



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
Fisheries Management Division
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Seattle, Washington 98115-0070

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MAY 1 1997

Mr. Robert Fletcher, Chair
Pacific Fishery Management Council
2130 SW Fifth Avenue, Suite 224
Portland, OR 97201

Dear Mr. ^{Bob}Fletcher:

I am writing to inform you that I have approved Amendment 12 to the Fishery Management Plan for Commercial and Recreational Salmon Fisheries off the Coasts of Washington, Oregon, and California (Salmon FMP). Amendment 12 would authorize adoption of rules to allow retention, but not sale, of salmon bycatch in Pacific Coast groundfish trawl fisheries under a monitoring program that meets certain guidelines; specify Endangered Species Act (ESA) standards as management objectives for salmon species listed under the ESA; and, update the Salmon FMP without changing the FMP management objectives. A proposed rule to implement the ESA portions of Amendment 12 was published on April 3, 1997.

I have also approved Amendment 10 to the Fishery Management Plan for the Pacific Coast Groundfish Fishery (Groundfish FMP). Amendment 10 to the Groundfish FMP complements Amendment 12 to the Salmon FMP by authorizing adoption of rules to allow retention, but not sale, of salmon bycatch in Pacific Coast groundfish trawl fisheries under a monitoring program that meets certain guidelines.

I have approved these amendments with the understanding that, if possible, the Council will develop regulations governing salmon bycatch in groundfish trawl fisheries, to be in place by the opening of the 1998 whiting fishery. Please let me know how the NMFS Northwest Region may assist the Council staff in this task.

Sincerely,

William Stelle, Jr.
Regional Administrator

cc: Gary Matlock - F/SF
William Hogarth - F/SWO



AMENDMENT 12

TO THE FISHERY MANAGEMENT PLAN FOR
COMMERCIAL AND RECREATIONAL SALMON FISHERIES
OFF THE COASTS OF WASHINGTON, OREGON AND CALIFORNIA
COMMENCING IN 1978

AND

AMENDMENT 10

TO THE PACIFIC COAST GROUND FISH PLAN

Incorporating the Regulatory Impact Review
Initial Regulatory Flexibility Analysis
and Environmental Assessment

Pacific Fishery Management Council
2130 SW Fifth Avenue, Suite 224
Portland, Oregon 97201

January 1997

ACKNOWLEDGEMENTS

This document was prepared by the Council staff with assistance from Dr. Hans Radtke in reporting the socioeconomic data and assessment of impacts for the shore-based whiting fishery. Additional input and review was supplied by the Council's salmon and groundfish advisory panels and teams. Mssrs. Jim Harp, Craig Bowhay and Phil Anderson provided pertinent updates for the salmon framework plan concerning management issues north of Cape Falcon, Oregon. Mr. Dan Viele also contributed a thorough review of the preliminary updates to the salmon framework plan.

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APPENDIX A The Pacific Whiting Shoreside Observation Program

Appended	Pacific Coast Fishery Management Plan for Commercial and Recreational Salmon Fisheries off the Coasts of Washington, Oregon and California as Revised in 1996 and implemented in 1997
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LIST OF ACRONYMS AND ABBREVIATIONS

Council	Pacific Fishery Management Council
EA	environmental assessment
EFP	experimental fishing permit
EIS	Environmental Impact Statement
ESA	Endangered Species Act
EO	Executive Order
FMP	fishery management plan
IRFA	Initial Regulatory Flexibility Analysis
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPPA	Northwest Power Planning Act
ODFW	Oregon Department of Fish and Wildlife
PFMC	Pacific Fishery Management Council
PSTA	Pacific Salmon Treaty Act
RFA	Regulatory Flexibility Act
RIR	Regulatory Impact Review
SEIS	Supplemental Environmental Impact Statement

1.0 INTRODUCTION

This document, prepared by the Pacific Fishery Management Council (Council or PFMC) staff, presents and analyzes proposed amendments to the salmon and Pacific Coast groundfish fishery management plans (FMPs) for fisheries off the coasts of Washington, Oregon and California. A description of the ocean fisheries under the groundfish and salmon FMPs can be found in: Section 11.2 of the *Pacific Coast Groundfish Plan* (PFMC 1993); *Review of 1995 Ocean Salmon Fisheries* (Salmon Technical Team 1996); Appendix B of *Amendment 10 to the Salmon Fishery Management Plan* (PFMC 1990) and the *Proposed Plan for Managing the 1981 Salmon Fisheries off the Coast of California, Oregon and Washington* (PFMC 1981). A description of the management units and objectives can be found in each fishery management plan (PFMC 1984 and 1993).

1.1 PROPOSED ACTION

The proposed management changes described in this document represent the twelfth amendment to the salmon FMP and the tenth amendment to the groundfish FMP. The amendments involve three issues:

1. Retention of salmon bycatch in trawl fisheries (amendment of both the salmon and groundfish FMPs).
2. Management objectives for species listed under the Endangered Species Act (ESA) consistent with immediate conservation needs and long-term recovery of the species.
3. Updating the salmon FMP with no change in management objectives.

1.2 DOCUMENT LAYOUT

This is an integrated document with regard to the assessments required for any FMP amendment. The description of the proposed amendment issues and their impacts in sections 2.0 through 4.0 contain key elements necessary for a Regulatory Impact Review/Initial Regulatory Flexibility Analysis (RIR/IRFA) and environmental assessment (EA). Section 5.0 contains or references the information required for a structurally complete RIR/IRFA. Section 6.0 summarizes the relationship of this amendment to other existing laws and policies. Section 7.0 contains or references the information required for a structurally complete EA. Appendix A contains technical information on the current salmon bycatch observation program operated by the State of Oregon. Finally, the actual updated salmon FMP (Issue 3) is appended to the end of the document.

1.3 LITERATURE CITED

- PFMC. 1981. Proposed plan for managing the 1981 salmon fisheries off the coast of California, Oregon and Washington. Pacific Fishery Management Council. Portland, Oregon. 149p.
- PFMC. 1984. Framework amendment for managing the ocean salmon fisheries off the coasts of Washington, Oregon and California commencing in 1985. Pacific Fishery Management Council. Portland, Oregon. 145p.
- PFMC. 1990. Amendment 10 to the fishery management plan for commercial and recreational salmon fisheries off the coasts of Washington, Oregon and California commencing in 1978. Pacific Fishery Management Council. Portland, Oregon. 59p.
- PFMC. 1993. Fishery management plan for the California, Oregon and Washington Groundfish fishery as amended through Amendment 7. Pacific Fishery Management Council. Portland, Oregon. 235p.
- Salmon Technical Team. 1996. Review of 1995 Ocean Salmon Fisheries. Pacific Fishery Management Council. Portland, Oregon. 273p.

2.0 AMENDMENT ISSUE 1 – RETENTION OF SALMON BYCATCH IN GROUND FISH TRAWL FISHERIES

This amendment issue deals with the treatment and disposition of salmon caught incidentally in the Pacific Coast groundfish trawl fisheries. It involves elements of both the salmon and groundfish management plans. Under the current salmon FMP, nets, other than a hand-held net used to lift hooked salmon on board a vessel, may not be used to take salmon. In the groundfish FMP, salmon caught in trawl nets are a prohibited species which must be returned to the sea as soon as practicable with a minimum of injury when caught and brought aboard, after allowing for sampling by an observer, if one is present. Because of the high mortality rate for trawl caught salmon, all salmon discards are presumed to be dead.

2.1 BACKGROUND INFORMATION ON TRAWL NET FISHERIES

The trawl net fisheries regulated under the Pacific Coast groundfish FMP include both bottom and mid-water trawl nets. The bottom trawls are used to capture flatfishes, rockfishes and some types of roundfishes. The mid-water trawls are used primarily to catch Pacific whiting *Merluccius productus* which provide the greatest harvest biomass of any single species in the Council management area.

Relatively low numbers of salmon are taken incidentally during trawl fishing operations for groundfish. The capture of salmon bycatch is generally a somewhat random occurrence, but with a skewed distribution as most tows contain no salmon. Variation in salmon bycatch appears to be influenced by the time of year, area and depth of fishing, and general salmon abundance. These variations can sometimes be used to help limit salmon bycatch, especially in the Pacific whiting fishery. Bycatch has been monitored for many years in the Pacific whiting fishery (Table 1). Bycatch has not been routinely monitored in the bottom trawl fishery.

Overall in the Council management area, the predominant salmon bycatch in the trawl fisheries consists of chinook salmon. Pink, chum and coho salmon may also contribute a significant proportion of the catch in the mid-water trawl fishery, depending on the year and location of the fishery (Table 2).

Sampling of mid-water trawl catches in the joint venture whiting fishery from 1986–1990 showed a range of average annual lengths of chinook from about 19 to 22 inches and an average weight of about 4.8 pounds (Berger *et al.* 1988; Berger and Weikart 1988 and 1989; and Guttormsen *et al.* 1990 and 1992; see Table 2). Data from the salmon bycatch in the shore-based whiting fishery (reported by Oregon Department of Fish and Wildlife [ODFW]) does not appear to differ substantially from the species composition and average size reported in the other whiting fishery sectors. For bottom trawl catches sampled in 1985–1987, Erickson and Pikitch (1994) found chinook to typically weigh 2.2–4.4 pounds.

2.1.1 Pertinent Characteristics of the Pacific Whiting Fishery

Pacific Whiting are the most abundant of any managed fishery resource on the West Coast. The primary value of the whiting lies in their conversion to a protein paste known as "surimi" which is used as the base for many analog products such as imitation crab, shrimp, scallops, etc. The conversion of fish flesh to an acceptable quality of surimi is highly dependent on the freshness of the raw product and demands careful handling and immediate cooling or processing to be economically feasible. Processing of Pacific whiting into surimi is more critical than with some other fish species in that the whiting population contains a parasite which releases an enzyme that begins to soften the flesh of the fish soon after it dies. Rapid cooling of the whiting catch can retard this deterioration if whiting must be held for some time before processing (Beale and Jensen 1988).

TABLE 1. Foreign and domestic catch of Pacific whiting (metric tons) and salmon bycatch (numbers of fish). A "-" indicates no estimate available.^{a/}

Year	Foreign		Joint Venture		Domestic				Total	
	Whiting	Salmon	Whiting	Salmon	Shore-Based		At-Sea		Whiting	Salmon
					Whiting	Salmon	Whiting	Salmon		
1978	96,827	5,905	856	19	689	-	0	0	98,372	5,924
1979	114,910	7,044	8,834	1,623	937	-	0	0	124,681	8,667
1980	44,023	4,831	27,537	3,602	793	-	0	0	72,353	8,433
1981	70,366	5,052	43,557	6,422	839	-	0	0	114,762	11,474
1982	7,089	104	67,465	11,694	1,024	-	0	0	75,578	11,798
1983	0	0	72,100	5,143	1,051	-	0	0	73,151	5,143
1984	14,772	63	78,889	10,192	2,720	-	0	0	96,381	10,255
1985	49,853	713	31,692	1,575	3,895	-	0	0	85,440	2,288
1986	69,861	11,739	81,639	32,051	3,463	-	0	0	154,963	43,790
1987	49,656	4,649	105,997	8,636	4,796	-	0	0	160,449	13,285
1988	18,041	2,185	135,781	13,984	6,868	-	0	0	160,690	16,169
1989	0	0	203,578	9,199	7,414	-	0	0	210,992	9,199
1990	0	0	170,972	9,308	8,115	-	4,713	-	183,800	9,308
1991	0	0	0	0	20,600	-	196,905	6,330	217,505	6,330
1992	0	0	0	0	56,127	561	152,448	5,071	208,575	5,632
1993	0	0	0	0	42,119	421	99,103	8,373	141,222	8,794
1994	0	0	0	0	73,656	575	179,073	4,001	252,729	4,576
1995	0	0	0	0	73,949	2,383	102,158	15,992	176,107	18,375
1996 ^{b/}	0	0	0	0	85,125	651	112,776	1,725	197,901	2,376

a/ Sources: Tables 22 and 23 of PFMC 1995; Table 6 of NMFS Preliminary Observer Data Rept. (Oct. 7, 1996). Shore-based salmon bycatch estimates derived from Oregon Department of Fish and Wildlife summary reports at 1995-1996 Council meetings by multiplying total whiting landings by observed salmon bycatch rates (individually by state for 1994-1996). The 1996 at-sea landings do not include 1,713 salmon bycatch for the Makah tribal fishery.

b/ Preliminary.

TABLE 2. Percent species composition and average weights of salmon bycatch in the Pacific whiting fishery (Berger *et al.* 1988; Berger and Weikart 1988 and 1989; Guttormsen *et al.* 1990 and 1992; NMFS Observer Data Rept. Oct. 7, 1996).

Year	Percent Species Composition					Average Weight (lbs.)				
	Chinook	Coho	Chum	Pink	Sockeye	Chinook	Coho	Chum	Pink	Sockeye
Foreign Fishery										
1986	75.9	23.5	0.6	0.0	<0.1	5.0	5.0	5.9	-	5.3
1987	90.1	8.2	0.1	1.5	<0.1	7.2	5.0	10.7	4.3	8.3
1988	89.4	8.8	1.8	0.0	0.0	7.1	7.2	9.0	-	-
Joint Venture Fishery										
1986	94.1	3.8	2.1	0.0	<0.1	3.4	4.1	5.8	-	5.5
1987	92.4	6.8	0.2	0.6	0.0	5.1	4.4	12.3	4.4	-
1988	81.6	18.1	0.3	<0.1	0.0	4.8	3.9	11.2	3.5	-
1989	98.3	1.6	0.1	0.0	0.0	5.9	4.5	3.5	-	-
1990	98.2	0.4	1.4	0.0	0.0	4.9	11.7	4.1	-	-
At-Sea Fishery										
1991	97.4	-	-	-	-	-	-	-	-	-
1992	96.0	-	-	-	-	-	-	-	-	-
1993	57.8	-	-	36.2	-	-	-	-	-	-
1994 ^{a/}	90.6	-	-	-	-	-	-	-	-	-
1995 ^{a/}	70.3	-	-	-	-	-	-	-	-	-
1996 ^{a/}	83.8	-	-	-	-	-	-	-	-	-

a/ Preliminary.

At the present time, the Pacific whiting fishery consists of at-sea and shore-based segments. In the at-sea sector, codends are emptied on the deck of the mothership or catcher-processor and the whiting are quickly moved through a processing line to prevent loss of quality. Salmon can be sorted out of the catch, counted and thrown overboard by an observer after the release of the codend on the deck or as they are separated in the processing line. In either case, disposition of the salmon bycatch meets the terms of the present salmon and groundfish FMPs.

In the shore-based fishery, the catcher vessels must hold the captured whiting for up to several hours as they return to the processing plant on shore. In this situation, it is imperative for the shore-based catcher boats to cool the catch as rapidly as possible. This is usually accomplished by immediately storing the catch below deck in refrigerated seawater, precluding immediate sorting and sampling of the catch for prohibited species.

2.1.2 Pertinent Characteristics of the Bottom Trawl Fishery

Fishers in the bottom trawl fishery deliver their catch to shore-based processors. However, the species they retain do not deteriorate as quickly as whiting and they sort and discard the few salmon they catch (as well as other prohibited or undesirable species) immediately upon retrieving the codend.

Erickson and Pikitch (1994) collected data on chinook salmon bycatch in the Pacific Coast bottom trawl fishery from 1985 through 1990. Their data indicated infrequent and relatively small bycatches of chinook salmon. The 1987 bycatch (in number of fish) was estimated at approximately 1.4 percent of the commercial catch of chinook salmon harvested from the same geographical area off Oregon and Washington as was sampled in their study (i.e., fewer than 8,000 out of a total commercial troll harvest of around 550,000 chinook salmon).

2.2 NEED AND PURPOSE FOR ACTION

The August 1992 Biological Opinion for the impacts of the Pacific Coast groundfish fishery on salmon stocks listed under the ESA, requires the Council to provide for monitoring of the salmon bycatch in the whiting fishery, but not in the bottom trawl fishery. However, the Council must provide an annual summary which characterizes the bottom trawl fishery and can be used to assess any changing trends in the fishery which could jeopardize a listed stock. At the present time, the need for monitoring in the whiting fishery is primarily based on not jeopardizing the existence of endangered Snake River fall chinook. Monitoring needs could also change if other salmon species are listed in the future or as additional bycatch data is needed for other management purposes.

Monitoring of the salmon bycatch with release of salmon back to the sea, as prescribed in the current groundfish FMP, is achievable for at-sea catcher-processors and motherships in the whiting fishery. However, it is not practical for catcher boats which must cool the whiting as rapidly as possible to maintain market quality while it is transported to shore-based processors. To initially meet the monitoring requirement of the 1992 Biological Opinion and allow efficient utilization of whiting caught by the shore-based fleet, the Council has employed an experimental fishing permit (EFP) process. Through the use of a combination of on-board observers and dockside monitors, this experimental program has authorized the retention of the salmon bycatch in the shore-based whiting fishery until the catch is sorted by the processor. At this point the salmon bycatch is enumerated, sampled and provided to charitable institutions. The results of the experimental observation program indicate that it is feasible to retain and appropriately monitor the salmon bycatch (see Appendix A).

On a continuing basis, the retention of salmon bycatch in the shore-based whiting fishery will no longer be an experimental program which can be authorized with EFPs. In addition, utilization of salmon bycatch from both at-sea and shore-based operations for food relief programs may be more desirable than discarding the carcasses to the sea. Therefore, the Council is considering amendments to the salmon and

groundfish FMPs, as discussed below, which will allow retention of salmon bycatch in trawl fisheries on a continuing basis while assuring accurate monitoring of the salmon bycatch.

2.3 MANAGEMENT ACTIONS CONSIDERED

2.3.1 Alternative A – Maintain the Current FMPs (status Quo)

Under the current salmon and groundfish FMPs, retention of salmon in the trawl fisheries is not allowed. The current practice of retaining salmon in the shore-based whiting fishery is authorized as a temporary experimental measure under the authority of the EFP process.

2.3.2 Alternative B – Salmon Remain a Prohibited Species with Retention Allowed in Trawl Fisheries Only When an Approved Monitoring Program is Established

This option maintains salmon as a prohibited species in the groundfish FMP. However, it adds trawl gear to the list of gears which may retain salmon if allowed under other pertinent regulations (such as salmon fishing regulations at 50 CFR Part 660, Subpart H). At the same time, the salmon FMP would be amended to allow retention of salmonids in the trawl fishery when a Council approved monitoring and disposition program is established which meets certain minimum guidelines.

Section 6.3.2.2 on page 6–14 of the groundfish FMP (PFMC 1993) would be modified as follows (new wording is shaded and proposed deletions are lined-out):

Prohibited Species. Species identified as prohibited must be returned to the sea as soon as practicable with a minimum of injury when caught and brought aboard, after allowing for sampling by an observer, if any, unless other disposition procedures are specified by regulation.

~~It is unlawful under this FMP for any person to retain any species of salmonid or Pacific Halibut caught by means of trawl fishing gear authorized under this FMP, unless authorized by 50 CFR Part 300, Subparts E or F; or Part 660, Subpart H; or other applicable law. Retention of salmonids and Pacific Halibut caught by means of other groundfish fishing gear is also prohibited unless authorized by 50 CFR Parts 301, 371 or 661. Specifically, salmonids are prohibited species for trawl, longline and pot gear. Halibut may be retained and landed by troll and longline gear only during times and conditions set by the International Pacific Halibut Commission and/or other federal regulations. Salmon taken by troll gear may be retained and landed only as specified in troll salmon regulations.~~

Groundfish species or species groups under this FMP for which the quota has been reached shall be treated in the same manner as prohibited species.

State regulations prohibit the landing of crab incidentally caught in trawl gear off Washington and Oregon. However, trawl fishers may land Dungeness crab in the State of California in compliance with the state landing law.

This amendment FMP authorizes the designation of other prohibited species in the future, or the removal of a species from this classification, consistent with other applicable law for that species.

Section 3.8.6.2 on page 3–65 of the salmon framework amendment plan (PFMC 1984) would be modified as follows:

3.8.6.2. Net Prohibition

No person shall use nets to fish for salmon in the EEZ except that a hand-held net may be used to bring hooked salmon on board a vessel. Salmon caught incidentally in trawl nets while legally fishing under the groundfish FMP are a prohibited species as defined by the groundfish regulations (50 CFR Part 660, Subpart G). However, in cases where the Council determines it is beneficial to the management of the groundfish and salmon resources, salmon bycatch may be retained under the provisions of a Council-approved program which defines the handling and disposition of the salmon. The provisions must specify that salmon remain a prohibited species and, as a minimum, include requirements that allow accurate monitoring of the retained salmon, do not provide incentive for fishers to increase salmon bycatch and assure fish do not reach commercial markets. In addition, during its annual regulatory process for groundfish, the Council must consider regulations which would minimize salmon bycatch in the monitored fisheries.

2.3.3 Other Alternatives Considered and Rejected

If salmon were removed from the list of prohibited species in the groundfish FMP, they could be retained in groundfish trawl fisheries without the need for EFPs. Regulations to govern landing of salmon bycatch could be incorporated in federal or state groundfish and/or salmon regulations, similar to the provisions of Alternative B, or in some other manner. The Council did not support removal of the prohibited species status since it might be construed to reduce the emphasis on limiting salmon bycatch. The Council wished to be clear that there is no intention to encourage the harvest of salmon by the trawl fishery.

2.4 IMPACTS OF THE MANAGEMENT ALTERNATIVES

Under the status quo (Alternative A), it will not be possible to retain salmon bycatch in the shore-based whiting fishery once it is no longer an experimental program.

The impacts from the handling and disposition of salmon bycatch in Alternative B should be relatively neutral with respect to current management practices which have already incorporated these procedures in the shore-based whiting fishery through the EFP process (see Appendix A).

2.4.1 Ecological Impacts

Compared to the status quo, Alternative B could result in a very small number of salmon carcasses that would not be returned directly to the ocean environment. The impact of this change would not be measurable or significant.

2.4.2 Social and Economic Impacts

On a continuing basis, status quo management does not provide for the current practice in the shore-based whiting fishery of immediately cooling unsorted whiting catches. If cooling were delayed while the catch is sorted to assure that no salmon are retained, it could result in product loss and/or a decrease in marketing potential or economic return for the shore-based sector of the whiting fishery. This could lead to a reduction in jobs or wages in several coastal communities with accompanying social impacts.

Alternative B could allow continuation of the current shore-based practice of immediately cooling unsorted whiting catches and thereby help maintain the viability of shore-based processing of whiting. In addition, Alternative B could allow utilization of salmon bycatch in all segments of the trawl fishery for charitable food donation programs.

The shore-based whiting industry landed 73,949 metric tons of whiting in 1995 which accounted for 42 percent of the total whiting landings in the Council management area and contributed about \$44 million of personal income to coastal economies of Washington, Oregon and northern California. During the time of processing, about 1,000 direct full-time jobs were provided by the shore-based industry (Radtke 1996). Table 3 displays the overall whiting harvest guideline and number of processors and vessels participating in the shore-based fishery from 1990-1996.

Pacific whiting is a high volume, low priced product. Most of the whiting is processed into a fish paste (surimi) that is the base for many analog products in the U.S. and in export markets in the Far East (e.g., imitation crab). Immediate processing or cooling of the catch is required to produce a quality grade of surimi (Radtke 1994). About \$15 million has been invested by harvesting vessels to catch and adequately cool the whiting to produce a quality product onshore (Radtke 1996).

A delay in cooling the catch in the shore-based whiting fishery to sort out any salmon would jeopardize the amount of effective yield of surimi produced from the whiting. The standard yield is 16 percent. As an example, the immediate effect of a delay in cooling could be a decrease to 13 percent which could cost coastal communities about \$9 million in personal income. In addition, there is the risk that the shore-based industry could become noncompetitive and the entire \$44 million in coastal community income lost (personal communication from Dr. Hans Radtke after consultation with Dr. Michael Morrissey, Oregon State University Seafood Lab, Astoria, Oregon).

TABLE 3. Pertinent characteristics of the Pacific whiting fishery. (Data from NMFS; 1996 estimates are preliminary).

	1990	1991	1992	1993	1994	1995	1996
Total Harvest Guideline in Metric Tons	196,000	228,000	208,800	142,000	260,000	178,400	212,000
Total Harvest	183,800	217,500	208,600	141,200	252,700	176,100	212,000
Percent of Total Harvest Taken by Shore-based Industry	4	9	27	30	29	42	40
Total Shore-based Processors (Major Processors Only)	5	7	11	10	12	12	12
Washington	1	1	2	1	1	2	2
Oregon	1	3	6	6	7	7	7
California	3	3	3	3	4	3	3
Shore-based Catcher Boats	13	16	29	25	33	34	34
Total At-sea Processors	3	18	26	18	16	17	-

2.4.3 Administrative Impacts

Under the status quo, observation of salmon bycatch in the shore-based whiting fishery has been permitted as an experimental program using EFPs. Implementation has been through a state-run observation program funded primarily by the shore-based industry with some additional support from NMFS. The current program includes disposition of salmon to hunger relief agencies.

The 1996 Oregon-Washington portion of the observation program, which constituted most of the observation effort, cost approximately \$60,000. This compares to an overall industry cost of \$57,000 in 1995. These reported costs were funded by the shore-based industry in both years. A small amount of additional government costs were incurred in implementing the program. A detailed report of the ODFW observation program is provided in Appendix A. If the salmon and groundfish FMP's are not amended, the state observation program would have to be eliminated in the near future along with the need to annually issue EFPs.

Administrative impacts under Alternative B would depend on whether a salmon bycatch retention program were developed and approved by the Council and upon who actually implemented the program. It is assumed that the shore-based industry would support implementation of a permanent observation program

similar to the current one. Administrative impacts could be minimal if the temporary state observation programs were utilized as a basis for permanent monitoring and disposition. Enforcement personnel would have to continue to coordinate their activities with the monitoring program to assure compliance.

2.5 COUNCIL RECOMMENDATION

The Council recommends implementation of Alternative B to maintain a viable shore-side whiting industry while accurately monitoring and limiting salmon bycatch.

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3.0 AMENDMENT ISSUE 2 – MANAGEMENT OBJECTIVES FOR LISTED SALMON SPECIES

This amendment issue involves only the salmon FMP and deals with establishing management objectives for salmon species listed under the Endangered Species Act (ESA).

3.1 NEED AND PURPOSE FOR ACTION

When the framework salmon FMP was implemented in 1984, no West Coast salmon stock had ever been listed under the ESA and none were being actively considered for listing. The framework FMP and its SEIS noted the existence of the ESA and its relation to the FMP as other applicable law. However, no management objectives were included to cover the event of an actual listing or to consider the impacts which such a listing might have.

Within about five years after adoption of the framework FMP, Sacramento winter chinook were listed as threatened. By mid 1992, three Snake River salmon species had been listed and numerous other salmon species were under review for listing.

Consideration of ocean fishery impacts on listed species has become quite important at this time. Beginning in 1994, no retention of coho salmon was allowed in either commercial or recreational fisheries south of Cape Falcon, Oregon, to reduce impacts on natural coastal coho stocks which are currently being reviewed for listing. In 1996, the ocean salmon fisheries off California were significantly restricted with increased minimum size limits to reduce impacts on Sacramento winter chinook.

In view of the number of currently listed salmon species and the potential for additional listings of salmon species which are significantly impacted by ocean salmon fisheries, it is appropriate that the salmon FMP specify management objectives for listed species. In addition, the 1996 Biological Opinion issued by NMFS for listed salmon stocks, requires the Council to adopt management objectives for listed species which must be consistent with immediate conservation needs and the long-term recovery of the species.

Because the ESA is applicable federal law which the Council must follow to protect listed species, specifying objectives will not change Council management actions. However, it will help clarify the procedures the Council will follow in dealing with listed species.

3.2 MANAGEMENT ACTIONS CONSIDERED

3.2.1 Alternative A – Maintain the current Salmon FMP (Status Quo)

Under the current salmon FMP, there is no direct listing of management objectives for species listed under the ESA. A discussion of the need to meet ESA requirements is contained in a discussion of "other applicable law" in the appendices of the framework amendment and each subsequent amendment.

3.2.2 Alternative B – Manage Consistent with NMFS Jeopardy Standards or Recovery Plans

Under this alternative, the salmon FMP would be modified to identify that the Council will manage ocean salmon fisheries consistent with NMFS jeopardy standards, or NMFS recovery plans for species listed under the ESA. This change is intended to satisfy the requirements of the 1996 Biological Opinion and provide the flexibility of including both currently listed stocks as well as those which may be listed in the future. Section 3.2, Fishery Management Objectives, of the framework salmon FMP (page 3–7) would be modified as follows:

3.2 Fishery Management Objectives

3.2.1. Harvest Management

1. Establish ocean harvest rates for commercial and recreational fisheries that are consistent with requirements for optimum spawning escapement, treaty obligations and continuance of established recreational and commercial fisheries within the constraints of meeting conservation and allocation objectives. Achievement of this objective requires that:

a. Escapements of viable natural spawning stocks of salmon defined in Section 3.5 shall be sufficient to maintain or restore the production of such stocks at optimal levels. Escapements of salmon stocks listed under the Endangered Species Act (ESA) will be consistent with NMFS jeopardy standards or the objectives of NMFS recovery plans.

c. In managing mixed-stock salmon fishing, the Council will establish maximum exploitation rates based on the level that can be sustained by the weakest natural spawning stocks for which specific management objectives have been defined in Section 3.5 and which are consistent with NMFS jeopardy standards or recovery plans for stocks listed under the ESA. ~~will be used by the Council to establish maximum fishing rates.~~

A new stock listing would be added at the beginning of Table 3-2 on page 3-11 of the framework FMP as follows:

TABLE 3-2. Summary of management goals for stocks in the salmon management unit.

Stock or System	Spawner Escapement Goal ^{a/}	Management Objectives	
		Other	Rebuilding Schedule
Species listed under the ESA ^{b/}	Manage consistent with NMFS jeopardy standards or recovery plans to meet immediate conservation needs and long-term recovery of the species ^{c/}	-	Meet or exceed specifications of any NMFS recovery plan

a/ Represents natural spawning escapement goal for viable natural stocks or adult hatchery return goal for stocks managed for artificial production.

b/ The Council must meet or exceed the requirements of the ESA which is other applicable law. Considerations for listed species first became necessary in 1990 after Sacramento winter chinook were classified as threatened. Similar consideration first became necessary for Snake River sockeye and chinook salmon species in 1992. Other salmon species may be listed in the future.

c/ In so far as is practical while not compromising its ability to meet the requirements of the ESA, the NMFS will endeavor to provide opportunity for Council and peer review of any proposed jeopardy standards, or the objectives of recovery plans, well prior to their implementation. Such review would ideally commence no later than the last Council meeting in the year immediately preceding the first salmon season in which the standards would be implemented.

3.2.3 Alternative C – Specific Management Objectives for Each Listed Species

This alternative would be the same as Alternative B in that the Council would indicate its intent to manage consistently with NMFS jeopardy standards or recovery plans. In addition, the Council would signify its intent to draft specific management objectives for any species or stock once it was listed. These objectives would necessarily be developed over some extended period of time in cooperation with federal, state and tribal managers. It is likely the Council objectives would be directed toward larger stock abundance levels than the recovery plans in order to achieve, or at least not preclude, future salmon harvest.

3.2.4 Alternatives Considered and Rejected

Listing management objectives for all known salmon stocks impacted by ocean salmon fisheries has been suggested at various times. However, such management detail is not possible given our current knowledge of stock characteristics (e.g., lack of knowledge about abundance, ocean distribution, differential harvest rate impacts, etc.). The Council is undertaking a two-year review of the salmon FMP beginning in October, 1996. Further consideration of modifying management objectives within the scope of our management abilities could be appropriate at that time.

