

NOTICE OF OFFICE OF MANAGEMENT AND BUDGET ACTION

Date 12/13/2010

Department of Commerce  
National Oceanic and Atmospheric Administration  
FOR CERTIFYING OFFICIAL: Simon Szykman  
FOR CLEARANCE OFFICER: Diana Hynek

In accordance with the Paperwork Reduction Act, OMB has taken action on your request received 08/09/2010

ACTION REQUESTED: Extension without change of a currently approved collection  
TYPE OF REVIEW REQUESTED: Regular  
ICR REFERENCE NUMBER: 201007-0648-004  
AGENCY ICR TRACKING NUMBER:  
TITLE: Northwest Region Pacific Whiting Shoreside Fishery Monitoring and Catch Accounting Program  
LIST OF INFORMATION COLLECTIONS: See next page

OMB ACTION: Approved without change  
OMB CONTROL NUMBER: 0648-0563  
The agency is required to display the OMB Control Number and inform respondents of its legal significance in accordance with 5 CFR 1320.5(b).

EXPIRATION DATE: 12/31/2013 DISCONTINUE DATE:

| BURDEN:                                      | RESPONSES | HOURS | COSTS   |
|--|-----------|-------|---------|
| Previous                                     | 1,342     | 613   | 240,002 |
| New  | 1,342     | 600   | 240,002 |
| Difference                                   |           |       |         |
| Change due to New Statute                    | 0         | 0     | 0       |
| Change due to Agency Discretion              | 0         | 0     | 0       |
| Change due to Agency Adjustment              | 0         | -13   | 0       |
| Change Due to Potential Violation of the PRA | 0         | 0     | 0       |

TERMS OF CLEARANCE:

OMB Authorizing Official: Kevin F. Neyland  
Deputy Administrator,  
Office Of Information And Regulatory Affairs

List of ICs

| IC Title  | Form No. | Form Name                           | CFR Citation         |
|---|----------|-------------------------------------|----------------------|
| Initial EFP application and summary report        |          |                                     | 50 CFR 600.745(b)(2) |
| EFP Inseason Data Reports                         |          |                                     | 50 CFR 660.306(a)(4) |
| EMS Installation                                  |          |                                     | 50 CFR 660.306(a)(4) |
| EMS Data Download                                 |          |                                     | 50 CFR 660.306(a)(4) |
| EMS Removal                                       |          |                                     | 50 CFR 660.306(a)(4) |
| Washington and California Electronic Fish Tickets | NA       | e-tickets - PMFSC e-ticket database | 50 CFR 660.370       |
| Oregon Electronic Fish Tickets                    | NA       | e-tickets: PMFSC e-ticket database  |                      |

# PAPERWORK REDUCTION ACT SUBMISSION

**Please read the instructions before completing this form. For additional forms or assistance in completing this form, contact your agency's Paperwork Clearance Officer. Send two copies of this form, the collection instrument to be reviewed, the supporting statement, and any additional documentation to: Office of Information and Regulatory Affairs, Office of Management and Budget, Docket Library, Room 10102, 725 17th Street NW, Washington, DC 20503.**

|  |   |
|--|---|
| 1. Agency/Subagency originating request  | 2. OMB control number <span style="float: right;">b. <input type="checkbox"/> None</span><br>a. _____ - _____   |
| 3. Type of information collection ( <i>check one</i> )<br>a. <input type="checkbox"/> New Collection<br>b. <input type="checkbox"/> Revision of a currently approved collection<br>c. <input type="checkbox"/> Extension of a currently approved collection<br>d. <input type="checkbox"/> Reinstatement, without change, of a previously approved collection for which approval has expired<br>e. <input type="checkbox"/> Reinstatement, with change, of a previously approved collection for which approval has expired<br>f. <input type="checkbox"/> Existing collection in use without an OMB control number<br>For b-f, note Item A2 of Supporting Statement instructions | 4. Type of review requested ( <i>check one</i> )<br>a. <input type="checkbox"/> Regular submission<br>b. <input type="checkbox"/> Emergency - Approval requested by _____ / _____ / _____<br>c. <input type="checkbox"/> Delegated  |
| 7. Title   | 5. Small entities<br>Will this information collection have a significant economic impact on a substantial number of small entities? <input type="checkbox"/> Yes <input type="checkbox"/> No  |
| 8. Agency form number(s) ( <i>if applicable</i> )  | 6. Requested expiration date<br>a. <input type="checkbox"/> Three years from approval date b. <input type="checkbox"/> Other Specify: _____ / _____   |
| 9. Keywords  |   |
| 10. Abstract   |   |
| 11. Affected public ( <i>Mark primary with "P" and all others that apply with "x"</i> )<br>a. ___ Individuals or households d. ___ Farms<br>b. ___ Business or other for-profit e. ___ Federal Government<br>c. ___ Not-for-profit institutions f. ___ State, Local or Tribal Government   | 12. Obligation to respond ( <i>check one</i> )<br>a. <input type="checkbox"/> Voluntary<br>b. <input type="checkbox"/> Required to obtain or retain benefits<br>c. <input type="checkbox"/> Mandatory   |
| 13. Annual recordkeeping and reporting burden<br>a. Number of respondents _____<br>b. Total annual responses _____<br>1. Percentage of these responses collected electronically _____ %<br>c. Total annual hours requested _____<br>d. Current OMB inventory _____<br>e. Difference _____<br>f. Explanation of difference<br>1. Program change _____<br>2. Adjustment _____  | 14. Annual reporting and recordkeeping cost burden ( <i>in thousands of dollars</i> )<br>a. Total annualized capital/startup costs _____<br>b. Total annual costs (O&M) _____<br>c. Total annualized cost requested _____<br>d. Current OMB inventory _____<br>e. Difference _____<br>f. Explanation of difference<br>1. Program change _____<br>2. Adjustment _____  |
| 15. Purpose of information collection ( <i>Mark primary with "P" and all others that apply with "X"</i> )<br>a. ___ Application for benefits e. ___ Program planning or management<br>b. ___ Program evaluation f. ___ Research<br>c. ___ General purpose statistics g. ___ Regulatory or compliance<br>d. ___ Audit   | 16. Frequency of recordkeeping or reporting ( <i>check all that apply</i> )<br>a. <input type="checkbox"/> Recordkeeping b. <input type="checkbox"/> Third party disclosure<br>c. <input type="checkbox"/> Reporting<br>1. <input type="checkbox"/> On occasion 2. <input type="checkbox"/> Weekly 3. <input type="checkbox"/> Monthly<br>4. <input type="checkbox"/> Quarterly 5. <input type="checkbox"/> Semi-annually 6. <input type="checkbox"/> Annually<br>7. <input type="checkbox"/> Biennially 8. <input type="checkbox"/> Other (describe) _____ |
| 17. Statistical methods<br>Does this information collection employ statistical methods<br><input type="checkbox"/> Yes <input type="checkbox"/> No   | 18. Agency Contact (person who can best answer questions regarding the content of this submission)<br><br>Name: _____<br>Phone: _____   |

## 19. Certification for Paperwork Reduction Act Submissions

On behalf of this Federal Agency, I certify that the collection of information encompassed by this request complies with 5 CFR 1320.9

**NOTE:** The text of 5 CFR 1320.9, and the related provisions of 5 CFR 1320.8(b)(3), appear at the end of the instructions. *The certification is to be made with reference to those regulatory provisions as set forth in the instructions.*

The following is a summary of the topics, regarding the proposed collection of information, that the certification covers:

- (a) It is necessary for the proper performance of agency functions;
- (b) It avoids unnecessary duplication;
- (c) It reduces burden on small entities;
- (d) It used plain, coherent, and unambiguous terminology that is understandable to respondents;
- (e) Its implementation will be consistent and compatible with current reporting and recordkeeping practices;
- (f) It indicates the retention period for recordkeeping requirements;
- (g) It informs respondents of the information called for under 5 CFR 1320.8(b)(3):
  - (i) Why the information is being collected;
  - (ii) Use of information;
  - (iii) Burden estimate;
  - (iv) Nature of response (voluntary, required for a benefit, mandatory);
  - (v) Nature and extent of confidentiality; and
  - (vi) Need to display currently valid OMB control number;
- (h) It was developed by an office that has planned and allocated resources for the efficient and effective management and use of the information to be collected (see note in Item 19 of instructions);
- (i) It uses effective and efficient statistical survey methodology; and
- (j) It makes appropriate use of information technology.

