel staff, NMFS Headquarters staff, NOAA and other Department of Commerce staff, and the cost of publishing regulations in the *Federal Register*.

Costs to the Federal Government (Council, Department of Commerce, Office of the Federal Register) are low because of the limited role in managing and regulating the salmon fishery. Costs include (1) enforcing the prohibition of commercial salmon fishing in the West Area, (2) participating in the Pacific Salmon Commission and NPAFC, (3) considering information from the State of Alaska on the delegated fisheries in the East Area and review of state regulations applicable in the East area for consistency under chapter 9, and (4) ensuring compliance with the FMP, Magnuson-Stevens Act, Endangered Species Act, and other applicable law.

The State of Alaska has substantial investment in infrastructure and personnel to manage and monitor the Southeast Alaska troll fleet and sport fishery in a manner consistent with state salmon management policy specified in state statutes and regulations. The fishery is managed as a unit, and costs incurred by the State of Alaska in managing the federal waters in the East Area are insignificant relative the costs of managing the fishery overall.

Chapter 5 REGULATION OF THE SALMON FISHERIES

The FMP authorizes commercial fishing for salmon with hand troll or power troll gear in the East Area. The FMP prohibits commercial fishing for salmon with any gear type other than hand troll or power troll gear in the East Area. The FMP also authorizes sport fishing for salmon in the East Area.

Under this FMP, the Council delegates the regulation of the commercial troll and sport salmon fisheries in the East Area to the State of Alaska, pursuant to the Magnuson-Stevens Act (16 USC 1856(a)(3)(B)). Under the Magnuson-Stevens Act, the delegation of fishery management to the State means the State of Alaska may regulate a salmon fishing vessel in the East Area.

All of the measures currently used by the State of Alaska to manage the commercial troll and sport salmon fisheries in the East Area are designed to attain one or more of the FMP's management objectives. In general, the fisheries are controlled by prescribing limits on harvests, fishing periods and areas, types and amounts of fishing gear, commercial fishing effort, minimum length for Chinook salmon, and reporting requirements. For details refer to Alaska Statutes, Title 16 - Fish and Game, and the Alaska Administrative Code, Title 5 (5 AAC).

The FMP requires that sport and commercial salmon fishermen in the East Area report their fishing activities as required by the State of Alaska to ensure that harvest ceilings or quotas are not exceeded and that salmon stocks are not overfished. ADF&G has an efficient system for monitoring and reporting salmon harvests during the fishing periods, and this system serves as the basis for inseason management of the salmon fisheries. Salmon harvested from the EEZ off Alaska or in state waters and landed outside Alaska must also be reported as required by the State of Alaska.

Under this arrangement, the Council finds no reason for NMFS to collect any data on the commercial troll and sport salmon fisheries. The Council relies on annual reports from ADF&G to keep it apprised of the status of the salmon fisheries in the East Area.

The FMP prohibits commercial salmon fishing in the West Area. In prohibiting commercial salmon fishing, the Council recognizes that the State of Alaska manages salmon outside of the West Area largely as near-shore fisheries to achieve escapement goals and fully allocate the harvest of salmon among defined user-groups. Closing the EEZ waters to commercial salmon fishing enables the State to manage Alaska salmon stocks on an individual or indicator stock basis according to the best available information and using inseason run strength indicators. This prevents overfishing of weak-stocks, ensures biological escapement, and allows for the allocation of harvestable surplus to defined user-groups.

Chapter 6 STATUS DETERMINATION CRITERIA

To achieve National Standard 1 – prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery – the Magnuson-Stevens Act requires each fishery management plan to (1) specify objective and measurable criteria for identifying when the fishery to which the plan applies is overfished and contain conservation and management measures to prevent overfishing or end overfishing and rebuild the fishery and (2) establish mechanisms for specifying annual catch limits (ACLs) to prevent overfishing and include accountability measures to prevent ACLs from being exceeded and to correct overages of the ACL if they do occur.

6.1 East Area

Salmon stocks caught in the East Area are separated into three tiers for the purposes of status determination criteria. An MSY control rule, a maximum fishery mortality threshold (MFMT), and a minimum stock size threshold (MSST) are established for each tier.

Tier 1 stocks are Chinook salmon stocks covered by the Pacific Salmon Treaty. The overfishing definition is based on a harvest relationship between a pre-season relative abundance index generated by the Pacific Salmon Commission's Chinook Technical Committee and a harvest control rule specified in the Pacific Salmon Treaty. The Pacific Salmon Treaty also provides for an inseason adjustment to the harvest level based on an assessment of inseason data. In addition, decreases in the allowable catch are triggered by conservation concerns regarding specific stock groups. This abundance-based system reduces the risk of overharvest at low stock abundance while allowing increases in harvest with increases in abundance, as with the management of the other salmon species in the southeast Alaska salmon fishery.

This FMP does not establish a mechanism for specifying ACLs for Chinook salmon in the East Area because of the Magnuson-Stevens Act exception from the ACL requirement for stocks managed under an international fisheries agreement in which the United States participates (16 U.S.C. 1853 note).

Tier 2 and tier 3 are salmon stocks managed by the Board and ADF&G. Tier 2 stocks are coho salmon stocks. Tier 3 stocks are coho, pink, chum, and sockeye salmon stocks managed as mixed-species complexes, with coho salmon stocks as indicator stocks. Management of coho is based on aggregate abundance. Lack of a general coho stock identification technique prevents assessment of run strength of individual stock groups contributing to these early-season mixed stock fisheries. Information available on individual coho indicator stocks is considered in management actions. The southeast Alaska wild coho indicator stocks are Auke Creek coho, Berners River coho, Ford Arm Lake coho, and Hugh Smith Lake coho. The overfishing definitions, OY, and ACLs for tier 2 and 3 are based on the State of Alaska's MSY escapement goal policies. The present policies and status determination criteria would prevent overfishing and provide for rebuilding of overfished stocks in the manner and timeframe required by the Magnuson-Stevens Act.

If a stock or stock complex is declared overfished or if overfishing is occurring, the Council will request that the State of Alaska conduct a formal assessment of the primary factors leading to the decline in abundance and report to the Council the management measures the State will implement to prevent overfishing and rebuild the fishery. The Council and NMFS will assess these rebuilding measures for

compliance with the Magnuson-Stevens Act, including the national standard guidelines. If the Council and NMFS deem the State of Alaska's proposed rebuilding measures sufficient to comply with Magnuson-Stevens Act requirements, the State rebuilding program may be adopted without an FMP amendment to assure timely implementation, the State rebuilding program may be adopted without an FMP amendment to assure timely implementation.

6.1.1 Tier 1: Chinook stocks

(1) Under the Pacific Salmon Treaty, the MSY control rule consists of a segmented linear relationship between catch and relative abundance (Table 1 from Pacific Salmon Treaty, Annex 4). Each segment of the relationship is of the form:

$$Y_t = \alpha_{X_t} X_t + \beta_{X_t}$$

where t represents time (measured in years), Y_t represents the all-gear catch (measured in number of fish) in year t, X_t represents relative abundance in year t (as established by the Pacific Salmon Commission's Chinook Technical Committee), and α and β represent coefficients whose values depend on X_t . The relationships between X_t , α , and β are as follow:

If X_t is greater than or equal to	and X_t is less than	then α is	and β is	
0	0.05	0	0	
0.05	1.00	130,000	20,000	
1.00	1.25	285,000	-135,000	
1.25	1.55	178,495	20,000	
1.55	2.25	193,370	20,000	

According to the Pacific Salmon Treaty, this control rule is "designed to contribute to the achievement of MSY or other agreed biologically-based escapement objectives." The portion of the all-gear catch that is allocated to troll gear can be computed by subtracting 20,000 from Yt (to exclude the amount allocated to net gear) and multiplying the result by 0.8 (to exclude the 20 percent allocated to the sport fishery).

The Pacific Salmon Treaty identifies one or more "indicator" stocks for each of the eight stock groups that comprise the Southeast Alaska Chinook salmon fishery. The Pacific Salmon Treaty also requires the Chinook Technical Committee to establish biologically-based "escapement goal ranges" for each group's indicator stocks, either individually or in aggregate. If more than one group's indicator stocks exhibit escapements below the lower bound of the escapement goal range for two consecutive years, the Pacific Salmon Treaty provides for a specific reduction in the α parameter used in the MSY control rule, subject to various qualifications. The required reduction in α varies with the number of stock groups exhibiting back-to-back escapement failures, as shown in the following table:

Number of stock groups requiring response	Percentage reduction in α
2 stock groups	10%
3 stock groups	20%
4+ stock groups	30%

(2) The *fishing mortality rate* (*F*) for these stocks is expressed as cumulative catch per generation time:

$$F_{t} = \sum_{i=t-Tchin+1}^{t} C_{i}$$

where C_t represents the all-gear catch taken in year t and T_{chin} represents the average Chinook salmon lifespan that would be expected over the long term in the absence of exploitation. The default value of T_{chin} is 5 years, but the Scientific and Statistical Committee may set T_{chin} at another value, without a plan amendment, on the basis of the best scientific information available. It may be noted that the above definition of fishing mortality rate is somewhat different from that commonly used for many other species, for example those managed under the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area and the Fishery Management Plan for Groundfish of the Gulf of Alaska. The reason for the difference is as twofold. First, for groundfish species, the fishery in any given year has access to the entire stock, whereas for salmon species, the fishery in any given year has access only to the portion of the stock returning in that year. Second, the above definition conforms more closely to the Pacific Salmon Treaty.

(3) The maximum fishing mortality threshold is computed as follows:

$$MFMT_{t} = 1.075 \times \sum_{i=t-Tchin+1}^{t} Y_{i}$$

- (Y_t represents the all-gear catch associated with the MSY control rule in year t; it may or may not equal C_t , the catch that was *actually taken* in year t). The 7.5 percent overage allowance is a current feature of the FMP and is prescribed by the Pacific Salmon Treaty (Annex IV, Chapter 3, paragraph 7).
- (4) Should the fishing mortality rate exceed the MFMT in any year, it will be determined that the stocks are being subjected to overfishing.
- (5) The productive capacity of a stock group is measured as the sum of the indicator stocks' escapements from the most recent T_{chin} years.
- (6) The MSST for a stock group is equal to one-half the sum of the indicator stocks' MSY escapement goals from the most recent T_{chin} years, where each MSY escapement goal is set at the midpoint of the respective escapement goal range established by the Chinook Technical Committee.
- (7) Should a stock group's productive capacity fall below the MSST in any year, it will be determined that the stock group is overfished.

6.1.2 Tier 2: Coho stocks managed as individual units

(1) The MSY control rule is of the "constant escapement" form. Specifically, the catch corresponding to the control rule in any given year is equal to the amount that would result in a post-harvest run size equal to the MSY escapement goal, unless the pre-harvest run size fails to exceed the MSY escapement goal, in which case the catch corresponding to the control rule is zero:

$$Y_t = \max(0, R_t - G_t)$$

where R_t is pre-harvest run size in year t and G_t is the MSY escapement goal in year t. The MSY escapement goal is normally constant across years, but may vary due to changes in environmental conditions. It is specified so that the long-term average catch expected under this strategy is maximized. In cases where the State of Alaska's "biological escapement goal" consists of a range, the MSY escapement goal corresponds to the lower endpoint of that range. In cases where the State's "biological escapement goal" consists of a single point, the MSY escapement goal corresponds to that point.

(2) The fishing mortality rate for these stocks is expressed as an exploitation rate, and is computed as a weighted average of recent run-specific exploitation rates observed in the stock:

$$F_{t} = \frac{\sum_{i=t-Tcoho+1}^{t} C_{i}}{\sum_{i=t-Tcho+1}^{t} R_{i}}$$

where T_{coho} represents the average coho lifespan that would be expected over the long term in the absence of exploitation. The default value of T_{coho} is 4 years, but the Scientific and Statistical Committee may set T_{coho} at another value, without a plan amendment, on the basis of the best scientific information available.

(3) The maximum fishing mortality threshold for these stocks is computed as a weighted average of recent run-specific exploitation rates corresponding to the MSY control rule:

$$MFMT_{t} = \frac{\sum_{i=t-Tcoho+1}^{t} Y_{i}}{\sum_{i=t-Tcoho+1}^{t} R_{i}}$$

- (4) Should the fishing mortality rate exceed the MFMT in any year, it will be determined that the stock is being subjected to overfishing.
- (5) The productive capacity of a stock is measured as the sum of the stock's escapements from the most recent T_{coho} years.
- (6) The MSST for a stock is equal to one-half the sum of the stock's MSY escapement goals from the most recent T_{coho} years.
- (7) Should a stock's productive capacity fall below the MSST in any year, it will be determined that the stock is overfished.