3.3 IMPACTS OF THE MANAGEMENT ALTERNATIVES

Since the Council must meet or exceed the requirements of the ESA as other applicable law, there is little difference in the impacts of any of the management alternatives. Alternatives B and C clarify the Council's objectives with regard to any listed species and establish a preferred review period to assure that jeopardy standards and recovery plans are scientifically and conceptually sound. Alternative C notices the Council's intent to develop its own management objectives once a stock is listed and incorporate them in the FMP in addition to the general intent to meet or exceed NMFS jeopardy standards or recovery plans.

3.3.1 Ecological Impacts

No measurable change from the current FMP.

3.3.2 Social and Economic Impacts

Under Alternatives B and C, the Council incorporates a preferred review schedule into the FMP for any proposed jeopardy standards or recovery plan. Meeting this schedule could help reduce social and economic disruption by allowing time to plan for and adapt to any necessary changes in the fishery. In addition, it would help assure that the measures selected were the least disruptive possible while still meeting the goals of species recovery.

3.3.3 Administrative Impacts

Alternatives B and C should have positive impacts on the administrative process of salmon management without increasing costs by clarifying management objectives and encouraging timely public review of any proposed changes in management measures.

Alternative C would require the Council to incorporate new management objectives into the FMP each time a pertinent salmon stock is listed. Under Alternatives A and B, the Council would be free to determine the need to incorporate specific objectives on a case-by-case basis.

3.4 COUNCIL RECOMMENDATION

The Council recommends implementation of Alternative B. This alternative clarifies the management actions which the Council must take for listed species in accordance with applicable federal law. Further consideration of specific management objectives beyond those required by the ESA may occur under a review of the entire salmon FMP which began in October, 1996.

4.0 AMENDMENT ISSUE 3 – UPDATE OF THE SALMON FMP

4.1 NEED, PURPOSE AND DESCRIPTION OF THE PROPOSED ACTION

This amendment issue is an updating of the salmon FMP without any change in management objectives. The updated plan is appended to the end of this document (following Appendix A) and incorporates the Council's final recommendations for the other salmon issues in Amendment 12.

The updated FMP uses the comprehensive 1984 framework plan amendment (Amendment 6) as its primary base document. Since no comprehensive FMP has ever been published since that time, the current salmon FMP is scattered between the framework amendment and individual documents for amendments 7 through 11.

The updated FMP is designed to be the operative salmon FMP rather than an amendment to any existing document. It incorporates or references all the parts required for a complete FMP, but contains only the operative language necessary to understand and implement the Council's salmon management plan. In this way, it will be much easier for the public to review and understand the FMP in any future amendment considerations.

The numbering of the updated framework FMP sections has been completely changed to improve the layout of the plan and allow for easier updates in the future. Amendments following the framework plan have been incorporated from their original documents directly into the updated FMP. The incorporated amendments are noted at the beginning and ending of each amended section.

4.2 COUNCIL RECOMMENDATION

The Council recommends adoption of the updated salmon FMP.

5.0 REGULATORY IMPACT REVIEW

5.1 INTRODUCTION

A Regulatory Impact Review (RIR) is required by National Marine Fisheries Service (NMFS) for all regulatory actions that either implement a new fishery management plan (FMP) or significantly amend an existing FMP. The RIR provides information from which to determine if a proposed regulatory action is likely to be economically significant.

Executive Order (EO) 12866 plays an integral part in the RIR by providing criteria to determine whether a proposed regulation is a "significant action." Section 1 of the order deals with the regulatory philosophy and principles that are to guide agency development of regulations. The regulatory philosophy stresses that agencies should assess all costs and benefits of all regulatory alternatives. In choosing among regulatory approaches, the philosophy is to choose those approaches that maximize net benefits to society.

5.2 DESCRIPTION AND ANALYSIS OF THE PROPOSED ACTION AND ITS IMPACTS

This RIR analyzes or references the analysis of three FMP amendment issues which together constitute Amendment 12 for the salmon FMP and Amendment 10 for the Groundfish FMP. Only Amendment Issue 1 (retention of salmon bycatch in trawl fisheries) requires the promulgation of regulations.

Amendment Issue 1 concerns the retention of salmon bycatch in groundfish trawl net fisheries and requires amendment of both the Pacific Coast salmon and groundfish FMPs. Issue 2 concerns incorporating management objectives in the salmon FMP for species listed under the Endangered Species Act. Issue 3 is an editorial update of the salmon FMP. The table below references the sections of each issue which deal with the aspects of the proposed action that are necessary for the RIR.

Statement, Description or Analysis	Section Reference or Comment		
	Issue 1 – Salmon Bycatch Retention	Issue 2 – Listed Species Goals	Issue 3 – FMP Update
Problem Statement/Management Objectives	2.2	3.1	4.0
Management Alternatives	2.3	3.2	Not Applicable
Analysis of Impacts	2.4	3.3	Not Applicable
Ecological	2.4.1	3.3.1	
Social and Economic	2.4.2	3.3.2	
Administrative	2.4.3	3.3.3	

5.3 ECONOMIC SIGNIFICANCE OF THE PROPOSED ACTION

Under EO 12866, a significant regulatory action is one likely to:

- (1) have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, productivity, competition, jobs, the environment, public health or safety, or State, local or tribal governments or communities;
- (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) raise novel legal or policy issues arising out of legal mandates, the Presidents priorities, or the principles set forth in EO 12866).

For Amendment Issue 1 (Section 2.0), the local community income impacts from the shore-based whiting fishery in 1995 were estimated at about \$44 million. It is estimated that status quo management could have a negative impact on this income of from \$9 to \$44 million (personal communication from Dr. Hans Radtke after consultation with Dr. Michael Morrissey, Oregon State University Seafood Lab, Astoria, Oregon). The proposed alternative to status quo would be neutral or positive with respect to the shore-based industry. Amendment Issues 2 and 3 only clarify implementation of the current salmon FMP and have no economic significance.

Based on the information reviewed or referenced above, the actions contemplated in these amendments are not significant with regard to the criteria listed in EO 12866 and do not constitute a significant regulatory action.

5.4 REGULATORY FLEXIBILITY ACT CONSIDERATIONS

The Regulatory Flexibility Act (RFA) provides guidance on minimizing the adverse impacts from burdensome regulations and record keeping requirements on small businesses, small organizations and small government entities. It requires a determination as to whether a proposed action will have a significant impact on a large number of the small entities.

Only Amendment Issue 1 (retention of salmon bycatch in the groundfish trawl fisheries) has any potential for impacting small entities. Many of the processors and catcher boats in the shore-based whiting fishery are small business entities with regard to the RFA. Without continued authorization by experimental fishing permits, status quo management which forbids retention of salmon bycatch could negatively impact small business entities as described in Section 2.4.2. Representatives of these entities have participated in Council meetings in which the proposed amendment has been preliminarily drafted and reviewed. Implementation of the proposed amendment alternative to allow salmon bycatch retention would be neutral with respect to the current management practice and should not be a significant economic impact on a substantial number of small entities.

The proposed action does not create regulations that conflict with any state regulations or other federal laws.

5.5 PAPERWORK REDUCTION ACT

The major purposes of the Paperwork Reduction Act of 1980 are (1) to minimize the federal paperwork burden for individuals, small businesses, state, and local governments; (2) to minimize the cost to the federal government of collecting, maintaining, using, and disseminating information; and (3) to ensure that the collection, maintenance, use and dissemination of information by the federal government is consistent with applicable laws relating to confidentiality.

The proposed action does not require any new federal collection of data, report requirements or record keeping. The proposed action also does not preclude the development of a federal salmon bycatch observation program in the future which could require new reporting requirements if and when it were developed.

6.0 RELATIONSHIP TO OTHER EXISTING LAWS AND POLICIES

6.1 ENDANGERED SPECIES ACT AND MARINE MAMMAL PROTECTION ACT

The purposes of the Endangered Species Act (ESA) are to provide a means whereby the ecosystems upon which endangered and threatened species depend may be conserved, to provide a program for the conservation of such endangered and threatened species, and to take such steps as may be appropriate to achieve the objectives of the treaties and conventions created for these purposes. Section 7 of the ESA requires all federal agencies to ensure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of any endangered or threatened species.

The purpose of the Marine Mammal Protection Act is to protect marine mammals and to prevent certain marine mammal species and stocks from falling below their optimum sustainable population.

Endangered or threatened species under the ESA that may be present within the Council management area include the following.

Endangered: Snake River Sockeye Salmon
Sacramento Winter Chinook Salmon
Brown Pelican

Threatened: Snake River Fall Chinook Salmon
Snake River Spring/Summer Chinook Salmon
Central California Coho Salmon
Umpqua River Cutthroat Trout
Stellar Sea Lion

In addition, several stocks of steelhead and coastal coho salmon have been proposed for listing and are currently under review.

The actions proposed in these salmon and groundfish FMP amendments will not have a significant impact on endangered, threatened or candidate species.

6.2 COASTAL ZONE MANAGEMENT ACT

The Council believes the proposed actions are consistent to the maximum extent practical with applicable state coastal zone management programs (see Appendix C of Amendment 11 to the salmon FMP for a full description of the state programs). The NMFS will correspond with the responsible state agencies under Section 307 of the Coastal Zone Management Act to obtain their concurrence in this finding.

6.3 NORTHWEST POWER PLANNING ACT

The Northwest Power Planning Act (NPPA) of 1980 placed great emphasis on protection, mitigation and enhancement of fish and wildlife and their habitat within the Columbia River Basin. The Columbia Basin salmon runs are historically important contributors to the ocean salmon fisheries within the Council's jurisdiction north of Cape Falcon, Oregon.

Proposed actions to accomplish the NPPA goals for fish and wildlife were adopted by the Northwest Power Planning Council in 1982 and amended in 1987 and 1992. The Council, NMFS, states and treaty Indian tribes have participated with the Northwest Power Planning Council in developing and carrying out the fishery provisions of the NPPA. The objectives of these fishery related activities were found to be generally consistent and compatible with the conservation and management goals of the salmon FMP.

The proposed salmon management action is compatible with the current fish and wildlife program of the Northwest Power Planning Council.

6.4 PACIFIC SALMON TREATY ACT

The Pacific Salmon Treaty Act (PSTA) of 1985 was established to implement the Pacific Salmon Treaty between the U.S. and Canada. The treaty provides for bilateral cooperation in salmon management, research and enhancement by establishing a bilateral commission with coastwide responsibilities for management of "intercepting" salmon fisheries. The PSTA provides for coordination with the Council-managed fisheries by requiring that at least one representative to the PSC's southern panel be a voting member of the Council and by requiring consultation with the Council in the promulgation of regulations necessary to carry out the obligations under the treaty.

The proposed actions are consistent with the management requirements of the PSTA.

6.5 EXECUTIVE ORDER 12612 (FEDERALISM)

Executive Order (EO) 12612 of October 26, 1987, provides federal agencies with guidance on the formulation and implementation of policies that have federalism implications. Federal agencies are to examine the constitutional and statutory authority supporting any federal action that would limit the policy-making discretion of the states.

The proposed action does not have sufficient federalism implications to require the preparation of a federalism assessment.

6.6 FEDERALLY RECOGNIZED INDIAN FISHING RIGHTS

Several Indian tribes which fish in Council-managed waters or whose fisheries may be impacted by Council managed ocean fisheries possess federally recognized fishing rights. Ocean fishing tribes with treaty fishing rights include the Makah, Quileute, Hoh, and Quinault. Other tribes with fishing rights that may be impacted by Council management actions include Puget Sound, Columbia River and Klamath River Indian tribes.

The proposed action is consistent with federally recognized Indian fishing rights.

7.0 ENVIRONMENTAL ASSESSMENT

7.1 INTRODUCTION

This environmental assessment (EA) has been prepared according to 40 CFR 1501.3 and 1508.9, and National Oceanic and Atmospheric Administration (NOAA) Administrative Order 216-6 to determine whether an EIS is required for any major action that will have a significant impact on the quality of the human environment. An EIS is not required if the EA concludes there is no significant impact.

7.1.1 Salmon Management Plan History

In 1977, the first Council-prepared ocean salmon fishery management plan (FMP), with accompanying Environmental Impact Statement (EIS), was approved and implemented. A new FMP/EIS was developed for the 1978 season. Since that time, the 1978 FMP has been amended 11 times.

From 1979 to 1983, the FMP was amended annually to establish management measures for each year's fishery and a Supplemental Environmental Impact Statement (SEIS) was prepared for each amendment. In 1984, a framework amendment was implemented and was accompanied by another SEIS. The framework amendment established a mechanism to implement preseason and inseason regulatory adjustments without an FMP amendment.

This proposed amendment would be the sixth amendment since implementation of the framework FMP. The issues contained in Amendment 12 were identified formally during a scoping session at the April 1995 Council meeting.

7.1.2 Groundfish Management Plan History

In 1982, the first Council-prepared groundfish FMP was approved and implemented. Since that time seven amendments have been implemented, including a comprehensive amendment in 1993. At the current time, Amendment 9 concerning the sablefish fishery is in progress. The groundfish issue contained in this amendment (Amendment 10) was identified formally during a scoping session at the April 1995 Council meeting.

7.2 AGENCIES AND PERSONS CONSULTED

Representatives of the following agencies were consulted in formulating the proposed action, considering alternatives and preparing this document.

- Alaska Department of Fish and Game
- California Department of Fish and Game
- Idaho Department of Fish and Game
- Oregon Department of Fish and Wildlife
- National Marine Fisheries Service
- Northwest and Columbia River Indian Tribes
- Pacific Fishery Management Council
- Pacific States Marine Fisheries Commission
- Washington Department of Fish and Wildlife
- U.S. Fish and Wildlife Service
- U.S. Coast Guard

Copies of the draft amendment were sent to the other regional management councils. The proposed action does not overlap with any other council's jurisdiction.

7.3 LIST OF PREPARERS

This amendment was prepared by Dr. John Coon of the Council staff with assistance from Dr. Hans Radtke in reporting the socioeconomic data and assessment of impacts for the shore-based whiting fishery. Additional input and review was supplied by the Council's salmon and groundfish advisory panels and teams.

7.4 PUBLIC HEARINGS AND COMMENTS

The Council received testimony on the amendment issues from five persons during public comment periods on October 23 and 25 during a meeting of the full Council in South San Francisco, California. The speakers, representatives of salmon fishing groups, were primarily concerned with the issue of salmon retention in the trawl fisheries.

The Council received four letters commenting on the amendment issues. Three letters dealt with the retention of salmon in trawl fisheries (one in support and two opposed). One letter expressed concern with a potential inconsistency in the language of the framework plan.

7.5 IMPACT ASSESSMENT

The table below identifies the sections of the amendment which discuss the need for action and analyze the potential environmental impacts of the amendment alternatives. There are no significant negative environmental impacts of these amendments. Issues 2 and 3 merely clarify or update the current salmon FMP. Issue 1 proposes an amendment to the groundfish and salmon FMPs which would allow continuation of the present practice of retaining salmon bycatch in the shore-based Pacific whiting fishery which has been authorized under experimental fishery permits since 1992.

Statement, Description or Assessment	Section Reference or Comment		
	Issue 1 – Salmon Bycatch Retention	Issue 2 – Listed Species Goals	Issue 3 – FMP Update
Need for Action	2.2	3.1	4.1
Description of Alternative Actions	2.3	3.2	None
Ecological Impacts	2.4.1	3.3.1	None
Social and Economic Impacts	2.4.2	3.3.2	None
Administrative Impacts	2.4.3	3.3.3	None
Management Interaction Among Issues	None	None	None
Council Recommendation	2.5	3.4	4.2

With regard to the five criteria listed in Section 6.11 of NOAA Administrative Order 216-6, the proposed action has the following effects.

1. *The proposed action is not expected to jeopardize the long-term productive capability of any stocks that may be affected by the action.*

All of the issues considered do not change management which would affect the productive capability of the affected resource.

Issue 1 maintains salmon as a prohibited species in the groundfish trawl fisheries. To retain salmon, a Council approved program must be established to accurately assess the bycatch without

providing any incentive to increase it. Issue 2 simply expresses the Council's ongoing responsibility under the Endangered Species Act (ESA). Issue 3 is editorial in nature.

2. *The proposed action is not expected to damage ocean or coastal habitat.*

The proposed action does not directly or indirectly affect habitat.

3. *The proposed action is not expected to have an adverse impact on public health and safety.*

The proposed action is expected to be neutral with respect to health and safety.

4. *The proposed action is not expected to have an adverse impact on any marine mammal or endangered or threatened species.*

The proposed action is consistent with salmon bycatch monitoring and management required in the Section 7 consultations on the whiting and salmon fisheries. There will be no change in marine mammal interaction and impacts under the proposed action.

5. *The proposed action does not have cumulative adverse impacts that could have an effect on target resource species or any related stocks.*

There are no adverse cumulative impacts associated with the proposed action.

In addition to the five criteria listed above, the proposed action must be considered with regard to socioeconomic effects and controversy. Socioeconomic effects are reported in Sections 2.4.2 and 3.3.3. None of the socioeconomic impacts are expected to be significant. The effects of the proposed action are not considered to be controversial.

The salmon management actions proposed by the Council will have no significant or adverse effect on flood plains or wetlands and trails and rivers listed or eligible for listing on the National Trails and Nationwide Inventory of Rivers.

7.6 FINDING OF NO SIGNIFICANT IMPACT

For the reasons discussed and referenced above, it is determined that the proposed action is not a major action having significant affect on the quality of either the marine or human environment. Accordingly, preparation of an environmental impact statement is not required by section 102(2)(C) of the National Environmental Policy Act or its implementing regulations.

Assistant Administrator for Fisheries, NOAA

Date

APPENDIX A
1996 PACIFIC WHITING SHORESIDE OBSERVATION PROGRAM

1996 Pacific Whiting Shoreside Observation Program

prepared by

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7 October 1996

INTRODUCTION

The Pacific Whiting Shoreside Observation Program was established in 1992 to provide information for evaluating bycatch in the directed Pacific whiting fishery and for evaluating conservation measures adopted to protect salmon and other prohibited species. The program has been continued annually in order to develop an accounting of all catch in targeted whiting trips and to accommodate the landing of non-sorted catch from these trips. In 1995, the program changed its emphasis from a high rate of observation and a focus on prohibited species to a lower rate of observation (10%) and the collection of biological samples and information (otoliths, length, age, weight, sex, maturity) from Pacific whiting and selected bycatch species (yellowtail and widow rockfish, Pacific mackerel, jack mackerel and prohibited species). The program emphasis this year was very similar to 1995.

The program is a cooperative effort between the fishing industry and management agencies to observe and collect information on directed Pacific whiting landings at shoreside processing plants. Participants are mid-water trawlers delivering whiting to shoreside processing plants in California, Oregon and Washington (43 vessels participated in 1996, compared to 35 vessels in 1995), shoreside processing plants receiving whiting, the Pacific Fishery Management Council (PFMC), the National Marine Fisheries Service (NMFS), the Pacific States Marine Fisheries Commission (PSMFC), the Oregon Department of Fish and Wildlife (ODFW), the California Department of Fish and Game (CDFG), and the Washington Department of Fish and Wildlife (WDFW).

1996 RESULTS

The 1996 directed whiting fishery began on 24 March 1996 in California, and on 15 May 1996 in Oregon and Washington. The latter date represents a one-month delay from the season opening date in 1995. Forty three mid-water trawlers, fishing with experimental fishing permits issued NMFS, landed approximately 84,680 mt of unsorted whiting at shoreside processing plants in 1996 through the fishery closure on 10 September 1996. (At-sea processors took 112,776 mt of whiting in 1996 between 15 May and 1 June.) This compares to 35 vessels and about 74,000 mt whiting delivered to shoreside processors in 1995, and 33 vessels and 72,000 mt whiting delivered to shoreside processors in 1994.

Pacific whiting landings in 1996 were observed in the Crescent City, Eureka, Newport, Astoria, Ilwaco and Westport areas. Most mid-water trawlers targeting whiting and delivering fish to onshore processing plants, and most onshore processing plants receiving

0.04 salmon/mt whiting based on salmon turned over to state agencies by processors. (Table 6, Figure 5)

High salmon bycatch rates observed during the first three weeks of the 1995 season led to a one month delay in the opening of the directed whiting fishery in Oregon and Washington in 1996 and the delay seems to have accomplished its purpose. (Table 6, Figure 5) Salmon bycatch rates were highest early in the season; 535 of 642 bycaught salmon landed in Oregon were taken prior to 1 June. Initial bycatch rates in the fishery's first two weeks were approximately 0.1 salmon per metric ton of whiting. This compares to initial 1995 bycatch rates of up to 0.4 salmon per mt whiting in late April. However, it should be noted that salmon bycatch rates during late May were higher in 1996 (0.1 salmon/mt whiting) than in 1995 (approx. 0.05 salmon/mt). The significance of this particular observation - in light of lower overall salmon bycatch and higher whiting landings - is unclear.

Inspection of the length frequency of bycaught salmon landed in Astoria (Figure 6) suggests that many of these fish were recent ocean entrants. In contrast, incidentally caught salmon landed in Newport showed a much more even size distribution. (Figure 7)

Figure 8 compares the rate of salmon bycatch based on observations of whiting landings at shorebased processing plants to the rate of salmon bycatch calculated from salmon turned over to state agencies by those plants.

All of the salmon taken and landed incidentally in the 1996 shoreside whiting fishery and turned over to state agencies were chinook salmon. Of the 642 salmon landed in Oregon and turned over to ODFW, nine were marked hatchery chinook - information on the origins of these fish is not available at this time. Most incidentally taken salmon could not be sexed (n=444); of those which could be sexed, 116 were male and 82 were female. All but twelve of the salmon turned over to state agencies by shoreside processors were subsequently turned over to hunger relief agencies; the remaining twelve fish were destroyed due to poor condition.

Halibut Bycatch

Five Pacific halibut were landed in Oregon by the 1996 whiting shoreside fishery and turned over to ODFW: three in Astoria and two in Newport. These fish were provided to hunger relief agencies.

PROGRAM COSTS

In 1996, the cost of the Oregon-Washington portion of the shoreside observation program was approximately \$60,000 (approximately \$31,000 for coordination and data processing costs, and an estimated \$29,000 for observers). This compares to an overall industry cost of \$57,000 in 1995; the difference is due principally to the longer season and larger volume of whiting harvested. As in 1995, most program funding was provided by industry. Government costs were relatively minor in 1996, as in 1995, and are not included in the above summary. Oregon shoreside processing plants hired four observers to provide observations for five processors. The Washington Department of Fish and Wildlife and the California Department of Fish and Game provided shoreside landing observations with existing staff.

Original estimates of 1996 program fixed costs (\$35,698) were based on the fishery running through the full month of September. The coordinator and data entry technician were shifted to other funding in mid-September 1996, and this saving was passed on to industry in the form of reduced billings.

1997 PACIFIC WHITING SHORESIDE OBSERVATION PROGRAM

In October 1996, the Pacific Fishery Management Council will be considering adoption of amendments to both the salmon and groundfish management plans; these amendments could eliminate that need for experimental fishing permits (EFPs) in 1997. At this time, we are uncertain how this might change the nature of the shoreside observation program in 1997.

Table 1A. 1996 OREGON, WASHINGTON, AND CALIFORNIA, WEEKLY WHITING LANDINGS AND BYCATCH

FISHING WEEK	START DATE	END DATE	WHITING LANDINGS	WHITING MT	TRIPS OBS.	MT		SALMON OBS.	YTAIL MT	WIDOW MT	SABLE MT	WACKEREI MT	MSC ROCK MT	MSC FISH MT
						WHITING OBS.	WHITING OBS.							
1	3/24/96	3/30/96	7	154.54	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	3/31/96	4/6/96	2	77.66	1	24.70	0	24.70	0.00	0.00	0.00	0.00	0.00	0.00
3	4/7/96	4/13/96	7	302.33	2	82.00	1	82.00	0.00	0.00	0.01	0.00	0.22	0.04
4	4/14/96	4/20/96	4	105.22	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.02
5	4/21/96	4/27/96	4	155.61	1	24.73	0	24.73	0.00	0.11	0.00	0.00	0.00	0.04
6	4/28/96	5/4/96	7	270.84	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	5/5/96	5/11/96	9	352.76	1	49.36	0	49.36	0.00	0.02	0.00	0.00	0.00	0.01
8	5/12/96	5/18/96	26	1,117.61	4	195.64	5	195.64	7.93	1.70	1.03	0.27	0.12	4.36
9	5/19/96	5/25/96	54	3,227.01	11	650.37	163	650.37	12.95	6.03	3.30	49.68	2.49	11.88
10	5/26/96	6/1/96	45	2,663.02	5	325.27	0	325.27	5.67	11.64	4.70	4.96	0.69	1.25
11	6/2/96	6/8/96	37	2,403.95	3	209.14	0	209.14	2.02	25.24	1.02	0.65	13.61	0.74
12	6/9/96	6/15/96	38	2,148.46	4	168.77	3	168.77	3.15	25.40	0.93	26.33	0.31	1.89
13	6/16/96	6/22/96	79	4,648.39	15	756.99	2	756.99	27.32	28.67	0.83	7.01	2.65	3.21
14	6/23/96	6/29/96	95	6,177.70	5	261.31	0	261.31	21.40	44.09	2.85	11.34	13.85	0.74
15	6/30/96	7/6/96	82	5,538.95	9	750.20	1	750.20	13.98	10.46	2.50	4.73	3.97	0.69
16	7/7/96	7/13/96	82	5,121.36	10	677.52	0	677.52	33.83	14.90	0.70	18.60	3.76	0.60
17	7/14/96	7/20/96	94	6,013.18	8	454.89	0	454.89	73.68	81.47	0.34	9.85	4.23	0.85
18	7/21/96	7/27/96	100	6,813.68	12	812.87	0	812.87	49.50	95.03	1.37	4.18	1.74	0.97
19	7/28/96	8/3/96	96	6,357.15	6	309.26	0	309.26	36.53	56.87	0.97	4.66	2.08	3.38
20	8/4/96	8/10/96	88	5,428.82	10	729.73	1	729.73	78.62	68.92	1.18	9.10	4.03	7.82
21	8/11/96	8/17/96	100	6,745.48	16	1,061.84	1	1,061.84	49.68	46.98	2.77	44.34	3.01	16.41
22	8/18/96	8/24/96	80	5,511.31	8	627.38	0	627.38	39.49	36.51	9.96	17.39	5.71	6.46
23	8/25/96	8/31/96	87	5,567.87	12	674.55	2	674.55	20.49	28.91	0.66	31.97	0.52	23.98
24	9/1/96	9/7/96	86	5,130.52	11	702.50	7	702.50	32.81	10.24	1.96	70.98	0.45	4.71
25	9/8/96	9/14/96	39	2,646.45	5	370.47	0	370.47	5.43	8.31	0.12	18.44	0.41	1.24
YEAR TOTAL			1348	84,679.83	159	9,919.46	186	9,919.46	514.48	601.49	37.21	334.48	63.84	91.25

Table 1B. 1996 OREGON WEEKLY WHITING LANDINGS AND BYCATCH

FISHING WEEK	START DATE	END DATE	WHITING LANDINGS	WHITING MT	TRIPS OBS.	MT		SALMON OBS.	YTAIL MT	WIDOW MT	SABLE MT	MACKEREL MT	MSC ROCK MT	MSC FISH MT
						WHITING OBS.	WHITING OBS.							
8	5/12/96	5/18/96	22	890.41	4	195.64	5	2.50	1.24	0.92	0.27	0.11	0.34	
9	5/19/96	5/25/96	47	2,609.80	10	538.48	162	11.02	2.79	1.92	49.63	0.58	11.87	
10	5/26/96	6/1/96	35	1,909.57	4	220.58	0	1.39	10.06	0.78	4.24	0.22	0.64	
11	6/2/96	6/8/96	27	1,744.85	2	127.63	0	0.66	3.53	0.57	0.46	12.90	0.03	
12	6/9/96	6/15/96	23	1,315.63	2	86.24	1	0.43	0.50	0.77	0.43	0.18	0.07	
13	6/16/96	6/22/96	67	3,839.69	12	591.38	0	16.91	28.62	0.70	6.72	1.54	3.18	
14	6/23/96	6/29/96	83	5,186.36	5	261.31	0	8.22	18.08	1.18	10.74	13.45	0.74	
15	6/30/96	7/6/96	70	4,638.23	7	569.76	1	5.29	9.26	2.50	3.13	2.49	0.69	
16	7/7/96	7/13/96	68	4,097.20	8	569.18	0	28.05	14.57	0.64	17.89	2.86	0.54	
17	7/14/96	7/20/96	80	5,024.58	7	409.53	0	46.55	73.98	0.30	8.85	4.02	0.83	
18	7/21/96	7/27/96	84	5,590.84	9	580.74	0	31.72	63.86	1.31	3.55	0.86	0.96	
19	7/28/96	8/3/96	85	5,657.48	6	309.26	0	33.71	54.32	0.32	4.27	0.94	2.09	
20	8/4/96	8/10/96	78	4,572.58	8	543.95	0	69.71	64.29	0.57	7.22	1.04	7.34	
21	8/11/96	8/17/96	87	5,615.50	16	1,061.84	1	27.66	41.25	2.77	44.34	3.01	16.41	
22	8/18/96	8/24/96	75	5,246.57	8	627.38	0	38.90	36.51	9.96	17.39	5.71	6.46	
23	8/25/96	8/31/96	78	5,148.97	12	674.55	2	18.04	28.53	0.66	31.97	0.52	23.98	
24	9/1/96	9/7/96	80	4,824.38	11	702.50	7	30.98	9.97	1.96	70.98	0.45	4.45	
25	9/8/96	9/14/96	39	2,646.45	5	370.47	0	5.43	8.31	0.12	18.44	0.41	1.24	
YEAR TOTAL			1128	70,559.06	136	8,440.40	179	377.14	469.64	27.93	300.52	51.29	81.85	

Table 1C. 1996 WASHINGTON WEEKLY WHITING LANDINGS AND BYCATCH

FISHING WEEK	START DATE	END DATE	WHITING LANDINGS	WHITING MT	TRIPS OBS.	WHITING		SALMON OBS.	YTAIL MT	WIDOW MT	SABLE MT	MACKEREL MT	MSC ROCK MT	MSC FISH MT
						OBS.	MT							
8	5/12/96	5/18/96	2	197.30	0	0.00	0	0	5.43	0.46	0.11	0.00	0.02	4.00
9	5/19/96	5/25/96	7	617.21	1	111.89	1	1	1.93	3.24	1.38	0.05	1.91	0.01
10	5/26/96	6/1/96	10	753.45	1	104.69	0	0	4.28	1.57	3.92	0.72	0.48	0.61
11	6/2/96	6/8/96	8	605.51	1	81.51	0	0	1.37	21.72	0.46	0.18	0.71	0.69
12	6/9/96	6/15/96	10	655.87	1	48.68	2	2	2.72	24.85	0.12	24.77	0.13	1.77
13	6/16/96	6/22/96	8	635.69	2	132.78	0	0	10.41	0.03	0.07	0.26	1.11	0.00
14	6/23/96	6/29/96	10	906.38	0	0.00	0	0	13.18	21.23	1.67	0.40	0.40	0.00
15	6/30/96	7/6/96	9	754.26	2	180.44	0	0	8.70	1.19	0.00	1.51	1.48	0.00
16	7/7/96	7/13/96	9	724.86	1	43.38	0	0	5.76	0.31	0.04	0.71	0.90	0.06
17	7/14/96	7/20/96	10	844.94	1	45.35	0	0	27.13	7.48	0.02	0.97	0.21	0.00
18	7/21/96	7/27/96	11	949.06	2	187.12	0	0	17.78	31.15	0.03	0.57	0.88	0.01
19	7/28/96	8/3/96	9	633.17	0	0.00	0	0	2.83	1.71	0.65	0.40	1.14	1.28
20	8/4/96	8/10/96	10	856.24	2	185.77	1	1	8.90	4.62	0.61	1.88	2.98	0.48
21	8/11/96	8/17/96	13	1,129.98	0	0.00	0	0	22.03	5.73	0.00	0.00	0.00	0.00
22	8/18/96	8/24/96	5	264.75	0	0.00	0	0	0.59	0.00	0.00	0.00	0.00	0.00
23	8/25/96	8/31/96	9	418.90	0	0.00	0	0	2.45	0.39	0.00	0.00	0.00	0.00
24	9/1/96	9/7/96	6	306.14	0	0.00	0	0	1.83	0.27	0.00	0.00	0.00	0.26
YEAR TOTAL			146	11,253.70	14	1,121.62	4	4	137.32	125.95	9.09	32.42	12.33	9.17

Table 1D. 1996 CALIFORNIA WEEKLY SHORESIDE WHITING LANDINGS AND BYCATCH

FISHING WEEK	START DATE	END DATE	WHITING LANDINGS	WHITING MT	TRIPS OBS.	WHITING OBS.	SALMON OBS.	YTAIL MT	WIDOW MT	SABLE MT	MACKEREL MT	MSC ROCK MT	MSC FISH MT
1	3/24/96	3/30/96	7	154.54	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00
2	3/31/96	4/6/96	2	77.66	1	24.70	0	0.00	0.00	0.00	0.00	0.00	0.00
3	4/7/96	4/13/96	7	302.33	2	82.00	1	0.00	0.00	0.01	0.00	0.22	0.04
4	4/14/96	4/20/96	4	105.22	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.02
5	4/21/96	4/27/96	4	155.61	1	24.73	0	0.00	0.11	0.00	0.00	0.00	0.04
6	4/28/96	5/4/96	7	270.84	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00
7	5/5/96	5/11/96	9	352.76	1	49.36	0	0.00	0.02	0.00	0.00	0.00	0.01
8	5/12/96	5/18/96	2	29.90	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.01
9	5/19/96	5/25/96	0	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00
10	5/26/96	6/1/96	0	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00
11	6/2/96	6/8/96	2	53.59	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.01
12	6/9/96	6/15/96	5	176.96	1	33.85	0	0.00	0.05	0.05	1.13	0.00	0.04
13	6/16/96	6/22/96	4	173.02	1	32.83	2	0.00	0.03	0.06	0.03	0.00	0.03
14	6/23/96	6/29/96	2	84.95	0	0.00	0	0.00	4.78	0.00	0.20	0.00	0.01
15	6/30/96	7/6/96	3	146.46	0	0.00	0	0.00	0.01	0.00	0.08	0.00	0.00
16	7/7/96	7/13/96	5	299.30	1	64.96	0	0.02	0.03	0.02	0.00	0.00	0.00
17	7/14/96	7/20/96	4	143.66	0	0.00	0	0.00	0.01	0.02	0.03	0.00	0.02
18	7/21/96	7/27/96	5	273.78	1	45.02	0	0.00	0.03	0.04	0.06	0.00	0.01
19	7/28/96	8/3/96	2	66.50	0	0.00	0	0.00	0.85	0.00	0.00	0.00	0.00
YEAR TOTAL			74	2,867.06	9	357.45	3	0.02	5.90	0.19	1.54	0.22	0.23

Table 2.