If you are unable to certify compliance with any of the provisions, identify the item below and explain the reason in Item 18 of the Supporting Statement.

Signature of Senior Official or designee

Date

Agency Certification (signature of Assistant Administrator, Deputy Assistant Administrator, Line Office Chief Information Officer, head of MB staff for L.O.s, or of the Director of a Program or StaffOffice)

Signature

Date

Signature of NOAA Clearance Officer

Signature

Date

**SUPPORTING STATEMENT FOR  
PACIFIC WHITING SHORESIDE FISHERY  
MONITORING AND CATCH ACCOUNTING PROGRAM  
OMB CONTROL NO. 0648-0563**

**INTRODUCTION**

This request is for renewal of this collection of information.

Since 1992, the Pacific whiting shoreside fishery has been managed under exempted fisheries permits (EFPs) as part of the Pacific Coast groundfish fishery management plan (FMP), developed under the authority of the [Magnuson Stevens Fishery Conservation and Management Act](#) (MSA), 16 USC 1801 *et seq.* EFPs are intended to be used as a short-term temporary and exploratory response to issues that potentially should be addressed by permanent regulations. At this time, the National Oceanic and Atmospheric Administration's (NOAA's) National Marine Fisheries Service (NMFS) is proposing to create the regulatory framework for a maximized retention and monitoring program for the Pacific whiting shoreside fishery that would replace the need to issue annual EFPs for managing the fishery. This will be done through the trawl rationalization program. If approved by the Secretary of Commerce, the trawl rationalization program is scheduled to be implemented January 1, 2011. The collection of data currently approved under OMB Control No. 0648-0563 must be renewed until the trawl rationalization program is implemented.

Vessels in the Pacific whiting shoreside fishery dump unsorted catch directly into the refrigerated salt water tanks. Allowing unsorted catch to be retained allows the fishery to be prosecuted efficiently and the quality of Pacific whiting delivered to shorebased processors maintained. Pacific whiting deteriorates rapidly and must be handled quickly and immediately chilled to maintain product quality. Unsorted catch landed by Pacific whiting shoreside vessels includes species in excess of the trip limits, non-groundfish species, protected species, and prohibited species such as salmon. To maintain the integrity of the catch retention requirements, participating vessels must have an electronic monitoring system (EMS) for the verification of catch retention and will be required to land their catch at Pacific whiting shoreside first receivers that have submitted a monitoring plan and have employed the services of a catch monitor to verify the landed catch.

Since 1992, new evolutionarily significant units (a population of organisms that is considered distinct for purposes of conservation) of Pacific salmon have been listed under the [Endangered Species Act](#) (ESA). NMFS issued Biological Opinions under the ESA pertaining to the effects of fisheries under the Pacific Coast groundfish FMP on Chinook salmon on August 10, 1990, November 26, 1991, August 28, 1992, September 27, 1993, May 14, 1996, and December 15, 1999 (this most recent BO attached). The August 1992 Biological Opinion included an analysis of the effects of the Pacific whiting fishery on listed Chinook salmon. The analysis determined that there was a spatial/temporal overlap between the Pacific whiting fishery and the distribution of ESA listed Chinook salmon such that it could result in incidental take of ESA listed salmon. The incidental take statement authorized the take of 0.05 salmon per metric ton of Pacific whiting and identified the need for continued monitoring of the fishery to evaluate impacts on salmon. The Biological Opinion specifically emphasized the need to monitor the shoreside

fishery because fishing patterns and bycatch rates were likely to differ from those observed on the at-sea processors.

The management of Pacific coast groundfish stocks has changed significantly since the early 1990's. At this time, seven groundfish stocks are being managed under overfished species<sup>1</sup> rebuilding plans: bocaccio, canary rockfish, cowcod, darkblotched rockfish, Pacific Ocean Perch (POP), widow rockfish, and yelloweye rockfish. To rebuild overfished stocks as quickly as possible requires that the optimum yields (OYs) for these stocks be constrained well below historical catch levels. To allow the Pacific whiting fishery participants to have the opportunity to harvest the full Pacific whiting OY, the non-tribal commercial fisheries are managed with bycatch limits for certain overfished species. With bycatch limits, the industry has the opportunity to harvest a larger amount of Pacific whiting, if they can do so while keeping the total catch of specific overfished species within adopted bycatch limits. To date, bycatch limits have been established for darkblotched, canary and widow rockfish. Regulations provide for the closure of all the commercial (non-tribal) sectors of the Pacific whiting fishery if any one of the bycatch limits is reached. To effectively manage the whiting fishery to stay within the established bycatch limits, adequate data must be available as soon as possible after delivery.

## **A. JUSTIFICATION**

### **1. Explain the circumstances that make the collection of information necessary.**

The Pacific whiting shoreside fishery needs to have a catch monitoring and accounting system in place to: 1) adequately track the incidental take of Chinook salmon as required in the ESA Section 7 Biological Opinion for Chinook salmon catch in the Pacific whiting fishery; and 2) to track the catch of Pacific whiting and other groundfish species, including overfished groundfish species, such that the OYs, harvest guidelines, sector allocations and bycatch limits are not exceeded and that the fishing industry is not unnecessarily constrained.

Beginning in 2007, the Pacific whiting EFP was modified into a program that was significantly different from previous EFPs. In anticipation of Federal regulations to implement a long-term monitoring and a new catch accounting program, the whiting EFP PRA collection hours were removed from OMB Control No. 0648-0203 and a new information collection was approved on August 10, 2007 under OMB Control No. 0648-0563.

On September 5, 2007 (72 FR 50906), NMFS published a rulemaking that applied to Pacific whiting first receivers. In general, first receivers are Pacific whiting shoreside processing facilities (previously referred to as designated processors under EFPs), but may also include entities that truck Pacific whiting to other facilities. First receivers who receive, buy, or accept Pacific whiting deliveries of 4,000 lb (1.8 mt) or more from vessels using midwater trawl gear during the Pacific whiting primary season must use NMFS-approved electronic fish ticket software to send catch reports to the Pacific States Marine Fisheries Commission (PSMFC) within 24 hours of when the catch is landed. Electronic fish ticket reports are used to track the Pacific whiting catch relative to allocations, bycatch limits, and prohibited species catch.

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<sup>1</sup> Groundfish stocks with depletion levels that fall below 25 percent of estimated un-fished biomass level are considered to be overfished species.

The collection of data currently approved under OMB collection 0648-0563 includes the following submission requirements:

- EFP Applications;
- Use of an EMS, which is a data collection tool that uses a software operating system connected to an assortment of electronic components, including video recorders to create a data collection of vessel activities. The EMS is designed to independently monitor vessel fishing activities and provide accurate, timely, and verifiable data to document retention and/or discard of catch;
- Inseason and year-end catch reporting by the states who are the applicants/sponsors of the EFP activity; and
- Electronic fish tickets from Pacific whiting first receivers.