6.1.3 Tier 3: Coho, sockeye, pink, and chum salmon stocks managed as complexes

(1) The MSY control rule is of the "constant escapement" form. The difference with respect to Tier 2 is not the *form* of the control rule, but rather the level of aggregation at which it is applied.

- (2) Whenever estimates of F or MFMT, as defined under Tier 2, are unavailable for each stock in a stock complex managed under this FMP, a list of "indicator" coho stocks will be established by ADF&G.
- (3) Using the same definitions and criteria described under Tier 2, a determination that one or more indicator coho stocks is being subjected to overfishing will constitute a determination that the respective stock complex is being subjected to overfishing, except as provided in the paragraph below.
- (4) Overfishing of one or more stocks in a stock complex may be permitted, and will not result in a determination that the entire stock complex is being subjected to overfishing, under the following conditions (50 CFR §600.310(m)):
 - a) it is demonstrated by analysis that such action will result in long-term net benefits to the Nation;
 - b) it is demonstrated by analysis that mitigating measures have been considered and that a similar level of long-term net benefits cannot be achieved by modifying fleet behavior, gear selection/configuration, or other technical characteristic in a manner such that no overfishing would occur; and
 - c) the resulting rate or level of fishing mortality will not cause any stock or stock complex to fall below its MSST more than 50 percent of the time in the long term.

In the absence of significant evidence to the contrary, satisfaction of the above conditions will be considered equivalent to the State's establishment of an "optimal escapement goal" lower than the "biological escapement goal" for the same stock.

- (5) The productive capacity of a stock complex is measured as the sum of the indicator coho stocks' escapements from the most recent T_{coho} years.
- (6) The MSST for a stock complex is equal to one-half the sum of the indicator coho stocks' MSY escapement goals from the most recent T_{coho} years.
- (7) Should a stock complex's productive capacity fall below the MSST in any year, it will be determined that the stock complex is overfished.

6.1.4 Annual Catch Limits for Tier 2 and 3 salmon stocks

The mechanisms for specifying ACLs for Tier 2 and 3 salmon stocks are the State of Alaska's scientifically-based management measures used to determine stock status and control catch to achieve the biomass level necessary to produce MSY. The State's salmon management program is based on scientifically defensible escapement goals and inseason management measures to prevent overfishing. Accountability measures include the State's inseason management measures and the escapement goal setting process that incorporates the best available information on stock abundance.

Escapement is defined as the annual estimated size of the spawning salmon stock. Quality of the escapement may be determined not only by numbers of spawners, but also by factors such as sex ratio, age composition, temporal entry into the system, and spatial distribution within salmon spawning habitat.

Alaska's salmon fisheries are managed to maintain escapement within levels that provide for MSY, escapements are assessed on an annual basis, all appropriate reference points are couched in terms of

escapement level, and status determinations are made based on the stock's level of escapement. Escapement goal ranges together with real-time escapement enumeration (i.e. visual counts from towers, weir counts, aerial survey counts, sonar counts) and intensive fishery monitoring programs, have been established for most of Alaska's major salmon stocks. In cases where the salmon runs have been below forecast levels, the State of Alaska closes the fishery to achieve its escapement goals, thus preventing overfishing.

For salmon, MSY is achieved by controlling fishing to maintain the spawning escapement at levels that provide potential to maximize surplus production. Escapement goals are based on direct assessments of MSY escapement levels from stock recruit analysis or a reasonably proxy. Escapement goals are specified as a range, lower bound, or a threshold. In general escapement goal ranges are specified to produce 90 percent to 100 percent of MSY. Escapement goal ranges give managers the flexibility to moderate fishing to protect stocks of weak runs that are commonly exploited in mixed stock fisheries. Scientifically-based biological reference points for salmon populations are estimated based on long-term, stock specific assessment of recruits from parent escapement or long-term assessment of escapement. The salmon stock assessment programs employed by ADF&G are designed to monitor stock and age-specific catch and escapements. Comprehensive implementation of the ADF&G salmon stock assessment programs, over time, provides stock-recruitment data necessary for developing MSY-based escapement goals. Since the catch and escapement monitoring program are conducted in real-time, they provide inseason assessments of run strength necessary for managers to implement ADF&G's escapement based harvest policies.

For these salmon stocks, the State of Alaska's escapement based management system is a more effective management system for preventing overfishing than a system that places rigid numeric limits on the number of fish that may be caught. The fundamental goal of fishery managers who employ catch limits to prevent overfishing is to ensure that the number of fish that survive to breed is sufficient to produce maximum yields over the long term. Given salmon's particular life history attributes, the preferred method to annually ensure that surviving spawners will maximize present and future yields is a system that establishes escapement goals intended to maximize surplus productivity of future runs, estimates run strength in advance and also monitors actual run strength and escapement during the fishery, and utilizes in-season management measures, including fishery closures, to ensure that minimum escapement goals are achieved. Such an approach provides a more effective mechanism to prevent overfishing than a system that prescribes rigid catch limits before the season based on predictions of run strength. Such a catch-based system would rely on pre-season predictions of run strength and of the resulting catch that would allow the stock to meet prescribed escapement goals; however, because it would employ rigid catch limits, such a system would lack the added features of in-season monitoring to confirm actual run strength and the ability to adjust fishing pressure to ensure that escapement goals are met if pre-season predictions of run strength prove inaccurate.

Moreover, an additional advantage of the State of Alaska's escapement based system is that it does not rely on fishermen's or managers' ability to accurately identify the particular stock to which each harvested fish belongs. There are numerous stocks of each species of Pacific salmon managed under this FMP, and fish of the same species from different breeding stocks cannot be distinguished visually.

6.1.5 Optimum Yield

Magnuson-Stevens Act requires that a fishery management plan assess and specify the optimum yield (OY) from the fishery, and include a summary of the information utilized in making such specification (16 U.S.C. 1853(a)(3)). The Magnuson-Stevens Act defines OY as the amount of fish which –

- (A) will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems;
- (B) is prescribed as such on the basis of the maximum sustainable yield from the fishery, as reduced by any relevant economic, social, or ecological factor; and
- (C) in the case of an overfished fishery, provides for rebuilding to a level consistent with producing the maximum sustainable yield in such fishery.

For the troll fishery in the East Area, several economic, social, and ecological factors are involved in the definition of OY. Of particular importance are the annual variations in the abundance, distribution, migration patterns, and timing of the salmon stocks; provisions of the Pacific Salmon Treaty; decisions of the Pacific Salmon Commission; allocations by the Board; traditional times, methods, and areas of salmon fishing; and inseason indices of stock strength. Further, because the commercial troll fishery and the sport fishery take place in the EEZ and state waters without formal recognition of the boundary between these two areas, the OY should not and cannot be subdivided into separate parts for the EEZ and state waters.

MSY is established for each tier based on the MSY control rules in section 5.1. For Chinook salmon stocks in tier 1, an all-gear MSY is prescribed in terms of catch by the Pacific Salmon Treaty and takes into account the biological productivity of Chinook salmon and ecological factors in setting this limit. The portion of the all-gear catch limit allocated to troll gear represents the OY for that fishery and takes into account the economic and social factors considered by the Board in making allocation decisions.

For stocks in tiers 2 and 3, MSY is defined in terms of escapement. MSY escapement goals account for biological productivity and ecological factors, including the consumption of salmon by a variety of marine predators. The OY for the troll fishery is that fishery's annual catch which, when combined with the catch from all other salmon fisheries, results in a post-harvest run size equal to the MSY escapement goal for each indicator stock. The portion of the annual catch harvested by the troll fishery reflects the biological, economic, and social factors considered by the Board and ADF&G in determining when to open and close the coho salmon harvest by the troll fishery.

The Magnuson-Stevens Act requires Regional Councils to "review on a continuing basis, and revise as appropriate, the assessments and specifications made ... with respect to the optimum yield." In particular, OY may need to be respecified in the future if major changes occur in the estimate of MSY. Likewise, OY may need to be respecified if major changes occur in the ecological, social, or economic factors governing the relationship between OY and MSY.

6.2 West Area

This FMP prohibits commercial fishing in the West Area so that the State can manage the salmon fisheries in waters adjacent to the West Area. Salmon that spend part of their lifecycle in the West Area are subject to commercial salmon fisheries after they reach maturity and travel back to their natal rivers and streams. These directed commercial fisheries are managed by the State of Alaska and are not subject to this FMP. National Standard 1 is achieved by the State's scientifically-based approach for controlling catch to achieve the biomass level necessary to produce MSY by ensuring that overfishing does not occur in the fishery. To ensure overfishing does not occur as a result of incidental catch of salmon by other fisheries not regulated under this FMP, this FMP relies on management measures adopted under federal fishery management plans, together with the State's management program in waters adjacent to the West Area.

Commercial fishing is prohibited in the West Area, therefore the directed harvest OY is zero. The West Area has been closed to commercial net fishing since 1952 and commercial troll fishing since 1973 and there has not any yield from this area. This OY recognizes that salmon are fully utilized by state managed fisheries and that the State of Alaska manages fisheries based on the best available information using the State's escapement goal management system. Additionally, management measures adopted under other federal FMPs, together with the State's scientifically-based management program in waters adjacent to the West Area, ensure that overfishing of salmon does not occur as a result of incidental catch of salmon by other EEZ fisheries not regulated under this FMP. This OY also recognizes that non-Alaska salmon are fully utilized and managed by their respective management authority when they return to their natal regions.

6.3 Domestic Annual Harvesting and Processing Capacity

Domestic annual harvesting capacity is the expected amount of the allowable harvest of salmon that the domestic fisheries (subsistence, sport, and commercial) are capable of harvesting in one year. The Council has determined that domestic harvesters are able to, and expect to, harvest the entire OY of salmon each year.

Domestic annual processing capacity is the estimated portion of the domestic annual harvesting capacity that U.S. processors expect to process. For salmon, domestic annual processing capacity means the amount of salmon harvested (and processed) by sport and subsistence fishermen, as well as that harvested by domestic commercial fishermen, less any of the commercial harvest delivered to any permitted foreign processors. In the past, domestic processors have been able to process the entire commercial troll harvest of salmon; there is no reason to expect that situation to change.

6.4 Foreign Fishing and Processing

Title II of the Magnuson-Stevens Act establishes the criteria for the regulation of foreign fishing and processing within the U.S. EEZ. Regulations implementing Title II of the Magnuson-Stevens Act are published in 50 CFR part 600. The regulations provide for the setting of a total allowable level of foreign fishing for species based on the portion of the optimum yield that will not be caught by U.S. vessels. Pursuant to Title II of the Magnuson-Stevens Act, this FMP does not allow foreign harvesting of salmon in the EEZ. At the highest conceivable level of abundance, the allowable amount of salmon in the EEZ can be harvested completely by U.S. fisheries.

Foreign processing refers to fish harvested by U.S. fishermen and processed by foreign processors. In the past, some foreign processing of salmon has taken place in Alaskan waters, particularly in Norton Sound and Bristol Bay, and some domestic harvesters have delivered unprocessed or whole fresh salmon caught within Alaskan waters to British Columbian ports. The Governor of Alaska has the authority to authorize foreign processing within state internal waters. Pursuant to Title II of the Magnuson-Stevens Act, for processing in the EEZ, the foreign partner must be authorized under an international fisheries agreement and possess a valid and applicable permit.

Chapter 7 ESSENTIAL FISH HABITAT AND HABITAT AREAS OF PARTICULAR CONCERN

The Magnuson-Stevens Act requires fishery management plans to describe and identify Essential Fish Habitat (EFH), minimize to the extent practicable adverse effects of fishing on EFH, and identify other actions to conserve and enhance EFH (16 U.S.C. 1853(a)(7)).

7.1 Description of Essential Fish Habitat

This FMP describes salmon EFH in text, maps EFH distributions, and includes information on habitat and biological requirements for each life history stage of the species. Appendix A contains this required information for salmon, as well as identifying an EFH research approach.

7.2 Description of Habitat Areas of Particular Concern

The EFH regulations at 50 CFR 600.815(a)(8) provide guidance on identifying habitat areas of particular concern (HAPCs). HAPCs are meant to provide greater focus to conservation and management efforts and may require additional protection from adverse effects. Fishery management plans should identify specific types or areas of habitat within EFH as HAPCs based on one or more of the following considerations:

- 1. the importance of the ecological function provided by the habitat;
- 2. the extent to which the habitat is sensitive to human-induced environmental degradation;
- 3. whether, and to what extent, development activities are, or will be, stressing the habitat type; or
- 4. the rarity of the habitat type.