**Cumulative Shoreside Whiting Fishery
Final Report. Midwater Trawl Only
OREGON, WASHINGTON, & CALIFORNIA
(Best Available Data as of 9/27/96)**



All Ports and Plants Cumulative Whiting Report, 3/24/96 thru 9/11/96

	Shoreside Observations	EFP Total	Fishery Total*
Whiting Harvest (mt)	9,919	84,680	84,731
Number of Deliveries**	160	1,348	1,399
Salmon Catch (no)	186		
Misc Rockfish (lb)	12,299	140,735	140,755
Yellowtail Rockfish (lb)	91,595	1,134,217	1,136,639
Widow Rockfish (lb)	78,139	1,326,048	1,366,689
Sablefish (lb)	7,685	82,037	82,040
Mackerel (lb)	194,017	737,401	737,619
Misc. Other Fish (lb)	50,343	201,158	201,247
Salmon Rate (no/mt)	0.019		
Rockfish Rate (lb/mt)	1.24	1.662	1.661
Yellowtail Rate (lb/mt)	9.234	13.394	13.415
Widow Rate (lb/mt)	7.877	15.66	16.13
Sablefish Rate (lb/mt)	0.775	0.969	0.968
Mackerel Rate (lb/mt)	19.559	8.708	8.705
Other Fish Rate (lb/mt)	5.075	2.376	2.375
% of Deliveries Observed	11.9		

* this column includes all deliveries > 0 lbs. & non EFP trips.

** number of deliveries based on fish ticket information

Table 3A.



1996 Cumulative Shoreside Whiting Fishery Final Report
OREGON Shoreside Fishery, Midwater Trawl Only
 (Best Available Data as of 9/27/96)

All Ports and Plants Cumulative Whiting Report, 4/1/96 thru 9/11/96

	Shoreside Observations	EFP Total	FISHERY *TOTAL
Whiting Harvest (mt)	8,440	70,559	70,581
Number of Deliveries**	137	1,128	1,138
Salmon Catch (no)	179		
Misc Rockfish (lb)	4,275	113,063	113,083
Yellowtail Rockfish (lb)	62,309	831,446	833,868
Widow Rockfish (lb)	57,493	1,035,375	1,076,016
Sablefish (lb)	6,498	61,579	61,582
Mackerel (lb)	187,189	662,531	662,749
Misc. Other Fish (lb)	31,037	180,443	180,532
Salmon Rate (no/mt)	0.021		
Rockfish Rate (lb/mt)	0.506	1.602	1.602
Yellowtail Rate (lb/mt)	7.382	11.784	11.814
Widow Rate (lb/mt)	6.812	14.674	15.245
Sablefish Rate (lb/mt)	0.770	0.873	0.872
Mackerel Rate (lb/mt)	22.178	9.390	9.390
Other Fish Rate (lb/mt)	3.677	2.557	2.558
% of Deliveries Observed	12.1		

* Includes all deliveries with whiting > 0 LBS. and non-EFP landings.

** Number of deliveries based on fish ticket information

Table 3B.

Cumulative, Shoreside Whiting Fishery, Final Report
NEWPORT Shoreside Fishery, Midwater Trawl Only
 (Best Available Data as of 9/27/96)



*All Ports and Plants Cumulative Whiting Report, 4/1/96 THRU 9/11/96

	Shoreside Observations	Fishery Total
Whiting Harvest (mt)	4,788	38,767
Number of Deliveries**	69	529
Salmon Catch (no)	4	
Misc Rockfish (lb)	525	39,407
Yellowtail Rockfish (lb)	20,888	253,867
Widow Rockfish (lb)	40,444	674,119
Sablefish (lb)	987	10,997
Mackerel (lb)	75,499	373,386
Misc. Other Fish (lb)	2,120	9,463
Salmon Rate (no/mt)	0.001	
Rockfish Rate (lb/mt)	0.110	1.017
Yellowtail Rate (lb/mt)	4.363	6.548
Widow Rate (lb/mt)	8.447	17.389
Sablefish Rate (lb/mt)	0.206	0.284
Mackerel Rate (lb/mt)	15.769	9.631
Other Fish Rate (lb/mt)	0.443	0.244
% of Deliveries Observed	13.0	

* Includes all trips with whiting lbs>0

** Number of deliveries based on fish ticket information

Table 3C.

Cumulative, Shoreside Whiting Fishery, Final Report
ASTORIA Shoreside Fishery, Midwater Trawl Only
 (Best Available Data as of 9/27/96)



*All Ports and Plants Cumulative Whiting Report, 4/1/96 THRU 9/11/96

	Shoreside Observations	Fishery Total
Whiting Harvest (mt)	3,653	31,814
Number of Deliveries**	68	609
Salmon Catch (no)	175	
Misc Rockfish (lb)	3,750	73,676
Yellowtail Rockfish (lb)	41,421	580,001
Widow Rockfish (lb)	17,049	401,897
Sablefish (lb)	5,511	50,585
Mackerel (lb)	111,690	289,363
Misc. Other Fish (lb)	28,917	171,069
Salmon Rate (no/mt)	0.048	
Rockfish Rate (lb/mt)	1.027	2.316
Yellowtail Rate (lb/mt)	11.34	18.231
Widow Rate (lb/mt)	4.668	12.633
Sablefish Rate (lb/mt)	1.509	1.590
Mackerel Rate (lb/mt)	30.578	9.095
Other Fish Rate (lb/mt)	7.917	5.377
% of Deliveries Observed	11.2	

* Includes all trips with whiting lbs>0

** Number of deliveries based on fish ticket information

Table 4.

Cumulative, Shoreside Whiting Fishery, Final Report
WASHINGTON Shoreside Fishery, Midwater Trawl Only
 (Best Available Data as of 9/27/96)



*All Ports and Plants Cumulative Whiting Report, 4/1/96 THRU 9/11/96

	Shoreside Observations	Fishery Total
Whiting Harvest (mt)	1,122	11,254
Number of Deliveries**	14	146
Salmon Catch (no)	4	
Misc Rockfish (lb)	7,541	27,188
Yellowtail Rockfish (lb)	29,286	302,729
Widow Rockfish (lb)	20,351	277,661
Sablefish (lb)	1,051	20,036
Mackerel (lb)	5,978	71,481
Misc. Other Fish (lb)	19,220	20,211
Salmon Rate (no/mt)	0.004	
Rockfish Rate (lb/mt)	6.724	2.416
Yellowtail Rate (lb/mt)	26.111	26.900
Widow Rate (lb/mt)	18.144	24.673
Sablefish Rate (lb/mt)	0.937	1.780
Mackerel Rate (lb/mt)	5.329	6.352
Other Fish Rate (lb/mt)	17.136	1.796
% of Deliveries Observed	9.6	

* Includes all trips with whiting lbs>0

** Number of deliveries based on fish ticket information

Table 5.



Cumulative Shoreside Whiting Fishery, Final Report
CALIFORNIA Shoreside Fishery, Midwater Trawl Only
 (Best Available Data as of 9/27/96)

All Ports and Plants Cumulative Whiting Report, 3/24/96 thru 9/11/96

	Shoreside Observations	EFP Total	FISHERY *TOTAL
Whiting Harvest (mt)	357	2,867	2,895
Number of Deliveries**	9	74	115
Salmon Catch (no)	3		
Misc Rockfish (lb)	482	484	484
Yellowtail Rockfish (lb)	0	42	42
Widow Rockfish (lb)	295	13,012	13,012
Sablefish (lb)	136	422	422
Mackerel (lb)	851	3,389	3,389
Misc. Other Fish (lb)	86	504	504
Salmon Rate (no/mt)	0.008		
Rockfish Rate (lb/mt)	1.350	0.169	0.167
Yellowtail Rate (lb/mt)	0.000	0.015	0.015
Widow Rate (lb/mt)	0.827	4.538	4.494
Sablefish Rate (lb/mt)	0.381	0.147	0.146
Mackerel Rate (lb/mt)	2.379	1.182	1.170
Other Fish Rate (lb/mt)	0.240	0.176	0.174
% of Deliveries Observed	12.2		

* Includes all deliveries with whiting > 0 LBS. and non-EFP landings.

** Number of deliveries based on fish ticket information

Table 6. Weekly bycatch rate of salmon (# salmon / mt whiting) in the shorebased whiting fishery, 1992-1996. Rates for 1992-1994 are based on observations. Rates for 1995 and 1996 are based on salmon turned over to state agencies by processors.

	WEEK*	1992**	1993	1994	1995***	1996***
MARCH	1					0.000
APRIL	2		0.088	0.042	0.069	0.000
	3		0.076	0.074	0.398	0.003
	4		0.019	0.052	0.422	0.000
	5		0.135	0.031	0.018	0.000
	6		0.038	0.015	0.041	0.000
MAY	7	0.019	0.034	0.002	0.040	0.000
	8	0.097	0.054	0.004	0.019	0.029
	9	0.056	0.014	0.003	0.011	0.136
	10	0.028	0.019	0.000	0.004	0.024
JUNE	11	0.015	0.021	0.017	0.008	0.007
	12	0.004	0.000	0.007	0.032	0.007
	13	0.001	0.001	0.007	0.013	0.000
	14	0.000	0.001	0.001	0.035	0.001
JULY	15	0.000	0.011	0.001	0.024	0.000
	16	0.002	0.010	0.003	0.011	0.004
	17	0.003	0.004	0.001		0.003
	18	0.008	0.002	0.001		0.002
AUGUST	19	0.002	0.003	0.003		0.001
	20	0.004	0.008	0.002		0.001
	21	0.005	0.003	0.001		0.000
	22	0.014	0.003	0.000		0.000
	23	0.015		0.002		0.000
SEPTEMBER	24	0.002		0.004		0.000
	25	0.009		0.008		0.000
	26	0.017		0.001		
	27	0.005		0.003		
OCTOBER	28	0.016		0.010		
	29	0.012		0.000		
	30	0.001		0.002		
	31	0.003		0.039		
	32	0.014				
Rate for year=		0.010	0.010	0.008	0.032	0.008

*Week 1 was 9 days in 1994 (April 15-23) and 8 days in 1995 (April 15-22).

**Oregon Only

***Salmon from all landings

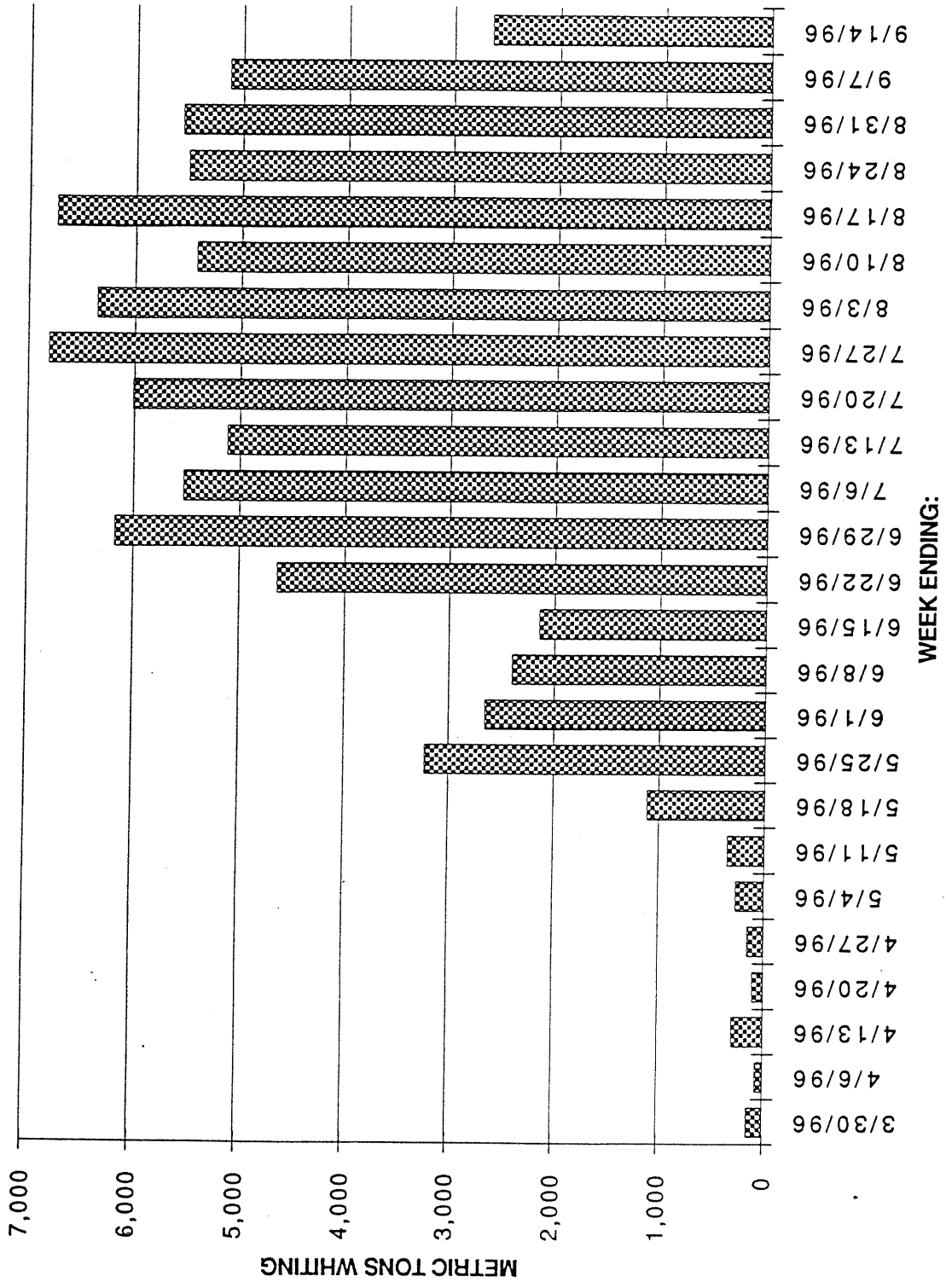


Fig. 1A. 1996 Weekly shore-side whiting landings; Oregon, Washington, and California.

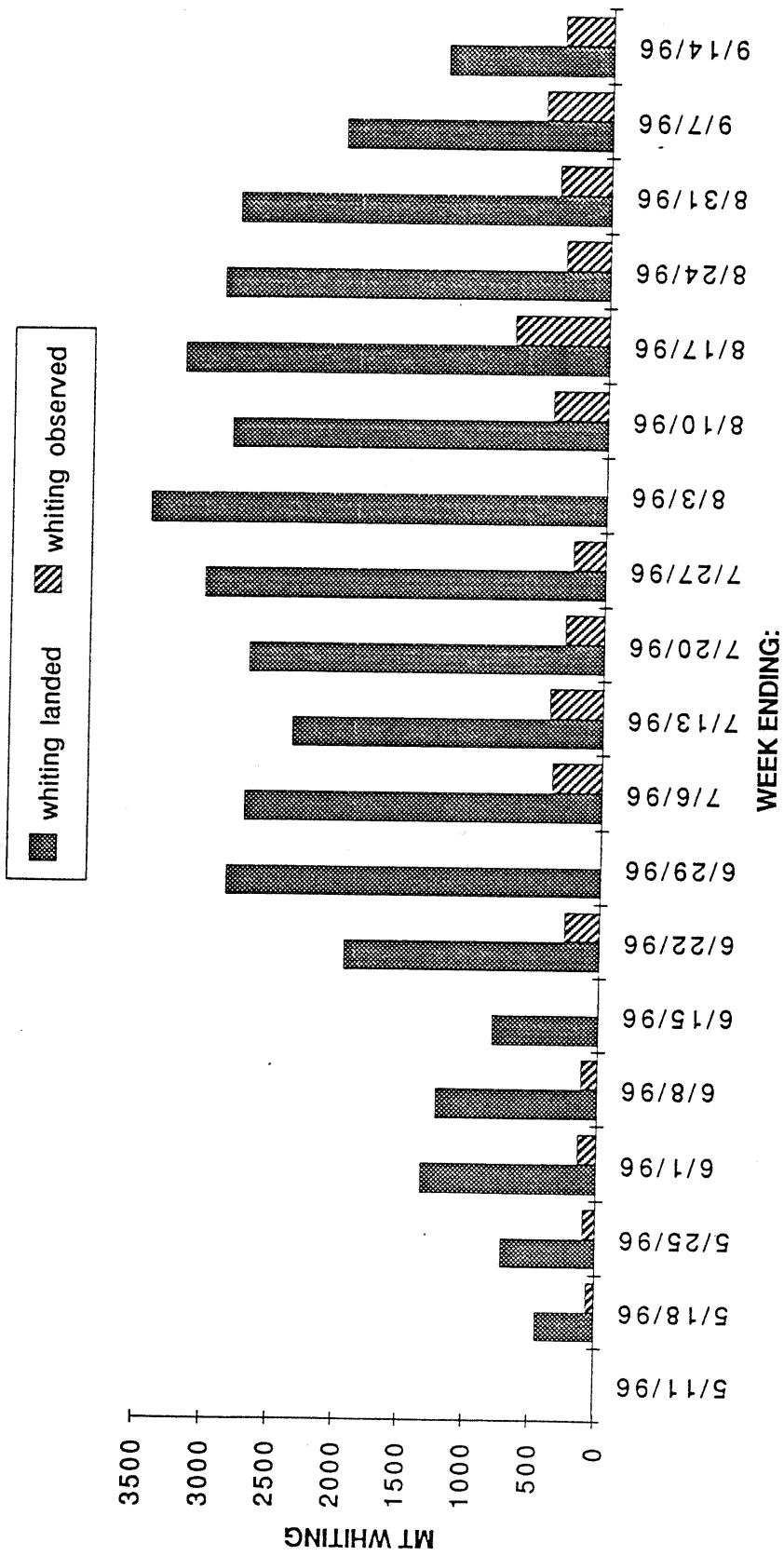


Fig. 1B. Weekly metric tons of whiting landed and observed, Newport, 1996

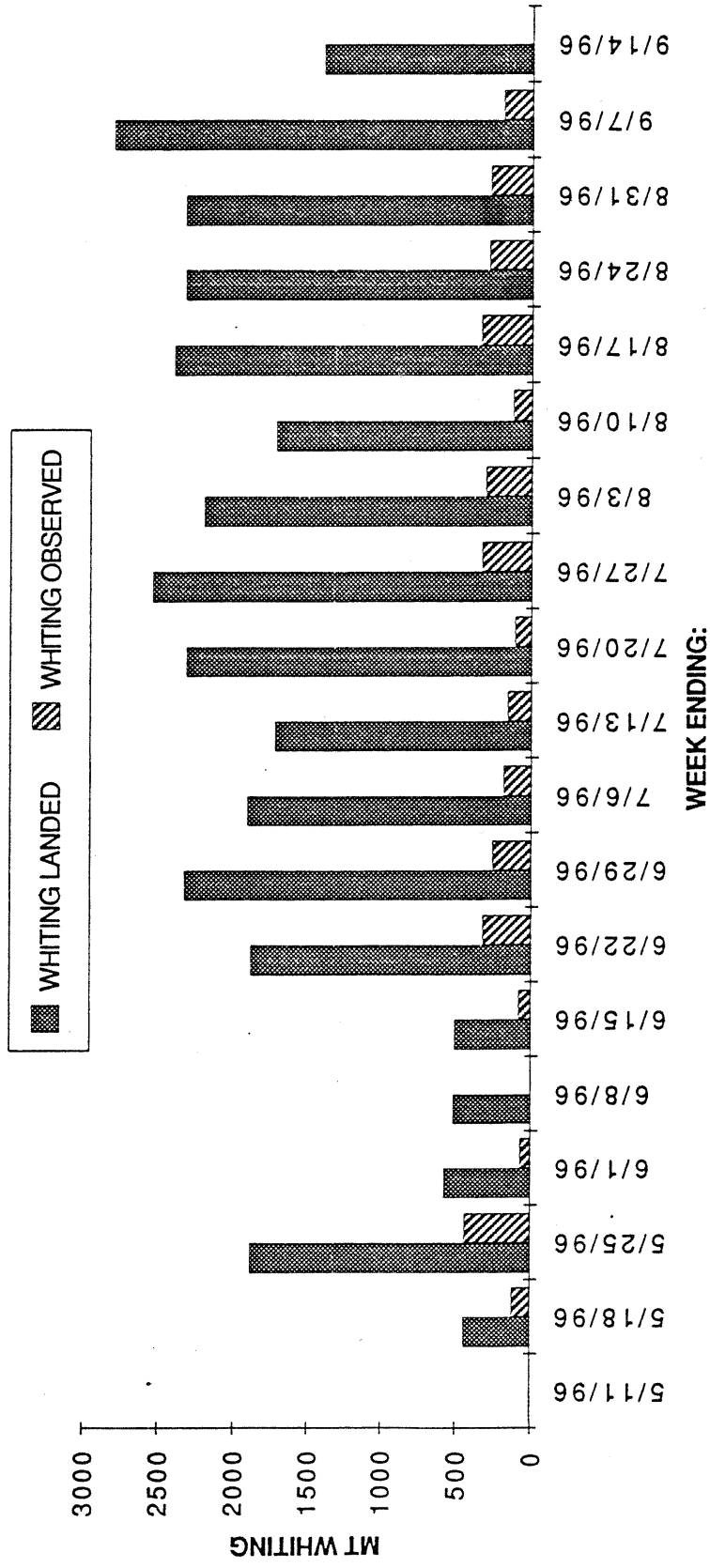


Fig. 1C. Weekly metric tons of whiting landed and observed, Astoria, 1996

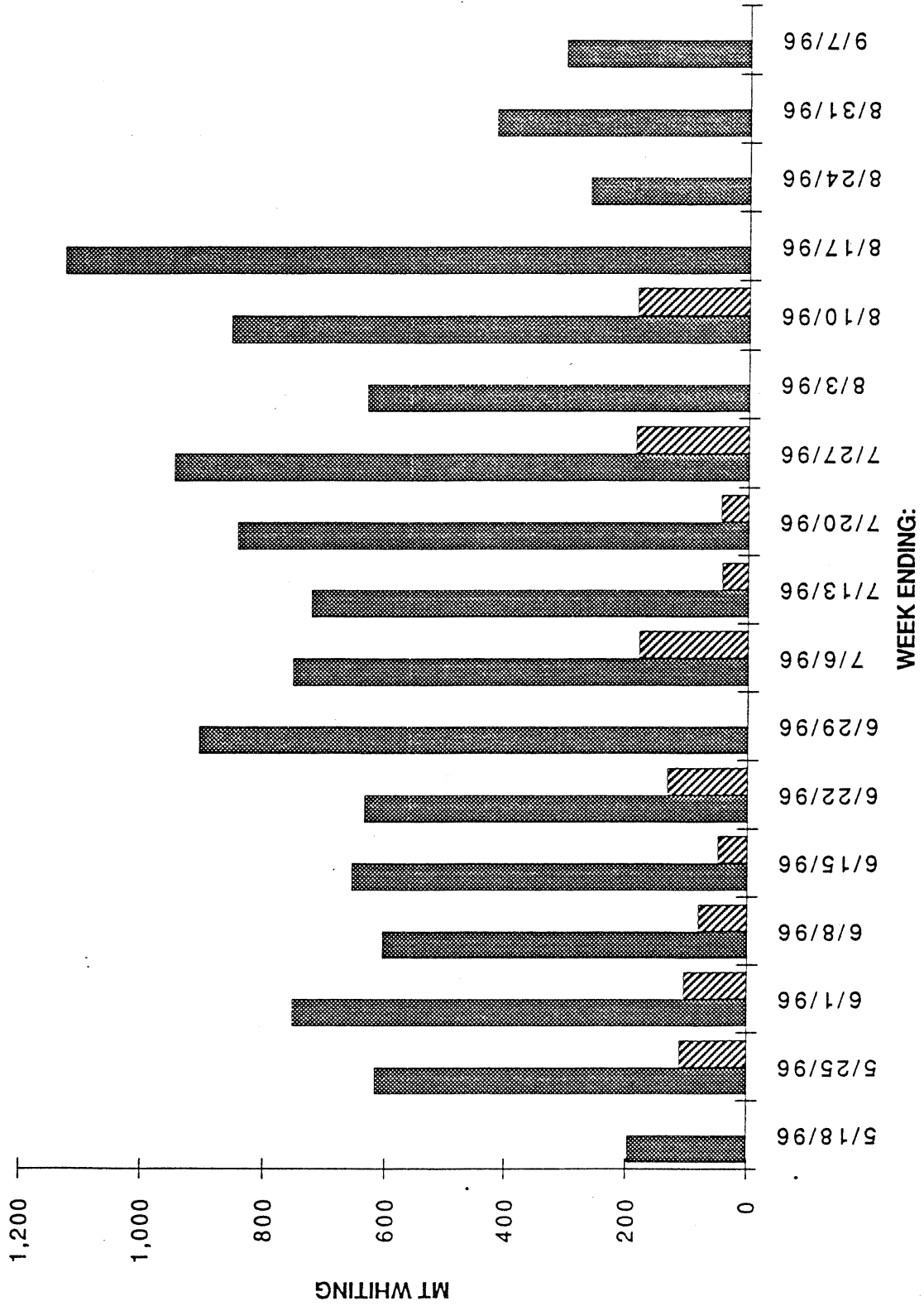


Fig. 1D. Weekly metric tons of whiting landed and observed, Washington, 1996

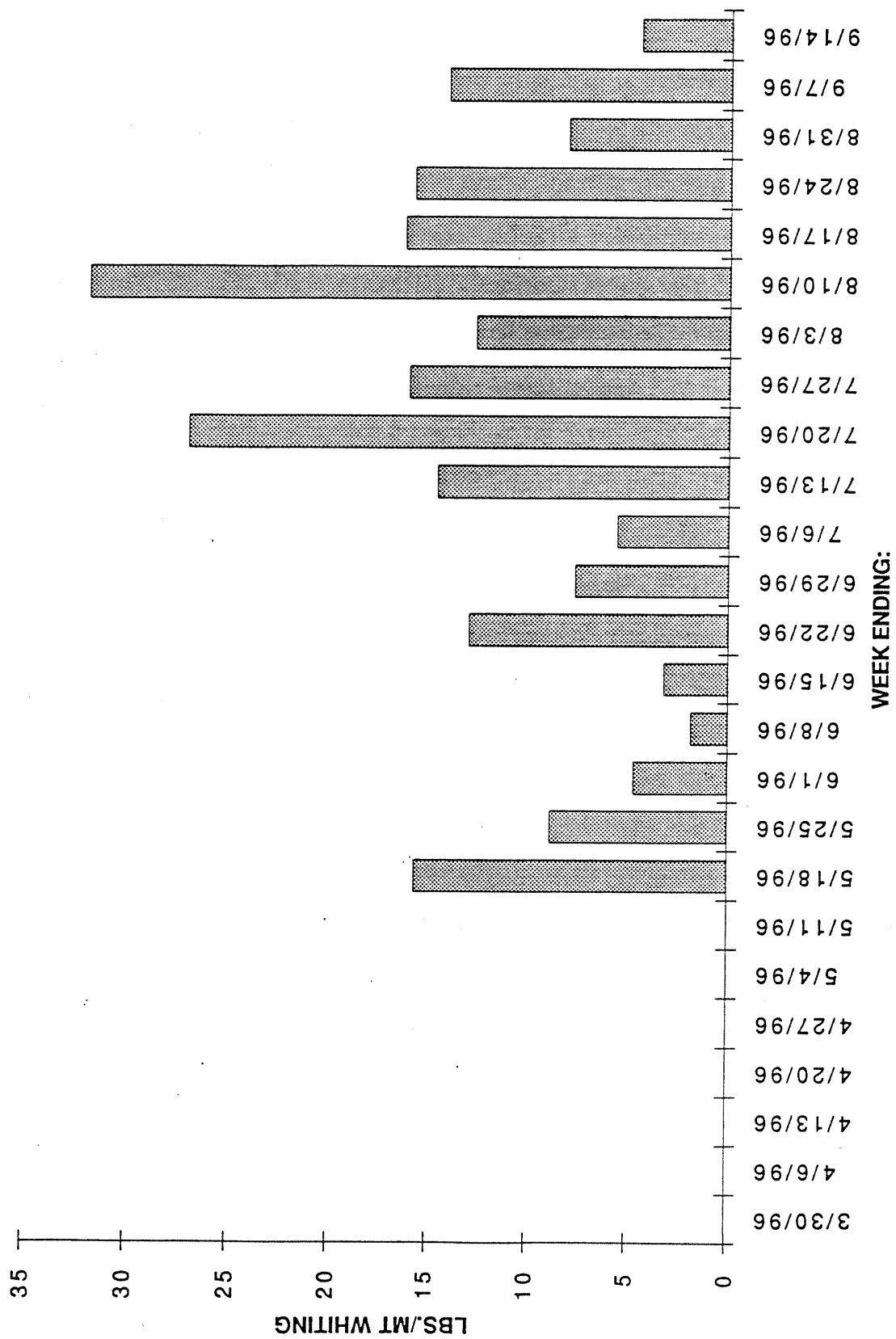


Fig. 2A. Weekly yellowtail rockfish bycatch in the shoreside whiting fishery, all ports, 1996.