To support a federal maximized retention and monitoring program for the Pacific whiting shoreside fishery, NMFS requests that OMB Control No. 0648-0563 be renewed.

**2. Explain how, by whom, how frequently, and for what purpose the information will be used. If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with all applicable Information Quality Guidelines.**

The following data will be collected:

EFP Application: EFPs are issued to applicants for fishing activities that would otherwise be prohibited under a FMP and/or by regulation. On a voluntary basis, applicants initiate a request for an EFP by submitting a letter to the Agency. An application for an EFP must contain all information required for an EFP application given at 50 CFR 600.745 (b)(2). A narrative description of the proposed activity is required to fully document the intended operation. The application also includes a statement of the purposes and goals of the exempted fishery, with justification for issuance of the EFP; the species (target and incidental) and amounts expected to be taken under the EFP; the disposition of the catch; anticipated impacts on marine mammals or endangered species and description of any other pertinent activities. EFP applications have been required annually and are used by the NMFS Northwest Region (NWR) to assess the merits of the activity and to determine whether or not to approve or disapprove the submission. As with all EFPs in the Pacific Coast groundfish fishery, prior to submitting the application to NMFS, the applicant provides a copy to the Pacific Fishery Management Council where it is made available for public review and comment.

Participating vessels: The name, address and telephone number, date of birth of the vessel operator and/or vessel owner; vessel name and official number; Pacific Coast Groundfish limited entry permit number; and date of the application are collected from each participating vessel. This information is used to identify the permit applicant and the legal ownership of the vessel to be registered to the permit. The collection of this information is essential to comply with the regulations and for enforcement purposes. The date of birth allows enforcement to conduct an enforcement check prior to issuing the EFP. For example, violations of catch regulations may result in suspension or revocation of a permit. Since many vessels are owned by corporations, identification of the owner on the application form allows NMFS to sanction the company as well as the individual vessel operator for repeated violations of federal regulations. Telephone

numbers are required so that NMFS staff can call applicants to resolve outstanding issues in a quick and efficient manner.

An authorized representative must sign the application to certify that the information provided is correct and true and that the applicant is eligible to receive a permit. The signed document provides the Agency evidence that the applicant attests to the authenticity of the application. If there are false statements or misrepresentations made by the applicant, a signed document will be important in successfully taking legal actions against the permit holder. This information is provided one time per respondent prior to the issuance of the EFP.

Electronic Monitoring Systems: EMS is a data collection tool that uses a software operating system connected to an assortment of electronic components, including video recorders. The EMS is designed to independently monitor vessel fishing activities and provide accurate, timely, and verifiable data. In the Pacific whiting fishery, EMS has been used to document retention and/or discard of catch since 2004. Beginning in 2007, EFP participants will be required to pay directly to the service provider for the cost of leasing EMS equipment. Requirements for vessels to have EMS in 2007 would continue to be specified in the terms and conditions of the EFP. Vessel responsibilities specified in the EFP would continue to include: requirement to have EMS coverage to conduct EFP fishing; requirement for EMS installations; prohibition from intentionally damaging EMS equipment; responsibility for scheduling EMS equipment maintenance and data retrieval; need to conduct regular system checks; and, responsibility for scheduling EMS removal. Violations of the terms and conditions of an EFP would continue to be a violation of Federal regulations at 50 CFR 660.306 (a)(4).

EMS is used by the NWR to monitor compliance with the catch retention requirements. Because EMS would be used as a compliance monitoring tool, NWR believes it is necessary for 100% of the Pacific whiting trips to be monitored from the time the gear is set to the time the vessel returns to port and offloads the catch. EMS images are not released to the public. Summary reports based on an analysis of the images would be available by March of the following year.

Reporting: The terms and conditions of the EFP require the states who are the applicants/sponsors of the EFP activity to submit inseason data reports to the NWR during the Pacific whiting season and after the end of the fishery for the year. At the beginning of the season, a weekly inseason data report is submitted to the NWR for tracking the catch of Pacific whiting, Chinook salmon, and overfished species. If an allocation, bycatch limit or ESA threshold is being approached then the rate that the inseason data reports are sent to NWR increases from weekly to every 1-3 days. The increased rate continues until the end of the fishery. Each inseason data reports includes all fish species or inseason species group and the amounts (weight or number) that was caught. Within 6 months from the end of the season a detailed project summary report is prepared that includes fish species, and amount (weight, number, or rate), disposition (retained or discarded), and area or time of catch to monitor catch levels.

Data used to compile data reports is collected from data that is already is maintained by a vessel during its regular course of business (with the possible exception of discard data), so additional information gathered under the EFP generally is a minor supplement to information that already is maintained. Because the Pacific whiting fishery is a maximized retention fishery, EFP holders

are required to document all discard events at sea. Discarding of fish at sea should only occur on rare occasions and under specific conditions.

Electronic Fish Tickets: Pacific whiting shoreside processors will be required to have and use a NMFS-approved electronic fish ticket program (or equivalent software that meets specifications) to send catch reports within 24 from the date of landing. The electronic fish tickets are based on information currently required in state fish receiving tickets or landing receipts (hereinafter referred to as state fish tickets). The reports would be used to track catch allocations, bycatch limits, and prohibited species catch (including Chinook salmon) during the season.

An inseason catch summary of preliminary data for key species caught in the Pacific whiting shoreside fishery will be posted on the NWR web page as the fishing season progresses. This allows the industry participants to see where the fishery is at relative to the allocations, bycatch limits, and ESA Section 7 take thresholds. Post season data will be finalized by PSMFC using paper fish tickets submitted by the states.

As explained in the preceding paragraphs, the information gathered has utility. NMFS will retain control over the information and safeguard it from improper access, modification, and destruction, consistent with NOAA standards for confidentiality, privacy, and electronic information. See response to Question 10 of this Supporting Statement for more information on confidentiality and privacy. The information collection is designed to yield data that meet all applicable information quality guidelines. Although the information collected is not expected to be disseminated directly to the public, results may be used in scientific, management, technical or general informational publications. Should NMFS decide to disseminate the information, it will be subject to the quality control measures and pre-dissemination review pursuant to [Section 515 of Public Law 106-554](#).

**3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.**

Exempted Fishing Permits: EMS is a data collection tool that uses a software operating system connected to an assortment of electronic components, including video recorders. EMS is used to create a data collection of vessel activities. EMS has been used successfully to document retention and/or discard of catch. The EMS is designed to independently monitor vessel fishing activities and provide accurate, timely, and verifiable data. The system requires little upkeep from vessel crew as it is designed to begin recording data and images when the vessel first sets the fishing gear and cease recording when the vessel arrives in port. Many trips are recorded before a download of the data is needed.

Electronic fish tickets: The electronic fish tickets are based on information currently required by the states on paper fish receiving tickets or landing receipts (fish tickets). Processors will provide the computer hardware and software necessary to support the electronic fish ticket program. The electronic fish ticket software will be provided at cost. Data will be transmitted daily via email.

Reports: Catch reports sent during the season are data files that are transmitted via email.

#### **4. Describe efforts to identify duplication.**

Measures were taken to minimize duplication of the catch accounting requirements by providing fish ticket software that is based on the existing state systems and does not require additional data gathering. When state law allows, the electronic fish ticket can be used to print a paper copy for submission to the state. In Oregon, specified information may be submitted either on a paper fish ticket provided by the state or on a computer generated ticket provided specified data fields are included. However, in the States of California and Washington standard paper forms provided by the states must be used.