Proposed HAPCs, identified on a map, must meet at least two of the four considerations established in 50 CFR 600.815(a)(8), and rarity of the habitat is a mandatory criterion. HAPCs may be developed to address identified problems for fishery management plans species, and they must meet clear, specific, adaptive management objectives.

The Council will initiate the HAPC process by setting priorities and issuing a request for HAPC proposals. Any member of the public may submit a HAPC proposal. HAPC proposals may be solicited every 5 years to coincide with the EFH 5-year review, or may be initiated at any time by the Council. The Council will establish a process to review the proposals. The Council may periodically review existing HAPCs for efficacy and considerations based on new scientific research.

In 2005, the Council identified the following areas as HAPCs:

- Alaska Seamount Habitat Protection Areas
- Bowers Ridge Habitat Conservation Zone
- Gulf of Alaska Coral

Maps of these HAPCs, as well as their coordinates, are contained in Appendix A.

7.3 Conservation and Enhancement Recommendations for EFH and HAPC

Appendix A identifies fishing and non-fishing threats to salmon EFH. Conservation and enhancement recommendations for non-fishing threats to EFH and HAPCs are described therein.

In order to protect salmon EFH from fishing threats, the Council established the following areas:

- Aleutian Islands Habitat Conservation Area
- Aleutian Islands Coral Habitat Protection Areas
- Gulf of Alaska Slope Habitat Conservation Areas

7.4 Fishing restrictions

In order to minimize adverse effects of fishing, the Council established restrictions for EFH conservation areas and HAPCs. These restrictions are described below.

Maps of these areas, as well as their coordinates, are contained in Appendix A.

Aleutian Islands Habitat Conservation Area

The use of nonpelagic trawl gear, as described in 50 CFR part 679, is prohibited year-round in the Aleutian Islands Habitat Conservation Area, except for the designated areas open to nonpelagic trawl gear fishing.

Aleutian Islands Coral Habitat Protection Areas

The use of bottom contact gear, as described in 50 CFR part 679, and anchoring by federally permitted fishing vessels is prohibited in Aleutian Islands Coral Habitat Protection Areas.

GOA Slope Habitat Conservation Areas

The use of nonpelagic trawl gear in the GOA Slope Habitat Conservation Areas by any federally permitted fishing vessel, as described in 50 CFR part 679, is prohibited.

Alaska Seamount Habitat Protection Area

The use of bottom contact gear and anchoring by a federally permitted fishing vessel, as described in 50 CFR part 679, is prohibited in the Alaska Seamount Habitat Protection Area.

Bowers Ridge Habitat Conservation Zone

The use of mobile bottom contact gear, as described in 50 CFR part 679, is prohibited in the Bowers Ridge Habitat Conservation Zone.

GOA Coral Habitat Protection Areas within GOA Coral HAPC

The GOA Coral Habitat Protection Areas are five specific areas within the larger GOA Coral HAPC. Maps of these areas, as well as their coordinates, are in Appendix A. The use of bottom contact gear and anchoring, as described in 50 CFR part 679, is prohibited in these areas.

7.5 Review of EFH

To address regulatory guidelines for review and revision of EFH FMP components, the Council will conduct a complete review of all the EFH components of the FMP once every 5 years and will amend the FMP as appropriate to include new information.

Additionally, the Council may solicit proposals for HAPCs and/or conservation and enhancement measures to minimize the potential adverse effects of fishing. Any proposal endorsed by the Council would be implemented by FMP amendment. HAPC proposals may be solicited every 5 years, to coincide with the EFH 5-year review, or may be initiated at any time by the Council.

Chapter 8 FISHERY IMPACT STATEMENT

A fishery impact statement is required by the Magnuson-Stevens Act (16 U.S.C. 1853(a)(9)). The fishery impact statement must assess, specify, and analyze any likely effects (including cumulative conservation, economic, and social impacts) of the conservation and management measures on the following:

- (A) participants in the fisheries and fishing communities affected by the plan or amendment;
- (B) participants in the fisheries conducted in adjacent areas under the authority of another Council, after consultation with such Council and representatives of those participants; and
- (C) the safety of human life at sea, including whether and to what extent such measures may affect the safety of participants in the fishery.

Additionally, the fishery impact statement must consider possible measures for mitigating any adverse impacts. This fishery impact statement also addressed the Magnuson-Stevens Act's related requirements for fishery information: (1) a description of the fishery, including, but not limited to, the number of vessels involved, the type and quantity of fishing gear used, the species of fish involved and their location, actual and potential revenues from the fishery, and any recreational interest in the fishery; (2) a specification of the present and probable future condition of the fishery, and include a summary of the information utilized in making such specification; and (3) a description of the commercial, recreational, and charter fishing sectors which participate in the fishery, including its economic impact, and, to the extent practicable, quantify trends in landings of the managed fishery resource by the commercial, recreational, and charter fishing sectors (16 U.S.C. 1853(a)).

8.1 Present Condition of the Fisheries

ADF&G is responsible for the protection, management, conservation, and restoration of Alaska's fish and game resources. The Board is responsible for considering and adopting regulations to allocate resources between user groups; establishing fish reserves and conservation areas, fishing seasons, quotas, bag limits and size restrictions; habitat protection; stock enhancement; and developing commercial, subsistence, sport and personal use fisheries. CFEC helps to conserve and maintain the economic health of Alaska's commercial fisheries.

The Board has adopted regulations that control the time, area of operation, and efficiency of salmon fisheries to address the unique challenges of managing mixed-stock resources. Fishing effort on mixed Chinook and coho salmon stocks is managed to avoid overharvest of individual salmon stocks. Chinook salmon harvested in Southeast Alaska fisheries are managed under provisions of the Pacific Salmon Treaty, an international agreement with Canada which provides for an abundance-based management regime that takes into account the highly mixed stock nature of the harvest. The majority of coho salmon harvested in Southeast Alaska are produced from streams in the region and ADF&G maintains several stock assessment projects to track the abundance and escapement of the species on an inseason basis.

8.1.1 East Area Commercial Troll Fishery

The commercial troll fishery is the only commercial fishery allowed in the East Area. From Alaska statehood in 1959 until 1979, this fishery was conducted and managed with little recognition of the boundary separating federal and state waters, although at one time the State of Alaska banned hand trolling seaward of the surf line. Upon implementation of the FMP in 1979, accounting of salmon harvests became delineated between the EEZ and state waters; however, the commercial troll fishery continues to be managed and prosecuted as a single unit.

The commercial troll fishery in Southeast Alaska and Yakutat (Region 1) occurs in State of Alaska waters and in the EEZ east of the longitude of Cape Suckling and north of Dixon entrance. All other waters of Alaska and the EEZ are closed to commercial trolling. The commercial troll fishery harvests primarily Chinook and coho salmon; though chum sockeye, and pink salmon are also harvested. The troll fleet also incidentally harvests Pacific halibut under Individual Fishing Quota (IFQ) regulations, and lingcod and rockfish under state regulations (refer to section below for a discussion on incidental harvest and bycatch management in the directed salmon fisheries).

Troll gear works by dragging baited hooks through the water. The commercial troll fleet is composed of hand and power troll gear types. State regulations limit vessels using hand troll gear to two lines on two hand-operated gurdies or four fishing rods. Specific exceptions to these gear limits may be found in state regulations at 5 AAC 29.120. While the majority of the troll fleet sells their fresh catch directly to processing plants onshore or to tender vessels affiliated with those facilities, the fleet does include catcher-processor vessels that harvest and freeze their catch at sea.

Chinook Salmon Troll Fishery

The commercial troll salmon fishery is divided into two seasons: a winter season and a general summer season, which is divided into a spring fishery, and a summer fishery. The harvest of Treaty Chinook salmon (those other than Chinook salmon produced at Alaska hatcheries) by commercial salmon trollers is limited to a specific number of fish, which varies annually according to an abundance estimate established under the Pacific Salmon Treaty. Accounting of Treaty Chinook salmon harvested by the commercial troll fleet begins with the start of the winter season and ends with the close of the general summer season.

The winter troll season is defined as October 11 through April 30, and is managed not to exceed a guideline harvest level of 45,000 Chinook salmon (with a guideline range of 43,000 to 47,000 fish). Treaty Chinook salmon caught in the winter troll fishery count towards the annual Southeast Alaska troll fishery allocation (under provisions established by the Board) and the Southeast Alaska all-gear Treaty quota (under provisions of the Pacific Salmon Treaty). Any Treaty Chinook salmon not harvested during the winter fishery will be available for harvest during the spring and summer fisheries. By regulation, the open area during the winter fishery is restricted to those areas lying east of the "surf line" south of Cape Spencer, and the waters of Yakutat Bay. All outer coastal areas, including the EEZ, are closed during the winter troll fishery. More information on the winter troll fishery can be found in ADF&G fishery management plans. Because the winter troll fishery does not occur in the EEZ, the fishery is outside the scope of this FMP.

The spring troll fishery begins after the winter fishery closes, and may start prior to May 1 if the winter fishery closes early when the harvest cap of 45,000 Chinook salmon is reached. The spring troll and terminal area troll fisheries are designed to target Alaska hatchery-produced Chinook salmon (though Chinook salmon from across the Treaty area are also harvested) and occur primarily in inside waters near

hatchery release sites or along the migration routes of early returning hatchery fish. Because the spring troll fishery does not occur in the EEZ, the fishery is outside the scope of the FMP.

The summer troll fishery opens July 1 and targets the remainder, which is the majority of the annual Treaty Chinook salmon quota in two open periods during the July 1 through September 30 timeframe. During the general summer season, most waters of the Southeast Alaska/Yakutat area are open to commercial trolling, including outer coastal waters in the EEZ, except for those waters described in 5 AAC 29.150. Those closed waters in effect during the summer fishery are exempted during the defined spring fishery; however, waters within 3,000 feet of Annette Island (Annette Island Reserve) are closed.

The primary objectives for management of the summer Chinook salmon fishery are as follows:

- Management of Chinook salmon harvest under the conservation and harvest sharing provisions of the Pacific Salmon Treaty.
- Maximize the harvest of Alaska hatchery-produced Chinook salmon.
- Achieve harvest allocations among user groups as mandated by the Board.
- Minimize the incidental mortality of Chinook salmon to the extent practicable.

A harvest control limit is set for management of Chinook salmon during the summer fishery. ADF&G manages the summer fishery by targeting harvest of 70 percent of the annual summer Chinook salmon quota in an initial opening beginning July 1. The remainder of the Chinook salmon quota is harvested in August. Due to the time lag between when fish are harvested and when the harvest information is received through receipt of fish landing tickets, ADF&G conducts a fisheries performance data program to estimate the catch per unit effort (catch per boat day [CPBD]) inseason during the summer fishery. Confidential interviews are conducted with trollers to obtain detailed CPBD data. Aerial vessel surveys are conducted to obtain an immediate estimate of fishing effort. Total harvest to date is estimated by multiplying vessel counts observed during weekly overflights with the CPBD data obtained from the interviews. Daily tallies from processors are also an important tool in tracking harvest.

Following the first Chinook opening, the waters of high Chinook salmon abundance will be closed, unless ADF&G determines that less than 30 percent of the Chinook salmon harvest goal for the initial opening was taken in that opening. In addition, during the second Chinook salmon opening, if ADF&G determines after 10 days that the annual troll Chinook salmon harvest ceiling might not be reached by September 20 with those waters closed, ADF&G shall reopen the waters of high Chinook salmon abundance by emergency order. Following the closure of the initial summer Chinook salmon period, all Chinook salmon must be offloaded prior to trolling for other species. Further information on the spring and summer troll fisheries can be found in ADF&G fishery management plans.

Chinook salmon caught in the troll fishery must be equal to or greater than 28 inches in total length and the heads of all adipose-fin clipped salmon must remain attached until the fish is sold in order to facilitate recoveries of coded wire tags. If the ADF&G Commissioner determines that Chinook salmon in a terminal harvest area are predominately Alaska hatchery produced, the Commissioner may, by emergency order, allow the retention of Chinook salmon greater than 26 inches in total length. A proportion of Chinook salmon produced in hatcheries (approximately 5 percent to 20 percent depending upon release size) have adipose fins that are clipped as a way to externally identify them as having an internal coded wire tag. Coded wire tag provide information on migration routes, run-timing, exploitation rates, and the contribution to commercial and recreational fisheries of Chinook salmon from specific river systems. Chum, sockeye, and pink salmon of any size may be retained at any time during open fishing periods.