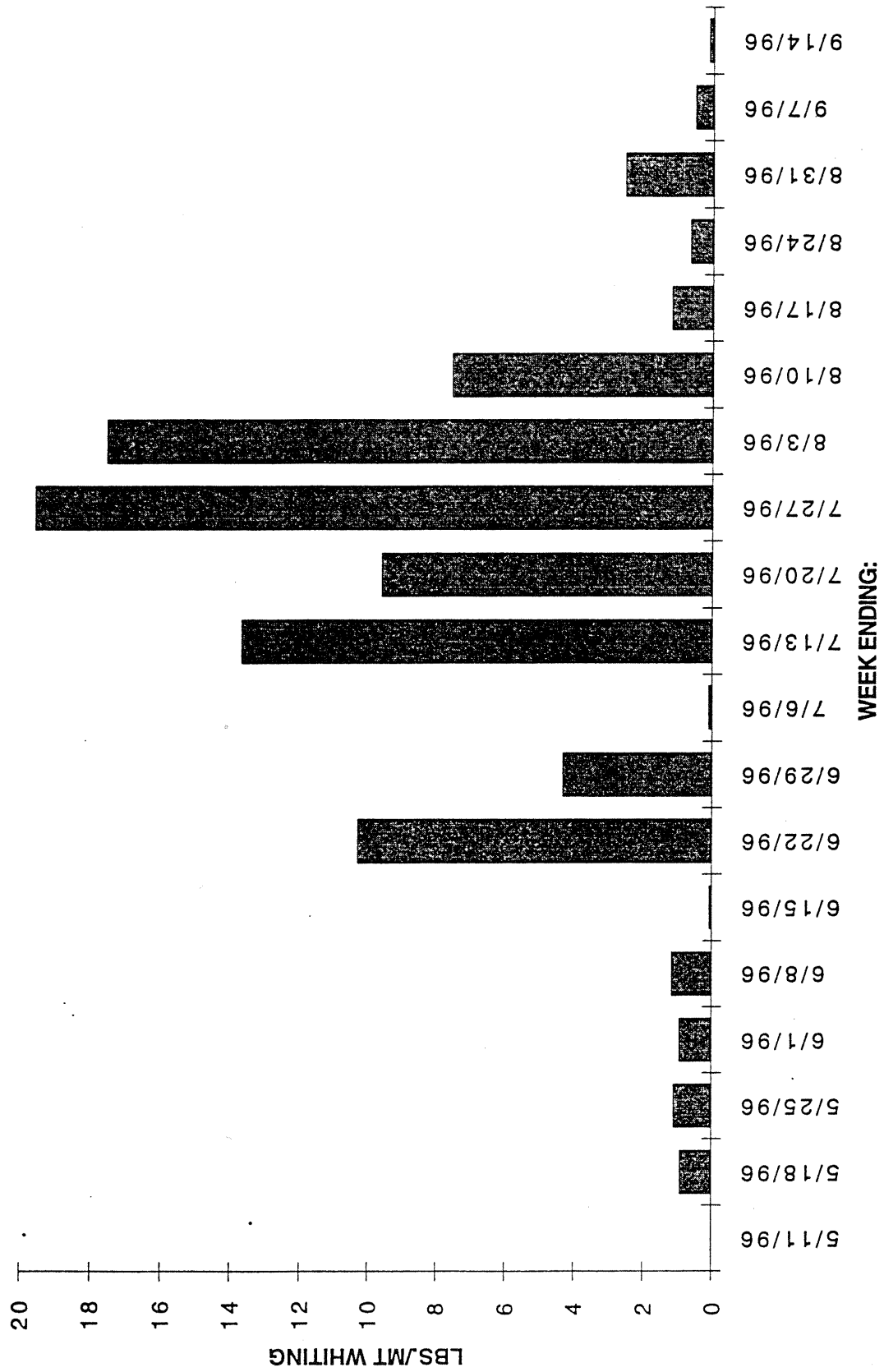


Fig2B. Weekly yellowtail rockfish bycatch in the shoreside whiting fishery, Newport, 1996

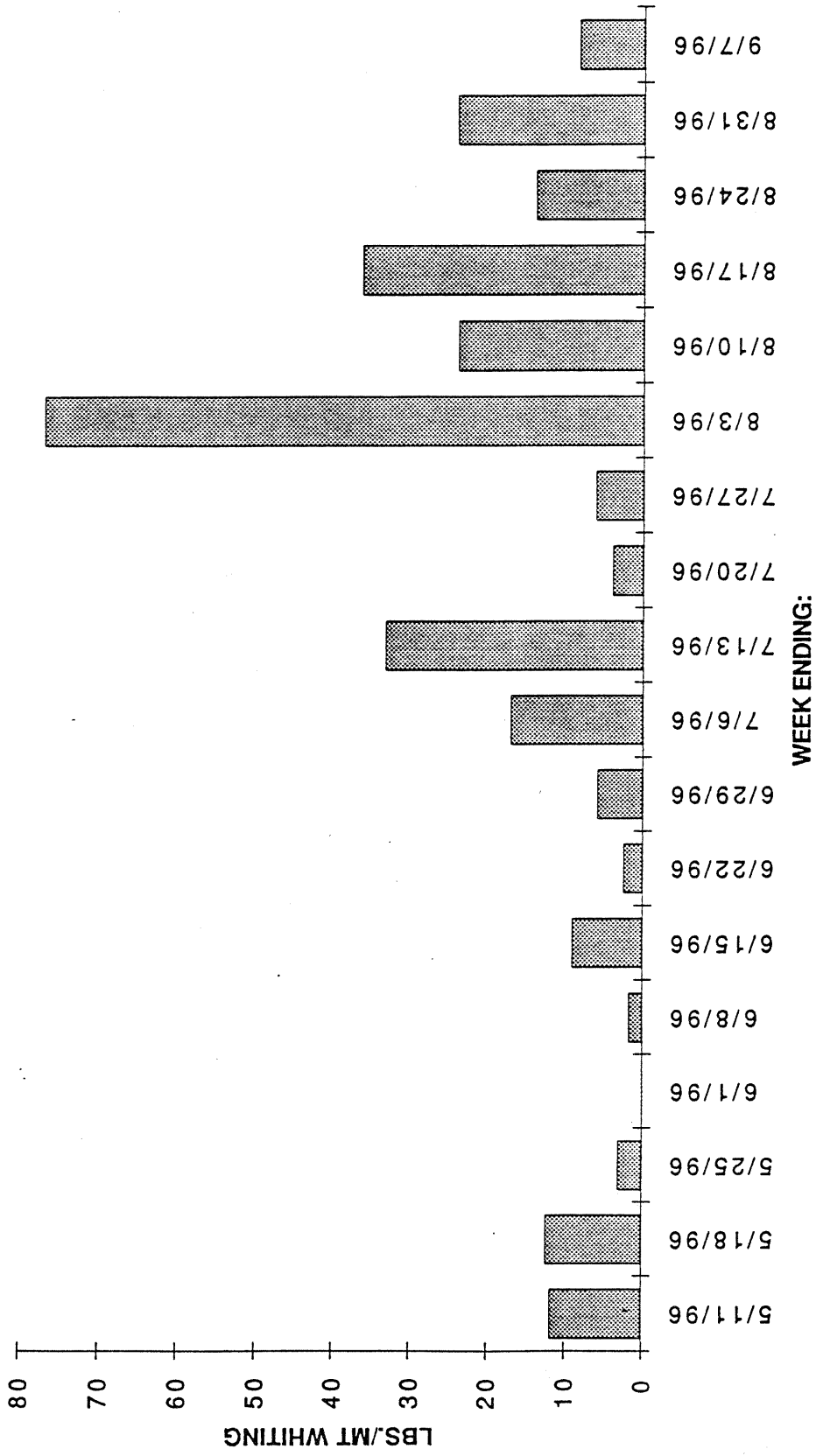


Fig. 2C. Weekly yellowtail bycatch in the horeside whiting fishery, Astoria, 1996.

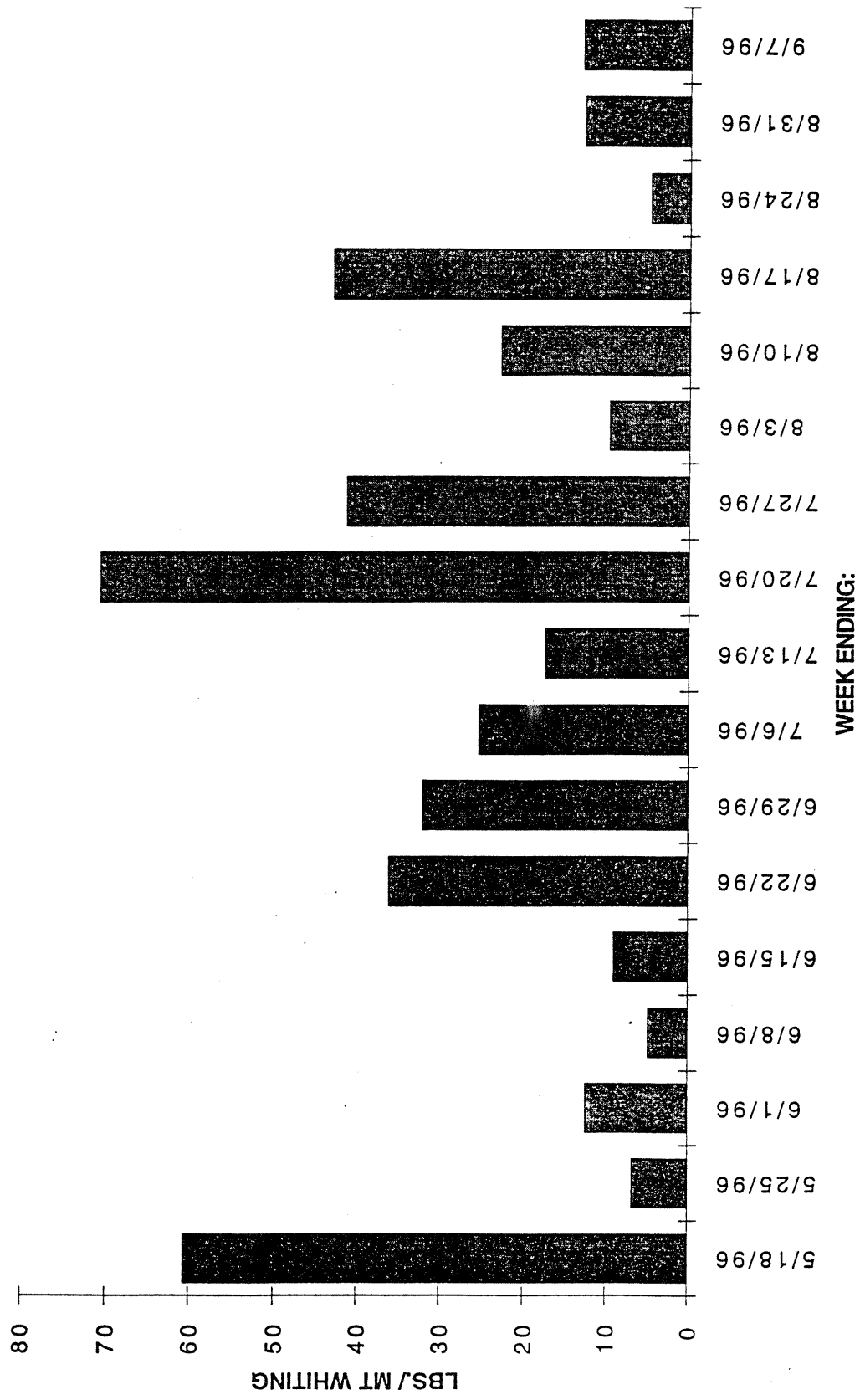


Fig. 2D. Weekly yellowtail rockfish bycatch in the shoreside whiting fishery, Washington, 1996

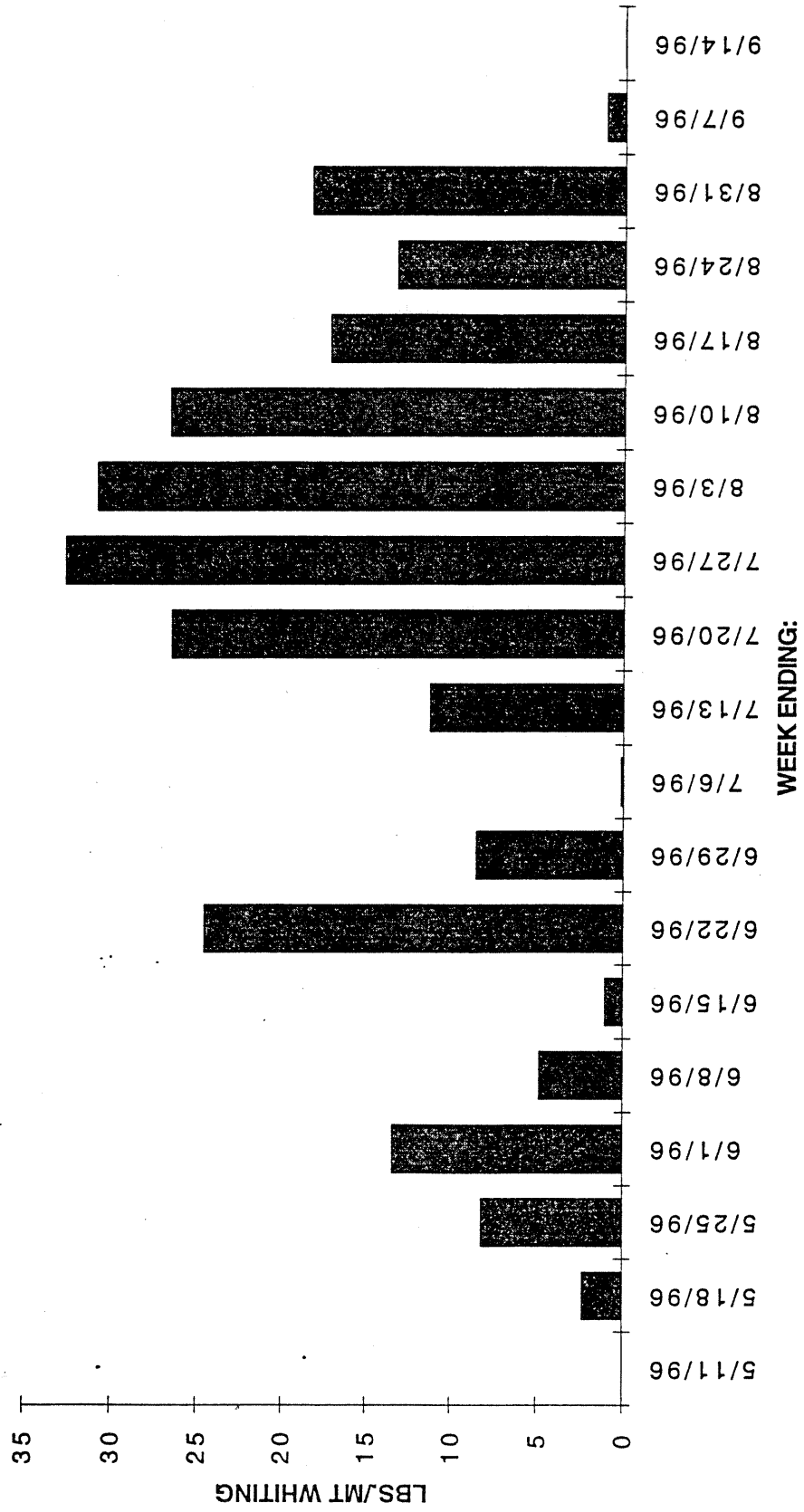


Fig. 3A. Weekly widow rockfish bycatch in the shoreside whiting fishery, Newport, 1996.

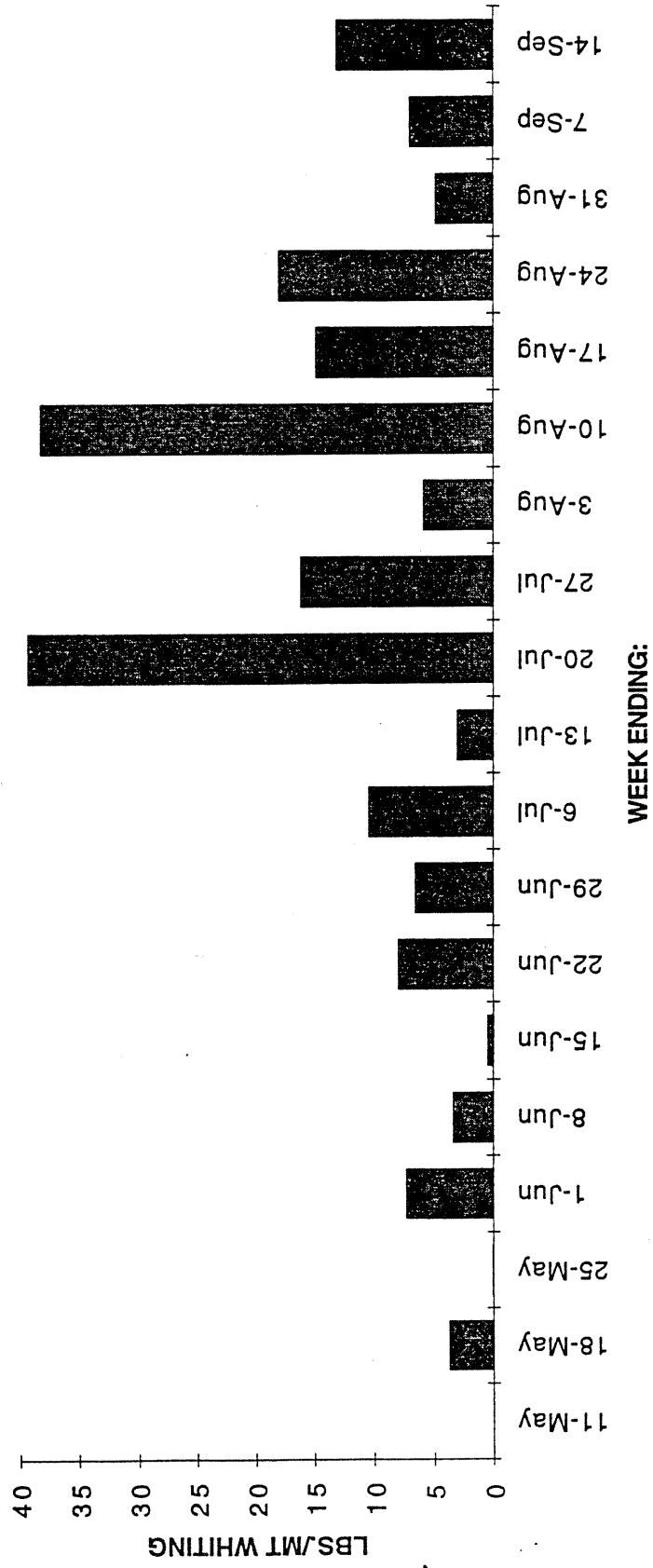


Fig.3B. Weekly widow rockfish bycatch in the shoreside whiting fishery, Astoria, 1996

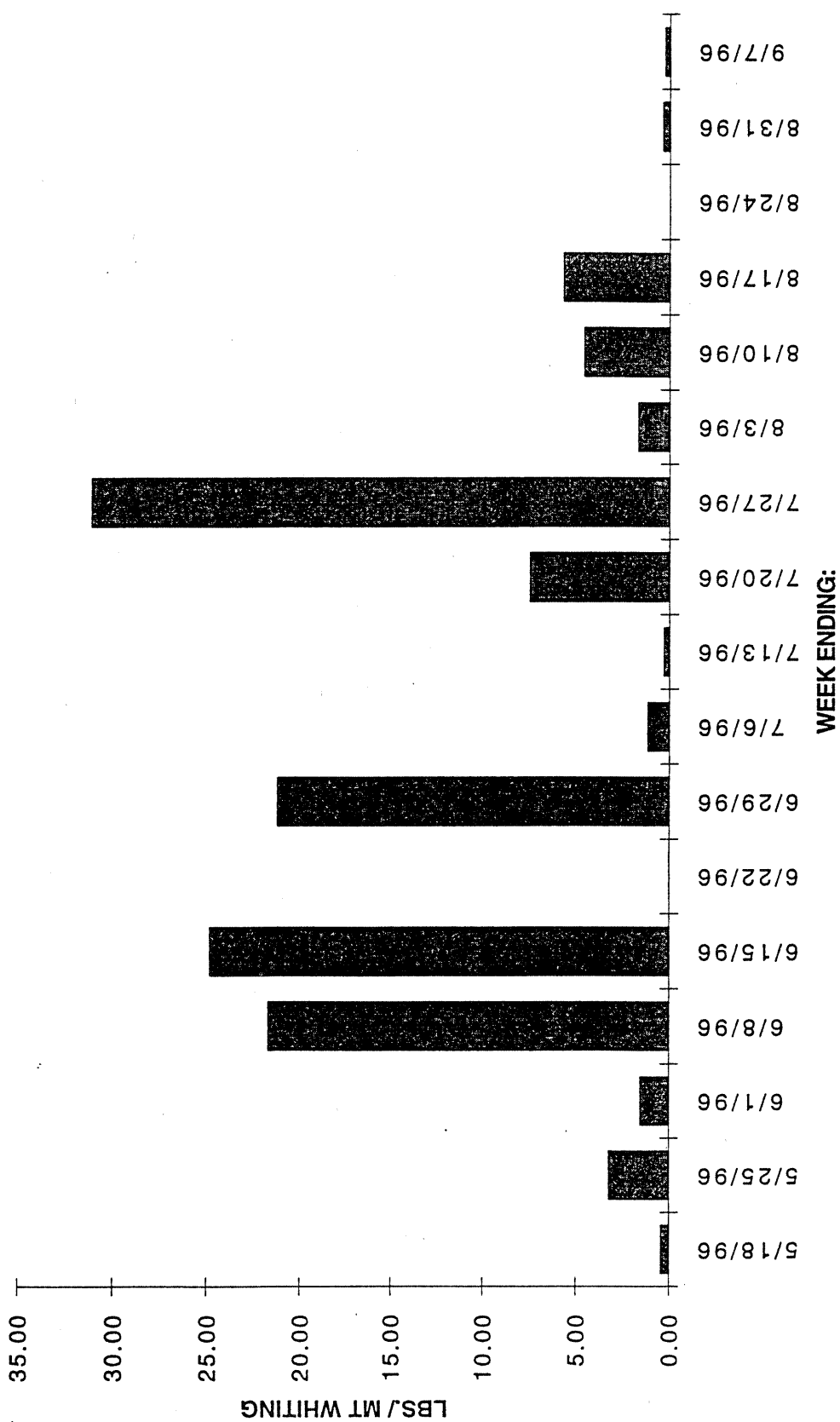


Fig. 3C. Weekly widow rockfish bycatch in ' shoreside whiting fishery, Washington, 1996.

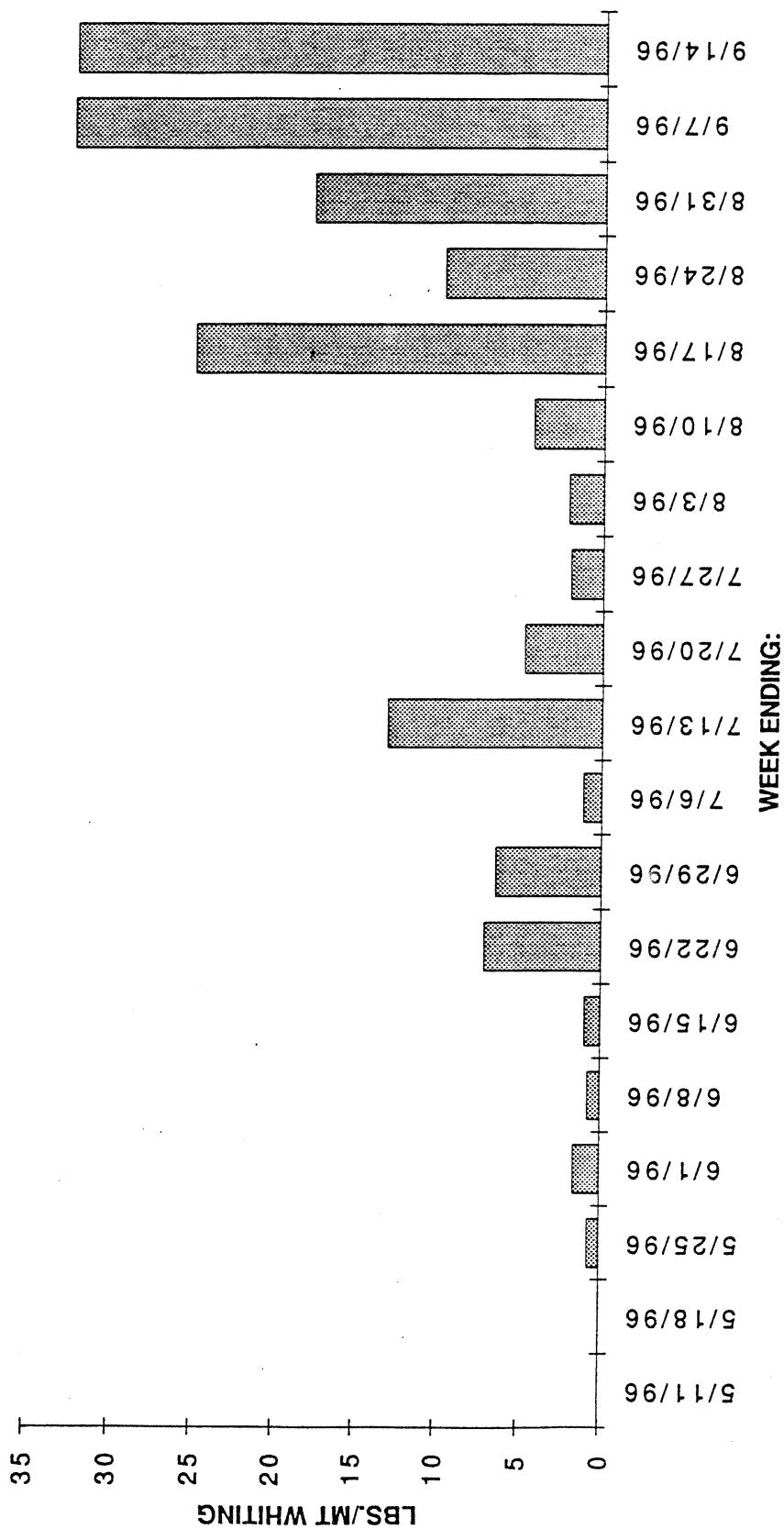


Fig. 4A. Weekly mackerel bycatch in the shoreside whiting fishery, Newport, 1996.

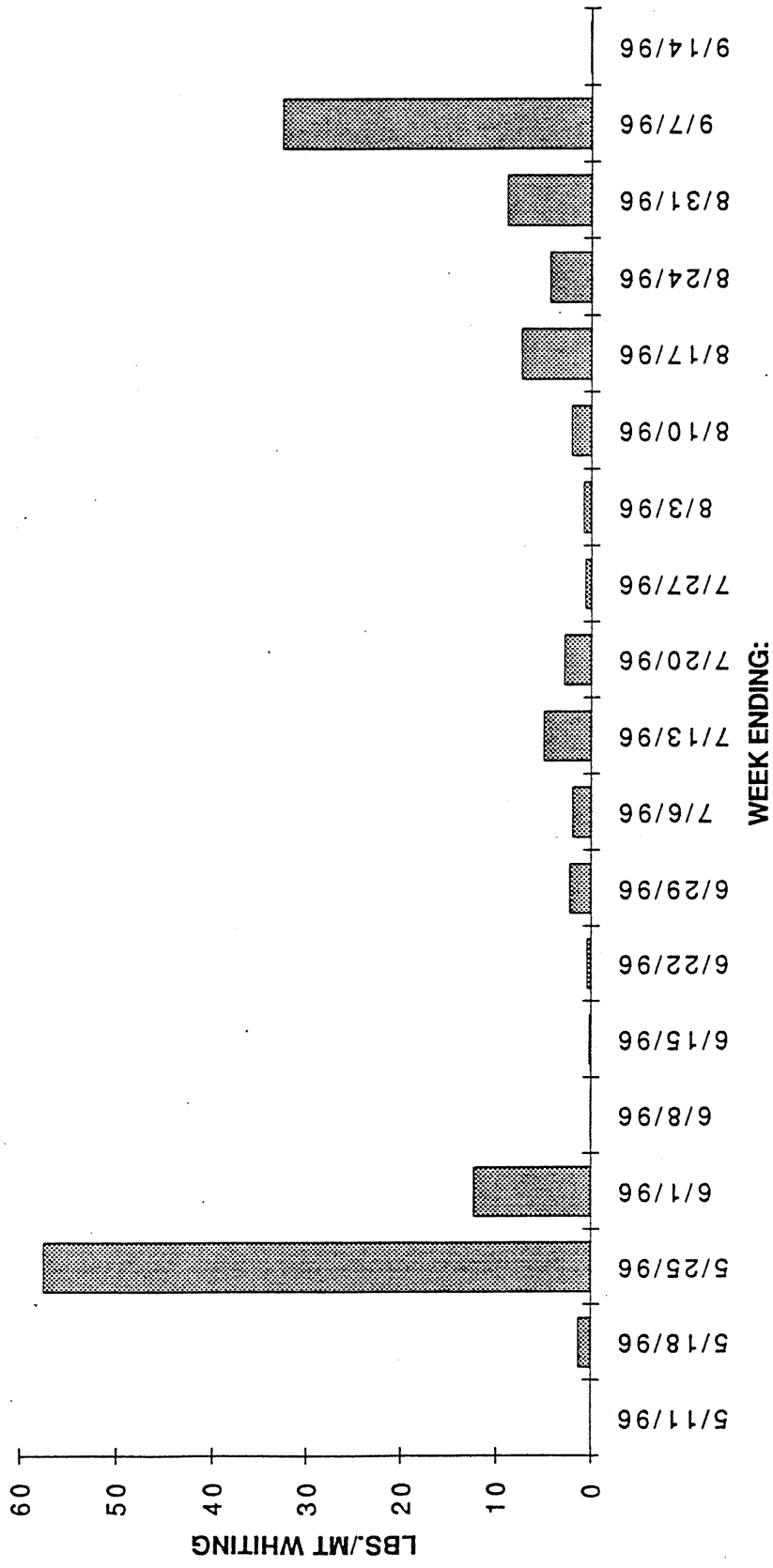


Fig. 4B. Weekly Mackerel bycatch in the storeside whiting fishery, Astoria, 1996.