#### **5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.**

Some applicants are individuals or small companies and as such are considered small businesses. Given the relatively small numbers of applicants, separate requirements based on size of business have not been developed. Only the minimum data required to meet the objectives of the overall monitoring program are requested from all applicants.

- EMS coverage waiver: This waiver was specifically developed to limit the impacts on small business while meeting the monitoring needs of the program.
- Maximized retention waiver: This waiver was specifically developed to allow a small number of small business to continue operations in which the vessels sorts at sea and handles catch in a manner that increases the exvessel value of the catch while still meeting the monitoring needs of the fishery.
- Monitoring plans: To minimize the burden, only essential information needed to assure adequate catch accounting is being requested.
- Electronic fish tickets: Measures were taken to minimize the costs of the catch accounting requirements by providing: 1) fish ticket software at no cost; 2) fish ticket software that used a standard operating system and common software already owned by most businesses; 3) fish ticket software that is compatible with the existing fish ticket requirements in each of the three states; and, 4) a software that can be used to print a paper copy for submission to the state, when state law allows. Because the information is already being gathered by the processors there is no requirement that additional data be gathered.

#### **6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.**

Indirect biological impacts could result if catch data were inaccurate or delayed such that fishery specifications, including: bycatch limits, species allocations, OYs, and biological opinion thresholds could not be adequately monitored or the fishing stopped before one of the specifications were exceeded. If bycatch limits of the most constraining overfished species were greatly exceeded due to delayed catch reporting, the risk of exceeding rebuilding based OYs is increased. This is particularly a concern for canary rockfish which is the most constraining species to the Pacific whiting fishery and whose rebuilding trajectory is very sensitive to changes

in harvest levels. Although there are many variables that affect the time it takes a stock to rebuild, exceeding the rebuilding based OY could result in an extended rebuilding period for a overfished species. Exceeding Chinook salmon take thresholds could increase the risk to some more vulnerable ESUs.

**7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.**

Weekly inseason reports – changing to every 1-3 days when limits are close to being approached – are necessary to track catch in relation to the OYs allocation, bycatch limits, and ESA thresholds.

**8. Provide information on the PRA Federal Register Notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.**

A Federal Register Notice (75 FR 20812) published on April 21, 2010 solicited public comments on this renewal; no comments were received.

**9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.**

No payments or gifts are provided.

**10. Describe any assurance or confidentiality provided to respondents and the basis for assurance in statute, regulation, or agency policy.**

Some of the information collection described above is confidential under section 402(b) of the Magnuson-Stevens Act. It is also confidential under [NOAA Administrative Order 216-100, Protection of Confidential Fisheries Statistics](#). However, on a limited entry permit, only phone and fax numbers and email addresses are confidential. Electronic fish ticket data will be submitted to PSMFC. Efforts were made in the design of the EMS program to ensure the security of all individual vessel location data, including analysis and storage. The system includes measures to minimize the risk of direct or inadvertent disclosure of fishing location information. The EMS and electronic fish ticket data is considered confidential, and is stated as such on the forms. The Pacific States Marine Fisheries Commission (PSMFC) currently receives and stores fish ticket data from the states. These data are maintained on the Pacific Fisheries Information Network (PacFIN) data base.

**11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.**

There are no questions of a sensitive nature being asked.

**12. Provide an estimate in hours of the burden of the collection of information.**

Table 12A. Total annual burden hours.

| Exempted Fishing Permit (EFP)       | No. of Respondents | Number of Annual Responses Per Entity | Total Annual Responses | Ave. Time per Response (hrs) | Total Annual Time (Hrs) |
|-------------------------------------|--------------------|---------------------------------------|------------------------|------------------------------|-------------------------|
| Initial Application                 | 1                  | 1                                     | 1                      | 10                           | 10                      |
| Participating vessel data           | 40                 |                                       |                        |                              |                         |
| Summary Report                      | 1                  | 1                                     | 1                      | 10                           | 10                      |
| Inseason Data Report                | 1                  | Variable*                             | 20                     | 1                            | 20                      |
| EMS Installations                   | 40                 | 1                                     | 40                     | 6                            | 240                     |
| Daily transmissions**               |                    | --                                    | --                     | --                           | --                      |
| Data down loads                     | 1                  | 1                                     | 40                     | 4                            | 160                     |
| Removal                             | 1                  | 1                                     | 40                     | 2                            | 80                      |
| New Total: EFP                      | 42***              | --                                    | 142                    | --                           | 520                     |
| Electronic Fish Tickets             | No. of Respondents | Frequency of Responses                | Total Annual Responses | Ave. Time per Response       | Total Time (Hrs)        |
| Washington and California           | 4                  | Variable                              | 400                    | 8 minutes                    | 53                      |
| Oregon                              | 8                  | Variable                              | 800                    | 2 minutes                    | 27                      |
| <i>Total s</i>                      | 12                 | --                                    | 1,200                  | --                           | 80                      |
| <b>Overall Total for collection</b> | 53 (unduplicated)  | --                                    | 1,342                  | --                           | 600                     |

\* Generally weekly reports, but may be more frequent towards the end of the season

\*\* No burden counted, completely passive

\*\*\* 40 unduplicated

Electronic fish tickets: Up to 16 Pacific whiting shoreside processors receive approximately 1,200 Pacific whiting primary season deliveries each year, with approximately 400 of the deliveries occurring in Washington and California and the remaining 800 occurring in Oregon. The burden on processors in Washington and California to submit electronic fish tickets is estimated to be 67 hours annually over Status Quo. For processors in the State of Oregon, the additional burden is only the time it takes to send the electronic fish ticket (2 minutes), as the state laws already requires that the information be gathered and allows the submission of a printed and signed electronic formats. For processors in the State of Oregon, it is expected to take a total of 27 hours annually to submit electronic fish tickets. For all three states, a total of 94 hours annually are estimated for preparing and submitting electronic fish tickets. All shorebased processors have an adequate personal computer, software, and internet access to support the electronic fish ticket software.

EMS: Video cameras are automatically turned on when net winches start and turn off when vessel enters port.

The annual labor costs are as follows:

EFP application preparation (10 hours@ \$17.02) = \$170.20

EFP summary report preparation (10 hours@ \$17.02) = \$170.20

EFP inseason report preparation (20 hours @ \$17.02) = \$340.40  
 Electronic fish ticket preparation (94 hours @ \$17.02) = \$1,599.88

**Total: \$2,280.68**

[Using an estimate from the U.S. Census Bureau’s Non-employer Statistics, 2001, as a proxy for respondent annual income]

**13. Provide an estimate of the total annual cost burden to the respondents or recordkeepers resulting from the collection (excluding the value of the burden hours in Question 12 above).**

The annual costs associated with the burden hours for the respondents are as follows:

EMS leasing = \$6000 per vessel season \* 40 vessels = \$240,000

| <b>Information Collection</b>                 | <b>Estimated Cost Amount</b> |
|---|------------------------------|
| EMS leasing                                   | \$240,000.00                 |
| Mailing Costs: \$2.00 x 1<br>(1 applications) | \$2.00                       |
| <b>Total Costs</b>                            | <b>\$240,002.00</b>          |

EMS: The cost of EMS includes the cost of system installation, system maintenance/in-season support, removal of the systems and analysis, summation and release of the data. The cost can be broken into two major components: the cost of the physical system and the cost of data analysis, summary and release. The vessel pays for the physical system and NMFS pays for summary and analysis.

**14. Provide estimates of annualized cost to the Federal government.**

The cost NMFS incurred through the processing and issuance of EFPs are:

40 Applications x 1 hour per permit x \$25/hr.- (GS-7 equivalent salary) = \$1,000  
 10 FedEx mailings at \$ 5.50 per mailing = \$55.