Coho Salmon Troll Fishery

Coho salmon management is based on aggregate abundance. Coho salmon fisheries in southern Southeast Alaska are also managed in cooperation with Canada under guidelines of the Pacific Salmon Treaty. There are no harvest ceilings for Southeast Alaska coho salmon fisheries under the Treaty; however, areas near the United States/Canada border will close to trolling if the harvest by Alaska trollers fishing in the border area falls below specified thresholds. The primary objectives for management of the coho salmon fishery are as follows:

- Provide adequate escapement of coho salmon, by area, to ensure sustainable populations.
- Provide maximum opportunities for harvest consistent with conservation objectives.
- Manage the coho salmon fisheries to achieve allocations consistent with Board regulations.
- Manage coho salmon on the United States/Canada border to comply with provisions of the Pacific Salmon Treaty.

The regulatory period for coho salmon retention in the troll fishery is June 15 through September 20, with a potential extension (by emergency order) through September 30 in years of high coho salmon abundance. Troll harvests of coho salmon generally peak between mid-July and early September. The troll fishery may also be closed, by emergency order, for conservation of coho salmon stocks as follows:

- For up to seven days beginning on or after July 25 if the total projected commercial harvest of wild coho salmon is less than 1.1 million fish; or
- For up to ten days, if ADF&G makes an assessment and determines that:
 - the number of coho salmon reaching inside waters might be inadequate to provide for spawning requirements under normal or restricted inside fisheries for coho salmon and other species; the primary abundance indicators for the assessment consist of relative harvest levels by all fisheries and, in particular, catch per unit effort in inside drift gillnet and sport fisheries as compared to average 1971 through 1980 levels and escapement projections for streams where escapement goals have been established; or
 - the proportional share of coho salmon harvest by the troll fishery is larger than that of inside gillnet and sport fishing fisheries when compared to average (1971 through 1980) levels; the primary inside fisheries indicators for the assessment are overall coho salmon harvests and catch per unit effort in the District 1, 6, 11, and 15 drift gillnet fisheries and by anglers sport fishing from boats in the salt water sport fishery that return to any port connected to the Juneau road system.

Following any closure, waters for coho salmon trolling may be reopened by emergency order; however, if ADF&G determines that the strength of the coho salmon run in the inshore and terminal salmon fishing waters is less than required to provide a spawning escapement that will maintain the runs on a sustained-yield basis, ADF&G may take additional actions on coho salmon fishing seasons, periods, and areas.

Similar to Chinook salmon, ADF&G's primary tool for inseason assessment of coho salmon catch rates is a program of dockside interviews with vessel skippers. Catches by the net fisheries are obtained from fish tickets, and an assessment of run strength using troll catch per unit effort data occurs in mid to late July.

Chum Salmon Troll Fishery

Historically, chum salmon were harvested incidentally in the general summer troll fishery. Effort directed at targeting chum salmon from Alaska hatcheries has increased in recent years. Target effort is primarily found in terminal or near terminal waters close to hatchery facilities. Chum salmon troll fisheries in terminal areas may be conducted during periods of closures for Chinook or coho salmon. In such fisheries, a person may not have Chinook salmon or coho salmon (respectively) on board a salmon troll vessel while fishing for chum salmon.

8.1.2 Effort in the Troll Fishery

Limited entry for the power troll fishery was adopted in 1974 by the CFEC and the first permits were issued in 1975. The number of permits fished has fluctuated, with a peak of 919 in 1979 and a low of 637 in 2003. After the power troll fleet came under limited entry, the hand troll fleet, which was not yet limited, increased dramatically. The number of hand troll permits fished doubled from 1,100 permits in 1975 to a peak of 2,644 permits in 1978. Limited entry for the hand troll fishery was initiated in 1980 and the first permits were issued in 1982. Of the 2,161 permits issued that year (many of which had been issued as not-transferable), 1,107 were vacated due to non-renewal through 2009. The number of hand troll permits fished declined steadily from 1979 through 2002 when hand troll participation reached a low of 254 permits. From 2003 to 2008, the number of hand troll permits fished increased to 376, but has since declined to 332. During the 2010 spring and summer troll fisheries, both hand and power troll effort decreased when compared to 2009; this was not the case during the 2010 winter troll fishery, when both hand and power troll effort increased significantly compared to 2009. Fluctuations in effort in both the power and hand troll fisheries relates strongly to salmon prices and abundance.

8.1.3 Chinook Salmon Allocation

The Pacific Salmon Treaty provides a framework for the management of salmon fisheries in part by establishing fishing regimes that set upper limits on intercepting fisheries. Such regimes are expected to be amended periodically upon recommendation from the Pacific Salmon Commission as new information becomes available to better accomplish the Treaty's conservation, production, and allocation objectives.

The original regimes established in 1985 expired by the end of 1992. Between 1993 and 1998, salmon fisheries subject to the Pacific Salmon Treaty were managed pursuant to short term agreements that governed only some of the fisheries. Where short term agreements were not able to be reached, the fisheries were managed independently by the respective domestic management agencies in approximate conformity with the most recently applicable bilateral agreement.

In 1999, new fishery agreements under the Pacific Salmon Treaty were adopted by the United States and Canada, including an agreement for Chinook salmon. The new abundance-based Chinook salmon agreement replaced the previous fixed ceiling-based regime. A major component of this Agreement is the management regime set forth for Chinook salmon, which established a basic aggregate abundance-based management approach for three major ocean Chinook salmon fisheries in southeast Alaska and Canada coupled with an individual stock-based management approach for all other Treaty-area fisheries in Canada and the Pacific Northwest. The all-gear Chinook salmon fishery is managed to achieve a harvest target; the Treaty agreement specifies a harvest based on a relationship between a preseason Abundance Index generated by the Pacific Salmon Commission's Chinook Technical Committee and a target harvest rate specified in the agreement. The harvest ceiling is abundance-based, with increased quotas when abundance is high and decreased quotas when abundance is low. In addition to the catch ceiling of Treaty fish, provisions of the Treaty provide for an additional harvest of Chinook salmon that have been

produced in Alaskan hatcheries (add-on). The all-gear add-on is equal to the total number of Alaskan hatchery Chinook caught, minus the pre-Treaty production of Chinook salmon of around 5,000 fish, and a risk adjustment factor of around 1,000 fish. The hatchery add-on is calculated in season through port sampling programs.

The fishing regimes established under the 1999 agreement applied for ten years, expiring at the end of 2008. In May 2008, the Pacific Salmon Commission recommended a new bilateral agreement which was approved by the U.S and Canadian governments in December 2008. As with the 1999 Agreement, the new agreement established fishing regimes that will be in force for a ten year period (2009 through 2018). These new fishing regimes are contained in chapters 1, 2, 3, 5, and 6 of Annex IV to the Pacific Salmon Treaty.

ADF&G manages the sport and commercial fisheries for Chinook salmon in accordance with the annual harvest ceiling established by the Pacific Salmon Commission under the Pacific Salmon Treaty and allocation guidelines established by the Board. The allocation of the annual Chinook salmon harvest ceiling for each fishery is as follows:

- Troll fishery: 80 percent, after the net fishery allocations are subtracted from the annual harvest ceiling
- Sport fishery: 20 percent, after the net fishery allocations are subtracted from the annual harvest ceiling
- Purse seine fishery: 4.3 percent of the annual harvest ceiling
- Drift gillnet fishery: 2.9 percent of the annual harvest ceiling
- Set gillnet fishery: 1,000 Chinook salmon

For the purposes of calculating the Chinook salmon harvest, the annual harvest period begins with the opening of the winter troll season. For the purpose of calculating the annual harvest performance for the Chinook salmon fisheries, the harvest in the sport and commercial net and troll fisheries is applied to the cumulative harvest, which includes the Alaska hatchery contribution.

8.1.4 Chinook Salmon Harvest

In 2010, all-gear Chinook salmon harvests totaled 265,186 fish out of a total salmon (all species, all gear) harvest of 37 million fish harvested in federal and state waters east of the longitude of Cape Suckling (Table 2). During the 2010 winter troll fishery, 42,536 Chinook salmon were harvested, which represents 22 percent of the total troll Chinook salmon harvest for 2010. The winter harvest increased by 41 percent when compared to the 2009 season. During the 2010 spring fishery, 28,614 Chinook salmon were harvested, which was 3,967 fish fewer than the 2009 spring harvest. The 2010 spring harvest was the lowest since 2000, but was the 11th highest on record.

In 2010, the preseason abundance index of 1.35 for Southeast Alaska was established through the technical committee process of the Pacific Salmon Commission, which translated to an all-gear quota of 221,823 Treaty Chinook salmon. Under the Board's commercial fisheries allocation plan, the purse seine fleet was allocated 9,538 (4.3 percent) Chinook salmon; the drift gillnet fleet was allocated 6,433 (2.9 percent) Chinook salmon; and the set gillnet fleet was allocated 1,000 Chinook salmon. The remainder of the 204,852 fish was then divided between the troll and sport fisheries in an 80/20 split, which translated to 163,882 Chinook salmon to the troll fishery and 40,970 Chinook salmon to the sport fishery.

8.1.5 Coho Salmon Allocation

Coho salmon are managed to ensure escapement goals and to achieve Board allocation guidelines. Coho salmon in fisheries near Dixon Entrance are managed in cooperation with Canada according to provisions of the Treaty agreement. The traditional harvest allocation of coho salmon in the Southeastern Alaska and Yakutat commercial salmon fisheries is 61 percent troll, 19 percent purse seine, 13 percent drift gillnet, and 7 percent set gillnet. While these percentages may vary from season to season, given fluctuations in salmon abundance and the distribution and limitations of fisheries management, ADF&G manages the fishery to maintain these allocation guidelines over the long-term. To do so, ADF&G may not disrupt any of the traditional commercial fisheries upon which this traditional allocation is founded; however, ADF&G may make inseason adjustments to attempt to achieve these traditional harvest allocation guidelines.

A region-wide troll closure for up to 10 days may be required during the coho salmon season to address allocations between outer coastal fisheries and inside water fisheries if ADF&G determines that the proportional share of coho salmon harvest by the troll fishery is larger than that of inside gillnet and sport fisheries compared to 1971 through 1980 levels. Primary inside fishery indicators for this assessment are overall coho salmon harvests, escapement projections for streams where escapement goals have been established, catch per unit effort in the Tree Point, Prince of Wales, Taku/Snettisham, and Lynn Canal drift gillnet fisheries, and harvest in the Juneau marine sport fishery. Additional inseason management actions may be required for conservation.

8.1.6 Coho Salmon Harvest

All-gear harvests of coho salmon averaged 2 million fish during the 1940s. A decline in average harvest occurred during the next three decades, with a low decade average of 1 million fish in the 1970s. The average all-gear commercial coho salmon harvest increased to 1.9 million fish in the 1980s and to 3.2 million fish in the 1990s with a record of 5.5 million fish harvested in 1994. In 2010, the all-gear coho salmon harvest totaled approximately 2.577 million fish (Table 2).

Coho salmon retention in the troll fishery opens by regulation on June 15, during the spring troll fisheries. The majority of the troll coho salmon harvest occurred after July 1 during the general summer season. In 2010, the initial late-July coho salmon run strength assessment appeared to be average to below average based on power troll catch/boat/day. The second run strength assessment in early August indicated that the coho salmon run strength was average and did not have any conservation concerns at that time. A 4-day closure of the troll fishery was implemented in mid-August in order to provide for adequate escapement and transition to inside waters. On September 13, ADF&G issued a news release announcing that 2010 was not considered to be a high coho salmon abundance year and that the fishery would close by regulation on September 20. An extension of the troll season was not warranted due to the below-average region-wide, power troll catch rates seen after the August closure and the below-average cumulative troll coho salmon harvest. The final 2010 troll coho salmon harvest of 1,342,212 fish was the 19th highest in the 50 years since statehood.

8.1.7 Chinook and Coho Salmon Troll Fishery EEZ Harvests

In 2010, approximately 11 percent of the Chinook salmon (28,831 fish) and 4 percent of the coho salmon (98,946 fish) harvested by commercial salmon fisheries in Southeast Alaska was reported taken outside of state waters in the EEZ (Table 2). In addition, 102 sockeye, 1,081 pink, and 466 chum salmon were reported taken in the EEZ. When all salmon species are combined, less than one percent of the troll harvest was reported to be taken outside state waters.