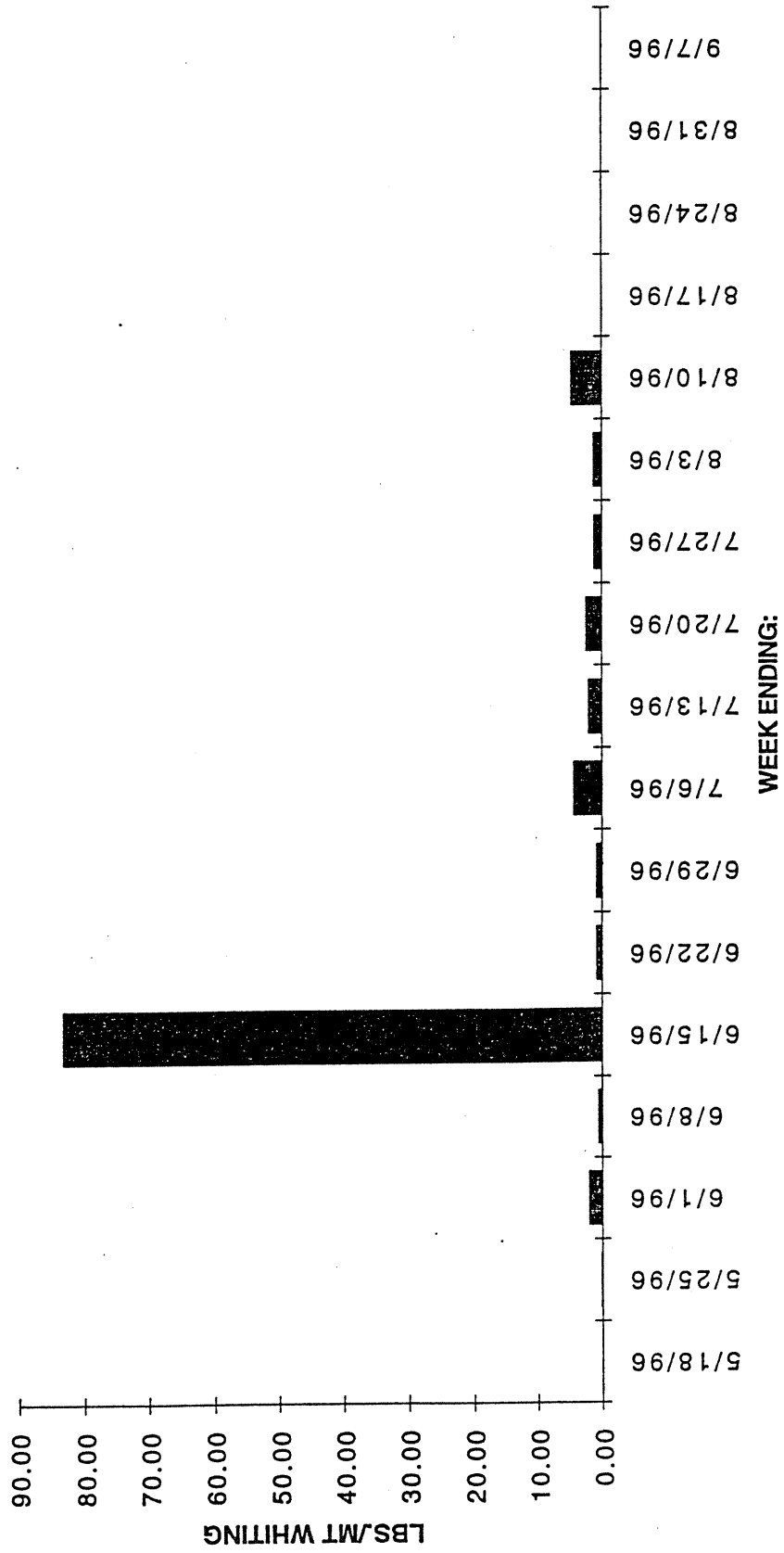


Fig. 4C. Weekly mackerel bycatch in the whiting fishery, Washington, 1996.

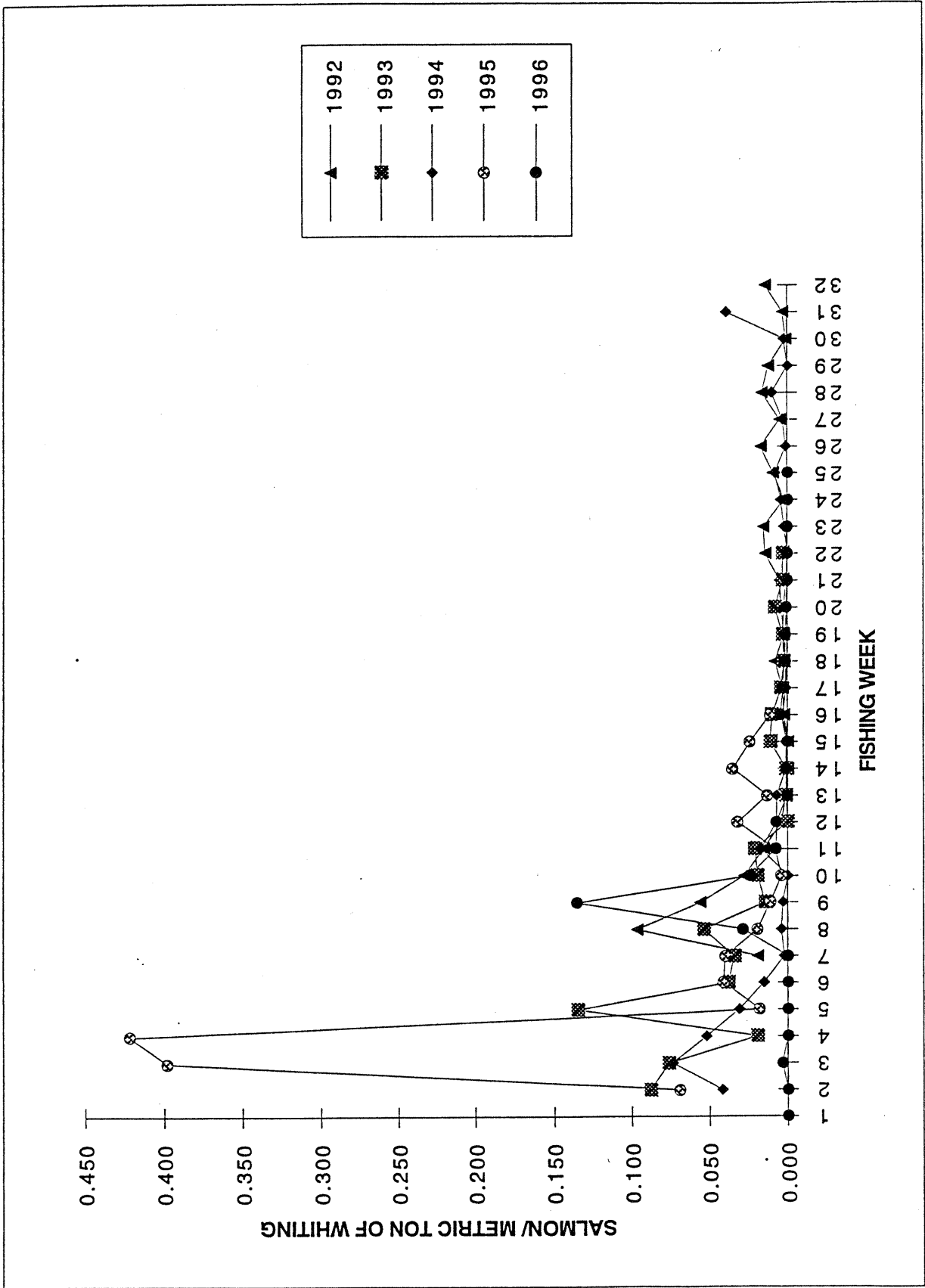


Fig. 5. Salmon bycatch rates in the shorebased whiting fishery, 1992-1996. Rates for 1992-1994 are based on observations. Rates for 1995 and 1996 are based on salmon trawl over to state agencies by processors.

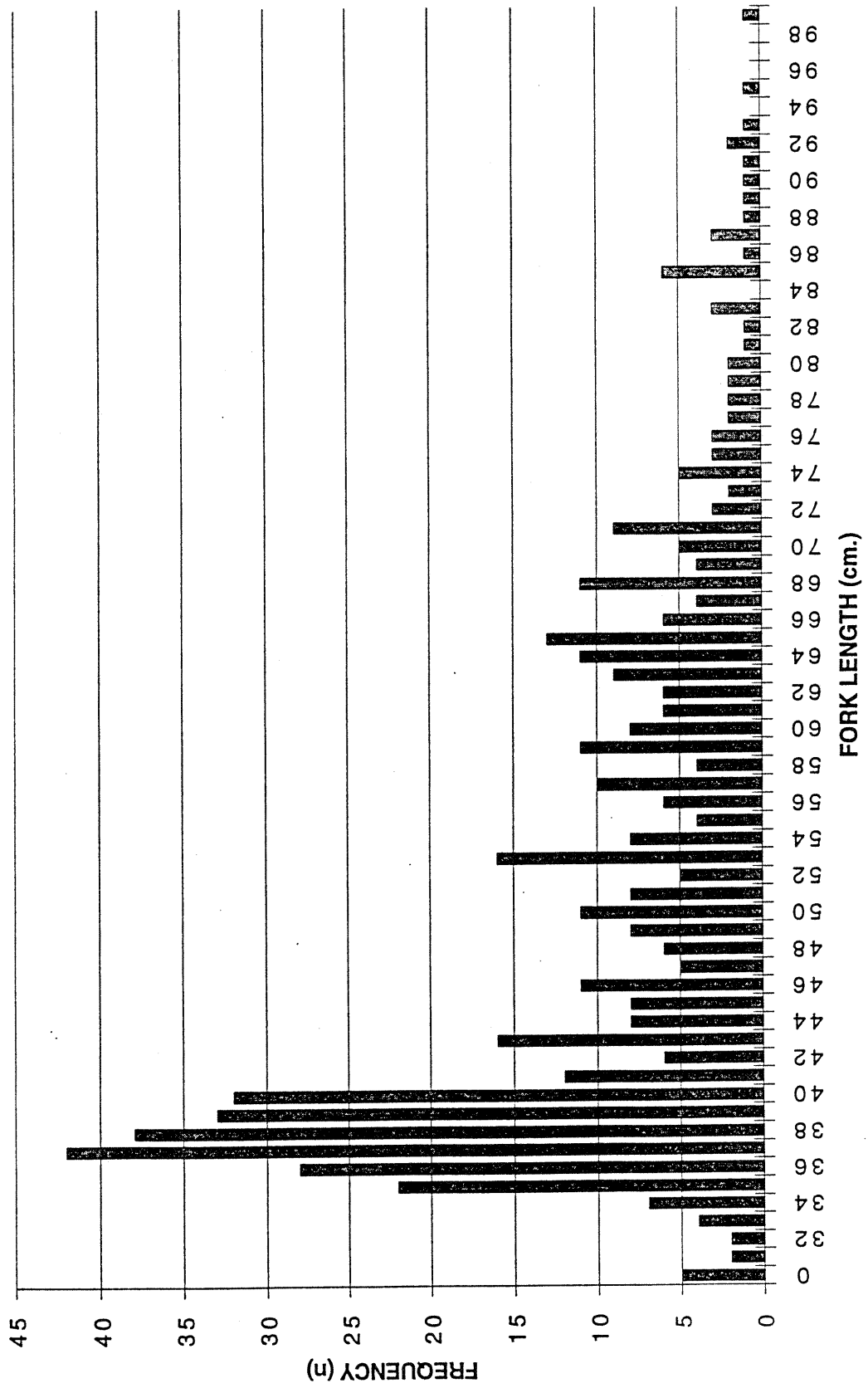


Fig. 6. Length frequency of Chinook bycatch in the whiting fishery, Astoria, 1996

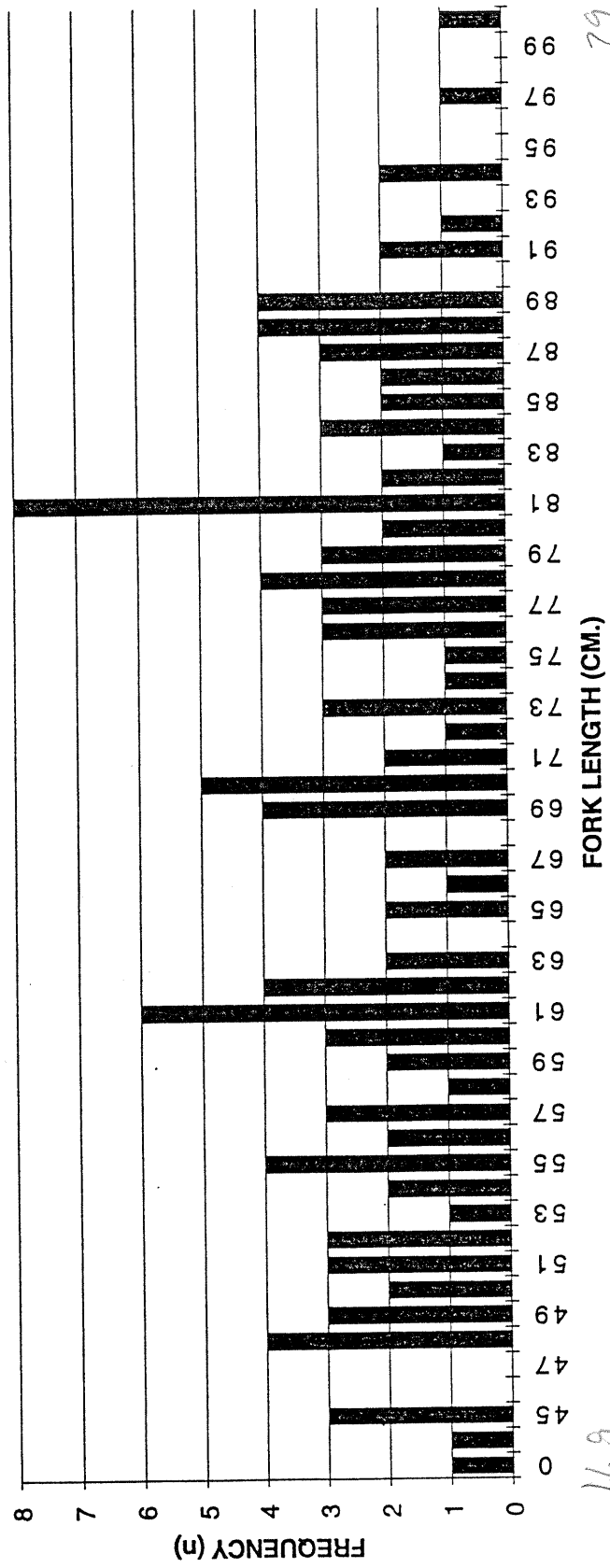


Fig. 7. Length frequency of Chinook fish in the whiting fishery, Newport, 1996

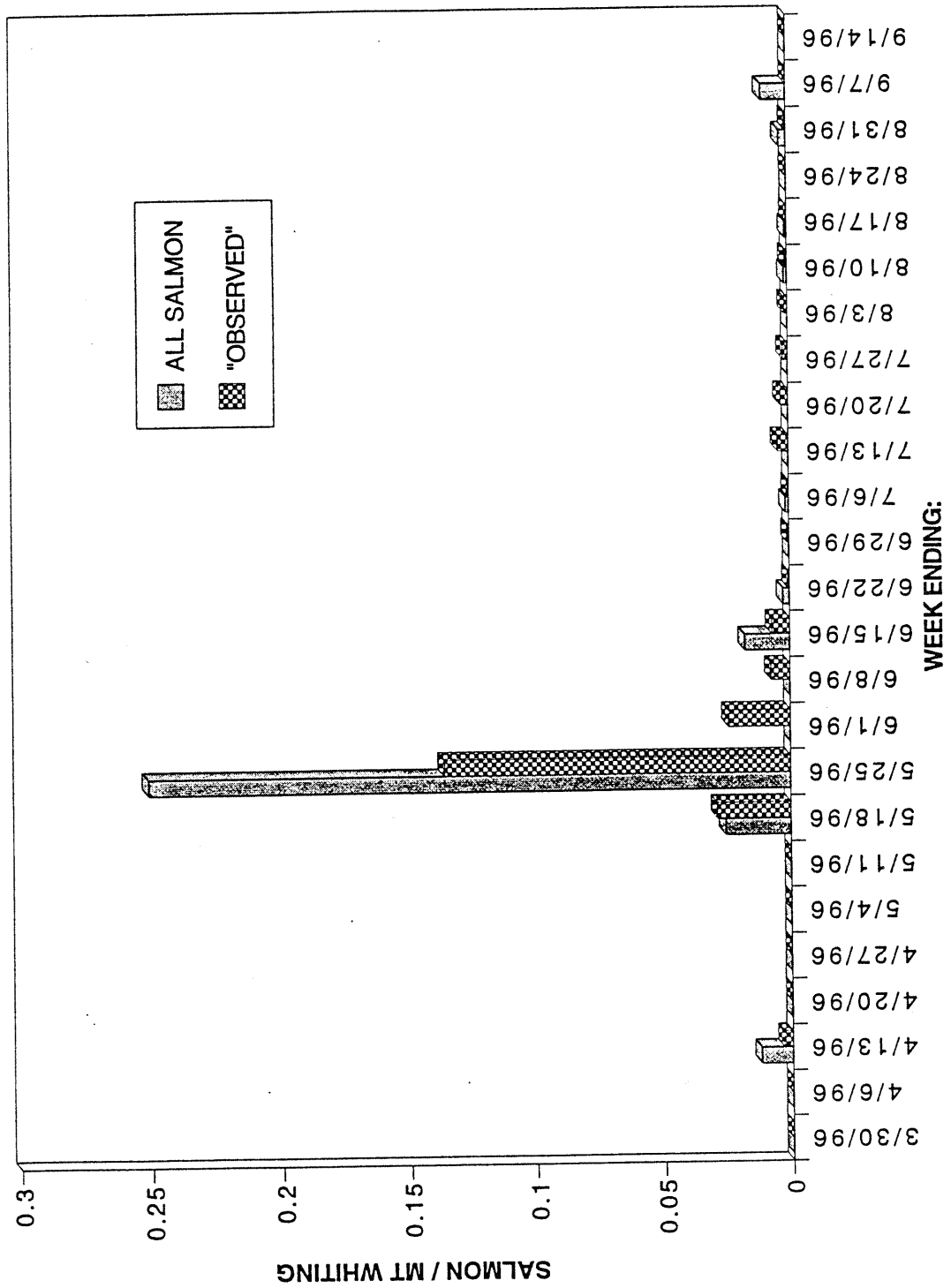
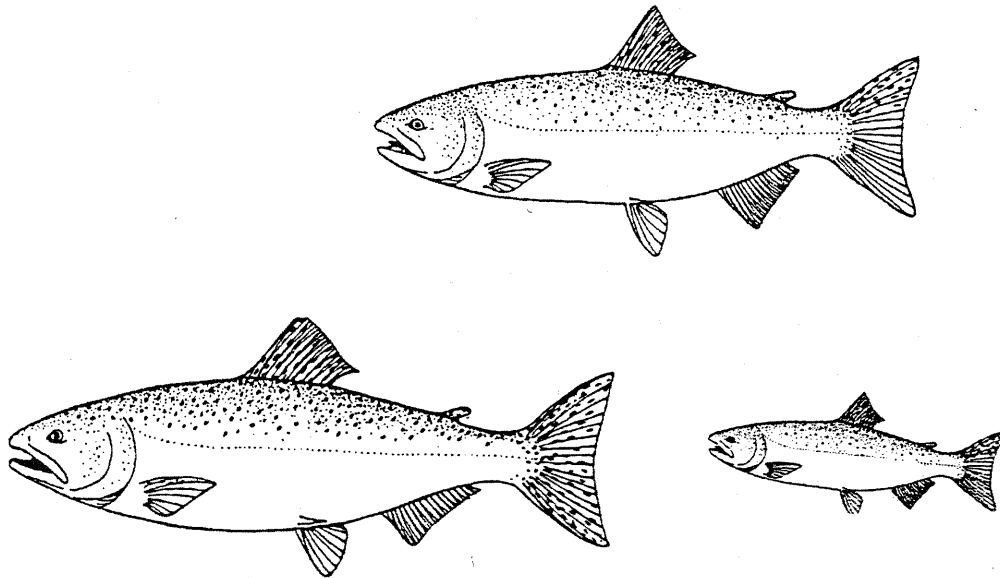


Fig. 8. Weekly salmon bycatch rates in the shoreside whiting fishery, 1996.

PACIFIC COAST SALMON PLAN

***FISHERY MANAGEMENT PLAN FOR
COMMERCIAL AND RECREATIONAL SALMON FISHERIES
OFF THE COASTS OF WASHINGTON, OREGON AND CALIFORNIA
AS REVISED IN 1996 AND IMPLEMENTED IN 1997***



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LIST OF ACRONYMS AND ABBREVIATIONS

Council	Pacific Fishery Management Council
EEZ	exclusive economic zone
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FMP	fishery management plan
FR	<u>Federal Register</u>
FRAM	Fishery Regulation Assessment Model
KRSMG	Klamath River Salmon Management Plan
KRTT	Klamath River Technical Team
MFCMA	Magnuson Fishery Conservation and Management Act
MSH	maximum sustainable harvest
MSY	maximum sustainable yield
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPPA	Northwest Power Planning Act
OCN	Oregon coastal natural coho
ODFW	Oregon Department of Fish and Wildlife
OPI	Oregon Production Index
OY	optimum yield
PFMC	Pacific Fishery Management Council
PSC	Pacific Salmon Commission
RFA	Regulatory Flexibility Act
RIR	Regulatory Impact Review
Secretary	Secretary of Commerce
SEIS	Supplemental Environmental Impact Statement
SAS	Salmon Advisory Subpanel
SSC	Scientific and Statistical Committee
STT	Salmon Technical Team
TAC	total allowable catch
TALFF	total allowable level of foreign fishing

1.0 INTRODUCTION

This document is the *Pacific Coast Salmon Plan* of the Pacific Fishery Management Council (Council or PFMC) as revised and updated in 1996 for implementation in 1997. It guides management of commercial and recreational salmon fisheries off the coasts of Washington, Oregon and California.

This plan contains or references all the elements required for a fishery management plan (FMP) under the Magnuson Fishery Conservation and Management Act as amended in 1990. It completely updates the framework FMP adopted in 1984 and incorporates all subsequent amendments (7 through 12) into this single document.

1.1 BACKGROUND

The Council's first salmon management plan and its environmental impact statement (EIS) were issued to govern the 1977 salmon season. A new salmon management plan and EIS were issued in 1978 to replace the 1977 documents. To establish management measures from 1979 through 1983, the 1978 FMP was amended annually and published along with a supplemental EIS and regulatory impact review/regulatory flexibility analysis (RIR/RFA). This annual process was lengthy, complex and costly. It lacked a long-range perspective and was too cumbersome to allow for timely implementation of the annual regulations and efficient fishery management. Therefore, in 1984, a framework amendment was implemented which ended the need for an annual plan amendment and supplemental EIS.

The comprehensive framework plan amendment of 1984 replaced the 1978 plan as the base FMP document and established a framework of fixed management objectives and elements in which annual management measures could be varied to reflect changes in stock abundance and other critical factors. At irregular intervals, various amendments to portions of the framework plan have been approved and implemented to address specific management issues such as harvest allocation, habitat and an overfishing definition.

1.2 SUPPLEMENTARY INFORMATION

The reader may wish to refer to the original salmon FMP and amendment documents for more background and explanatory information, including the environmental impact assessments and examples of management options not adopted by the Council. Additional information describing the fishery can be found in the Council's *Review of 1995 Ocean Salmon Fisheries* (Salmon Technical Team 1996), Appendix B of Amendment 10 (PFMC 1990), and Appendix B of the *Proposed Plan for Managing the 1981 Salmon Fisheries Off the Coast of California, Oregon and Washington* (PFMC 1981). Table 1-1 provides a reference list of the salmon plan documents and amendments.

TABLE 1-1. Record of salmon FMP documents.

DOCUMENT	CONTENT SUMMARY
Final 1977 Plan	Initial FMP/EIS document for the 1977 salmon season.
Final 1978 Plan (43 FR 29791, July 11, 1978) Effective July 11, 1978 ^{a/}	Initial, comprehensive FMP/EIS document. Amended each year to establish annual management measures for 1979-1983.
Final Framework Amendment (49 FR 43679, Oct. 31, 1984) Effective Nov. 25, 1984 ^{b/}	Comprehensive amendment and SEIS which replaced the 1978 Plan as the base FMP document.
Technical amendments:	<ol style="list-style-type: none"> 1) Spawner escapement goals, procedures to modify spawner goals and inseason modification of daily bag limits (50 FR 812, Jan. 7, 1985) 2) Inseason rescission of automatic closures (50 FR 4977, Feb. 5, 1985) 3) Season opening and closing dates (50 FR 42529, Oct. 21, 1985)
Amendment 7 (52 FR 4146, Feb. 10, 1987) Effective Mar. 8, 1987	<ol style="list-style-type: none"> 1) Sliding scale OCN coho spawner escapement goal 2) Inseason management actions and procedures 3) Coho harvest allocation south of Cape Falcon
Amendment 8 (53 FR 30285, Aug. 11, 1988) Effective Aug. 8, 1988; required no implementing regulations	<ol style="list-style-type: none"> 1) Habitat policy and objectives 2) Consideration of temporary season adjustments for vessels precluded from harvesting due to unsafe weather
Amendment 9 (54 FR 19185, May 4, 1989) Effective May 1, 1989; except radio report section implemented July 13, 1989 (54 FR 29730, July 14, 1989)	<ol style="list-style-type: none"> 1) Klamath River fall chinook harvest rate spawner escapement goal 2) Commercial/recreational harvest allocation north of Cape Falcon 3) Inseason notice procedures 4) Steelhead management intent 5) Radio reporting requirements for commercial fishers 6) Deleted limitations on season opening and closing dates
Clarifying letter:	to Mr. Rolland Schmitt re harvest allocation, Issue 2; Feb. 27, 1989
Technical amendment:	Minor modification of Klamath spawner goal based on Council recommendation, March 8, 1989 (54 FR 19800, May 8, 1989 and 59 FR 23000, May 4, 1994)
Amendment 10 (56 FR 26774, June 11, 1991) Effective July 11, 1991	<ol style="list-style-type: none"> 1) Inseason reallocation objectives for commercial and recreational fisheries south of Cape Falcon 2) Criteria guiding non-Indian catch allocation north of Cape Falcon, especially concerning recreational port allocation 3) Definition of overfishing
Amendment 11 (59 FR 23013, May 4, 1994) Effective April 29, 1994	OCN coho spawner escapement goal of 42 spawners/mile, incidental exploitation rate of 20 percent or less on OCN coho at low stock sizes and sport coho harvest allocation criteria at low harvest levels
Clarifying letter:	to Mr. Gary Smith re incidental harvest and recreational allocation; Apr. 15, 1994
Technical amendment	Minor modification of Klamath spawner goal to meet tribal allocation based on Council recommendation of April 11, 1996 (61 FR 20186, May 6, 1996)
Amendment 12 (FR reference to be inserted) Effective [to be inserted], 1997	<ol style="list-style-type: none"> 1) Procedures governing retention of salmon bycatch in trawl nets 2) Management objectives for listed salmon species 3) Update of the salmon FMP (no change in management objectives)

a/ Implemented by emergency regulation on April 14, 1978 (43 FR 15629) and May 24, 1978 (43 FR 22214).
b/ Implemented by emergency regulation on May 3, 1984 (49 FR 18853; May 3, 1984).

2.0 MANAGEMENT UNIT

The components of the management unit for this FMP are the stocks or stock groupings described below. The components shall remain fixed and may be modified only by plan amendment. Because all of the salmon stocks contributing to the ocean fisheries in the Washington, Oregon, and California area are included, there is little need for flexibility in the definition of the management unit.

The management unit in this FMP is defined as follows:

The management unit includes those stocks of salmon and steelhead that are harvested in the exclusive economic zone (EEZ) off the coasts of Washington, Oregon and California. Exceptions are those stocks which are managed there by another management entity with primary jurisdiction, i.e., the Fraser River Panel of the Pacific Salmon Commission (PSC) in the Fraser River Panel Area (U.S.) between 49°N and 48°N latitude.

Chinook and coho salmon (*Oncorhynchus tshawytscha* and *O. kisutch*) are the main species caught in the ocean salmon fisheries operating off Washington, Oregon and California. The catch of pink salmon (*O. gorbuscha*) in odd-numbered years also is significant.

Principal stocks or stock groupings comprising the management unit and the general ocean area where they occur are described in Table 2-1. Each year specific management measures are implemented that are intended to directly impact some of these stocks in a desired manner. These measures would have an indirect and incidental impact on the other stocks present in the area at the same time.

Objectives for the management unit under this framework plan are presented in Section 3.0. For some of the stocks, the achievement of those objectives directly associated with the ocean fisheries is conditioned upon meeting not only the spawning escapement goals, but also upon fulfilling Indian treaty obligations as well as inside non-Indian net and recreational fisheries requirements. The brief discussion of the separate stock components comprising the management unit, which appears below, identifies where other than ocean management objectives are of significance to a particular stock.

TABLE 2-1. Principal stocks or stock groupings comprising the salmon management unit.^{a/}

COHO	
South of Leadbetter Pt.	Oregon Production Index coho: Columbia River, Oregon coastal, California coastal.
North of Cape Falcon	Columbia River, Washington coastal, Puget Sound, Southern British Columbia.
CHINOOK	
South of Horse Mt.	California Central Valley: Sacramento and San Joaquin fall, late fall, winter and spring.
Horse Mt. to Humbug Mt.	California coastal, especially Klamath fall, and Oregon coastal south of Elk River, fall and spring.
Humbug Mt. to Cape Falcon	Oregon coastal fall and spring.
North of Cape Falcon	Oregon coastal Elk River and north, fall and spring; upper Columbia River fall, spring and summer; lower Columbia River fall and spring; Washington coastal fall, spring and summer; Puget Sound summer, fall and spring.
PINK AND SOCKEYE	
North of Cape Falcon	Fraser River, Puget Sound

a/ The geographical management boundaries that denote stock separation are subject to change (see section 9.1). The boundaries shown in this table and in the subsequent discussion are those commonly used in 1996.

2.1 COHO

2.1.1 South of Leadbetter Point (Oregon Production Index Area)

Columbia River and Oregon coastal coho are managed together within the framework of the Oregon Production Index (OPI) since these fish are essentially intermixed in the ocean fishery. These coho are important to ocean fisheries off the southern Washington coast as well as to fisheries off the coasts of Oregon and northern California.

The OPI is used as a measure of the annual abundance of adult three-year-old coho salmon resulting from production in the Columbia River and Oregon and California coastal basins as far south as coho are found. The index itself is simply the combined number of adult coho that can be accounted for within the general area from Leadbetter Point, Washington to as far south as coho are found. Currently, it is the sum of (1) ocean sport and troll fishery impacts in the ocean south of Leadbetter Point, Washington, regardless of origin; (2) Oregon and California coastal hatchery returns; (3) the Columbia River inriver runs; (4) Oregon coastal natural spawner escapement and (5) Oregon coastal inside fishery impacts.

Harvest impacts on California coastal coho and returns to California hatcheries are included in the OPI management unit. Most of the California production is from hatcheries which provide a very small portion of the total hatchery production in the OPI area.

Columbia River coho are managed for full utilization of hatchery production, while Oregon coastal stocks are managed to achieve full production from natural spawning. Management objectives for the OPI area must address the following: (1) the need for a viable inside net fishery in the Columbia River; (2) maintaining productive natural stocks of Oregon coastal coho and (3) impacts on other escapement goals.

2.1.2 North of Cape Falcon, Oregon

Management of ocean fisheries for coho north of Cape Falcon is complicated by an overlap with the portion of the OPI area in the vicinity of the Columbia River mouth. Allowable harvests in the area between Leadbetter Point, Washington and Cape Falcon, Oregon will be determined by an annual blend of OPI and Washington coho management considerations including:

1. Abundance of contributing stocks
2. Escapement goals (as found in Table 6-1)
3. Relative abundance between chinook and coho
4. Allocation considerations of concern to the Council.

Coho occurring north of Cape Falcon, Oregon are comprised of a composite of coho stocks originating in Oregon, Washington, and British Columbia. Ocean fisheries on these stocks are regulated on the basis of the regime that meets the management objectives. Management considerations for the stocks included in this area are summarized below.

2.1.2.1 Columbia River

Columbia River coho are managed primarily for hatchery production. Objectives for these stocks are to obtain adequate escapement to meet production goals, fulfill Indian treaty obligations and provide for viable inside fisheries in the Columbia River.

2.1.2.2 Washington Coastal

Willapa Bay - Coho returns to Willapa Bay streams are managed primarily for hatchery production. A non-Indian net fishery operates in Willapa Bay. Ocean fishery escapement objectives relate to hatchery egg take requirements and inside fishery needs.