The cost of data analysis is approximately \$150,000 per year. (cost to EMS provider and 1 FTE for analysis and oversight)

Total costs to the Federal government are \$151, 055.00.

**15. Explain the reasons for any program changes or adjustments.**

**Adjustment:** There is a decrease of 13 hours, due to a correction in calculation of the Washington and California fish ticket burden hours.

**16. For collections whose results will be published, outline the plans for tabulation and publication.**

No formal scientific publications based on these collections are planned at this time. The data will be used for management reports and fishery management plan amendments and evaluations by the NMFS and the Council.

**17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.**

Not Applicable.

**18. Explain each exception to the certification statement.**

Not Applicable.

**B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS**

No statistical methods are employed.

Public reporting burden for this collection of information is estimated to average 2 minutes per response for Oregon fish tickets and 8 minutes per response for Washington and California tickets, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other suggestions for reducing this burden to the NOAA Fisheries Groundfish Team at 206-526-6140. This information is considered confidential under section 402(b) of the Magnuson-Stevens Act. Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subjected to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.

OMB Control No. 0648-0563  
Expires 08/31/2010

Fish Tickets - PSMFC West Coast E-Ticket Database

Home Create External Data Database Tools Acrobat

---

**California: J - Northern Trawl General** Preview Ticket Close

**Fish Ticket Number: J100001** Print Ticket

---

Fed. LE Permit #: GF  Landing Date  Port of First Landing

Fisher I.D. Number  Add New Location Where Fish Caught

Fish Business I.D.  Primary Gear Used

Vessel I.D.  Add New 9012  California Fish Company

Transportation #:  Ticket Category:  Add New

Enter Overage Ticket Void Ticket  
Enter as Overage Ticket Cancel Entry

Previous Ticket Next Ticket

| Fish (Species Code/Description) | Gross Lbs | Price Per Lb | Amount | Grade                | Condition            | Use                  | Gear                 | # of Fish | Take Home/Weighback           |
|---------------------------------|-----------|--------------|--------|----------------------|----------------------|----------------------|----------------------|-----------|-------------------------------|
| <input type="text"/>            |           |              | \$0.00 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |           | T/H - WB <input type="text"/> |
| Totals:                         |           |              |        |                      |                      |                      |                      |           |                               |

Notes:

Search for Tickets  
Enter Next Ticket# in Batch  
Enter New Fish Ticket  
Enter Fish Ticket Costs

Oregon Fish Tickets - PSMFC West Coast E-Ticket Database

Home Create External Data Database Tools Acrobat

---

**Oregon - Groundfish and Shrimp** Preview Ticket Close

**Fish Ticket Number: 3100006** Print Ticket

---

Commercial License No.  Add New Date of Landing  Port Code  NEWPORT

Boat Number  Add New Dealer No.  1234  Primary Catch Area

Fisher's Name - Last, First  Add New Gear Used  # of Days Fished  Unloading Station

Fed. LE Permit #: GF  Ticket Category:  Add New

Enter Overage Ticket Void Ticket  
Enter as Overage Ticket Cancel Entry

Previous Ticket Next Ticket

| Fish                 | Species Code/Description | Condition              | Grade                  | # of Fish | Lbs | Price Per Lb | Amount | Take Home/Weighback           |
|----------------------|--------------------------|------------------------|------------------------|-----------|-----|--------------|--------|-------------------------------|
| <input type="text"/> |                          | 0 <input type="text"/> | 0 <input type="text"/> |           |     |              | \$0.00 | T/H - WB <input type="text"/> |
| Totals:              |                          |                        |                        |           |     |              |        |                               |

Notes:

Search for Tickets  
Enter Next Ticket# in Batch  
Enter New Fish Ticket  
Enter Fish Ticket Costs

**State of Washington - Marine Fish Receiving Ticket**

Fish Ticket Number: X1000004

Preview Ticket

Close

Print Ticket

Fed. LE Permit #: GF

Fisher (Last, First)  Add New

Boat/Gear/License ID  Add New

Primary Data Source

Date of Landing

Dealer  5678 Washington Fish Company

Buyer

Physical Gear Actually Used

Specify Other Gear:   ON RESERVATION?

Port of First Landing

# of Days Fished

Fish Caught:

Catch Area  Area Subunit

Transportation Ticket#:

Ticket Category:  Add New

Enter Overage Ticket Void Ticket

Enter as Overage Ticket Cancel Entry

Previous Ticket Next Ticket

Enter Fish Ticket Costs View All

Search for Tickets

| Fish (Species Code/Description) | Pounds               | Price                | Condition            | Grade                | Gear                 | Data Source          | Area                 | Area Subunit         | Amount | # of Fish            | Take Home/Weighback               |
|---------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------|----------------------|-----------------------------------|
| <input type="text"/>            | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | \$0.00 | <input type="text"/> | T/H - WB <input type="checkbox"/> |

Totals:

Notes:

Enter Next Ticket# in Batch

Enter New Fish Ticket

Supplemental Attachment E.8.b.  
September 1992



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
1335 East-West Highway  
Silver Spring, MD 20910  
THE DIRECTOR

AUG 28 1992

Mr. Phillip Anderson  
Chairman, Pacific Fishery  
Management Council  
Metro Center  
2000 S.W. First Avenue  
Portland, Oregon 97210

Dear Mr. Anderson:

Enclosed is our biological opinion regarding the impacts of fishing conducted under the Pacific Coast Groundfish Fishery Management Plan (groundfish FMP) on species listed under the Endangered Species Act (ESA).

There have been two previous biological opinions that considered the effect of the groundfish fishery on species listed under the ESA. The first biological opinion (August 10, 1990) considered the impacts of the groundfish fishery on marine mammals, sea turtles, and Sacramento River winter-run chinook salmon. A second opinion (November 26, 1991) considered the impact of the whiting fishery on Sacramento winter-run chinook. The purpose of this biological opinion is to provide a more comprehensive review of the effects of fishing conducted under the groundfish FMP on salmon species listed under the ESA. In particular, the opinion considers (1) new information regarding the incidence of salmon bycatch in the bottom trawl fishery, (2) an evaluation of the effect of the whiting fishery on all four of the listed salmon species, and (3) a review of the impacts of other components of the groundfish fishery.

The biological opinion concludes that impacts of fishing conducted under the groundfish FMP on Sacramento River winter-run chinook and Snake River sockeye and spring/summer chinook salmon are negligible. The estimated bycatch of Snake River fall chinook salmon is most likely on the order of a few tens of fish per year. Based on the available information, NMFS concluded that operation of the fishery under the groundfish FMP is not likely to jeopardize the continued existence of these species.

1514-04-020  
1504-13-WOC-08-050- (92)

**ADMINISTRATIVE RECORD**

COLLECTOR SF/AM7/PS

DATE \_\_\_\_\_ INT.

TERMINAL 10/20/92

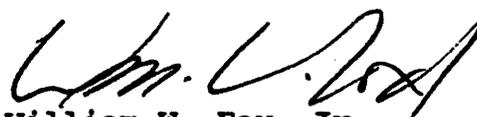
DATE \_\_\_\_\_ INT.

THE ASSISTANT ADMINISTRATOR  
FOR FISHERIES



We appreciate the efforts of members of the Council in providing the necessary information, and look forward to your continued cooperation in future consultations.

Sincerely,

A handwritten signature in cursive script, appearing to read "Wm. W. Fox, Jr.", written in dark ink.

William W. Fox, Jr.