The reported number of Chinook salmon harvested from the troll fishery in the East Area has decreased considerably since the FMP first went into effect in 1979. From 1977 through 1985, the troll fishery in the EEZ accounted for about 18 percent of the troll harvest of Chinook salmon, 10 percent of the coho, 7 percent of the sockeye, 6 percent of the pink, and 8 percent of the chum in numbers of fish. The peak Chinook salmon harvest from the EEZ occurred in 1980, with 134,666 taken or about 45 percent of the total troll Chinook harvest. Since the Pacific Salmon Treaty went into effect in 1985, the average (1985 through 1989) percentages of the total troll harvest made in the EEZ dropped: 10.6 percent of the Chinook, 5 percent of the coho, 2.6 percent of the sockeye, 1.4 percent of the pinks, and 3.8 percent of the chum. The reasons for the decrease have been the shorter summer troll fishing period for Chinook salmon with a resulting increased percentage of the harvest from the coastal and inside waters as those areas are open longer.

Table 2 Southeast Alaska salmon harvest associated with commercial fisheries, EEZ waters only and total, 1991 through 2010 (numbers of fish).

	Chinook salmon		Sockeye salmon			Coho salmon			Pink salmon			Chum salmon			Salmon total			
			EEZ			EEZ			EEZ			EEZ			EEZ			EEZ
			as %			as %			as %			as %			as %			as %
Year	EEZ	Total	of Total	EEZ	Total	of Total	EEZ	Total	of Total	EEZ	Total	of Total	EEZ	Total	of Total	EEZ	Total	of Total
1991		339,127	4.9%	287	2,063,585	0.0%	56,004	3,194,517	1.8%	3,602	61,926,339	0.0%	609	3,336,042	0.0%	77,117	70,859,610	0.1%
1991	16,615	,	4.9% 1.4%	3.868		0.0%	l '		10.9%	31.794		0.0%	8.979	* *	0.0%	1		1.0%
	3,266	226,990		- ,	2,666,382		402,550	3,694,214		- ,	34,963,251		- ,	4,936,434		450,457	46,487,271	
1993	13,589	297,032	4.6%	692	3,190,945	0.0%	212,439	3,663,518	5.8%	4,921	57,299,350	0.0%	5,347	7,879,758	0.1%	236,988	72,330,603	0.3%
1994	10,286	221,125	4.7%	1,586	2,392,365	0.1%	254,993	5,715,550	4.5%	2,691	57,269,259	0.0%	1,376	10,402,759	0.0%	270,932	76,001,058	0.4%
1995	10,484	214,835	4.9%	1,252	1,795,330	0.1%	295,621	3,343,075	8.8%	6,244	47,965,505	0.0%	5,869	11,225,674	0.1%	319,470	64,544,419	0.5%
1996	11,986	220,437	5.4%	319	2,799,841	0.0%	134,452	3,153,471	4.3%	1,370	64,629,713	0.0%	2,041	16,043,236	0.0%	150,168	86,846,698	0.2%
1997	18,172	298,712	6.1%	3,368	2,456,751	0.1%	101,901	1,966,193	5.2%	1,335	28,679,834	0.0%	1,479	11,764,076	0.0%	126,255	45,165,566	0.3%
1998	18,262	237,495	7.7%	237	1,375,318	0.0%	161,218	2,985,384	5.4%	2,347	42,535,402	0.0%	887	15,695,279	0.0%	182,951	62,828,878	0.3%
1999	16,567	200,581	8.3%	98	1,160,729	0.0%	81,852	3,625,347	2.3%	396	77,848,284	0.0%	203	14,930,931	0.0%	99,116	97,765,872	0.1%
2000	14,264	226,913	6.3%	143	1,229,390	0.0%	60,226	1,954,546	3.1%	972	20,313,426	0.0%	1,480	15,910,909	0.0%	77,085	39,635,184	0.2%
2001	11,061	251,049	4.4%	170	2,035,230	0.0%	53,639	3,297,633	1.6%	1,024	67,055,991	0.0%	497	8,754,392	0.0%	66,391	81,394,295	0.1%
2002	52,024	388,658	13.4%	114	806,447	0.0%	56,412	3,237,674	1.7%	1,286	45,331,007	0.0%	654	7,455,007	0.0%	110,490	57,218,793	0.2%
2003	58,588	411,028	14.3%	192	1,525,356	0.0%	38,870	2,495,053	1.6%	1,340	52,515,632	0.0%	602	11,115,085	0.0%	99,592	68,062,154	0.1%
2004	49,372	482,251	10.2%	287	2,037,745	0.0%	144,193	3,080,644	4.7%	822	45,333,012	0.0%	1,585	11,371,625	0.0%	196,259	62,305,277	0.3%
2005	13,499	447,536	3.0%	504	1,607,835	0.0%	85,413	2,998,830	2.8%	333	59,182,242	0.0%	47	6,427,530	0.0%	99,796	70,663,973	0.1%
2006	35,792	364,109	9.8%	606	1,333,496	0.0%	78,566	2,087,807	3.8%	721	11,695,411	0.0%	221	13,555,280	0.0%	115,906	29,036,103	0.4%
2007	32,014	355,369	9.0%	312	1,904,802	0.0%	82,952	2,058,431	4.0%	681	44,884,739	0.0%	1,243	9,417,807	0.0%	117,202	58,621,148	0.2%
2008	20,176	246,149	8.2%	32	436,279	0.0%	69,355	2,380,628	2.9%	358	15,974,343	0.0%	301	9,053,046	0.0%	90,222	28,090,445	0.3%
2009	23,615	271,451	8.7%	135	925,749	0.0%	69,912	2,635,471	2.7%	784	38,101,430	0.0%	748	9,660,364	0.0%	95,194	51,594,465	0.2%
2010	28,831	265,186	10.9%	102	717,563	0.0%	98,946	2,577,683	3.8%	1,081	24,208,300	0.0%	466	9,474,546	0.0%	129,426	37,243,278	0.3%
Total	458,463	5,966,033	7.7%	14,304	34,461,138	0.0%	2,539,514	60,145,669	4.2%	64,102	897,712,470	0.0%	34,634	208,409,780	0.0%	3,111,017	1,206,695,090	0.3%

Note: Total Southeast harvest is associated with the following CFEC permit types: Southeast salmon purse seine (S01A), Southeast salmon drift gillnet (S03A), Yakutat set gillnet (S04D), Statewide salmon hand troll (S05B), statewide salmon power troll (S15B), Southeast salmon special harvest area (S77A) a hatchery permit, and Southeast Metlakatla reservation permit (S99A), an experimental or special permit. All salmon associated with commercial activity is included, regardless of disposition, including test fishing and hatchery cost recovery.

EEZ harvest in Southeast Alaska reflects harvest from statistical areas 15000, 15200, 15400, 15600, 15700, 18900, 18930, 18940, and 18950. EEZ harvest is by vessels fishing with statewide salmon hand troll (S05B) and statewide salmon power troll (S15B) permits. There are no harvests in these statistical areas attributed to other permit types.

8.1.8 Bycatch Management

Bycatch in the directed commercial salmon fisheries primarily consists of groundfish species and the incidental catch of immature salmon. State and federal management measures minimize bycatch to the extent practicable and minimize the mortality of bycatch.

A combination of factors work together to keep both the number of fish taken as bycatch and the associated mortality of those fish at a negligible amount. First, ADF&G fish tickets serve as a standardized reporting method documenting all retained harvest from both state and EEZ waters. ADF&G regulations require that fish tickets record the type of gear used as well as the number, pounds, delivery condition, and disposition of fish species harvested and retained for both commercial and personal use (5 AAC 39.130(c)). Maximum retainable allowances (MRAs) of certain non-salmon allow for bycatch to be treated as incidental catch so that those species are able to be utilized. In addition, non-retention requirements when MRAs are achieved create incentives to avoid those species taken as bycatch. Specified closure areas during those times of the year when bycatch is generally highest serves to significantly reduce the amount of bycatch taken. Finally, the nature of the gear utilized in the troll fishery allows for discarded species to be released with limited mortality. Additional management measures are not necessary to document bycatch interactions within salmon fisheries.

Groundfish Incidental Catch Management Measures

The State of Alaska reports the amount and type of groundfish harvested incidentally in the Southeast Alaska troll fishery in the Southeast region groundfish report prepared for the Board on a 3-year cycle.

The Southeast Alaska troll fishery incidentally harvests state managed groundfish species; including lingcod, black rockfish, dark rockfish, blue rockfish, and demersal shelf rockfish (DSR). The seven species of rockfish in the DSR assemblage are yelloweye, quillback, canary, rosethorn, copper, china, and tiger rockfish. Bycatch allowances for federal waters are the same as in state waters only for the state managed groundfish species. For federally managed groundfish species, trollers are restricted to a federal retainable percentage found at http://www.alaskafisheries.noaa.gov/rr/tables/tabl10.pdf. To this end, vessels trolling for salmon in EEZ waters of the Gulf of Alaska that retain groundfish as bycatch must have a Federal Fisheries Permit endorsed for troll gear. This requirement identifies the number of troll vessels that can fish in the EEZ and retain groundfish.

In the East Area, all groundfish incidentally taken by hand and power troll gear being operated to take salmon (consistent with applicable laws and regulations) can be legally taken and possessed with the following restrictions:

- The bycatch allowance for DSR is limited to 10 percent of the round weight of all salmon on board the vessel. All DSR in excess of 10 percent must be weighed and reported as bycatch overage on an ADF&G fish ticket. DSR bycatch overages may be kept for a person's own use but fish retained for that purpose must be reported on fish tickets.
- Lingcod may be taken as bycatch in the commercial salmon troll fishery only from May 16 through November 30.
- Lingcod must measure at least 27 inches from the tip of the snout to the tip of the tail, or 20.5 inches from the front of the dorsal fin to the tip of the tail.

Lingcod harvest allocations for the troll fishery are set by Lingcod Management Area, and area closures will occur as allocations are taken. Inseason closures will be announced by news release and marine radio broadcast.

Halibut incidentally taken during an open commercial halibut season by power and hand troll gear being operated for salmon consistent with applicable state laws and regulations are legally taken and possessed. Commercial halibut may be legally retained only by IFQ permit holders during the open season for halibut. Trollers making an IFQ halibut landing of 500 pounds or less of IFQ weight are exempted from the 3 hour Prior Notice of Landing if landed concurrently with a legal landing of salmon. Halibut taken incidentally during the troll fishery must be reported on an ADF&G fish ticket using the CFEC salmon permit.

Trollers are allowed to longline for groundfish and troll for salmon on the same trip as long as fish are not onboard the vessel in an area closed to commercial fishing or closed to retention of that species and the fisher has both a commercial salmon permit and the appropriate commercial longline permit.

A vessel may not participate in a directed fishery for groundfish with dinglebar troll or mechanical jig gear if they have commercial salmon on board. A vessel fishing for groundfish with dinglebar troll gear must display the letter "D" and a vessel fishing for groundfish with mechanical jigging machines must display the letter "M" at all times when fishing with or transporting fish taken with dinglebar troll gear or mechanical jigging machines. A vessel displaying one of these letters may not be used to fish for salmon.

All harvest information on bycatch in the commercial troll fishery comes from catch reported on fish tickets. Table 3 shows that lingcod and black rockfish, both state managed species, make up the primary bycatch in the commercial troll fishery. Reported harvest of groundfish from EEZ waters is small when compared to harvest totals from all of Southeast Alaska and occurs during the months of July, August, and September when the summer troll season is open. Unreported harvest and discard-at-sea mortality is not estimated, but is thought to be low given the nature of troll gear and the times and locations fished.

A significant management measure taken by the State of Alaska, which affects both the bycatch of groundfish and the incidental catch of non-target salmon species, is the closure of Chinook salmon high abundance waters after the first summer period, which ends June 30 (Figure 2). The purpose of this regulation (5 AAC 29.025) is to slow the Chinook salmon harvest rate during the Chinook salmon retention fishery and to reduce the number of Chinook salmon incidentally hooked and released during a non-retention fishery. While a portion of the closed waters is in state waters, a large portion (the Fairweather Grounds) is within waters of the EEZ. In addition, lingcod and other groundfish may not be taken in the waters off Cape Edgecumbe (Edgecumbe Pinnacles Marine Reserve) enclosed by a box defined as 56° 55.50' N. lat., 56° 57.00' N. lat., 135° 54.00' W. long., and 135° 57.00' W. long. [5AAC 28.150(c)]. These waters are entirely in the EEZ.