Grays Harbor – Coho runs are managed for natural production requirements, although a significant component of hatchery production exists. Treaty Indian and non-Indian net fisheries operate in Grays Harbor along with a non-Indian recreational fishery. Management goals for Grays Harbor coho include providing for natural spawning escapement requirements; meeting treaty Indian allocation requirements; and providing for inside, non-Indian fishery needs.

Quinault – Coho are managed primarily for hatchery production. A treaty Indian net fishery operates in the system and management goals include treaty allocation requirements and hatchery egg-take needs.

Queets – Coho are managed primarily for natural production. Treaty Indian net and non-Indian recreational fisheries operate in the river system. Management goals include achieving natural spawning escapement objectives and treaty Indian allocation requirements.

Hoh – Coho are managed primarily for natural production. Treaty Indian net and non-Indian recreational fisheries operate in the river system. Management goals include achieving natural spawning escapement objectives and treaty allocation requirements.

Quillayute – Summer and fall-run coho stocks return to this system. Summer coho are predominantly from hatcheries and the Washington Department of Fish and Wildlife believes they should be managed primarily for hatchery production. However, the Quileute Tribe and the U.S. Department of the Interior believe that the natural spawners during this time period should be given greater management consideration to ensure the perpetuation and maintenance of native summer coho.

2.1.2.3 Puget Sound

Puget Sound coho stocks are managed to provide for inside non-Indian fishery needs, to meet treaty allocation requirements and to maintain natural production. They are managed within several state management areas noted below.

Nooksack/Samish and South Puget Sound Stocks – managed primarily for hatchery production.

Strait of Juan de Fuca, Skagit, Stillaguamish/Snohomish, and Hood Canal Stocks – managed primarily for natural production.

2.1.2.4 Southern British Columbia

Canadian management intent for southern British Columbia coho stocks has not been clearly established. Canadian net fisheries in the Strait of Juan de Fuca have been restricted in recent years to protect Fraser River coho stocks but no commensurate management action has been taken with Canadian troll or recreational fisheries.

2.2 CHINOOK

2.2.1 South of Horse Mountain

The major chinook stocks contributing to this area originate in the Central Valley rivers, specifically, the Sacramento, Feather, Yuba, and American. Fall chinook are most abundant followed by late-fall, spring, and winter stocks. Chinook hatcheries are located on the upper Sacramento, Feather, American, Mokelumne, and Merced rivers. Hatchery production emphasis is on fall chinook. Considerable overlap of chinook originating in Central Valley and northern California coastal rivers occurs between Point Arena and Horse Mountain. Ocean commercial and recreational fisheries operating on Central Valley chinook are managed to maximize natural production consistent with meeting inland recreational needs.

2.2.2 Horse Mountain to Humbug Mountain

Major chinook stocks contributing to this area originate in streams located along the northern California and southern Oregon coasts as well as the Central Valley.

California coastal chinook stocks include those from the Klamath, Smith, Mad, Eel, and Mattole rivers. The major California chinook run in this area is from the Klamath system, including its major tributary, the Trinity River. Natural production from the Klamath system is primarily fall chinook, but small runs of spring chinook originate in the Salmon and Trinity rivers. State-operated chinook hatcheries are located on the upper Klamath, Trinity, Mad, and Russian rivers.

Oregon coastal chinook stocks contributing to this area primarily originate in rivers located south of Humbug Mountain, including the Rogue, Chetco, Pistol and Winchuck rivers.

For California stocks, ocean commercial and recreational fisheries operating in this area are managed to maximize natural production consistent with meeting the U.S. obligations to Indian tribes with federally recognized fishing rights and recreational needs in inland areas. For Oregon stocks, ocean fisheries in this area are managed to maintain healthy populations of naturally produced chinook.

2.2.3 Humbug Mountain to Cape Falcon

The major chinook stocks contributing to this area primarily originate in Oregon coastal rivers located north of Humbug Mountain, as well as from the Rogue, Klamath and Central Valley systems. Stocks originating north of Coos Bay also are harvested by ocean fisheries off Washington, British Columbia, and Alaska. Oregon coastal chinook salmon are managed to maintain healthy populations of naturally produced chinook.

2.2.4 Cape Falcon to United States-Canada Border

The major stocks contributing to this area primarily originate in the Columbia River, as well as from Oregon and Washington coastal areas. Columbia River hatchery fall (tule) chinook presently comprise a majority of the ocean harvest between Cape Falcon, Oregon and the U.S.-Canada border. Other stocks contributing to the ocean chinook harvest north of Cape Falcon include: lower Columbia River (Cowlitz) spring chinook; upper Columbia River spring/summers and bright falls; Oregon coastal fall chinook; Washington coastal falls; Washington coastal spring/summers; Puget Sound falls and southern British Columbia falls, springs, and summers.

Management of these fisheries/stocks includes controlling ocean fishery impacts on depressed, viable natural stocks within acceptable maximum allowable levels; meeting treaty Indian obligations and providing treaty Indian harvest opportunity above Bonneville Dam; and meeting inside, non-Indian fishery needs.

2.3 WASHINGTON OCEAN PINK SALMON

Washington ocean pink salmon harvests are predominantly of Fraser River origin. Pink salmon of Puget Sound origin represent a minor portion of the ocean harvest although ocean impacts can be significant in relation to the terminal return during years of very low abundance.

The Fraser River Panel of the PSC manages fisheries for pink salmon in the Fraser River Panel Area (U.S.) north of 48° N latitude to meet Fraser River natural spawning escapement and U.S./Canada allocation requirements. Consistent with Fraser River Panel management intent, the Council manages pinks in that portion of the EEZ which is not in the Fraser River Panel Area (U.S.) waters. The State of Washington and the Washington Coastal tribes indirectly control fishing for pinks by landing laws.

The continuation of fishing for pinks after chinook or coho quotas have been met would conflict with management objectives for these latter species which could be taken incidentally unless specific gear, e.g., blued hooks and flashers, is proven successful in significantly reducing non-target catches or allowances

are made to account for these incidental catches in the harvest quotas. Pink salmon management objectives must address meeting natural spawning escapement objectives, allowing ocean pink harvest within fixed constraints of coho harvest ceilings and providing for treaty allocation requirements.

2.4 WASHINGTON OCEAN SOCKEYE FISHERIES

No significant Washington ocean sockeye harvests have occurred historically in contrast to a recent large Canadian troll sockeye fishery off Vancouver Island. For any future U.S. ocean sockeye fisheries, management objectives would be similar to those outlined above for pink salmon and must take into account the recovery of Snake River Sockeye salmon listed as endangered in 1991.

3.0 FISHERY MANAGEMENT OBJECTIVES

An amendment is required to change the objectives of the FMP.

3.1 HARVEST MANAGEMENT

1. Establish ocean exploitation rates for commercial and recreational fisheries that are consistent with requirements for spawner escapement objectives, federally recognized Indian fishing rights, and continuance of established recreational and commercial fisheries within the constraints of meeting conservation and allocation objectives. Achievement of this objective requires that:

Amendment 12 (Issue 2, pages 9-11), effective [to be inserted], 1997, management objectives for listed species:

- a. Escapements of viable natural spawning stocks of salmon defined in Section 6.0 shall be sufficient to maintain or restore the production of such stocks at optimal levels. Escapements of salmon stocks listed under the Endangered Species Act (ESA) will meet or exceed NMFS jeopardy standards or the objectives of NMFS recovery plans.
- b. Escapement of hatchery stocks shall be sufficient to achieve production goals established by the management entity or entities with responsibility for establishing goals.
- c. In managing mixed-stock salmon fishing, the Council will establish maximum exploitation rates based on the level that can be sustained by the weakest natural spawning stocks for which specific management objectives have been defined in Section 6.0 and which are consistent with NMFS jeopardy standards or recovery plans for stocks listed under the ESA.

[End Amendment 12, management objectives for listed species]

- d. Harvest allocations of salmon stocks between ocean and inside recreational and commercial fisheries shall be fair and equitable and fishing interests shall equitably share the obligations of fulfilling any treaty or other legal requirements for harvest opportunities.
2. Minimize fishery mortalities for those fish not landed from all ocean salmon fisheries as consistent with optimum yield.
 3. Manage and regulate the fisheries so that the optimum yield encompasses the quantity and value of food produced, the recreational value, and the social and economic values of the fisheries.
 4. Develop fair and creative approaches to managing fishing effort and evaluate and apply effort management systems as appropriate to achieve these management objectives. Support the enhancement of salmon stock abundance in fishing effort management programs to facilitate a return to economically viable and socially acceptable commercial, recreational, and tribal seasons.
 5. Achieve long-term coordination with the member states of the Council, Indian tribes with federally recognized fishing rights, Canada, the North Pacific Fishery Management Council, Alaska, and other management entities which are responsible for salmon habitat or production in the development of a coastwide salmon management plan.
 6. Manage consistent with the Pacific Salmon Treaty.

Amendment 8 (Issue 1, pages 4-6), effective August 8, 1988, adds the following habitat policy and objectives:

3.2 HABITAT AND ENVIRONMENT

The management objectives of the Council can best be achieved if its objectives and policies are also pursued by the agencies having environmental control and resource management responsibilities over production and harvest in inside marine and fresh waters. Where feasible, the Council will strive for this consistency.

The Council will be prepared to assist all agencies involved in the protection of salmon habitat. This assistance will generally occur in the form of an endorsement of protection, restoration, or enhancement programs and in promoting salmon fisheries needs among competing uses for the limited aquatic environment. The Council's "Habitat Appendix" to the salmon FMP (contained in the original Amendment 8 document) provides documentation of the habitat needs of the salmon resource and the adverse effects which alterations of the habitat have and can create.

The Council will be guided by the principle that there should be no net loss of the productive capacity of marine, estuarine, and freshwater habitats which sustain commercial, recreational, and tribal salmon fisheries beneficial to the nation. Within this policy, the Council will assume an aggressive role in the protection and enhancement of anadromous fish habitat and work toward achieving the following habitat and production objectives.

3.2.1 Habitat Objectives

1. The Council will work to assure that Pacific salmon, along with other fish and wildlife resources, receive equal treatment with other purposes of water and land resource development.
2. The Council will support efforts to restore Pacific salmon stocks and their habitat through vigorous implementation of federal and state programs.
3. The Council will work with fishery agencies, tribes, land management agencies, and water management agencies to assess habitat conditions and develop comprehensive restoration plans.
4. The Council will support diligent application and enforcement of regulations governing ocean oil exploration and development, timber harvest, mining, water withdrawals, agriculture, or other stream corridor uses by local, state, and federal authorities. It is Council policy that approved and permitted activities employ the best management practices available to protect salmon and their habitat from adverse effects of contamination from domestic and industrial wastes, pesticides, dredged material disposal, and radioactive wastes.
5. Where existing authorities and regulations are inadequate, the Council will encourage users to seek legislative remedies as potential means to conserve, protect, and restore salmon populations and their habitat.
6. The Council will promote agreements between fisheries agencies and land and water management agencies for the benefit of fishery resources and to preserve biological diversity.
7. The Council will strive to assure that the standard operation of existing hydropower and water diversion projects will protect and enhance salmon productivity.
8. The Council supports efforts to identify and avoid cumulative or synergistic impacts in drainages where Pacific salmon spawn and rear. The Council will assist in the coordination and accomplishment of comprehensive plans to provide basinwide review of proposed hydropower development and other water use projects. The Council encourages the identification of no impact alternatives for all water resource development.

9. The Council will support and encourage efforts to determine the net economic value of conservation by identifying the economic value of fish production under present habitat conditions and expected economic value under improved habitat conditions.

[End of Amendment 8, habitat policy and objectives]

3.2.2 Production Objectives

1. Restore and enhance the natural production of salmon to optimal levels.
2. Whenever fish habitat or population losses occur as a result of various development programs or other action, the fishery agencies should actively seek full compensation for these losses under the following guidelines:
 - a. Restoration of lost habitat, where possible, or provision of additional facilities for production of fish, at least equal to that lost.
 - b. Replacement of losses, where possible, will be by an appropriate stock of the same fish species or by habitat capable of producing the same species that suffered the loss; mitigation or compensation programs will be located in the immediate area of loss, where possible.
 - c. Compensation levels will be based on loss of habitat, production, and opportunity to fish. Potential production of the habitat will be considered in measuring needed compensation.
 - d. Measures for replacement of runs lost due to construction of water control projects should be completed in advance of, or concurrent with, completion of the project.
3. Maximize the continued production of hatchery stocks consistent with harvest management objectives.
4. In advance of enhancement programs which include increased artificial production of anadromous fish, assess the potential impact on natural salmonid production and avoid negative effects on other stocks.
5. Improve the effectiveness of artificial propagation.

4.0 SPECIFICATION OF OPTIMUM YIELD AND OVERFISHING

4.1 OPTIMUM YIELD

The optimum yield (OY) to be achieved from the fisheries for species included in the management unit established under this framework mechanism, is that amount of salmon caught by United States fishermen in the EEZ adjacent to the States of Washington, Oregon, and California, and in the waters (including internal waters) of those States, and Idaho, which will to the greatest extent practicable, fulfill the following:

1. The spawner escapement goals for natural and hatchery stocks, as established by the Council;
2. The obligation to provide for Indian harvest opportunity, as mandated by applicable decisions of the federal courts and the October 4, 1993 opinion by the Solicitor, Department of Interior;
3. The allocation goals between or among ocean fisheries established by the Council;
4. The allocation goals between ocean and "inside" fisheries conducted by other than treaty Indians, as recommended by the various states and the Council; and
5. Other social/economic objectives of the FMP and its amendments.

The definition of OY is a fixed element of the FMP. What will change from year to year will be the abundance of salmon. Accordingly, the annual levels of allowable harvests and the allocations of the allowable harvest among groups of fishermen also will change. Thus, each year, as a part of the process for making preseason adjustments to the regulations, the Secretary will specify the allowable levels of harvest for each species in each ocean fishing area and the allocation of those allowable harvests among the groups of fishermen.

Amendment 10 (Issue 4, pages 21, 25-26), effective July 11, 1991, adds overfishing definition as follows:

4.2 OVERFISHING

Section 600.310(c)(1) of the FMP guidelines (50 CFR Part 600; 61 FR 32538, June 24, 1996) states:

Overfishing is a level or rate of fishing mortality that jeopardizes the long-term capacity of a stock or stock complex to produce MSY on a continuing basis. Each FMP must specify, to the maximum extent possible, an objective and measurable definition of overfishing for each stock, or stock complex covered by that FMP, and provide an analysis of how the definition was determined and how it relates to reproductive potential.

The Council's definition of overfishing is based on the spawning escapement goals for chinook and coho salmon stocks specified in Table 6-1 of Section 6.0. Spawning escapement goals are based on such factors as estimates of spawning or rearing habitat or historical production from a range of observed spawning escapements. Spawning escapement goals are generally expressed in numbers of adult fish or as an escapement rate, often with a numerical floor. Because spawning escapement goals tend to reflect estimates of maximum sustainable yield (MSY) for a stock, they provide a much greater level of harvest restraint than any alternative definition based on a minimum threshold below which a stock might not recover. During the Council's annual salmon management process, achievement of the spawning escapement goals is reviewed and, where needed, actions taken to improve estimation procedures, note habitat problems and modify fishing regimes to assure achievement of the goals in the coming season.

4.2.1 Definition of Overfishing

"Overfishing" is an occurrence whereby all mortality, regardless of the source, results in a failure of a salmon stock to meet its annual spawning escapement goal or management objective (as specified in Section 6.0 of the salmon FMP) for three consecutive years, and for which changes in the fishery management regime offer the primary opportunity to improve stock status. While this condition is defined as overfishing in the broad sense, it is recognized that this situation may also be the result of nonfishing mortality and fishery management actions may not adequately address the problem.

The definition of overfishing recognizes that management imprecision in the Council's annual salmon management process may result in spawning escapements which deviate from the annual goals or objectives. The Council reviews such deviations annually and makes appropriate adjustments in management procedures and the harvest regime, as well as noting possible impacts from habitat degradation to assure the goals are met. The Council process minimizes impacts of the deviations by annually establishing fishing regimes, based on estimates of preseason stock abundance and expected harvest patterns, which are designed to achieve ocean and river harvest allocations while meeting the spawning escapement goals or objectives. Failure by a stock to meet management objectives for three consecutive years may indicate an undesirable downward trend in a stock which requires the special consideration accorded it under the definition of overfishing to assure that corrective action is taken long before the stock is significantly depleted.

Stocks without specified goals in the FMP are also provided significant protection against overfishing because the Council bases its management on the stock which is first reduced to its annual specified goal level by the fisheries. Such a stock could be the weakest stock or an abundant stock which is heavily impacted by ocean salmon fisheries.

4.2.2 Council Response

When a specific stock or stock grouping fails to meet its annual spawning escapement objective for three consecutive years, the Council shall appoint a work group to investigate the causes of the apparent shortfall (e.g., due to causes within or outside of Council control). The work group will include members from the STT, SSC and SAS, as well as invited representatives of federal, state and tribal agencies having management authority over water quality and pertinent salmon production habitat. The current status of stock productivity and all sources of stock mortality will be examined by the work group and a report of its conclusions and recommendations provided to the Council. For those actions within Council control, the Council may change analytical or procedural methodologies to improve the accuracy of estimates for abundance, harvest impact and MSY escapement levels, and/or to reduce ocean harvest impacts when shown to be effective in stock recovery to MSY levels. For those causes beyond Council control, the Council may make recommendations to those entities which have the control to change preseason prediction methodology (e.g., procedures established under Hoh v. Baldrige), improve habitat, and review and/or revise escapement goals.

4.2.3 Stocks Requiring Special Consideration

The Council has established annual spawning escapement goals for two stocks (Columbia River upriver spring and summer chinook) which have failed to meet their annual spawning escapement goals for a long period of time. The cause of this failure has been documented as adverse flow and fish passage problems and harvest impacts outside Council jurisdiction (Northwest Power Planning Council 1986; PSC 1990). The ocean harvest of these stocks occurs primarily north of Council-managed waters. The Council will closely monitor ocean fisheries impacts on these stocks while it attempts to maintain low harvest levels and endeavors to increase their productivity by seeking improvements in habitat, fish passage, flows, interceptions, and other factors affecting the overall stock survival.

4.2.4 Management Implications of Special Concern to the Council

Salmon stocks in the Council management area have suffered significantly from habitat destruction and mortality induced by hydroelectric operations and water diversion (Anadromous Salmonid Environmental

Task Force 1979; Northwest Power Planning Council 1986 and 1994; Chambers 1992; Kier 1992 and National Research Council 1995). The Council's fishery managers and Pacific coast fishermen have persistently struggled for many years to realize mitigation for these negative habitat impacts and have had fisheries curtailed to protect the stocks so impacted. This has been an extremely long and difficult battle and several affected salmon stocks are currently listed or being considered for listing under the ESA.

In formulating its definition of overfishing, the Council was extremely concerned that cases of stock stress not be labeled as overfishing unless fishing was the primary cause of the depression. Such indiscriminate use of the overfishing label could greatly diminish the region's focus on correcting major nonfishing sources of stock depression. It could also give the mistaken impression of the need for further reduction in fisheries which have already been curtailed for years to protect the weakened stocks and in which case further fishing reductions provide little or no tangible benefit to the long-term recovery of the stock while inflicting severe social and economic hardship on the fishermen.

While the Council will not use the label of overfishing in a case of stock depression in which fishing mortality is clearly not the primary factor, it must seek to assure adequate spawning escapements by whatever means are available. Even if fishing is not the primary factor in the depression of a stock, the Council will act to decrease the exploitation rate of fisheries within its jurisdiction where such action has a reasonable expectation of benefits to the stock or the fisheries, or is necessary to avoid listing of the stock under the ESA.

[End of Amendment 10, overfishing definition]

5.0 U.S. HARVEST AND PROCESSING CAPACITY AND ALLOWABLE LEVEL OF FOREIGN FISHING

At the highest conceivable level of recent past, present, or expected future abundance, the total allowable harvest of salmon stocks can be fully taken by U.S. fisheries. There is no recent record of processors in the Council area refusing fish from fishermen because of inadequate processing capacity. Because shore-based processors can fully utilize all the salmon that can be harvested in marine waters, joint venture processing is fixed as zero.

In view of the adequacy of the domestic fisheries to harvest the highest conceivable level of abundance, the total allowable level of foreign fishing (TALFF) also is fixed as zero. The United States allowed Canadian fishing in U.S. waters under a reciprocal agreement until 1978. Negotiations between the two governments, including those within the context of the PSC, continue to seek a resolution of all transboundary salmon issues. These negotiations are aimed at stabilizing and reducing, where possible, the interception of salmon originating from one country by fishermen of the other. No U.S./Canada reciprocal salmon fishing is contemplated in the foreseeable future.

6.0 ESCAPEMENT GOALS

Escapement goals and management objectives for the various California, Oregon, Idaho, and Washington salmon stocks in the management unit are summarized in Table 6-1 (as amended by Amendments 9, 11 and 12; and technical amendments in 1989 and 1996). Spawning escapement goals (or, in certain instances, ocean escapement goals) are expressed either as single numbers, a range of numbers, a rate, or fixed procedures, i.e., procedures established by the U.S. District Court relative to stocks involving treaty fishing obligations.

Spawner or ocean escapement goals are fixed (see Table 6-1). However, changes can be made without plan amendment if a comprehensive technical review of existing biological data, approved by the Salmon Technical Team and the Council, justifies a modification.

It should be noted that the Council considered modifications of the escapement goals to be unlikely and that a technical review of any biological data would have to provide conclusive evidence that a modification of an escapement goal is necessary.

Specific stock goals for Oregon coastal chinook will become valid as soon as developed (see Section 6.2.2 for details). The separate stock goals will be a refinement of the single goal adopted in the Framework Amendment and these do not constitute a change in goals.

Court-ordered changes in escapement goals will be accommodated without a plan amendment.

All changes to stock goals other than those outlined above will require a plan amendment or emergency regulations. The Council's approach to spawner goals purposely discourages frequent changes in goals for short-term economic or social reasons at the expense of long-term benefits from these resources.

6.1 COHO

6.1.1 Columbia River and Oregon Coastal Coho

Amendment 11 (pages 16-19), effective April 29, 1994, replaces OCN coho spawning escapement goal as previously modified by Amendment 7 (letter of April 15, 1994 to Mr. J. Gary Smith provides additional clarification) as follows:

The ocean escapement goals for OPI area coho stocks are to achieve an aggregate OCN adult spawning density of 42 adult spawners per mile in Oregon coastal "standard" index survey areas each year and to provide for treaty obligations, inside harvest opportunities and hatchery requirements.

For OCN coho, the yearly spawning escapement goal shall be based on enough spawners to achieve, in aggregate, 42 naturally spawning adults per mile in ODFW's "standard" coastal index survey areas. This goal is equivalent to 200,000 naturally-spawning adults for Oregon coastal habitat, as documented in current data sets used by the Council, and meets the long-term MSY goal established by ODFW for this stock. This goal may be reevaluated when Oregon completes revision of its Comprehensive Coho Management Plan.

Below a yearly OCN stock abundance that is 125 percent of the annual numerical escapement goal (an abundance of 250,000 at the present spawner escapement goal of 200,000 adults), up to a 20 percent exploitation rate will be allowed for incidental impacts of the combined ocean troll, sport and freshwater fisheries. When the predicted spawner escapement is less than or equal to 28 coho per mile in standard index areas, the Council may allow an incidental exploitation rate of up to 20 percent that will provide only the minimum incidental harvest necessary to prosecute other fisheries, and which under no circumstances will cause irreparable harm to the OCN stock.

TABLE 6-1. Summary of management goals for stocks in the Council's salmon management unit (as revised by Amendments 9; 11 and 12, and Salmon Technical Team review of the goal for Klamath River fall chinook in 1989 and 1996). (Page 1 of 2)

Stock or System	Spawner Escapement Goal ^{a/}	Other Management Objectives
CHINOOK SALMON		
Sacramento River Fall Chinook	122,000 to 180,000 natural and hatchery. ^{b/}	Provide for inside recreational fishery.
Klamath River Fall Chinook	Between 33 and 34 percent of the potential adult natural spawners, but no fewer than 35,000 naturally spawning adults in any one year. The brood escapement rate will average 33 to 34 percent over the long term, but an individual brood may vary from this range to achieve the required tribal/non-tribal annual allocation. (Amendment 9 and STT technical review)	Ocean and inriver fisheries management based on allowable harvest rate combination, except as needed to protect the escapement floor and meet the tribal/nontribal harvest allocation.
Oregon Coastal Chinook	150,000 to 200,000 natural adults. ^{c/}	Meet hatchery requirements.
Columbia River Chinook		Manage consistent with: Pacific Salmon Treaty Act, treaty Indian obligations, ESA Section 7 consultations for Snake River spring/summer and fall chinook, inside non-Indian fisheries needs, the Willamette Plan and hatchery requirements.
Upper River Fall (Brights)	40,000 bright adults above McNary Dam.	
Upper River Summer	80,000 to 90,000 adults above Bonneville Dam.	
Upper River Spring	115,000 adults above Bonneville Dam.	
Lower River Fall (Tule)	Meet hatchery requirements.	
Lower River Spring (Willamette River)	30,000 to 45,000 based on run size.	
Washington Coastal Fall Chinook	d/e/	Meet treaty Indian allocation requirements, provide fish for inside non-Indian needs.
Washington Coastal Spring-Summer Chinook	d/e/	Same as Washington coastal fall chinook.
Puget Sound Chinook	d/e/	Same as Washington coastal fall chinook.
COHO SALMON		
Oregon Coastal Coho	Meet an aggregate density of 42 naturally spawning adults per mile in standard index survey areas (Amendment 11). ^{f/}	None.
Columbia River Coho	Meet hatchery egg-take goals.	Provide for Columbia River treaty Indian obligations, inside non-Indian fisheries, and meet hatchery requirements.
Washington Coastal Coho	d/	Meet treaty Indian obligation requirements, provide fish to inside non-Indian fisheries, and meet hatchery requirements.
Puget Sound Coho	d/	Same as Washington coastal coho.
Southern British Columbia Coho	Not clearly established.	Manage consistent with U.S.-Canada treaty.
PINK AND SOCKEYE SALMON		
Puget Sound Pink	900,000 natural. ^{d/}	Meet treaty Indian obligation requirements.
Fraser River Pink and Sockeye		Manage consistent with chinook and coho escapement needs.
Lake Washington Sockeye	350,000 to Lake Washington. ^{e/}	Meet treaty Indian allocation requirements. ^{h/}
Columbia River Sockeye	65,000 over Priest Rapids.	

TABLE 6-1. Summary of management goals for stocks in the Council's salmon management unit (as revised by Amendments 9; 11 and 12, and Salmon Technical Team review of the goal for Klamath River fall chinook in 1989 and 1996). (Page 2 of 2)

Stock or System	Spawner Escapement Goal ^{a/}	Other Management Objectives
<p>Species listed under the ESA^{v/}</p>	<p>Manage consistent with NMFS jeopardy standards or recovery plans to meet immediate conservation needs and the long-term recovery of the species.^{y/}</p>	<p>None.</p>
<p>ALL SALMON SPECIES (Amendment 12)</p>		
a/	<p>Represents adult natural spawner escapement goal for viable natural stocks or adult hatchery return goal for stocks managed for artificial production. Includes upper and lower river components and is presented as a range within which annual escapements can be expected to vary. The State of California has established a distribution goal for each river system which contributes to the aggregate Central Valley fall chinook goal. These distribution goals are not used as a basis for ocean management, but will be used as management goals by agencies having inriver management responsibilities. The distribution goals are listed in Section 6.2.1 of the salmon FMP.</p>	
b/	<p>Specific goals have not been established for individual river systems. When goals are established for spring and fall runs as well as north and south coast stocks, they may be incorporated in the plan without the need for a formal amendment.</p>	
c/	<p>Annual management objectives (expected hatchery plus natural escapement) for specific rivers or regions of origin are developed through fixed procedures established in the U.S. District Court. The total escapement objective is based upon either maximum sustained harvest spawning escapement goals for stocks managed primarily for natural production (Grays Harbor, Queets, Hoh, Quillayute, Strait of Juan de Fuca, Skagit, Stillaguamish/Snohomish, and Hood Canal) or upon hatchery escapement needs for stocks managed for artificial production. Total escapement objectives for each stock are established annually based on the appropriate goal. Puget Sound procedures are outlined in "Memorandum Adopting Salmon Plan" (U.S. v. Washington, 459 F. Supp. 1020 [1978]). Washington north coastal coho procedures are established in U.S. District Court order <u>Hoh v. Baldrige</u> No. 81-742 (R) C.</p>	
e/	<p>These stocks represent a minor component of the Washington ocean harvest although ocean impact relative to terminal run size for each stock can be a management consideration.</p>	
f/	<p>At OCN stock sizes below 125 percent of the annual numerical escapement goal, an exploitation rate of up to 20 percent will be allowed for incidental impacts of the combined ocean troll, sport, and freshwater fisheries. At projected OCN spawning escapements of 28 or fewer adults per mile, an exploitation rate of up to 20 percent may be allowed to provide only minimum incidental harvest to prosecute other fisheries, provided the rate chosen will cause no irreparable harm to the OCN stock.</p>	
g/	<p>Fraser River pink and sockeye salmon are managed primarily under jurisdiction of the Fraser River Panel of the Pacific Salmon Commission which includes control of ocean harvests north of 48°N latitude. State control of landings may be used to control potential impacts on coho or chinook during pink and/or sockeye fisheries.</p>	
h/	<p>These stocks represent a negligible component of the Washington ocean harvest.</p>	
i/	<p>The Council must meet or exceed the requirements of the ESA which is other applicable law. Considerations for listed species first became necessary in 1990 after Sacramento winter chinook were classified as threatened. Similar consideration first became necessary for Snake River sockeye and chinook salmon species in 1992. Other salmon species may be listed in the future.</p>	
j/	<p>In so far as is practical while not compromising its ability to meet the requirements of the ESA, the NMFS will endeavor to provide opportunity for Council and peer review of any proposed jeopardy standards, or the objectives of recovery plans, well prior to their implementation. Such review would ideally commence no later than the last Council meeting in the year immediately preceding the first salmon season in which the standards would be implemented.</p>	

6.1.2 North of Cape Falcon Coho

Columbia River escapement goals are addressed in the preceding section (OPI area). Annual escapement objectives for Washington coastal and Puget Sound coho stocks are developed through procedures established in U.S. District Court. Puget Sound management procedures are outlined in a "Memorandum Adopting Salmon Management Plan" (U.S. v. Washington, 459 F. Supp. 1020 [1978]), while Washington coastal procedures are provided by a U.S. District Court order in Hoh v. Baldrige. The expected total escapement is based upon either maximum sustainable harvest (MSH) spawning escapement goals for stocks managed primarily for natural production or upon hatchery escapement needs for stocks managed for artificial production. Total escapement objectives for each stock are established annually, based on the appropriate goal. Washington salmon stocks managed primarily for natural production include Grays Harbor, Queets, Hoh, Quillayute falls, Strait of Juan de Fuca, Skagit, Stillaguamish/Snohomish, and Hood Canal.

For the Washington Coast, from Grays Harbor northward, the Hoh v. Baldrige Framework Management Plan defines management objectives and long-term goals as developed by federal, state and tribal agencies under direction of the U.S. District Court. For Puget Sound stocks, a long-term management plan which will define management objectives more specifically is being developed by representatives from federal, state and tribal agencies. Annual agreements between the State of Washington and affected treaty tribes describe the escapement objectives and fishing regimes to be used by the Council in establishing ocean fishing plans.

The methodology currently used to estimate escapement goal ranges of coho spawning naturally in Washington entails the following: (1) estimating available juvenile coho rearing area by various habitat types; (2) applying number of smolts per unit of rearing area (values derived from appropriate literature or studies) to estimate the maximum production of smolts from each system under average environmental conditions; (3) dividing the smolt potential by the number of smolts produced per female to estimate the number of female spawners necessary to maximize smolt production under average environmental conditions; and (4) applying the average proportion of adult males to females to estimate the natural adult spawning goal.