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National Marine Fisheries Service

**Activity:** Fishing Conducted under the Pacific Coast  
Groundfish Fishery Management Plan for the  
California, Oregon, and Washington Groundfish  
Fishery

**Consultation Conducted by:** National Marine Fisheries Service,  
Northwest Region

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**ENDANGERED SPECIES ACT--SECTION 7 CONSULTATION  
BIOLOGICAL OPINION**

**Agencies:** Pacific Fishery Management Council  
National Marine Fisheries Service

**Activity:** Fishing Conducted under the Pacific Coast  
Groundfish Fishery Management Plan for the  
California, Oregon, and Washington Groundfish  
Fishery

**Consultation Conducted By:** National Marine Fisheries Service,  
Northwest Region

**Date Issued:** 8-28-92

**I. Background**

There have been two previous biological opinions that considered the effect of fishing conducted under the Pacific Coast Groundfish Fishery Management Plan for the California, Oregon, and Washington groundfish fishery (groundfish FMP) on species listed under the Endangered Species Act (ESA). The first biological opinion (NMFS 1990; August 10, 1990) reported the impacts of the groundfish fishery on marine mammals, sea turtles, and Sacramento River winter-run chinook salmon (SRWRC). A second opinion (NMFS 1991a; November 26, 1991) considered the impact of the whiting fishery on SRWRC in more detail and briefly addressed the effects on Snake River sockeye salmon which were newly listed (November 20, 1991) just as the opinion was being finalized. Since the completion of this latter opinion, Snake River spring/summer and fall chinook salmon were listed as a threatened species (April 22, 1992) and there has been a proposed change in the status of the SRWRC from threatened to endangered (57 FR 27416; June 19, 1992). This opinion supersedes those portions of the November 26, 1991, and August 10, 1990, opinions that addressed impacts on SRWRC.

The purpose of this biological opinion is to provide a more comprehensive review of the effects of fishing conducted under the Pacific Fishery Management Council (PFMC) groundfish FMP on salmon species listed under the ESA. In particular, the opinion considers (1) new information regarding the incidence of salmon bycatch in the bottom trawl fishery, (2) an evaluation of the effect of the whiting fishery on all four of the listed salmon species, and (3) a review of the impacts of other components of the groundfish fishery. Also provided in this opinion is available information regarding Canadian groundfish fisheries. Although these fisheries are not subject to management under the

groundfish FMP, the information is presented to provide a more comprehensive review of west coast groundfish fisheries.

This biological opinion is one in a series of formal and informal consultations and conferences related to the effect of fisheries and harvest actions on listed salmon species. The effects of fishing under the Bering Sea and Gulf of Alaska groundfish FMPs on the four listed species were considered in a conference and informal consultation (February 20, 1992). The effects of various components of the salmon fisheries on the listed species have also been reviewed. On March 1, 1992, NMFS issued a biological opinion that considered the effects of fisheries conducted under the PFMC FMP for the Commercial and Recreational Salmon Fisheries off the coasts of Washington, Oregon, and California on SRWRC salmon. A subsequent opinion (NMFS 1992a; May 1, 1992) considered the effects of 1992 fisheries conducted under the salmon FMP on the three listed species from the Snake River. There have also been a series of formal and informal consultations and conferences regarding the effects on Snake River species from 1992 fisheries in the Columbia River conducted according to provisions of the Columbia River FMP. Winter and spring season fisheries were addressed in conference letters dated February 21, 1992, and April 3, 1992, respectively. A biological opinion regarding summer and fall season fisheries was issued on June 12, 1992, with a subsequent addendum dated June 30, 1992. An opinion regarding a fishery in Idaho proposed by the Shoshone-Bannock Tribes was issued June 29, 1992.

The biological assessment for the groundfish fishery was prepared by Dr. Richard Methot, Chairman, PFMC Groundfish Management Team and was provided in two parts. The first part summarized available information on salmon bycatch in the Pacific whiting fishery (Methot 1992a); the second report summarized the bycatch data for Pacific coast bottom trawl fisheries (Methot 1992b). Additional input was provided by Dr. Ken Henry, Chairman, PFMC Salmon Technical Team. While preparing this biological opinion, NMFS considered the information provided in the biological assessment and other information available from the scientific literature and experts in the field of salmon biology.

## II. Proposed Activity

The PFMC proposes to continue management of the groundfish fishery under the groundfish FMP, including proposed

Amendment 6 to that FMP (57 FR 32499, July 22, 1992), as well as appropriate implementation of regulations and other management actions consistent with the FMP. The FMP establishes a framework for the management of the groundfish fisheries off the coasts of California, Oregon, and Washington by both Federal and state governments. The purpose of Amendment 6 is to implement a limited entry program. The primary objective of the limited entry program is to reduce harvesting capacity of the Pacific coast groundfish fishery. Each vessel involved in the limited entry fishery will be required to obtain a Federal permit. Only those vessels with a specified level of previous participation will be issued a permit. Amendment 6 will not directly effect the amount of groundfish taken or regulatory mechanisms used to specify when or where fisheries may occur. One of the secondary objectives is to reduce bycatch and waste, but there are no provisions of the plan that address bycatch issues directly.

The groundfish fisheries target many different species using a variety of gear types and fishing strategies. Current regulations include quotas, seasonal restrictions, gear requirements, area closures, and trip limits. Specific regulations are recommended annually under the authority of the FMP. The PFMC monitors the progress of the various fisheries as the season progresses and has the authority under the framework plan to make inseason adjustments as necessary to ensure compliance with harvest guidelines and other management objectives of the FMP.

This biological opinion provides a general review of the anticipated impacts of the groundfish fishery under the FMP and proposed Amendment 6 on listed salmon species rather than being specific to a particular year's planned fishery. The plan allows for some flexibility in the future management of the fishery. However, this biological opinion is based on estimated impacts and the expectation that future impacts will be similar to or less than those anticipated here. To the extent that impacts on listed species resulting from future management actions or impacts resulting from operation of the fishing during a particular year are the same or less than those analyzed in this opinion, further consultation may be unnecessary.

### III. Listed Species and Critical Habitat

Sacramento River winter-run chinook salmon (Oncorhynchus tshawytscha), Snake River sockeye salmon (Oncorhynchus nerka), Snake River spring/summer chinook and Snake River fall chinook salmon (Oncorhynchus tshawytscha) are the listed species that may be affected adversely by the proposed activity. Critical habitat has not yet been designated for these species.

### IV. Biological Information

#### A. Sacramento River Winter-Run Chinook Salmon

For detailed information regarding the status of Sacramento River winter-run chinook (SRWRC), see 55 FR 46515 (November 5, 1990) and 57 FR 27416 (June 19, 1992). There are four runs or races of chinook salmon (Oncorhynchus tshawytscha) in the Sacramento River, California: the fall-run, late fall-run, winter-run, and spring-run. The winter-run (so called because of the timing of its upstream spawning migration) is considered a "species" within the definition of the ESA (52 FR 6041; February 27, 1987).

The best data on long-term trends in abundance for SRWRC are the annual estimates of spawning run size made by the California Department of Fish and Game (CDFG) based on dam counts at Red Bluff Dam. These annual estimates show a decline in the average run size from 84,000 fish in the years 1967-1969 to about 2,000 for the years 1982-1984. The run size ranged from 2,000 to 4,000 from 1984-1988, but then dropped precipitously to 549, 441, and 191 in the years 1989 to 1991, respectively.

Winter-run chinook exit the ocean from early November to mid-May with the majority of fish leaving from February to early March. There are few data available on the ocean distribution of winter-run fish. The only direct information comes from a fin clip study conducted from 1969 to 1971 (Hallock and Fisher 1985). These data were used in developing the Winter Chinook Ocean Harvest Model (CDFG 1989) that is used to analyze the relative impacts of fishery regulation options in the waters of California. The model uses the assumption that all ocean fishery impacts on winter-run chinook occur off California and southern Oregon. The abundance of SRWRC relative to other stocks in northern Oregon and Washington fisheries has not been estimated, but would be low compared to the Eureka area and decrease from south to north.