Table 3 All groundfish species (round pounds) reported on salmon troll fish tickets for EEZ waters only, 2005 through 2010.

	YEAR							
SPECIES	2005	2006	2007	2008	2009	2010		
Black rockfish	2,049	2,690	1,144	2,217	550	167		
Bocaccio rockfish			26			48		
Canary rockfish	8		13	11				
Dusky rockfish	5	581	59	10	696	684		
General shark	29							
Lingcod greenling	2,701	8,322	10,569	6,241	8,047	7,308		
Quillback rockfish		6	3	89	7	42		
Redstripe rockfish			11					
Rougheye rockfish			6					
Salmon shark				111				
Silvergray rockfish	108	63	36	50	84	20		
Widow rockfish				39				
Yelloweye rockfish	54	208	413	64	282	191		
Yellowtail rockfish	40	22	65	38	5			
Total	4,994	11,892	12,345	8,869	9,670	8,460		

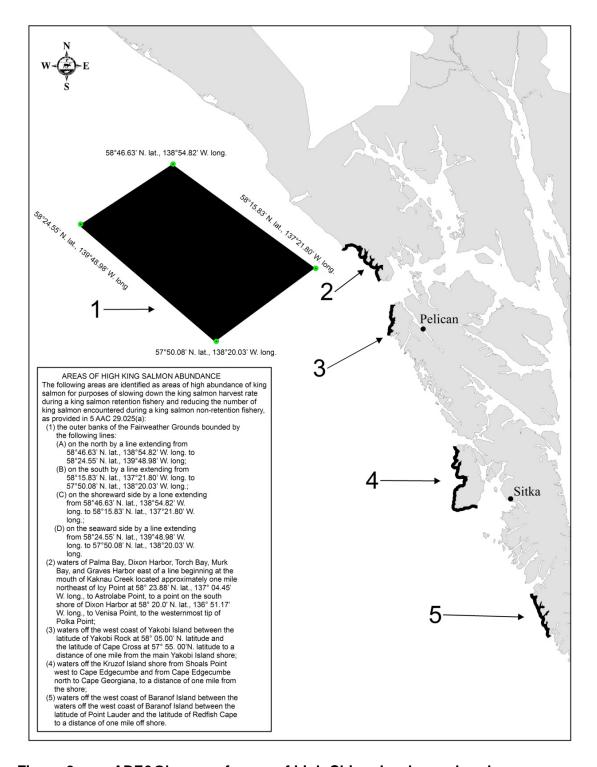


Figure 2 ADF&G's map of areas of high Chinook salmon abundance

Salmon Incidental Catch Management Measures

In the State of Alaska's Policy for the Management of Mixed Stock Salmon Fisheries (5AAC 39.220), conservation of wild salmon stocks consistent with sustained yield is given the highest priority. In the absence of a regulatory management plan that allocates or restricts harvest, and when it is necessary to restrict fisheries on stocks where there are known conservation problems, the burden of conservation shall be shared among all fisheries in close proportion to their respective harvest on the stock of concern. Assigning conservation burdens in mixed stock fisheries is through the application of specific fishery management plans set out in regulation. To this end, management plans are adopted by the State of Alaska that work to both minimize and maximize allocations of specific salmon stocks, depending upon the conservation need identified. As such, management plans incorporate conservation burden and allocation of harvest opportunity that affects all users of the resource. Management plan provisions such as net mesh size restrictions, weekly fishing periods, and size limits work to reduce the incidental catch of non-target salmon species in the salmon fishery so that stocks are able to achieve their established escapement goals.

A Southeast Alaska troll vessel observer program was conducted during the general summer troll fishery from 1985 to 1988. A Southeast Alaska troll vessel observer and logbook program was reinstituted during the general summer troll fishery from 1998 to 2006. The primary purpose of these programs was to estimate the sex and maturity composition of the Chinook and coho salmon catches, and the number of legal sized and sublegal sized Chinook salmon that were released. The coho salmon sex ratios and maturity data were used to evaluate methods for estimating run timing. In addition, during the second program, the observers collected coded-wire-tag and genetic samples from Chinook for a pilot program to determine stock origin. Estimates of total Chinook releases for 1985 through 1988 and 1998 through 2006 were made by directly expanding the observer and logbook data to the entire Southeast Alaska troll fishery. Although the Southeast Alaska troll vessel observer and logbook program has been discontinued, the Southeast Alaska troll Fishery Performance Data program continues to provide sample data on fishing location and effort that are expanded to estimate the total effort in the fishery. Estimates of Chinook releases for the periods 1989 through 1997 and 2007 through the present are based on the observed relationships between total effort in the Southeast Alaska troll fishery and the total number of Chinook salmon releases during the years when observer and logbook programs were in operation.

8.1.9 Sport Fisheries

The ADF&G Division of Sport Fish manages the sport fisheries. Alaska statute defines sport fishing as the "taking of or attempting to take for personal use, and not for sale or barter, any fresh water, marine, or anadromous fish by hook and line held in the hand, or by hook and line with the line attached to a pole or rod which is held in the hand or closely attended, or by other means defined by the Board of Fisheries" (AS 16.05.940(30)).

Under criteria adopted by the Board, the ADF&G Commissioner may increase or decrease sport fish bag limits or modify methods of harvest for sport fish by means of emergency orders. An emergency order has the force and effect of law after field announcement by the commissioner or an authorized designee. These changes may not reduce the allocation of harvest among other user groups. An emergency order may not supersede bag and possession limits or methods and means established in regulatory management plans established by the Board.

The ADF&G Commissioner or an authorized designee may decrease sport fish bag and possession limits and restrict methods and means of harvest by emergency order when (A) the total escapement of a species

of anadromous fish is projected to be less than the escapement goal or the lower limit of the escapement range for that species listed in management plans that have been adopted by the Board or established by ADF&G; or (B) the recreational harvest must be curtailed in any fishery for conservation reasons. ADF&G may issue a "catch-and-release only" emergency order when the estimated hooking mortality is not projected to reduce the population of fish below the number required for spawning escapement or, in the case of resident species, below the level required for maintenance of the desired age and size distribution of the population.

The ADF&G Commissioner or an authorized designee may increase sport fish bag and possession limits and liberalize methods and means of harvest by emergency order when (A) the total escapement of a species of anadromous fish is projected to exceed the optimum escapement goal by 25 percent or the upper limit of the escapement range for that species listed in management plans that have been adopted by the Board or established by ADF&G, if the total harvest under the increased bag and possession limit will not reduce the escapement below the optimum escapement goal or the upper limit of the escapement range; or (B) hatchery-produced fish escape through existing fisheries to designated harvest areas in numbers that exceed brood stock needs, any natural spawning requirements, or cost recovery goals of private nonprofit hatcheries. The intent of this subparagraph is to allow harvest when there are no other competing user groups.

The Division of Sport Fish has conducted a mail survey (Statewide Harvest Survey) to estimate sport fishing annual effort (angler-days), harvest (fish kept) since 1977, and total catch (fish kept plus fish released) since 1990. Harvest and catch estimates are available for species commonly targeted by sport anglers. Effort, harvest, and catch estimates are available by region and area, but are not specifically available for the EEZ. In Southeast Alaska, the Division of Sport Fish has conducted a creel survey and port sampling program to estimate effort (angler days), harvest, and catch.

Given the available data for sport fishing activity in the EEZ, harvest estimates can only be provided for 2010. Estimating the sport harvest of salmon for the East Area was not possible prior to 2010, and is recently only possible due to modifications made to maps used with the Saltwater Charter Vessel Logbook program. Modifications were made prior to the 2010 fishing season, whereby existing logbook maps were edited using GIS to include the NOAA-NMFS groundfish statistical areas adjacent to the ADF&G salmon statistical areas along the outer coast of Southeast Alaska.

Sport Salmon Harvest in the East Area

The sport harvest of Chinook, coho, and sockeye salmon in the EEZ waters of the East Area during 2010 was minimal (Table 4). Effort for the harvest of these salmon species in the EEZ, which is measured as the number of vessels and trips conducted, was also minimal (Table 4).

Most of the Chinook salmon harvest took place off of the west coast of Prince of Wales Island. Likewise, the vast majority of the EEZ harvest for coho salmon took place off of Prince of Wales Island, with an additional estimated 26 fish off Sitka and four fish out of Cross Sound that were landed in Gustavus. All of the saltwater sport harvest of sockeye salmon in the East Area during 2010 occurred off of Sitka.

Ports observed to land the majority of salmon coming from EEZ waters in the East Area were predominately off of Prince of Wales Island (Waterfall Resort and Craig/Klawock) and Sitka. A small number of trips (less than five) originated from Elfin Cove and Gustavus, which likely fished outside of Cross Sound.

Table 4 Comparison of 2010 state waters and EEZ saltwater sport fishery harvests of Chinook, coho, and sockeye salmon (numbers of fish) and effort (numbers of vessels and trips).

	State	Federal
Chinook	53,919	82
Coho	153,819	163
Sockeye	3,938	4
Vessels	609	12
Trips	18,919	25

Sport Fishing Guide Operations

Per Alaska statute (5 AAC 75.075(c)), the Division of Sport Fish is also responsible for overseeing the annual licensing of sport fish businesses and guides. A 'sport fishing guide' means a person who is licensed to provide sport fishing guide services to persons who are engaged in sport fishing (AS 16.40.299). 'Sport fishing guide services' means assistance, for compensation or with the intent to receive compensation, to a sport fisherman to take or to attempt to take fish by accompanying or physically directing the sport fisherman in sport fishing activities during any part of a sport fishing trip. Salmon is one of the primary species targeted in the states' sport fisheries. All saltwater and freshwater sport fishing charter vessels must be registered through ADF&G.

In addition, all freshwater and saltwater sport fishing guide operators are required to maintain an ADF&G-issued logbook of their clients' catch. The Division of Sport Fish conducts a program to issue saltwater and freshwater charter logbooks, which provides comprehensive effort, harvest, and catch estimates for guided anglers in saltwater. Logbook data are available specifically for state and federal waters in Southeast Alaska since 2010.

Sport Fishing and Chartering from a Registered Troll Vessel

State regulations pertaining to sport fishing for salmon in the marine waters of Alaska apply in the East Area. A person may sport fish from a registered commercial salmon hand or power troll vessel. A troll gurdy may be used as a downrigger in conjunction with a sport fishing rod to sport fish for salmon. A person who sport fishes from a vessel licensed for commercial fishing (other than a charter vessel) in waters closed to commercial salmon fishing shall, immediately upon bringing a salmon aboard, mark the salmon by removing its dorsal fin. This regulation also applies when a person is sport fishing for a species closed to commercial trolling. Sport fishing from a commercially licensed vessel while commercially caught salmon are in possession is illegal in waters closed to commercial fishing.

A registered troll vessel may also be registered as a charter vessel. A vessel registered both as a commercial troller and as a charter vessel may not be used to troll commercially and charter in the same day.

8.2 Safety

According to the National Institute for Occupational Safety and Health (NIOSH), of the major commercial fisheries in Alaska, salmon fisheries have the lowest annual commercial fishing fatality rate,

which accounts for the number of workers and exposure time on the water. From 2000 through 2009, commercial salmon fisheries experienced a rate of 115 fatalities per 100,000 full-time equivalent workers. From 2000 through 2010, 40 fishermen died while fishing for salmon; these deaths included 17 falls overboard, 14 lives lost after a vessel disaster (i.e., vessel sinking, skiff swamping), 5 on board injuries, and 4 fatalities that occurred on shore. These fatalities occurred on vessels using the following gear type: drift gillnet (18 fatalities), set gillnet (10 fatalities), troll gear (5 fatalities), purse seine (2 fatalities), and no fishing gear (4 fatalities). By location, Southwest Alaska had the highest number of fatalities with 18 deaths from 2000 through 2010; Southcentral and Southeast Alaska had an equal number of fatalities with 11 each.

From the information gathered and reported by NIOSH, it is impossible to delineate whether the fatalities discussed above occurred within state waters or outside the state waters boundary into the EEZ. However, it is important to note that the only salmon gear groups operating in the EEZ are the drift gillnet and purse seine (Alaska Peninsula only) salmon fisheries in the West Area and the troll fisheries in the East Area. As such, the fatality numbers recorded above likely inflate the actual number of deaths that have occurred in the EEZ.