Different escapement goal methodology which may be employed, depending on the availability of data, includes historic escapement averages and spawner-recruit population dynamics theory.

Annual natural spawning escapement goal estimates and total escapement objectives are made by the Washington Department of Fish and Wildlife and treaty tribes in status reports and distributed for public review under the provisions of U.S. v. Washington and subsequent U.S. District Court orders. After agreement to these goals is reached by the parties in this litigation, ocean fishery escapement objectives are established for each river, or region of origin, which include provisions for providing treaty allocation requirements and inside, non-Indian fishery needs.

6.2 CHINOOK

6.2.1 California Chinook

Escapement goals for California chinook, shown in Table 6-1, are for fall run fish. Significant populations of late fall, spring, and winter chinook also occur in the upper Sacramento River (above Feather River), but escapement goals for ocean management purposes have not been established for these stocks.

The Central Valley (Sacramento and San Joaquin rivers) and initial Klamath River long-term spawning escapement goals were established in 1977 and 1978 respectively, based on averages of previous years' run sizes. The following base periods were used: Sacramento River 1953-1960, San Joaquin River 1972-

1977, and Klamath River early 1960's (circa 1963). In 1980 the Central Valley goals were adjusted to address adults only and to separate hatchery and natural goals. Hatchery goals for Central Valley are based on mitigation requirements or hatchery capacities, whichever is higher. The Klamath fall chinook goal was modified in 1989 to include only a goal for natural spawners on a harvest rate basis.

6.2.1.1 Sacramento River Fall Chinook

The Council's goal is to achieve a single river spawning escapement goal range of 122,000 to 180,000 Sacramento River chinook. Within this range annual escapements can be expected to vary. Separate goals for the upper and lower Sacramento stocks are not established. The California Department of Fish and Game has provided the following information on state distribution goals and the rationale for this option:

California Department of Fish and Game Distribution Goals for Sacramento River Fall Chinook Salmon ^{a/}

Upper River	Natural	99,000
	Hatchery	9,000
	Total	108,000
Lower River		
Feather River	Natural	27,000
	Hatchery	5,000
Yuba River	Natural	10,000
American River	Natural	24,000
	Hatchery	6,000
Total Lower River		72,000
Total River		180,000

a/ Distribution goals are not a basis for ocean management, but rather goals for agencies having inriver management authority. Until passage problems are corrected at Red Bluff Diversion Dam, upriver distribution goals are not expected to be achieved.

A single fall chinook goal for the Sacramento River system was chosen for ocean management since no techniques are currently available to selectively harvest the various stocks. The hatchery and natural components of the run are combined since there is a high degree of mixing of these components at the hatchery and in the natural spawning areas (see pages 3-18 and 3-19 of the 1984 salmon framework plan for more detail).

6.2.1.2 San Joaquin River Chinook

The San Joaquin River system is degraded severely due to water development and pollution. Increases in water transport out of the Delta will further jeopardize the continuation of these runs.

San Joaquin escapement cannot be selectively managed in the ocean. Ocean management for Sacramento River chinook within the escapement range adopted will provide adequate escapement of San Joaquin stocks to achieve spawning requirements.

6.2.1.3 Klamath River Fall Chinook

Amendment 9 (Issue 1, Alternative 3, pages 4-5 and 12-13), effective May 1, 1989, replaces Klamath spawning escapement goal as follows:

The objective of Klamath River fall chinook management is to allow a fixed percentage of the potential adults from each brood of natural spawners to escape the fisheries and spawn, subject to a minimum escapement level for naturally spawning adults. The intent of the goal is to provide a range of escapement levels to better define the stock recruitment relationship. The natural spawning escapement floor was included to promote a more rapid recovery of the natural stock following periods of low abundance and also serves to assure a high probability that desired hatchery escapement will be met in all years.

An assessment of the measurable biological parameters for the stock and the selectivities of the ocean and river fisheries acting upon it are used to determine the proportion of the potential adults from each brood that should be allowed to spawn. This can best be achieved by regulating offshore and terminal area harvest rates, based upon age-specific fishery impacts by ocean and inriver fisheries in combination (see "Recommended Spawning Escapement Policy for Klamath River Fall-Run Chinook" by the KRTT, 1986 and Amendment 9, Issue 2 for a more detailed description of the basis of the goal).

An evaluation of available information on the production potential of Klamath River fall chinook indicates that a minimum escapement of 35,000 naturally-spawning adults must be protected in all years in order to prevent extended periods of low juvenile production (KRTT 1986). Protection of this escapement floor may require reductions in allowable offshore and terminal area harvest rates in years of low adult production.

The initial natural spawning escapement and harvest rate percentages were based on the 1986 recommendation of the KRSMG (a 35 percent natural spawning escapement rate and a 65 percent harvest rate for each brood of fish). The Council also noted that the STT may annually consider input on the appropriateness of the current escapement rate goal and provide its determination to the Council in advance of pre-season management option development. Both rates may be modified upon approval of the STT and Council.

In concurrence with STT recommendations, the Council has modified the Klamath escapement goal twice by technical amendment since Amendment 9 was approved. On March 8, 1989 the Council modified the spawner escapement rate of 35 percent to "between 33 to 34 percent". The STT recommendation was based on a review of the relationship of brood year escapements to MSY and consideration of the reduced hooking mortality rate of barbless hooks. On April 11, 1996, the goal was modified to allow for meeting the harvest rate on a long-term, rather than brood year basis, in order to accommodate the federally recognized annual tribal allocation.

Various assumptions and estimates were used in the development of this harvest rate approach to the management of Klamath River fall chinook. The fishery model upon which the Klamath River natural spawning escapement rate is based will be continually under review as new information on the stock and the fisheries becomes available. The optimum escapement goal for the resource, expressed as a fixed escapement level or a fixed escapement rate, will be determined in future years as productivity measurements become available from a wide range of escapement levels of naturally spawning adults.

[End of Amendment 9, Klamath spawner escapement goal]

6.2.2 Oregon Coastal Chinook

Oregon coastal natural chinook stocks remain in a generally favorable status, showing upward trends in spawning escapement since 1952. With some exceptions these stocks have stabilized at optimal spawning levels in recent years.

The management objective for Oregon coastal chinook is to achieve the natural spawning escapement goal of 150,000 to 200,000 adult fish. This escapement goal is equivalent to peak spawning ground index counts of 60 to 90 adults per mile, including both spring and fall chinook. The Oregon Department of Fish and Wildlife currently is refining its coastal chinook escapement goals as part of a chinook plan development process. An outcome of the planning process will be separate escapement goals for spring and fall runs as well as northern and southern coastal stocks. When developed and adopted by the Council, these separate goals, because they are a refinement of current goals and not a change in goals, will become a part of the salmon FMP without need for further plan amendment.

6.2.3 North of Cape Falcon Chinook

The majority of the ocean chinook harvest north of Cape Falcon is comprised of Bonneville Pool falls and lower Columbia River falls and springs (Cowlitz), all primarily of hatchery-origin. Hatchery production escapement goals of these stocks are established according to long-range production programs and/or mitigation requirements associated with displaced natural stocks. Low, incidental harvest of several naturally-produced stocks occurs in fisheries within this area, including upper Columbia River falls (brights), summers, springs, and certain Washington coastal and Puget Sound stocks.

Spawning escapement goals for upper Columbia River stocks have been established (Table 6-1). The spawning escapement goal of up-river natural fall chinook (brights) is 40,000 adults past McNary Dam. The escapement goal for up-river summers has been listed as 80,000 adults above Bonneville Dam, and was established prior to the last phase of Columbia River dam production. Annual escapement objectives for Washington coastal chinook stocks are established through procedures of the U.S. District Court.

7.0 PROCEDURES FOR DETERMINING ALLOWABLE OCEAN HARVESTS

Determination of allowable harvest of salmon in ocean fisheries is a process designed to meet the objectives delineated in Section 3.0. The procedure is complicated by natural variability in annual abundance, variability in the ocean migratory routes and timing, and the high degree of mixing in ocean fisheries of species and stocks having specific long-term management goals. Depending upon ability to accurately estimate stock-specific impacts of ocean fisheries, either pre-season or in-season, allowable harvest may be expressed in terms of season regulations expected to achieve a certain optimum harvest level or in terms of a particular number of fish.

Restriction of the fishery by time and area is presently the principal means of achieving allowable harvest objectives when techniques for accurately predicting abundance are unavailable. Application of this management practice carries the risk of overfishing due to unexpectedly high levels of effort or availability. The fishery is characterized by large potential for effort response from latent gear or transferred effort from closed times and areas. The availability of fish to particular gear depends upon a variety of environmental factors and behavior of fish stocks.

Allowable harvest in terms of numbers of fish may be regulated through imposition of stock-specific limits or by more generalized limitations on total catch in a particular fishery. The critical criteria for determination of a stock-specific limit may be abundance of the weakest stock for which management is defined. In application, however, given the state of pre-season stock assessment abilities, stock- and species-specific quotas can result in higher than desirable harvest rates on runs weaker than anticipated and lower than desirable rates on stronger than anticipated runs.

Quotas do not represent guaranteed harvests but rather the maximum allowable harvest of the species or stock for which management is most critically defined, including all other stocks or species harvested in association with achievement of that objective. Depressed viable natural stocks may represent a relatively small proportion of the total ocean harvest in a particular area. Under these conditions the Council, using the best available techniques, determines the maximum ocean harvest impact on individual weak stocks which could be allowed while providing some level of harvest opportunity on stronger natural and hatchery stocks.

Procedures for determining allowable ocean harvest vary by species and fishery complexity. Procedures change over time. Specific changes brought about by improvement in forecasting techniques or outside/inside allocation procedures due to treaty or user sharing revisions are anticipated by this framework mechanism so that they may be adopted without formal amendment. The Framework Amendment describes procedures used at the time of its adoption (1984). Changes in procedures since that time, along with the rationale for changes, are described in Council documents developed during the pre-season regulatory process as outlined in the table in Chapter 12.0.

8.0 ALLOCATION OF OCEAN HARVEST

Several of the Council's management objectives fall under the general category of allocation. Allocation is required when the number of fish is not adequate to satisfy the perceived needs of the various user groups, to divide the catch between (non-Indian) ocean and inside fisheries and between ocean fisheries, and to provide treaty Indian fishing opportunity. The Council has addressed the question of allocation between ocean and inside fisheries and between ocean troll and recreational fisheries by stating its objective to "Establish ocean harvest rates for commercial and recreational fisheries that are consistent with...continuance of established recreational and commercial fisheries."

In allocating the resource between ocean and inside fisheries, the Council considers both inriver harvest and spawning escapement needs. The magnitude of inriver harvest is determined by the states in a variety of ways, depending upon the management area. Some levels of inriver harvests are designed to accommodate federally recognized inriver Indian fishing rights, while others are established to allow for non-Indian harvests of historic magnitudes.

8.1 NON-INDIAN OCEAN FISHERIES

Prior to 1981, before quotas were made a part of the management scheme, allocation of the ocean harvest between troll and recreational fishers was addressed only indirectly through selection of season (time/area closures), size limits and gear restriction measures. Beginning in 1981, when quotas became a part of the management scheme, allocation was treated more directly by dividing the total ocean harvest quota for a management area, where they existed, between the ocean troll and recreational fisheries.

The basis for allocation between ocean fisheries has become more complex and controversial in recent years with low runs and an increasing number of fishers. The Council sought public comment on the issue of allocation during the process of developing the Framework Amendment and has since amended the initial framework allocations several times.

8.1.1 U.S./Canada Border to Cape Falcon - Coho/Chinook

Amendment 9 (Issue 2, Alternative 3, pages 21-22), effective May 1, 1989, replaces North of Cape Falcon allocation as follows (also see clarifying letter of February 27, 1989 to Mr. Rolland Schmiten):

Harvest allocations will be made from a total allowable ocean harvest which is maximized to the largest extent possible but still consistent with treaty obligations, state fishery needs and spawning escapement requirements. The Council shall make every effort to establish seasons and gear requirements which provide troll and recreational fleets a reasonable opportunity to catch the available harvest. These may include single-species directed fisheries with landing restrictions for other species.

The goal of allocating ocean harvest north of Cape Falcon is to achieve, to the greatest degree possible, the objectives for the commercial and recreational fisheries as follows:

- Provide recreational opportunity by maximizing the duration of the fishing season while minimizing daily and area closures and restrictions on gear and daily limits.
- Maximize the value of the commercial harvest while providing fisheries of reasonable duration.

Initial commercial and recreational allocation will be determined by the schedule of percentages of total allowable harvest as follows:

Harvest (thousands of fish)	Coho		Harvest (thousands of fish)	Chinook	
	Percentage ^{a/}			Percentage ^{a/}	
	Troll	Recreational		Troll	Recreational
0-300	25	75	0-100	50	50
>300	60	40	>100-150	60	40
			>150	70	30

a/ The allocation must be calculated in additive steps when the harvest level exceeds the initial tier.

This allocation schedule should, on the average, allow for meeting the specific fishery allocation priorities described below. The initial allocation may be modified annually by preseason and inseason trades to better achieve (1) the commercial and recreational fishery objectives and (2) the specific fishery allocation priorities. The final preseason allocation adopted by the Council will be expressed in terms of quotas which are neither guaranteed catches nor inflexible ceilings. Only the total ocean harvest quota is a maximum allowable catch.

To provide flexibility to meet the dynamic nature of the fisheries and to assure achievement of the allocation objectives and fishery priorities, deviations from the allocation schedule will be allowed as follows:

1. Preseason species trades (chinook and coho) which vary from the allocation schedule may be made by the Council based upon the recommendation of the pertinent recreational and commercial SAS representatives north of Cape Falcon. The Council will compare the socio-economic impacts of any such recommendation to those of the standard allocation schedule before adopting the allocation which best meets FMP management objectives.
2. Inseason transfers, including species trades of chinook and coho, may be permitted in either direction between recreational and commercial fishery quotas to allow for uncatchable fish in one fishery to be reallocated to the other. Fish will be deemed "uncatchable" by a respective commercial or recreational fishery only after considering all possible annual management actions to allow for their harvest which meet framework harvest management objectives, including single species or exclusive registration fisheries. Implementation of inseason transfers will require (a) consultation with the pertinent recreational and commercial SAS members and the STT and (b) a clear establishment of available fish and impacts from the transfer.
3. An exchange ratio of four coho to one chinook shall be considered a desirable guideline for preseason trades. Deviations from this guideline should be clearly justified. Inseason trades and transfers may vary to meet overall fishery objectives. (The exchange ratio of four coho to one chinook approximately equalizes the species trade in terms of average ex-vessel values of the two salmon species in the commercial fishery. It also represents an average species catch ratio in the recreational fishery.)

Amendment 10 (Issue 2, pages 11-16), effective July 11, 1991, primarily replaces recreational allocation criteria in Amendment 9 as follows:

4. Any increase or decrease in the recreational or commercial TAC, resulting from an inseason restructuring of a fishery or other inseason management action, does not require reallocation of the overall north of Cape Falcon non-Indian TAC.

5. The commercial TACs of chinook and coho derived during the preseason allocation process may be varied by major subareas (i.e., north of Leadbetter Point and south of Leadbetter Point) if there is a need to do so to decrease impacts on weak stocks. Deviations in each major subarea will generally not exceed 50 percent of the TAC of each species that would have been established without a geographic deviation in the distribution of the TAC. Deviation of more than 50 percent will be based on a conservation need to protect the weak stocks and will provide larger overall harvest for the entire fishery north of Cape Falcon than would have been possible without the deviation.
6. The recreational TACs of chinook and coho derived during the preseason allocation process will be distributed among the three major recreational subareas as described in the coho and chinook distribution sections below. Additionally, based on the recommendations of the SAS members representing the ocean sport fishery north of Cape Falcon, the Council will include criteria in its preseason salmon management recommendations to guide any inseason transfer of coho among the recreational subareas to meet recreational season duration objectives. Inseason redistributions of quotas within the recreational fishery or the distribution of allowable coho catch transfers from the commercial fishery may deviate from the preseason distribution. The Council may also establish additional subarea quotas within a major subarea to meet recreational season objectives based on agreement of representatives of the affected ports.

Coho Distribution - The north of Cape Falcon preseason recreational TAC of coho will be distributed to provide 50 percent to the area north of Leadbetter Point and 50 percent to the area south of Leadbetter Point. In years with no Area 4B fishery, the distribution of coho north of Leadbetter Point will be divided to provide 74 percent to the subarea between Leadbetter Point and the Queets River (Westport) and 26 percent to the subarea north of the Queets River (Neah Bay/La Push). Table 8-1 displays the distribution of shares north of Leadbetter Point with the 74/26 percent split. In years when there is an Area 4B fishery under state management, 25 percent of the numerical value of that fishery shall be added to the recreational TAC north of Leadbetter Point prior to applying the sharing percentages. That same value would then be subtracted from the Neah Bay/La Push share in order to maintain the same total distribution north of Leadbetter Point. Table 8-2 displays the allowable catch shares for Westport and Neah Bay/La Push with a 20,000 coho harvest for Area 4B.

TABLE 8-1. Example distribution of the recreational coho TAC north of Leadbetter Point for years in which there is no Area 4B recreational fishery.

Recreational Coho TAC North of Cape Falcon	Allowable Coho Catch		
	North of Leadbetter Point	Westport (74 Percent)	Neah Bay/La Push (26 Percent)
100,000	50,000	37,000	13,000
125,000	62,500	46,250	16,250
150,000	75,000	55,500	19,500
175,000	87,500	64,750	22,750
200,000	100,000	74,000	26,000
225,000	112,500	83,250	29,250
250,000	125,000	92,500	32,500
300,000	150,000	111,000	39,000

TABLE 8-2. Example distribution of the recreational coho TAC north of Leadbetter Point for years in which there is an Area 4B recreational fishery of 20,000 coho.

Recreational Coho TAC North of Cape Falcon	North of Leadbetter Point	Westport	Neah Bay/La Push
100,000	50,000	40,700	9,300
125,000	62,500	49,950	12,550
150,000	75,000	59,200	15,800
175,000	87,500	68,450	19,050
200,000	100,000	77,700	22,300
225,000	112,500	86,950	25,550
250,000	125,000	96,200	28,800
300,000	150,000	114,700	35,300

Chinook Distribution – Subarea distributions of chinook will be managed as guidelines and shall be calculated by the STT with the primary objective of achieving all-species fisheries without imposing chinook restrictions (i.e., area closures or bag limit reductions).

Chinook in excess of all-species fisheries needs may be utilized by directed chinook fisheries north of Cape Falcon or by negotiating a chinook/coho trade with another fishery participant group.

Inseason management actions may be taken by the National Marine Fisheries Service Regional Director to assure that the primary objective of the chinook harvest guidelines for each of the three recreational subareas north of Cape Falcon are met. Such actions might include: closure from 0 to 3, or 0 to 6, or 3 to 200, or 5 to 200 nautical miles from shore; closure from a point extending due west from Tatoosh Island for 5 miles, then south to a point due west of Umatilla Reef Buoy, then due east to shore; closure from North Head at the Columbia River mouth north to Leadbetter Point; change species which may be landed; or other actions as prescribed in the annual regulations.

[End of Amendment 10, north of Cape Falcon recreational allocation]

Resume Amendment 9, north of Cape Falcon harvest allocation, as follows:

Fishery Allocation Priorities

The priorities listed below will be used to help guide establishment of the final harvest allocation while meeting the overall commercial and recreational fishery objectives.

At total allowable harvest levels up to 300,000 coho and 100,000 chinook:

- Provide coho to the recreational fishery for a late June through early September all-species season. Provide chinook to allow (1) access to coho and, if possible, (2) a minimal chinook-only fishery prior to the all-species season. Adjust days per week and/or institute area restrictions to stabilize season duration.
- Provide chinook to the troll fishery for a May and early June chinook season and provide coho to (1) meet coho hooking mortality in June where needed and (2) access a pink salmon fishery in odd years. Attempt to ensure that part of the chinook season will occur after June 1.

At total allowable harvest levels above 300,000 coho and above 100,000 chinook:

- Relax any restrictions in the recreational all-species fishery and/or extend the all-species season beyond Labor Day as coho quota allows. Provide chinook to the recreational fishery for a Memorial Day through late June chinook-only fishery. Adjust days per week to ensure continuity with the all-species season.
- Provide coho for an all-salmon troll season in late summer and/or access to a pink fishery. Leave adequate chinook from the May through June season to allow access to coho.

[End of Amendment 9, north of Cape Falcon harvest allocation]

8.1.2 South of Cape Falcon - Coho

Amendment 7 (Issue 1, Alternative 2, pages 5-6), effective March 8, 1987, replaces south of Cape Falcon coho harvest allocation as follows:

The allocation of allowable ocean harvest of coho salmon south of Cape Falcon has been developed to provide a more stable recreational season and increased economic benefits of the ocean salmon fisheries at varying stock abundance levels. When coupled with various recreational harvest reduction measures or the timely transfer of unused recreational allocation to the commercial fishery, the allocation schedule is designed to help secure recreational seasons extending at least from Memorial Day through Labor Day, assist in maintaining commercial markets even at relatively low stock sizes, and fully utilize available harvest. Total ocean catch of coho south of Cape Falcon will be treated as a quota to be allocated between troll and recreational fisheries as provided in Table 8-3.

(Note: The allocation schedule provides guidance only when coho abundance permits a directed coho harvest, not when the allowable impacts are insufficient to allow coho retention south of Cape Falcon. At such low levels, allocation of the allowable impacts will be accomplished during the Council's preseason process.)

Amendment 10 (Issue 1, page 4), effective July 11, 1991, replaces second paragraph of south of Cape Falcon coho allocation in Amendment 7 as follows:

The allocation schedule is designed to give sufficient coho to the recreational fishery to increase the probability of attaining no less than a Memorial Day to Labor Day season as stock sizes increase. This increased allocation means that, in many years, actual catch in the recreational fishery may fall short of its allowance. In such situations, managers will make an inseason reallocation of unneeded recreational coho to the south of Cape Falcon troll fishery. The reallocation should be structured and timed to allow the commercial fishery sufficient opportunity to harvest any available reallocation prior to September 1, while still assuring completion of the scheduled recreational season (usually near mid-September) and, in any event, the continuation of a recreational fishery through Labor Day. This reallocation process will occur no later than August 15 and will involve projecting the recreational fishery needs for the remainder of the summer season. The remaining projected recreational catch needed to extend the season to its scheduled closing date will be a harvest guideline rather than a quota. If the guideline is met prior to Labor Day, the season may be allowed to continue if further fishing is not expected to result in any significant danger of impacting the allocation of another fishery or of failing to meet an escapement goal.

[End of Amendment 10, south of Cape Falcon coho allocation]

TABLE 8-3. Allocation of allowable ocean harvest of coho salmon (thousands of fish) south of Cape Falcon.^{a/}

Total Allowable Ocean Harvest	Recreational Allocation		Commercial Allocation	
	Number	Percentage	Number	Percentage
≤100	≤100 ^{b/c/}	100 ^{b/}	b/	b/
200	167 ^{b/c/}	84 ^{b/}	33 ^{b/}	17 ^{b/}
300	200	67	100	33
350	217	62	133	38
400	224	56	176	44
500	238	48	262	52
600	252	42	348	58
700	266	38	434	62
800	280	35	520	65
900	290	32	610	68
1,000	300	30	700	70
1,100	310	28	790	72
1,200	320	27	880	73
1,300	330	25	970	75
1,400	340	24	1,060	76
1,500	350	23	1,150	77
1,600	360	23	1,240	78
1,700	370	22	1,330	78
1,800	380	21	1,420	79
1,900	390	21	1,510	79
2,000	400	20	1,600	80
2,500	450	18	2,050	82
3,000	500	17	2,500	83

- a/ The allocation schedule is based on the following formula: first 150,000 coho to the recreational base (this amount may be reduced as provided in footnote b); over 150,000 to 350,000 fish, share at 2:1, 0.667 to troll and 0.333 to recreational; over 350,000 to 800,000 the recreational share is 217,000 plus 14 percent of the available fish over 350,000; above 800,000 the recreational share is 280,000 plus 10 percent of the available fish over 800,000.
- b/ If the commercial allocation is insufficient to meet the projected hook-and-release mortality associated with the commercial all-salmon-except-coho season, the recreational allocation will be reduced by the number needed to eliminate the deficit.
- c/ When the recreational allocation is 167,000 coho or less, special allocation provisions apply to the recreational harvest distribution by geographic area; see text of FMP as modified by Amendment 11 allocation provisions.

Resume Amendment 7, coho allocation south of Cape Falcon:

The allocation schedule is also designed to assure there are sufficient coho allocated to the troll fishery at low stock levels to ensure a full chinook troll fishery. This hooking mortality allowance will have first priority within the troll allocation. If the troll allocation is insufficient for this purpose, the remaining number of coho needed for the estimated incidental coho mortality will be deducted from the recreational share. At higher stock sizes, directed coho harvest will be allocated to the troll fishery after hooking mortality needs for chinook troll fishing have been satisfied.

The allowable harvest south of Cape Falcon may be further partitioned into subareas to meet management objectives of the FMP. Allowable harvests for subareas south of Cape Falcon will be determined by an annual blend of management considerations including:

1. abundance of contributing stocks
2. allocation considerations of concern to the Council
3. relative abundance in the fishery between chinook and coho
4. escapement goals
5. maximizing harvest potential

Amendment 11 (pages 17-19), effective April 29, 1994, revises following paragraph and adds new criteria when recreational allocation is 167,000 or fewer coho (clarifying letter of April 15, 1994 to Mr. J. Gary Smith provides further background):

Troll coho quotas may be developed for subareas south of Cape Falcon consistent with the above criteria. California recreational catches of coho, including projections of the total catch to the end of the season, would be included in the recreational allocation south of Cape Falcon, but the area south of the Oregon-California border would not close when the allocation is met; except as provided below when the recreational allocation is at 167,000 or fewer fish.

When the south of Cape Falcon recreational allocation is equal to or less than 167,000 coho:

1. The recreational fisheries will be divided into two major subareas, as listed in #2 below, with independent quotas (i.e., if one quota is not achieved or is exceeded, the underage or overage will not be added to or deducted from the other quota; except as provided under #3 below).
2. The two major recreational subareas will be managed within the constraints of the following impact quotas, expressed as a percentage of the total recreational allocation (percentages based on avoiding large deviations from the historical harvest shares):
 - a. Central Oregon (Cape Falcon to Humbug Mountain) - 70 percent
 - b. South of Humbug Mountain - 30 percent

In addition,

- (1) Horse Mountain to Point Arena will be managed for an impact guideline of 3 percent of the south of Cape Falcon recreational allocation, and
 - (2) there will be no coho harvest constraints south of Point Arena. However, the projected harvest in this area (which averaged 1,800 coho from 1986-1990) will be included in the south of Humbug Mountain impact quota.
3. Coho quota transfers can occur on a one-for-one basis between subareas if chinook constraints preclude access to coho.

[End of Amendment 11, coho allocation south of Cape Falcon]

8.2 INDIAN FISHERIES

8.2.1 California

On October 4, 1993 the Solicitor, Department of Interior, issued a legal opinion in which he concluded that the Yurok and Hoopa Valley Indian Tribes of the Klamath River Basin have a federally protected right to the fishery resource of their reservations sufficient to support a moderate standard of living or 50 percent of the total available harvest of Klamath-Trinity basin salmon, whichever is less. The Secretary of Commerce recognized the tribes' federally reserved fishing right as applicable law for the purposes of the MFCMA (58 FR 68063, December 23, 1993). The Ninth Circuit Court of Appeals upheld the conclusion that the Hoopa Valley and Yurok tribes have a federally reserved right to harvest fish in Parravano v. Babbitt and Brown, 70 F.3d 539 (1995) (Cert. denied in Parravano v. Babbitt and Brown 110, S.Ct 2546 [1996]). The Council must recognize the tribal allocation in setting its projected escapement level for the Klamath River.

8.2.2 Columbia River

Pursuant to a September 1, 1983 Order of the U.S. District Court, the allocation of harvest in the Columbia River is established under the "Columbia River Fish Management Plan" which was implemented in 1988 by the parties of U.S. et. al. v. Oregon, Washington et al. This plan replaced the original 1977 plan (pages 16-20 of the 1978 FMP). The plan provides a framework within which the relevant parties may exercise their sovereign powers in a coordinated and systematic manner in order to protect, rebuild and enhance upper Columbia River fish runs while providing harvest for both treaty Indian and non-Indian fisheries. The parties to the agreement are the United States, the states of Oregon, Washington and Idaho, and four Columbia River Indian tribes--Warm Springs, Yakama, Nez Perce, and Umatilla.

8.2.3 U.S. v. Washington Area

Treaty Indian tribes have a legal entitlement to the opportunity to take up to 50 percent of the harvestable surplus of stocks which pass through their usual and accustomed fishing areas. The treaty Indian troll harvest which would occur if the tribes chose to take their total 50 percent share of the weakest stock in the ocean, is computed with the current version of the Fishery Regulation Assessment Model (FRAM), assuming this level of harvest did not create conservation or allocation problems on other stocks. A quota may be established in accordance with the objectives of the relevant treaty tribes concerning allocation of the treaty Indian share to ocean and inside fisheries. The total quota does not represent a guaranteed ocean harvest, but a maximum allowable catch.

The requirement for the opportunity to take up to 50 percent of the harvestable surplus determines the treaty shares available to the inside/outside Indian and all-citizen fisheries. Ocean coho harvest ceilings off the Washington coast for treaty Indians and all-citizen fisheries are independent within the constraints that (1) where feasible, conservation needs of all stocks must be met; (2) neither group precludes the other from the opportunity to harvest its share; and (3) allocation schemes may be established to specify outside/inside sharing for various stocks.

9.0 OCEAN SALMON HARVEST CONTROLS

A number of management controls are available to manage the ocean fisheries each season, once the allowable ocean harvests and the basis for allocation among user groups have been determined. Among these are management boundaries, seasons, quotas, minimum harvest lengths, fishing gear restrictions, and recreational daily bag limits. Natural fluctuations in salmon abundance require that annual fishing periods, quotas, and bag limits be designed for the conditions of each year. What is suitable one year probably will not be suitable the next. New information on the fisheries and salmon stocks also may require other adjustments to the management measures. The Council assumes these ocean harvest controls also apply to territorial seas or any other areas in state waters specifically designated in the annual regulations.

Some of the more common measures that have been applied to manage ocean salmon fisheries since 1977 under the MFCMA are described below, along with a clarification of the process and flexibility in implementing the measures. The Framework Amendment (1984) provides a more detailed history of salmon harvest controls and rationale for their designation as fixed or flexible elements of the salmon FMP.

9.1 MANAGEMENT BOUNDARIES AND MANAGEMENT ZONES

Management boundaries and zones will be established during the preseason regulatory process or adjusted inseason (Section 13.2) as necessary to achieve a conservation or management objective. A conservation or management objective is one that protects a fish stock, simplifies management of a fishery, or results in the wise use of the resources. For example, management boundaries and management zones can be used to separate fish stocks, facilitate enforcement of regulations, separate conflicting fishing activities, or facilitate harvest opportunities. Management boundaries and zones will be described in the annual regulations by geographical references, coordinates (latitude and longitude), LORAN readings, depth contours, distance from shore, or similar criteria. Figure 9-1 displays management boundaries in common use in the early to mid-1990s.

While there are many specific reasons for utilizing management boundaries or zones which may change from year to year, some boundaries or zones have purposes that remain relatively constant. The boundary used to separate management of Columbia River chinook from those stocks to the south and to divide the Council's harvest allocation schedules has always been at or near Cape Falcon, Oregon. The Klamath management zone (beginning in 1990, the area between Humbug Mountain, Oregon and Horse Mountain, California) has been used to delineate the area where primary concern is the management of Klamath River fall chinook. A closed zone at the mouth of the Columbia River has been used for several years to eliminate fishing in an area believed to generally contain a high percentage of sublegal "feeder" chinook. A similar zone has been established at the mouth of the Klamath River to allow fish undisturbed access to the river. Changes to these boundaries or zones may require special justification and documentation. However, the basis of establishing most other management boundaries and zones depends on the annual management needs as determined in the preseason process.