## B. Snake River Sockeye Salmon

For detailed information on the Snake River sockeye salmon's life history, see Waples *et al.* (1991a) and 56 FR 58619 (November 20, 1991). There are three stocks of sockeye remaining in the Columbia River system including the Wenatchee, Okanogan, and Snake River stocks. There is no specific information regarding the ocean distribution of Snake River sockeye, although they are assumed to migrate to the north. Sockeye adults migrate through the lower Columbia River during June and July, with average peak passage at Bonneville Dam near July 1. It can therefore be assumed that any maturing fish will have left the ocean by early July.

Based on counts at Ice Harbor Dam, the Snake River sockeye run has averaged less than 150 fish per year since 1975, when the lower Snake River hydroelectric system was completed. Since 1985, the Ice Harbor Dam count has been less than 25 fish annually. Only one fish was counted in 1990 and nine fish were recorded in 1991 (CRTS 1992, Table 1).

## C. Snake River Spring/Summer Chinook Salmon

Although Snake River spring and summer chinook stocks have been listed as a single "distinct population segment," based on NMFS' finding that they constitute a single "Evolutionarily Significant Unit (ESU)" (Matthews and Waples 1991), upper Columbia River spring and summer chinook stocks are treated separately in management-related data bases. Spring and summer chinook are also managed during different seasonal fishing periods using different regulatory criteria. The timing distinctions are, therefore, relevant to the understanding of the current management regime.

For detailed information on the life history of Snake River spring/summer chinook salmon, see Matthews and Waples (1991), NMFS (1991b) and 56 FR 29542 (June 27, 1991). Snake River spring chinook salmon are part of an aggregate of stocks from hatchery and natural production areas upstream of the Bonneville Dam, including middle Columbia tributaries between the Bonneville and McNary dams and the upper Columbia system above McNary Dam. Upriver spring chinook salmon begin entering the Columbia River in late February and early March, reaching peak abundance in April and early May in the lower river (below Bonneville Dam). All chinook passing Bonneville Dam from March through May are counted as upriver spring chinook.

The summer chinook salmon run is comprised of an earlier-migrating race destined primarily for the Salmon River drainage in Idaho and a later-migrating race destined for the upper Columbia and its tributaries above Priest Rapids Dam (ODFW/WDF 1991). Summer chinook salmon enter the Columbia River in late May, June, and July. Summer chinook are by definition those counted at the Bonneville Dam from June 1 through July 31, and at the McNary Dam from June 9 through August 8.

Redd counts in index areas provide the best indicator of trends and status of the population of naturally spawning spring and summer chinook salmon in the Snake River Basin. Redd counts have declined sharply over the last 33 years. In 1957, over 13,000 redds were counted in index areas excluding the Grande Ronde River. By 1964 and including the Grande Ronde River, the annual count in index areas was 8,542 redds. Over the next 16 years, annual counts in all areas declined steadily, reaching a minimum of 620 redds in 1980. Annual counts increased gradually over the next 8 years, reaching a peak of 3,395 redds in 1988. In 1989 and 1990, counts dropped again to 1,008 and 1,224 redds, respectively.

Information regarding the ocean distribution of Snake River spring and summer chinook is limited. They are assumed to be north migrating stocks similar to other spring and summer stocks from the upper Columbia River system. The available information indicates that impacts from ocean fisheries are minimal. Very few coded wire tags (CWTs) have been recovered from any ocean fishery despite the fact that associated indicator stocks have been tagged continuously since the 1976 brood year. Genetic stock identification techniques also indicated that contribution rates to ocean fisheries off the Washington coast are very low (NMFS 1992a).

#### D. Snake River Fall Chinook Salmon

For detailed information on the life history of Snake River fall chinook salmon, see Waples, et al. (1991b); NMFS (1991c) and 56 FR 29542 (June 27, 1991). The Columbia River fall chinook run has five major components: Lower River Hatchery, Lower River Wild, Bonneville Pool Hatchery, Upriver Bright, and Mid-Columbia Bright. Fall chinook from the Snake River are part of the Upriver Bright stock complex. The Upriver Bright, Bonneville Pool, and a portion of Mid-Columbia Bright stocks are produced above the Bonneville Dam and, in aggregate, comprise the Upriver Bright run of fall chinook, which is subject to allocation requirements specified in the CRFMP.

Fall chinook enter the Columbia River from late July through October, with peak abundance in the lower river from mid-August to mid-September. The Upriver run peaks over Bonneville Dam in early September, with Bonneville Pool Hatchery passage occurring over a shorter time frame than the bright chinook. The Bonneville Pool Hatchery stock is produced at Spring Creek Hatchery in the Bonneville Pool. The majority of the Upriver Bright fall chinook stock is destined for the Hanford Reach section of the Columbia River. Smaller components are destined for the Deschutes, Snake, and Yakima rivers. The Mid-Columbia Bright component is comprised of brights reared and released at the Bonneville Hatchery (below Bonneville dam) and brights from the Bonneville, Little White Salmon, and Klickitat hatcheries released in areas between the Bonneville and McNary dams.

Returns of adult fall chinook salmon to the Snake River have declined to very small numbers in recent years. Yearly adult counts at the uppermost Snake River main-stem project affording fish passage averaged 12,720 from 1964 to 1968, 3,416 from 1969 to 1974, and 610 from 1975 to 1980. The estimated return of naturally spawning Snake River fall chinook to Lower Granite Dam averaged 293 from 1986-1991, reaching a low of 78 in 1990. The return to Lower Granite Dam increased to 318 in 1991.

Using the available CWT data, it is possible to estimate the ocean distribution and relative fishery impacts on Snake River fall chinook. Although naturally spawning fall chinook have not been marked directly, CWT data from fingerling, non-transported releases from the Lyons Ferry hatchery most closely represent the stock. Results of the analysis indicate that the Lyons Ferry stock is widely distributed and subject to harvest in marine fisheries from southern California to Alaska. An analysis of the distribution of ocean fishery impacts in 1992 indicated that the majority of the catch occurs in Canadian waters, primarily off the west coast of Vancouver Island (NMFS 1992a).

**Relative Distribution (%) of Ocean Fishery Impacts  
on Lyons Ferry Chinook Salmon Under the PFMC's  
1992 Regulations**

| Region           | Relative<br>Age 3 | Impacts<br>Age 4 |
|------------------|-------------------|------------------|
| Southeast Alaska | 1.8               | 6.8              |
| Canada           | 74.7              | 85.6             |
| PFMC             | 23.5              | 7.7              |

## V. Assessment of Impacts

### A. Description of Fishery

The groundfish fishery off the west coast of Washington, Oregon, and California is prosecuted by three major gear types including trawl, pots, and hook-and-line gear with small amounts of additional catch taken by other miscellaneous gear types.

Nearly 96 percent of all groundfish in the U.S. fishery is taken by trawl gear (Table 1). The principal trawl gear configurations include midwater, bottom, and shrimp trawls. Midwater trawls are used primarily to harvest Pacific whiting. This is the largest volume fishery on the U.S. west coast with landings in 1991 of 210,354 metric tons (mt) representing nearly 72 percent of the total landed catch of groundfish (by weight). Midwater trawls were used more extensively during the 1980s to harvest widow rockfish, but as trip limits for this fishery became more restrictive, an increasing fraction of the widow rockfish catch was landed by bottom trawls. Midwater trawls have also been used in exploratory fisheries for shortbelly rockfish and jack mackerel.