Through its public process, the Board addresses specific fishery safety issues as they arise and works to modify its regulations, as necessary, in order to increase safety and minimize risk of injury or death for all fishery participants. ADF&G promotes safety whenever possible in its salmon fisheries through management practices, support in the regulation formation process, and through assistance to enforcement agencies. Examples of safety supported through management practices include: daytime openings, when possible, of salmon fisheries by emergency order allowing fishermen to harvest and deliver fish during daylight hours; and delays in opening weekly fishing periods when severe weather is forecast and extending fishing time after severe weather thereby encouraging fishermen to seek shelter and still be able to fish when the weather moderates. An example of safety supported through regulation includes limits on salmon net length and size, which moderate harvest levels to manageable quantities that are safer for fishermen to handle. Additionally, ADF&G promotes safety through direct assistance to enforcement agencies. ADF&G provides information on harvest patterns, fishing effort, and lists of registered vessels to the Alaska Wildlife Troopers, NMFS, and the U. S. Coast Guard. This allows these enforcement agencies to focus efforts in areas where the fishing fleets are concentrated, thus providing on-scene presence of enforcement personnel, vessels, and aircraft which provides expedited reaction times when accidents occur.

8.3 Economic and Community Impacts of EEZ Harvests

For analytical purposes, it is convenient to divide the EEZ salmon fishery contributions to regional employment and income into direct, indirect, and induced effects. The direct effects are those reflected in jobs and income directly attributable to participation in the fisheries. In this case, these include the direct employment of the crew of the salmon trollers, gillnetters, and seiners and direct income to various participants in the fishing firms (crew shares, vessel shares, or shares for Alaska limited entry permit holders).

The indirect effects are those generated in other businesses, by the purchases or sales of the salmon fishing firms. Indirect effects would accrue to businesses supplying fuel and supplies, fishing gear and fishing gear repairs, ship construction and repairs, insurance, banking, legal, and accounting services, lobbying, and consulting. The goods and services above are "backward" linkages. Jobs and income may

also be associated with "forward" linkages, in processing firms, and in firms providing transportation, warehousing, cold storage, brokering, and other distribution services.

Induced effects are those generated when directly or indirectly employed persons spend their income. Employment and income are created when people receiving income from fisheries spend their money on such things as groceries, gas, cars, car repairs, rent, home repairs, home construction, and insurance.

It is customary to think of these regional economic contributions in terms of multipliers showing the total indirect and induced employment and income associated with direct employment and income. Multiplier estimates depend in part on the size of the community under consideration because the smaller the community, the greater the "leakage," as more labor, goods, and services are purchased outside of the community.

Multipliers for fishing activity within Alaska tend to be relatively low compared to those for other Alaskan industries. Significant proportions of the management and labor in fisheries and fish processing, tend to originate outside of the state. Significant proportions of productive inputs tend to be purchased outside of the state. Because of this, direct, indirect, and induced effects tend to be divided between Alaska, and the places of origin for these inputs.

Revenue

Table 5 highlights earnings from salmon commercially harvested in the EEZ of Southeast Alaska. In 2010, the estimated gross earnings from salmon (all species) harvested in the EEZ was \$2.6 million, which represents approximately 9 percent of the total earnings grossed by the troll fishery (hand and power combined) in all of Southeast Alaska and approximately 2.5 percent of the earnings grossed by all salmon fisheries (troll and net) in all of Southeast Alaska. Between 1991 and 2010, earnings from salmon commercially harvested in the EEZ represented at the maximum (1992) 16 percent of the total troll fishery earnings and 4.5 percent of the total all-gear earnings throughout Southeast Alaska. On average, from 1991 to 2010, earning from salmon commercially harvested in the EEZ represent 8.4 percent of the total troll fishery earnings and 2.4 percent of the total all-gear earnings throughout Southeast Alaska.

From 2006 to 2010, the majority of commercially retained salmon harvested in the EEZ portion of Southeast Alaska was delivered directly or by tender to Sitka. The average amount of salmon (all species combined) delivered to Sitka over this time period was 370,440 pounds with an average ex-vessel value of \$1,193,270. The other primary ports taking deliveries of troll caught salmon in Southeast Alaska include Yakutat, Craig, Pelican, and Hoonah. Sitka and Yakutat are home to multiple processing facilities. Additionally, in Southeast Alaska salmon are harvested and processed by freezer vessels. From 2006 to 2008, an average of 149,182 pounds were attributed to these vessels with an average ex-vessel value of \$512,593 (no deliveries from these vessels were made in Southeast Alaska in 2009 or 2010). Some deliveries of salmon harvested in the EEZ portion of Southeast Alaska are delivered to the Washington communities of Seattle, La Connor, and Bellingham, but these represent an extremely small proportion of the landings when compared to the processing activity that takes place in the communities of Southeast Alaska.

In addition to being the primary port where deliveries of commercially retained salmon are made, Sitka is also the primary community of residence for troll (hand and power combined) permit holders operating in the EEZ. From 2006 to 2010, an average of 33 Sitka troll permit holders were active in the EEZ and had combined annual average estimated gross earnings of \$618,886 from EEZ harvests. Other main Alaska

communities of residence for troll permit holders operating in the EEZ include Yakutat, Craig, Wrangell, Juneau, and Petersburg. Communities of residence associated with this activity outside of Alaska include Port Angeles, Washington.

Marine sport fishing is particularly important in Southeast Alaska, where over 80 percent of all angler days are in saltwater. A 2008 report titled "Economic Impacts and Contributions of Sportfishing in Alaska, 2007", coauthored by the ADF&G and Southwick Associates, Inc., estimated more than 85 percent of all trip and package spending in Southeast Alaska was geared towards saltwater fishing trips in 2007. Trip and package spending for saltwater fishing in the Southeast region contributed an estimated \$54 million of income, supported 1,897 jobs, and contributed \$26 million of tax revenues in 2007. The portion of these benefits attributable specifically to salmon and specifically to EEZ waters of Southeast Alaska is not known. The amount and limited activity by both guided and unguided anglers that can be quantified operating within the EEZ of Southeast Alaska is negligible when compared to the activities conducted in state waters. Although there is some documented effort within federal waters, the precision with which we could estimate the economic impacts to the communities of Sitka, Craig or Klawock where landings likely occur, is marginal relative to what is realized from state waters effort.

Employment

The direct employment contribution of EEZ fishing activity is the employment of persons on the fishing vessels. The Alaska Department of Labor (ADOL) surveys permit holders in Alaska's fisheries and uses the responses to estimate crew factors in Alaska's commercial fisheries. The crew factor for a fishery is equal to the estimated average size of vessel crews in the fishery, excluding the skipper. Using the ADOL crew factor estimates from its 2010 survey, and adjusting them to account for skippers, it is possible to estimate the number of separate job positions available in fisheries in a year. This is done by assuming that each permit fished corresponds to a separate fishing operation, incrementing the ADOL crew factor for the fishery by one, to account for the skipper, and multiplying the number of permits fished by the adjusted crew factor. The number of separate persons active is likely to be larger, due to turnover in positions. The survey does not collect information about the place of residence of crewmembers.

In the East Area, the estimated average vessel crew size (the ADOL crew factor increased by one) for power trollers was 2.4 persons in 2010. Treating the number of permits fished from 1991 to 2010 as a guide to the distribution of permits normally fished, and multiplying the number of permits fished by the estimated average vessel crew size, the median number of positions active in the EEZ is 362.

Residency

The share of fishing activity conducted by Alaskan residents differs by fishery. The fisheries that are affected by this action require limited entry permits issued by the State of Alaska. Alaska tracks permit issuance, permits fished, and permit production and revenue by state of residence of the permit holder. The percentage of permits fished by Alaska residents varies by permit fishery. This discussion of the residency of permit holders is based on an examination of Basic Information Tables prepared by CFEC. In Alaska, there should be one limited entry permit holder present with each fishing operation. The number of crew present on an operation will normally be larger than this. For the percentages reported here to be indicative of the place of origin for the crew as a whole, it is necessary to assume that permit holders hire crew from their own state of residence.

In the East Area, about 85 percent of the power troll permits fished in 2010 were held by Alaskan residents and these permit holders accounted for about 85 percent of the fishery gross revenues. In the hand troll fishery, about 91 percent of the permits fished were held by Alaskan residents, and these accounted for about 93 percent of revenues.

Alaska residents are found in smaller proportions in the seafood processing sector than in the fishing sector. In Sitka in 2001, with 758 seafood processing workers, about 30 percent are Alaska residents. Alaska workers in these places do tend to receive a disproportionate share of the wages, either because they work more during the year, or because they occupy higher wage jobs. In Sitka, they receive about 53 percent of the wages. Note that these numbers relate to all seafood processing, and not just salmon processing.

Fisheries Taxes

Alaska's fisheries taxes, some of which are shared with communities or enhancement operations local to fisheries, are another source of indirect salmon fishery effect. "Fish" tax receipts shared with a community may be associated with increased community spending on goods and services within the community, smaller community sales tax or property tax assessments, purchases of goods and services outside the community, or some combination of these. Costs recovered for salmon aquaculture may be a source of local employment and income as well.

The salmon fisheries that occur, in part, in the waters of the EEZ are subject to different combinations of five separate State of Alaska fisheries taxes. In addition to the taxes discussed here, municipalities may impose their own taxes, and commercial fishing operations contribute a share of the fuel tax revenues collected by Alaska.

Table 5 Comparison of Southeast Alaska salmon (all species) harvest earnings from EEZ waters and areawide, 1991 through 2010

Year	Number of Salmon Harvested in EEZ	Pounds of Salmon Harvested in the EEZ	Estimated Gross Earnings from the EEZ	Average Earnings Per Permit	CFEC Permit Count	EEZ Earnings as a Percentage of Troll Gear Earnings (all Southeast Alaska)	EEZ Earnings as a Percentage of Total Southeast Alaska Earnings (all gear)
1991	77,117	652,156	\$1,124,758	\$7,757	144	4.5%	1.5%
1992	450,457	3,006,900	\$4,675,975	\$13,554	347	15.9%	4.5%
1993	236,988	1,454,737	\$1,992,755	\$14,033	142	7.5%	2.1%
1994	270,932	2,142,233	\$2,839,030	\$16,899	167	7.3%	2.4%
1995	319,424	2,374,798	\$2,256,761	\$8,358	269	13.7%	2.5%
1996	150,168	1,106,474	\$1,155,716	\$9,631	120	7.1%	1.6%
1997	126,253	1,065,637	\$1,568,293	\$10,053	155	8.3%	2.2%
1998	182,344	1,490,423	\$1,534,645	\$9,652	160	10.3%	2.1%
1999	99,102	710,945	\$1,090,426	\$11,014	99	5.3%	1.2%
2000	77,045	624,846	\$969,672	\$8,288	117	6.6%	1.5%
2001	65,567	485,092	\$645,309	\$7,014	92	3.8%	0.8%
2002	110,310	1,190,119	\$1,294,591	\$10,611	122	9.9%	3.1%
2003	98,661	1,172,249	\$1,461,097	\$15,220	96	9.9%	2.9%
2004	196,041	1,706,607	\$3,135,001	\$18,333	169	10.8%	4.3%
2005	99,729	686,341	\$1,188,166	\$9,283	128	4.4%	1.6%
2006	115,759	1,008,509	\$3,181,645	\$20,932	153	9.2%	3.8%
2007	116,981	929,398	\$2,854,124	\$19,027	149	9.3%	2.9%
2008	89,877	820,820	\$2,949,131	\$18,905	156	8.1%	2.8%
2009	95,087	719,274	\$1,725,313	\$11,203	154	7.5%	1.9%
2010	129,263	1,081,694	\$2,629,159	\$14,212	185	8.9%	2.5%

Note: Only commercially retained harvest is included. Earnings estimates and average earnings estimates per permit are based on CFEC gross earnings data. Total Southeast harvest is associated with the following CFEC permit types: Southeast salmon purse seine (S01A), Southeast salmon drift gillnet (S03A), Yakutat set gillnet (S04D), Statewide salmon hand troll (S05B), statewide salmon power troll (S15B), Southeast salmon special harvest area (S77A) a hatchery permit, and Southeast Metlakatla reservation permit (S99A), an experimental or special permit.

8.4 Probable Future Condition and Potential Revenues

The sport and commercial troll fisheries for salmon in the East Area operate seamlessly between waters of the East Area and adjacent state waters. Revenues associated with harvest from EEZ waters in either fishery are not expected to change substantially in the near term given the State of Alaska's limited entry program for commercial salmon fisheries, the fully developed sport fishing sector, Pacific Salmon Treaty provisions, and Board policy. Generally, revenues in either fishery would change in response to changes

in the abundance of salmon in the East Area and distribution of salmon between the East Area and state waters, or changes in the market for commercial salmon or angler demand. Angler demand for salmon could be affected by changes in harvest opportunity for other species or by general economic conditions. Angler demand has been negatively impacted by the economic downturn the United States has been experiencing since 2008.