9.2 MINIMUM HARVEST LENGTHS FOR OCEAN COMMERCIAL AND RECREATIONAL FISHERIES

Minimum size limits for ocean commercial and recreational fisheries may be changed each year during the preseason regulatory process or modified inseason under the procedures of Section 13.2. Recommended changes must serve a useful purpose which is clearly described and justified, and projections made of the probable impacts resulting from the change.



FIGURE 9-1. Management boundaries in common use during the early to mid-1990s.

Minimum size limits have been relatively stable since the Council began management in 1977 and any changes are expected to occur infrequently. From 1977 through 1995 there were no changes in the size limits for non-Indian commercial fisheries except for the decision to use the California coho minimum length for the entire Klamath management area which extends into Oregon. Recreational minimum size limits did not change between 1988 and 1995. However, in 1996 chinook minimum size limits were increased in California fisheries to reduce impacts on Sacramento River winter chinook.

The minimum size limits listed below (total length in inches) have been consistently used by the Council with only infrequent modifications in limited areas to address special needs or situations.

	Chinook		Coho		Pink	
	Troll	Sport	Troll	Sport	Troll	Sport
North of Cape Falcon	28.0	24.0	16.0	16.0	None	None
Cape Falcon to Humbug Mt.	26.0	20.0	16.0	16.0	None	None
South of Humbug Mt.	26.0	20.0	22.0	20.0	None	None ^{a/}

a/ None, except 20 inches off California.

9.3 RECREATIONAL DAILY BAG LIMIT

Recreational daily bag limits for each management area may be set during the preseason regulatory process or modified inseason (Section 13.2). They will be set to maximize the length of the fishing season consistent with the allowable level of harvest. In recent years, bag limits of one or two salmon have been commonplace.

In general, for every fishing area, the level of allowable ocean harvest will be determined for the recreational fishery; next, the fishing season will be set to be as long as practicable, including the Memorial Day and/or Labor Day weekends if feasible, consistent with the allowable level of harvest; and, bag limits will be simultaneously set to accommodate that fishing season. In years of low salmon abundance, the season will be short and the bag limit will be low; in years of high salmon abundance, the season will be long and the bag limits will be higher.

9.4 FISHING GEAR RESTRICTIONS

Gear restrictions may be changed annually during the preseason regulatory process and inseason as provided in Section 13.2. Recommended changes must serve one or more useful purposes while being consistent with the goals of the plan. For example, changes could be made to facilitate enforcement, reduce hooking mortality, or reduce gear expenses for fishermen. Annual gear restriction changes in previous years have included the requirement for barbless hooks in both the troll and recreational fisheries, and a limit to the number of spreads per line in the troll fishery. Both of these gear changes were instituted to reduce total hook-and-release mortality. Other restrictions have included bait size, number of rods per recreational fisher and requirements for the number of lines or the attachment of lines to the vessel in the commercial fishery.

9.5 SEASONS AND QUOTAS

For each management area or subarea, the Council has the option of managing the commercial and recreational fisheries for either coho or chinook using the following methods: (1) fixed quotas and seasons; (2) adjustable quotas and seasons; and (3) seasons only. The Council may also use harvest guidelines within quotas or seasons to trigger inseason management actions which were established in the preseason regulatory process.

9.5.1 Preferred Course of Action

Because of the need to use both seasons and quotas, depending on the circumstances, the Council decided to make the decision regarding seasons and quotas annually during the preseason regulatory process, subject to the limits specified below. Fishing seasons and quotas also may be modified during the season as provided under Section 13.2.

9.5.2 Procedures for Calculating Seasons

Seasons will be calculated using the total allowable ocean harvest determined by procedures described in Chapter 7.0, and further allocated to the commercial and recreational fishery in accordance with the allocation plan presented in Chapter 8.0, and after consideration of the estimated amount of effort required to catch the available fish, based on past seasons.

Amendment 9 (Issue 6, Alternative 3, pages 46 and 48), effective May 1, 1989, deletes five season limitations and results in the modified paragraph as follows:

Recreational seasons will be established with the goal of encompassing Memorial Day and/or Labor Day weekends in the season, if feasible. Opening dates will be adjusted to provide reasonable assurance that the recreational fishery is continuous, minimizing the possibility of an in-season closure.

[End of Amendment 9, deletion of season limitations]

Criteria used to establish commercial seasons, in addition to the estimated allowable ocean harvests (Chapter 7.0), the allocation plan (Chapter 8.0), and the expected effort during the season, will be: (1) shaker wastage; (2) size, poundage, and value of fish caught; (3) effort shifts between fishing areas; (4) harvest of pink salmon in odd-numbered years; and (5) protection for weak stocks when they frequent the fishing areas at various times of the year.

9.5.3 Species Specific Fisheries

In addition to the all-species seasons and the all-species-except-coho seasons established for the commercial and recreational fisheries, other species limited fisheries, such as "ratio" fisheries, may be considered by the Council during the preseason regulatory process based on the following guidelines:

1. harvestable fish of the target species are available;
2. harvest of incidental species will not exceed allowable levels determined in the management plan;
3. proven, documented selective gear exists (if not, only an experimental fishery should be considered);
4. significant wastage of incidental species will not occur or a written economic analysis demonstrates the landed value of the target species exceeds the potential landed value of the wasted species; and
5. the species specific or ratio fishery will occur in an acceptable time and area where wastage can be minimized and target stocks are maximally available.

9.5.4 Procedures for Calculating Quotas

Quotas will be based on the total allowable ocean harvest as determined by the procedures of Chapter 7.0 and the allocation plan in Chapter 8.0.

To the extent adjustable quotas are used, they may be subject to some or all of the following inseason adjustments:

1. For coho, private hatchery contribution to the ocean fisheries in the OPI area.
2. Unanticipated loss of shakers (undersized fish or unauthorized fish of another species that have to be returned to the water) during the season. (Adjustment for coho hooking mortality during any all-salmon-except-coho season will be made when the quotas are established.)
3. Any catches that take place in the fisheries in territorial waters that are inconsistent with federal regulations in the EEZ.
4. If ability to update inseason stock abundance is developed in the future, adjustments to total allowable harvest could be made where appropriate.
5. Ability to redistribute quotas between subareas depending on performance toward catching the overall quota in the area.

Changes in the quotas as a result of the inseason adjustment process will be avoided unless the changes are of such magnitude that they are scientifically valid as determined by the STT and Council, given the precision of the original estimates.

The basis for determining the private hatchery contribution in (1) above will be either coded-wire tag analysis or analysis of scale patterns, whichever is determined by the Team to be more accurate, or any other method that may become more accurate as determined by the Team and Council.

In reference to (4) and (5) above, if reliable techniques become available for making inseason estimates of stock abundance, and provision is made in any season for its use, a determination of techniques to be applied will be made by the Council and discussed during the preseason regulatory process.

9.5.5 Procedures for Regulating Ocean Harvests of Pink and Sockeye

Sockeye salmon are only very rarely caught in Council-managed ocean salmon fisheries and no specific procedures have been established to regulate their harvest. Procedures for pink salmon are as follows:

1. All-species seasons will be planned such that harvest of pink salmon can be maximized without exceeding allowable harvests of chinook and/or coho quotas and within conservation and allocation constraints of the pink stocks.
2. Species specific or ratio fisheries for pink salmon will be considered under the guidelines for species specific fisheries presented in Section 9.5.3, and allocation constraints of the pink stocks.

9.6 OTHER HARVEST CONTROLS

9.6.1 Treaty Indian Ocean Fishing

Since 1977 the Council has adopted special measures for the treaty Indian ocean troll fisheries off the Washington Coast. The Makah, Quileute, Hoh, and Quinault tribes are entitled by federal judicial determination to exercise their treaty rights in certain ocean areas. In addition, Lower S'Klallam, Jamestown S'Klallam and Port Gamble S'Klallam tribes are entitled by federal judicial determination to exercise their treaty rights in ocean salmon Area 4B, the entrance to the Strait of Juan de Fuca.

The treaty Indian ocean salmon fishing regulations will be established annually during the preseason regulatory process. The affected tribes will propose annual treaty Indian ocean fishing regulations at the

March meeting of the Council. After a review of the proposals, the Council will adopt treaty Indian regulations along with non-treaty ocean fishing regulations for submission to the Secretary of Commerce at the April Council meeting.

The specific timing and duration of the treaty Indian ocean salmon season varies with expected stock abundance and is limited by quotas for both chinook and coho. Within these constraints, the general season structure has been a chinook-directed fishery in May and June, followed by an all-salmon season from July through the earliest of quota attainment or October 31.

9.6.1.2 Seasons

Given that the traditional tribal ocean season has changed in recent years and because it is largely up to the tribes to recommend annual ocean management measures applicable to their ocean fishery, a flexible mechanism for setting fishing seasons is proposed so that desired changes can be made in the future without the need for plan amendment.

The treaty Indian troll season will be established based upon input from the affected tribes, but would not be longer than that required to harvest the maximum allowable treaty Indian ocean catch. The maximum allowable treaty Indian ocean catch will be computed as the total treaty harvest that would occur if the tribes chose to take their total entitlement of the weakest stock in the ocean, assuming this level of harvest did not create conservation or allocation problems on other stocks.

9.6.1.3 Quotas

Fixed or adjustable quotas by area, season or species may be employed in the regulation of treaty Indian ocean fisheries, provided that such quotas are consistent with established treaty rights. The maximum size of quotas shall not exceed the harvest that would result if the entire treaty entitlement to the weakest run were to be taken by treaty ocean fisheries. Any quota established does not represent a guaranteed ocean harvest, but a maximum ceiling on catch. Catches in ocean salmon Area 4B are counted within the tribal ocean harvest quotas during the May 1-September 30 ocean management period.

To the extent adjustable quotas are used, they may be subject to some or all of the following inseason adjustments:

1. Unanticipated shaker loss during the season.
2. Catches by treaty ocean fisheries that are inconsistent with federal regulations in the EEZ.
3. If an ability to update inseason stock abundance is developed in the future, adjustments to quotas could be made where appropriate.
4. Ability to redistribute quotas between subareas depending upon performance toward catching the overall quota for treaty ocean fisheries in the area.

Procedures for the above inseason adjustments will be made in accordance with Section 13.2.

Changes in the quotas as a result of inseason adjustment process will be avoided unless the changes are of such magnitude that they are scientifically valid as determined by the STT and Council, given the precision of the original estimates.

Harvest guidelines may be used within overall quotas to trigger inseason management actions which were established during the preseason regulatory process.

9.6.1.4 Areas

Current tribal ocean fishing areas in the EEZ (subject to change by court order) are as follows:

Makah – north of 48°02'15" N to the U.S./Canada border.

Hoh – south of 47°54'18" N and north of 47°21'00" N.

Quileute – south of 48°07'36" N and north of 47°31'42" N.

Quinault – south of 47°40'06" N and north of 46°54'03" N.

In addition, a portion of the usual and accustomed fishing areas for the Lower Elwha, Jamestown and Port Gamble S'Klallam Tribes is in ocean salmon Area 4B at the entrance to the Strait of Juan de Fuca (Bonilla-Tatoosh line east to the Sekiu River).

Area restrictions may be employed in the regulation of treaty ocean fisheries, consistent with established treaty rights. For example, in 1982 treaty fishing was prohibited within a six-mile radius around the Queets and Hoh River mouths when the area was closed to non-treaty salmon fishing.

9.6.1.5 Size Limits and Gear Restrictions

Regulations for size limits and gear restrictions for treaty ocean fisheries will be based on recommendations of the affected treaty tribes.

Amendment 12 (Issue 1, page 6), effective (to be inserted) 1997, modifies prohibition against use of nets to fish for salmon:

9.6.2 Net Prohibition

No person shall use nets to fish for salmon in the EEZ except that a hand-held net may be used to bring hooked salmon on board a vessel. Salmon caught incidentally in trawl nets while legally fishing under the groundfish FMP are a prohibited species as defined by the groundfish regulations (50 CFR Part 660, Subpart G). However, in cases where the Council determines it is beneficial to the management of the groundfish and salmon resources, salmon bycatch may be retained under the provisions of a Council-approved program which defines the handling and disposition of the salmon. The provisions must specify that salmon remain a prohibited species and, as a minimum, include requirements that allow accurate monitoring of the retained salmon, do not provide incentive for fishers to increase salmon bycatch and assure fish do not reach commercial markets. In addition, during its annual regulatory process for groundfish, the Council must consider regulations which would minimize salmon bycatch in the monitored fisheries.

[End Amendment 12]

9.6.3 Prohibition on Removal of Salmon Heads

No person shall remove the head of any salmon caught in the EEZ, nor possess a salmon with the head removed if that salmon has been marked by removal of the adipose fin to indicate that a coded-wire tag has been implanted in the head of the fish.

9.6.4 Steelhead Prohibition

Amendment 9 (Issue 4, Alternative 2, page 37), effective May 1, 1989, adds recreational fishermen to those who may retain and possess steelhead:

Persons, other than Indians with judicially-declared rights to do so and legally licensed recreational fishermen, may not take and retain, or possess any steelhead within the EEZ.

[End of Amendment 9, steelhead retention]

9.6.5 Prohibition on Use of Commercial Troll Fishing Gear for Recreational Fishing

No person shall engage in recreational fishing for salmon while aboard a vessel engaged in commercial fishing.

9.6.6 Experimental Fisheries

The Council may recommend that the Secretary allow experimental fisheries in the EEZ for research purposes that are proposed by the Council, federal government, state government, or treaty Indian tribes having usual and accustomed fishing grounds in the EEZ.

The Secretary may not allow any recommended experimental fishery unless he determines that the purpose, design, and administration of the experimental fishery are consistent with the goals and objectives of the Council's fishery management plan, the national standards of the MFCMA, and other applicable law. Each vessel that participates in an approved experimental fishery will be required to carry aboard the vessel the letter of approval, with specifications and qualifications (if any), issued and signed by the Regional Director of NMFS.

9.6.7 Scientific Research

This plan neither inhibits nor prevents any scientific research in the EEZ by a scientific research vessel. The Secretary will acknowledge any notification he receives about scientific research on salmon being conducted by a research vessel. The Regional Director of NMFS will issue to the operator/master of that vessel a letter of acknowledgment, containing information on the purpose and scope (locations and schedules) of the activities. Further, the Regional Director will transmit copies of such letters to the Council and to state and federal fishery and enforcement agencies to ensure that all concerned parties are aware of the research activities.

10.0 DATA NEEDS, DATA COLLECTION METHODS, AND REPORTING REQUIREMENTS

Successful management of the salmon fisheries requires considerable information on the fish stocks, the amount of effort for each fishery, the harvests by each fishery, the timing of those harvests, and other biological, social, and economic factors. Much of the information must come from the ocean fisheries; other data must come from inside fisheries, hatcheries, and spawning grounds. Some of this information needs to be collected and analyzed daily, whereas other types need to be collected and analyzed less frequently, maybe only once a year. In general, the information can be divided into that needed for inseason management and that needed for annual and long-term management. The methods for reporting, collecting, analyzing, and distributing information can be divided similarly.

10.1 INSEASON MANAGEMENT

10.1.1 Data Needs

Managers require certain information about the fisheries during the season if they are to control the harvests to meet established quotas and goals. If conditions differ substantially from those expected, it may be necessary to modify the fishing seasons, quotas, or other management measures. The following information is useful for inseason management:

- a. harvest of each species by each fishery in each fishing area by day and by cumulative total;
- b. number of troll day boats and trip boats fishing;
- c. estimated average daily catch for both day and trip boats;
- d. distribution and movement of fishing effort;
- e. average daily catch and effort for recreational fishery;
- f. estimates of expected troll fishing effort for the remainder of the season;
- g. information on the contribution of various fish stocks, determined from recovered coded-wire tags, scales, or other means.

10.1.2 Methods for Obtaining Inseason Data

Amendment 9 (Issue 5, Alternative 2, page 40 as modified on page 42), effective July 13, 1989, adds radio reports from commercial fishermen (part 1 of 2):

Inseason management requires updating information on the fisheries daily. Thus, data will be collected by sampling the landings, aerial surveys, radio reports and telephone interviews.

In general, data necessary for inseason management will be gathered by one or more of the following methods. Flights over the fishing grounds will be used to obtain information on the distribution, amount and type of commercial fishing effort. Data on the current harvests by commercial and Indian ocean fishermen will be obtained by telephoning selected (key) fish buyers, by sampling the commercial landings on a daily basis and from radio reports. Data on the current effort of, and harvests by, the recreational fisheries will be obtained by telephoning selected charterboat and boat rental operators and by sampling landings at selected ports. Analyses of fish scales, recovered fish tags, and other methods will provide information on the composition of the stocks being harvested.

[End of Amendment 9, radio reports (part 1 of 2)]

10.2 ANNUAL AND LONG-TERM MANAGEMENT

10.2.1 Data Needs

In addition to the data used for inseason management, a considerable amount of information is used for setting the broad measures for managing the fishery, evaluating the success of the previous year's management, and evaluating the effectiveness of the plan in achieving the long-term goals. Such data include landings, fishing effort, dam counts, smolt migration, returns to hatcheries and natural spawning areas, stock contribution estimates and economic information.

10.2.2 Methods for Obtaining Annual and Long-Term Data

In addition to those methods used for collecting data for in-season management, the longer term data will be collected by the use of (a) fish tickets (receipts a fish buyer completes upon purchasing fish from a commercial fisherman), (b) log books kept by commercial fishermen and submitted to the state fishery management agencies at the end of the season, and (c) punch cards completed by a recreational fisherman each time he catches a fish to show location, date, and species and submitted to the state agency, either when the whole card is completed or at the end of the season.

The local fishery management authorities (states, Indian tribes) will collect the necessary catch and effort data and will provide the Secretary with statistical summaries adequate for management. The local management authorities, in cooperation with the National Marine Fisheries Service, will continue the ongoing program of collecting and analyzing data from salmon processors.

Data on spawning escapements and jack returns to public and private hatcheries, other artificial production facilities, and natural spawning grounds will be collected by the accepted methods now being used by those authorities. The methods used to collect these data should be identified and available to the public.

10.3 REPORTING REQUIREMENTS

Amendment 9 (Issue 5, Alternative 2, page 40 as modified on page 42), effective May 1, 1989, adds radio reports from commercial fishers (part 2 of 2):

This plan authorizes the local management authorities to determine the specific reporting requirements for those groups of fishermen under their control and to collect that information under existing state data-collection provisions. With one exception, no additional catch or effort reports will be required of fishermen or processors as long as the data collection and reporting systems operated by the local authorities continue to provide the Secretary with statistical information adequate for management. The one exception would be to meet the need for timely and accurate assessment of inseason management data. In that instance the Council may annually recommend implementation of regulations requiring brief radio reports from commercial salmon fishermen who leave a regulatory area in order to land their catch in another regulatory area open to fishing. The federal or state entities receiving these radio reports would be specified in the annual regulations.

[End of Amendment 9, radio reports (part 2 of 2)]

11.0 SCHEDULE AND PROCEDURES FOR ANALYZING THE EFFECTIVENESS OF THE SALMON FMP

To effectively manage the salmon fisheries, the Council must monitor the status of the resource and the fisheries harvesting that resource to make sure that the goals and objectives of the plan are being met. Fishery resources vary from year to year depending on environmental factors, and fisheries vary from year to year depending on social and economic factors. The plan must be flexible enough to accommodate regulatory changes that will allow the Council to achieve its biological, social, and economic goals.

Annually the Council's salmon team will review the previous season's commercial, recreational, and treaty Indian fisheries and evaluate the performance of the plan with respect to achievement of the framework management objectives (Section 3.0). Consideration will be given by the team to the following areas:

1. Allowable harvests
2. Escapement goals, natural and hatchery
3. Mixed stocks management
4. Federally recognized Indian fishing rights
5. Allocation goals
6. Mortality factors
7. Achievement of optimum yield
8. Effort management systems
9. Coordination with all management entities
10. Consistency with treaties
11. Comparison with previous seasons
12. Protection and improvement of environment
13. Restoration and enhancement of production

Other factors which may be considered include a summary of progress made and predictions of expected progress in reaching the goals of the FMP. This evaluation will be submitted annually for review by the Salmon Advisory Subpanel, SSC, and the Council.

Certain principles are fixed in this framework FMP, including the management unit, management objectives, the basis for allocation between ocean commercial and recreational fisheries, and the spawning escapement goals which are subject to change only by the order of a federal court or upon Council approval of a salmon team recommendation or by emergency regulation. The Council will review these principles annually and, if changes are required, will institute a plan amendment.

12.0 SCHEDULE AND PROCEDURES FOR PRESEASON MODIFICATION OF THE REGULATIONS

The process for establishing annual or preseason management measures under the framework FMP contains a nearly equivalent amount of analysis, public input and review to that provided under the former annual amendment process and will not require annual preparation of a supplemental environmental impact statement (SEIS) and regulatory impact review/regulatory flexibility analysis (RIR/RFA). This allows the Salmon Technical Team to wait to prepare its report until all of the data are available, thus eliminating the need to discuss an excessively broad range of options as presented prior to the framework plan.

The process and schedule for setting the preseason regulations will be approximately as follows:

Approximate Date	Action
First week of March	Notice published in the <u>Federal Register</u> announcing the availability of team and Council documents, the dates and location of the two Council meetings, the dates and locations of the public hearings, and publishing the complete schedule for determining proposed and final modifications to the management measures. Salmon team reports which review the previous salmon season, project the expected salmon stock abundance for the coming season and describe any changes in estimation procedures, are available to the public from the Council office.
First or second full week of March ^{a/}	Council and advisory entities meet to adopt season regulatory options for formal public hearing. Proposed options are initially developed by the Salmon Advisory Subpanel and further refined after analysis by the Salmon Technical Team, public comment and consideration by the Council.
Following March Council meeting	Council newsletter, public hearing announcement and Salmon Technical Team/Council staff report are released which outline and analyze Council-adopted options. The team/staff report includes a description of the options, brief rationale for their selection and an analysis of expected biological and economic impacts.
Last week of March or first week of April	Formal public hearings on the proposed salmon management options.
First or second full week of April ^{a/}	Council and advisory entities meet to adopt final regulatory measure recommendations for implementation by the Secretary of Commerce.
First week of May	Final notice of Secretary of Commerce decision and final management measures in <u>Federal Register</u> .
May 15	Close of public comment period.

a/ Scheduling of the March and April Council meetings is determined by the need to allow for complete availability of pertinent management data, provide time for adequate public review and comment on the proposed options, and afford time to process the Council's final recommendations into federal regulations by May 1. Working backward from the May 1 implementation date, the April Council meeting is generally set as late as possible while not extending past April 12 for approval of final salmon management recommendations. The March Council meeting is set as late as possible while ensuring no less than three to four weeks between the end of the March meeting and beginning of the April meeting.

The actions by the Secretary after receiving the preseason regulatory modification recommendations from the Council will be limited to accepting or rejecting in total the Council's recommendations. If the Secretary rejects such recommendations he will so advise the Council as soon as possible of such action along with his basis for rejection, so that the Council can reconsider. Until such time as the Council and the Secretary can agree upon modifications to be made for the upcoming season, the previous year's regulations will remain in effect. This procedure does not prevent the Secretary from exercising his authority under Sections 304(c) or 305(c) of the Magnuson Act and issuing emergency regulations as appropriate for the upcoming season.

Preseason actions by the Secretary, following the above procedures and schedule, would be limited to the following:

1. Specify the annual abundance, total allowable harvest and allowable ocean harvest.
2. Allocate ocean harvest to commercial and recreational fishermen and to treaty Indian ocean fishermen where applicable.
3. Review ocean salmon harvest control mechanism from previous year; make changes as required in:
 - a. Management area boundaries
 - b. Minimum harvest lengths
 - c. Recreational daily bag limits
 - d. Gear requirements (i.e., barbless hooks, etc.)
 - e. Seasons and/or quotas
 - f. Ocean regulations for treaty Indian fishermen
 - g. Inseason actions and procedures to be employed during the upcoming season

Because the harvest control measures and restrictions remain in place until modified, superseded, or rescinded, changes in all of the items listed in "3" above may not be necessary every year. When no change is required, intent not to change will be explicitly stated in preseason decision documents.

The Framework Amendment (1984) provides further rationale for the current preseason procedures and the replacement of the old process of annual plan amendments to establish annual regulations.

13.0 INSEASON MANAGEMENT ACTIONS AND PROCEDURES

Amendment 7 (Issue 2, Alternative 2, pages 14-19), effective March 8, 1987, modifies basis for inseason management actions as follows:

Inseason modifications of the regulations may be necessary under certain conditions to fulfill the Council's objectives. Inseason actions include "fixed" or "flexible" actions as described below.

13.1 FIXED INSEASON ACTIONS

Three fixed inseason actions may be implemented routinely as specifically provided in the subsections below.

13.1.1 Automatic Season Closures When the Quotas Are Reached

The Salmon Technical Team will attempt to project the date a quota will be reached in time to avoid exceeding the quota and to allow adequate notice to the fishermen. The State Directors and the Council Chairman will be consulted by the NMFS Regional Director before action is taken to close a fishery. Closures will be coordinated with the states so that the effective time will be the same for EEZ and state waters. A standard closure notice will be used and will specify areas that remain open as well as those to be closed. To the extent possible, all closures will be effective at midnight and a 48-hour notice will be given of any closure. When a quota is reached, the Regional Director will issue a notice of closure of the fishery through local news media at the same time that a notice of fishery closure is published in the *Federal Register*.

Fixed inseason actions for the "rescission of automatic closure" and "adjustment for error in preseason estimates" were contained in a Council letter of September 21, 1984 to Dr. Thomas E. Kruse and published as technical amendments at 50 FR 4977 (February 5, 1985):

13.1.2 Rescission of Automatic Closure

If, following the closing of a fishery after a quota is reached, it is discovered that the actual catch was over-estimated and the season was closed prematurely, the Secretary is authorized to reopen the fishery if:

1. The shortfall is sufficient to allow at least one full day's fishing (24 hours) based on the best information available concerning expected catch and effort; and
2. The unused portion of the quota can be taken before the scheduled season ending.

13.1.3 Adjustment for Error in Preseason Estimates

The Secretary may make changes in seasons or quotas if a significant computational error or errors made in calculating preseason estimates of salmon abundance have been identified; provided that such correction to a computational error can be made in a timely fashion to affect the involved fishery without disrupting the capacity to meet the objectives of the management plan. Such correction and adjustments to seasons and quotas will be based on a Council recommendation and Salmon Technical Team analysis.

[End of technical amendment, February 5, 1985]

Continuation of Amendment 7, flexible inseason management:

13.2 FLEXIBLE INSEASON ACTIONS

Fishery managers must determine that any inseason adjustment in management measures is consistent with ocean escapement goals, conservation of the salmon resource, any federally recognized Indian fishing rights, and the ocean allocation scheme in the framework FMP. In addition, all inseason adjustments must be based on consideration of the following factors.

- Predicted sizes of salmon runs
- Harvest quotas and hooking mortality limits for the area and total allowable impact limitations if applicable
- Amount of the recreational, commercial, and treaty Indian fishing effort and catch for each species in the area to date
- Estimated average daily catch per fisherman
- Predicted fishing effort for the area to the end of the scheduled season
- Other factors as appropriate (particularly, fisher safety affected by weather or ocean conditions as noted in Amendment 8)

Flexible inseason provisions must take into consideration the factors and criteria listed above and would include, but not be limited to, the following.

1. Modification of quotas and/or fishing seasons would be permitted. Redistribution of quotas between recreational and commercial fisheries would be allowed if the timing and procedure are described in preseason regulations. If total quotas or total impact limitations by fishery are established, subarea quotas north and south of Cape Falcon, Oregon can be redistributed within the same fishery. Other redistributions of quotas would not be authorized. Also allowable would be the establishment of new quotas and/or seasons, and establishment of, or changes to, hooking mortality and/or total allowable impact limitations during the season. Action based on revision of preseason abundance estimates during the season would be dependent on development of a Council approved methodology for inseason abundance estimation.
2. Modifications in the species which may be caught and landed during specific seasons and the establishment or modification of limited retention regulations would be permitted (e.g., changing from an all-species season to a single-species season, or requiring a certain number of one species to be caught before a certain number of another species can be retained).
3. Changes in the recreational bag limits and recreational fishing days per calendar week would be allowed.
4. Establishment or modification of gear restrictions would be authorized.
5. Modification of boundaries, including landing boundaries, and establishment of closed areas would be permitted.

Insert Amendment 8 (Issue 2, Option 1, pages 12-13), effective August 8, 1988, temporary season adjustments for safety considerations:

6. Temporary adjustments for fishery access due to weather, adverse oceanic conditions or other safety considerations (see Council policy of September 18, 1992 regarding implementation of this action).

[End Amendment 8, temporary adjustments for safety]

The flexibility of these inseason management provisions requires responsibility to assure that affected users are adequately informed and have had the opportunity for input into potential inseason management changes.

[End Amendment 7, inseason actions]

13.3 PROCEDURES FOR INSEASON ACTIONS

1. Prior to taking any inseason action, the Regional Director will consult with the Chairman of the Council and the appropriate State Directors.
2. As the actions are taken by the Secretary, the Regional Director will compile, in aggregate form, all data and other information relevant to the action being taken and shall make them available for public review during normal office hours at the Northwest Regional Office, National Marine Fisheries Service, 7600 Sand Point Way NE, Seattle, Washington 98115.

Amendment 9 (Issue 3, Alternative 2, page 33), effective May 1, 1989, replaces inseason notice procedures:

3. Inseason management actions taken under both the "fixed" and "flexible" procedures will become effective by announcement in designated information sources (rather than by filing with the Office of the Federal Register [OFR]). Notice of inseason actions will still be filed with the OFR as quickly as possible.

The following information sources will provide actual notice of inseason management actions to the public: (1) the U.S. Coast Guard "Notice to Mariners" broadcast (announced over Channel 16 VHF-FM and 2182 KHZ); (2) state and federal telephone hotline numbers specified in the annual regulations and (3) filing with the *Federal Register*. Identification of the sources will be incorporated into the preseason regulations with a requirement that interested persons periodically monitor one or more source. In addition, all the normal channels of informing the public of regulatory changes used by the state agencies will be used.

[End Amendment 9, inseason notice procedures]

4. If the Secretary determines, for a good cause, that a notice must be issued without affording a prior opportunity for public comment, public comments on the notice will be received by the Secretary for a period of 15 days after the effective date of the notice.

14.0 SCHEDULE AND PROCEDURES FOR AMENDMENT OF THE FMP

Modifications not covered within the framework mechanism will require either an FMP amendment or emergency Secretarial action. The amendment process generally requires at least a year from the date development of the draft amendment by the Council begins. In order for regulations implementing an amendment to be in place at the beginning of the traditional commercial fishing season (May 1), the Council will need to begin the process by no later than April of the previous season. It is not anticipated that amendments will be processed in an accelerated December-to-May schedule and implemented by emergency regulations.

Emergency regulations may be promulgated without an FMP or FMP amendment. Depending upon the level of controversy associated with the action, the Secretary can implement emergency regulations within 20-45 days after receiving a request from a Council. Emergency regulations can include non-resource emergencies and are in effect for 90 days. A second 90-day extension is possible if both the Secretary and Council concur.

Amendment 8 (Issue 2, Option 1, page 13), effective August 8, 1988, temporary season adjustments for safety considerations:

Part of the process for evaluating all future FMP amendment proposals will be to consider whether they will result in the need for temporary adjustments for fishery access due to weather, adverse oceanic conditions or other safety considerations.

[End Amendment 8, temporary adjustments for safety]

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