An increase or decrease in salmon harvests in the East Area and associated revenue in either fishery may or may not be correlated (positively or negatively) with changes in the same fishery within state waters. If effort shifts between the EEZ waters and state waters, any change in revenue associated with EEZ harvests might be offset by change in state waters activity. One factor likely to disproportionately affect revenues in the EEZ portions of the sport or commercial troll salmon fisheries relative to the state water portions is the cost of fuel since vessels may prefer fishing closer to ports when fuel prices are high.

Chapter 9 FEDERAL REVIEW OF STATE MANAGEMENT MEASURES APPLICABLE IN THE EAST AREA

Delegation of salmon fishery management authority to the State of Alaska requires the Council and NMFS to stay apprised of state management measures governing commercial and sport salmon fishing in the East Area and, if necessary, to review those measures for consistency with the FMP, the Magnuson-Stevens Act, and other applicable federal law. State management measures include measures adopted by the Pacific Salmon Commission and the Alaska Board of Fisheries as well as other state laws, regulations, and inseason actions. This chapter describes how the Council and NMFS fulfill this oversight role. Section 9.1 describes the ways in which the Council and NMFS monitor state management measures that regulate salmon fishing in the East Area. Section 9.2 describes the process by which NMFS will review state management measures governing salmon fisheries in the East Area for consistency with the FMP, the Magnuson-Stevens Act, and other applicable federal law. Section 9.3 describes the process by which a member of the public can petition NMFS to review state management measures in the East Area for consistency with the FMP, the Magnuson-Stevens Act, and other applicable federal law. Finally, section 9.4 describes the process NMFS will follow if NMFS determines that state management measures in the East Area are inconsistent with the FMP, the Magnuson-Stevens Act, or other applicable federal laws.

9.1 Council and NMFS Receipt of Information on State Management Measures

The Council and NMFS receive information on, and stay apprised of, state management measures that regulate commercial and sport salmon fisheries in the East Area. As explained earlier in section 4.3, the Council and NMFS will receive reports from the State of Alaska at regularly scheduled Council meetings regarding applicable state management measures that govern commercial and sport salmon fishing in the East Area. Additionally, representatives of the Council, NMFS, and NOAA's Office of General Counsel have the opportunity to participate in the State's regulatory process through the submission of proposals and comments to the Board of Fisheries on proposed regulations applicable to East Area salmon fisheries. These federal representatives also can advise the Board, as needed or as requested by the Board, about the extent to which proposed measures for East Area salmon fisheries are consistent with the FMP, the Magnuson-Stevens Act, and other applicable federal law. None of these federal representatives, however, will vote on any proposals submitted to the Board or the State. NMFS representatives are also members of a number of advisory panels and technical committees of the Pacific Salmon Commission.

The purpose of receiving this information is two-fold. First, it provides the Council and NMFS with opportunities to consider its salmon fishery management policies relative to the State of Alaska's exercise of its authority. Based on the information received, the Council can determine whether the FMP is functioning as intended from a fishery management policy perspective or whether changes to the fishery management policies contained in the FMP are warranted. Second, it provides the Council and NMFS with a means to ensure that the delegation of fishery management authority to the State is being carried out in a manner consistent with the policy and objectives established within the FMP.

9.2 NMFS Review of State Management Measures for Consistency with the FMP and Federal Laws

If NMFS has concerns regarding the consistency of state management measures with the FMP, the Magnuson-Stevens Act, or other applicable federal law, NMFS may initiate a consistency review of those management measures. NMFS may initiate this consistency review independently or at the request of the Council. During this review, NMFS will provide the Council and the State of Alaska with an opportunity to submit comments to NMFS that address the consistency of the management measures in question. Because NMFS's review is limited to whether the measures are consistent with the FMP, the Magnuson-Stevens Act and other applicable federal law, NMFS will only consider comments that address consistency. NMFS may hold an informal hearing to gather additional information concerning the consistency of the measures under review if time permits and NMFS determines that such a hearing would be beneficial.

If NMFS determines after its review that the state management measures are consistent with the FMP, the Magnuson-Stevens Act, or other applicable federal law, NMFS will issue a written statement to that effect, explaining the reasons for its conclusion and identifying the information NMFS used to support its finding. If NMFS determines after its review that the state management measures are inconsistent with the FMP, the Magnuson-Stevens Act, or other applicable federal law, NMFS will follow the process set forth in section 9.4.

NMFS's review under section 9.2 is limited to consistency of state management measures in the East Area with existing provisions of the FMP, the Magnuson-Stevens Act, or other applicable law. NMFS will not initiate a consistency review under section 9.2 resulting from a divergence of fishery management policy perspectives.

9.3 Public Request for NMFS to Review State Management Measures for Consistency with the FMP and Federal Laws

Any member of the public may petition NMFS to conduct a consistency review of any state management measure that applies to salmon fishing in the East Area if that person believes the management measure is inconsistent with the provisions of the FMP, the Magnuson-Stevens Act, or other applicable federal law. Such a petition must be in writing and comply with the requirements and process described in this section. As with section 9.2, NMFS's review under section 9.3 is limited to consistency of state management measures with existing provisions of the FMP, the Magnuson-Stevens Act, or other applicable law. NMFS will not initiate a consistency review under section 9.3 from petitions that merely object to a state management measure or argue that an alternative measure would provide for better management of the salmon fishery. A person with these types of policy concerns should present them to the Board, the State, or the Council.

Although the FMP provides an administrative process by which a person may seek federal review of state management measures for consistency with the FMP, the Magnuson-Stevens Act, or other applicable federal law, the existence of the federal process does not preclude or limit that person's opportunity to seek judicial review of state management measures within the State of Alaska's judicial system as available under the provisions of the State's Administrative Procedure Act (AS 44.62). Initiation of State judicial review of a challenge to a state management measure is not required before a person may petition NMFS to conduct a consistency review.

What must a person do before submitting a petition to NMFS?

Prior to submitting a petition requesting a consistency review, a person must exhaust available administrative regulatory procedures with the State of Alaska. NMFS will conclude that a person has exhausted available state administrative regulatory procedures if the person can demonstrate that he or she: (1) submitted one or more proposals for regulatory changes to the Board of Fisheries during a Call of Proposals consistent with 5 AAC 96.610 and (2) received an adverse decision from the Board on the proposal(s). There are circumstances that may require regulatory changes outside the regular process set forth in 5 AAC 96.610, or when the process set forth in 5 AAC 96.610 is unavailable due to the timing of the action requested. Under these circumstances, NMFS also will conclude that a person has exhausted state administrative regulatory procedures if the person can demonstrate that he or she: (1) could not have followed the regular Call of Proposals requirements at 5 AAC 96.610, (2) submitted an emergency petition to the Board or ADF&G consistent with 5 AAC 39.999 and (3) received an adverse decision from the Board or ADF&G on the emergency petition or agenda change request.

The FMP requires exhaustion of available state administrative regulatory procedures before petitioning NMFS for a consistency review for several reasons. Under this FMP, the Council and NMFS have delegated regulation of the commercial and sport salmon fisheries in the East Area to the State of Alaska in recognition of its expertise and the State is in the best position to consider challenges, and make changes, to its management measures. The Council and NMFS also recognize the importance of public participation during the development of fishery management measures, and exhaustion encourages the public to actively participate in and try to effectuate fishery management change through the State process. Finally, by requiring a person to exhaust the State's administrative regulatory procedures before petitioning NMFS, the State is presented with an opportunity to hear the challenge and take corrective action if the State finds merit in the challenge before federal resources are expended.

What must be in a petition submitted to NMFS?

A petition must: (1) identify the state management measures that the person believes are inconsistent with the FMP, the Magnuson-Stevens Act or other applicable federal law; (2) identify the provisions in the FMP, the Magnuson-Stevens Act, or other applicable federal law with which the person believes the state management measures are inconsistent; (3) explain how the state management measures are inconsistent with the identified provisions of the FMP or federal laws; and (4) demonstrate that the person exhausted available state administrative regulatory procedures before submitting the petition to NMFS. Petitions concerning the consistency of a state inseason action present some challenges for timely review given the short duration of inseason actions and the length of time it will take NMFS to review petitions. Although NMFS is unable to issue a decision on a petition challenging an inseason action before the inseason action expires, NMFS recognizes that there may be an aspect of inseason actions that is capable of repetition. Therefore, persons may submit petitions to NMFS that challenge the consistency of a recurring aspect of a state inseason action. In addition to the four requirements listed above, a petition challenging a state inseason action must identify and explain the inconsistent aspect of the inseason action that is capable of A petition with all supporting documentation must be submitted to the Regional Administrator, NMFS Alaska Region (see http://www.alaskafisheries.noaa.gov/contactinfo.htm for addresses).

A person must submit a petition to NMFS no later than 30 days from (a) the last day of the Board of Fisheries meeting at which the measure in question was adopted by the Board, (b) the day a denial was

issued on an emergency petition, or (c) the day a denial was issued on an agenda change request. Although NMFS will not initiate a consistency review under this section for petitions submitted after the 30-day deadline, NMFS may initiate a consistency review under section 9.2.

What NMFS will do following receipt of a petition from the public?

Upon receipt of a petition, NMFS will immediately commence a review of the petition to determine whether it contains the information required for a consistency review. If NMFS determines that the petition fails to meet all of the requirements, NMFS will return the petition to the petitioner with an explanation that identifies the deficiencies. If NMFS determines that the petition meets all of the requirements, NMFS will initiate a consistency review and notify the petitioner that such a review has been initiated. NMFS will immediately provide a copy of the petition to the Council and to the Commissioner of the ADF&G. During its consistency review, NMFS will provide the Council and the State of Alaska with an opportunity to submit comments to NMFS that address the consistency of the measures being challenged. Because NMFS's review is limited to whether the measures in question are consistent with the FMP, the Magnuson-Stevens Act and other applicable federal law, NMFS will only consider comments that address consistency. NMFS may hold an informal hearing to gather additional information concerning the consistency of the measures under review if time permits and NMFS determines that such a hearing would be beneficial. NMFS will review a petition as quickly as possible but will take the time necessary to complete a thorough review of the consistency of the state management measure being challenged before issuing its decision.

If NMFS determines after its review that the state management measures are consistent with the FMP, the Magnuson-Stevens Act, or other applicable federal law, NMFS will issue a written statement to that effect, explaining the reasons for its conclusion and identifying the information NMFS used to support its finding. If NMFS determines after its review that the state management measures are inconsistent with the FMP, the Magnuson-Stevens Act, or other applicable federal law, NMFS will follow the process set forth in section 9.4.

9.4 NMFS Process Following a Determination that State Management Measures Are Inconsistent with the FMP or Federal Laws

If NMFS determines that a state management measure is inconsistent with the FMP, the Magnuson-Stevens Act, or other applicable federal law after conducting a consistency review under sections 9.2 or 9.3, NMFS will issue a written determination to that effect, explaining the reasons for its conclusion and identifying the information NMFS used to support its finding. NMFS will promptly notify the State of Alaska and the Council, and the petitioner if applicable, of its determination and provide the State with an opportunity to correct the inconsistencies identified in the notification. No specific amount of time is identified in this FMP in which corrective action must be taken because circumstances directly affecting what constitutes a reasonable opportunity for corrective action will likely vary. NMFS will evaluate the circumstances on a case-by-case basis to determine the amount of time that represents a reasonable opportunity for the State to take corrective action and will provide that information to the State in the notification of inconsistency.

While it is anticipated that the State of Alaska will expeditiously correct the inconsistencies identified by NMFS, it is possible that the state may disagree with NMFS's determination and choose not to correct the identified inconsistencies. If the State does not correct the inconsistencies identified by NMFS in the time provided, NMFS will need to assess whether the State's overall management scheme is unaffected by

removal of the inconsistent measure or whether the inconsistent measure is an integral part of the overall management scheme and that the overall management scheme would fail if the inconsistent measure is removed. NMFS also will need to determine whether federal regulations are required in the East Area given the absence of the state management measure. Once this assessment is completed, NMFS will issue a notice announcing the extent to which the authority delegated to the State to implement fishery management measures has been withdrawn and whether NMFS intends to issue federal regulations that would govern salmon fishing in the East Area.

Any delegation of fishery management authority that is withdrawn under this section of the FMP will not be restored to the State until the Council and NMFS determine that the State has corrected the inconsistencies.