Bottom trawls are used to harvest flatfish, rockfish, sablefish, and other species. There are three primary fishery types or strategies for the use of bottom trawls including nearshore mixed, bottom rockfish and deepwater strategies. Nearshore mixed describes the use of bottom trawls in waters shallower than 100 fathoms primarily to harvest flatfish. Bottom rockfish trawls are equipped with rollers on the footrope to enable usage in rocky habitat. Most rockfish trawling occurs over the continental shelf, shallower than 200 fathoms. Deepwater trawling may occur as deep as 600 fathoms. Principal species taken with deepwater trawls include Dover sole, sablefish, and thornyheads.

Shrimp trawls are a specialized, small mesh trawl used to harvest shrimp in shallow waters. Approximately 19,000 mt of shrimp were taken in the Pacific coast fishery in 1992 (Table 1). The shrimp fishery itself is regulated by the states, although the groundfish FMP does establish trip limits for the bycatch of groundfish in the shrimp fishery. Nevertheless, available information on salmon bycatch is presented to provide a more comprehensive review of west coast fisheries.

Fish pots are used primarily to harvest sablefish. Hook-and-line gear includes a variety of gear configurations, principally longline and vertical hook-and-line gear. Longline gear has traditionally been used to harvest sablefish and Pacific halibut, and the recent decade has been marked by an increase in the harvest of rockfish by hook-and-line. Off some areas of California, setnets (gillnets and trammel nets) are used to harvest rockfish and other species. Fishing strategies in the Canadian groundfish fisheries are similar. As is the case with U.S. fisheries, whiting dominate the catch. The Canadian whiting fishery occurs primarily off the southwest coast of Vancouver Island. Trawl gear accounted for 96 percent of the total catch in 1991. The catch of whiting was 104,522 mt (Dorn and Methot 1992) representing 64 percent of Canadian groundfish landings (Table 2).

#### B. Salmon Bycatch by Gear Type

There are two steps required in order to analyze the effect of groundfish fisheries on listed salmon species. The first is to describe how many salmon are caught, and the second is to examine stock composition in order to infer the likely impact on each of the listed species. The purpose of this section is to summarize the available information on the bycatch of salmon for each of the major gear types. Following sections will describe the likely impact on the four salmon stocks of concern using available information on stock composition.

The groundfish fisheries managed under the PFMC groundfish FMP can be outlined by gear type as follows. (As indicated above, only the bycatch of groundfish in the shrimp fishery is regulated by the FMP.)

1. Trawl
  - a. Midwater
  - b. Bottom
  - c. Shrimp
2. Pot
3. Hook-and-line
4. Other

The available information on salmon bycatch in the groundfish fisheries is limited primarily to the trawl fisheries. The whiting fishery, which is the principal midwater trawl fishery, has been the subject of a comprehensive observer program since at least 1977. The bycatch of salmon in the whiting fishery was

considered in previous biological opinions (NMFS 1990, NMFS 1991a). The whiting fishery off the California coast received particular attention during the last few years because of concerns regarding the declining status of SRWRC and Klamath River fall chinook. As a result, there is a great deal of information available regarding bycatch in the whiting fishery.

There are three sources of information regarding bycatch in the bottom trawl fisheries. During 1985-1987, observers on Oregon trawlers documented patterns of groundfish discard, particularly with regard to trip limits (Pikitch, et al. 1988).

During 1988-1990, a mesh size experiment was conducted with California, Oregon, and Washington trawlers during actual fishing operations (Pikitch, et al. 1991). An analysis of salmon bycatch in these studies is in preparation (Erickson and Pikitch, in prep.) and is the primary source of information for the biological assessment of the bottom trawl fishery (Methot 1992b) and this biological opinion. Some information regarding the shrimp fishery is also available from the 1985-1987 groundfish discard study.

Information on salmon bycatch from NMFS bottom trawl surveys was used to supplement the fishery information on spatial patterns of bycatch and level of incidence. Bottom trawl surveys were conducted on the continental shelf (30-200 fathoms) during 1980, 1983, 1986, and 1989. A similar survey in 1977 covered the depth range 50-250 fathoms. Each survey was conducted in approximately mid-July to mid-September and extended as least as far south as Monterey Bay and at least as far north as the U.S.-Canada border. The survey gear is a high-rise bottom trawl with rollers and is roughly comparable to that used in the bottom trawl rockfish fishery. The survey design is stratified random. Nearly 3,000 tows have been taken in the five surveys.

There is little direct information on bycatch in pot, hook-and-line or other gear type fisheries in the PFMC area. These are addressed indirectly by inference and using limited information derived from available sources.

Information regarding bycatch in the Canadian whiting fishery is available for 1988-1990 (Sandy McFarlane, CDFO, January 17, 1992, personal communication). There are observations regarding bycatch in the bottom trawl or other Canadian groundfish fisheries.

Table 1. Landed catch of groundfish (mt) in PFMC catch areas in 1991 by gear type (according to best available data in PacFIN on 15-FEB-92). TR indicates trace amounts.

| SPECIES               | TRAWLS   | SH-TRAWLS | POTS   | HOOK&LINE | NETS   | TROLLS | OTH GEARS | ALL GEARS |
|-----------------------|----------|-----------|--------|-----------|--------|--------|-----------|-----------|
| ARROWTOOTH FLOUNDER   | 4921.2   | 24.3      | 1.0    | 12.5      | TR     | TR     | 0.6       | 4959.5    |
| DOVER SOLE            | 17881.6  | 23.6      | 1.8    | 2.9       | 31.3   | TR     | 262.0     | 18203.2   |
| ENGLISH SOLE          | 2123.1   | 0.7       | 0.5    | 3.1       | 4.0    | TR     | 47.8      | 2179.1    |
| PETRALE SOLE          | 1833.7   | 0.3       | 1.2    | 3.6       | 27.5   | TR     | 34.6      | 1900.9    |
| REX SOLE              | 1134.1   | 0.7       | 0.6    | 0.5       | 0.6    | TR     | 32.1      | 1168.6    |
| ROCK SOLE             | 14.5     | TR        | TR     | 0.4       | 0.2    | TR     | 0.1       | 15.2      |
| STARRY FLOUNDER       | 676.7    | TR        | 0.1    | 2.1       | 1.1    | TR     | 0.6       | 680.5     |
| OTHER FLATFISH        | 1279.0   | 0.5       | 0.1    | 15.1      | 5.0    | TR     | 11.8      | 1311.5    |
| UNSP. FLATFISH        | 30.6     | TR        | TR     | 3.4       | 5.0    | TR     | 2.8       | 41.8      |
| ___ALL FLATFISH       | 29894.5  | 50.1      | 5.2    | 43.5      | 74.6   | 0.1    | 392.3     | 30460.1   |
| BLACK ROCKFISH        | 2.9      | TR        | TR     | 102.5     | TR     | TR     | TR        | 105.5     |
| BOCACCIO              | 1190.3   | 10.8      | 0.3    | 133.0     | 202.5  | 1.4    | 93.9      | 1632.2    |
| CANARY ROCKFISH       | 2450.3   | 25.4      | TR     | 63.4      | TR     | TR     | TR        | 2539.1    |
| CHILIPEPPER           | 1680.5   | 3.8       | TR     | 235.0     | TR     | TR     | TR        | 1919.4    |
| DARKBLOTCHED ROCKFISH | 942.0    | 7.3       | TR     | 0.1       | TR     | TR     | TR        | 949.4     |
| REDSTRIPE ROCKFISH    | 212.0    | TR        | TR     | TR        | TR     | TR     | TR        | 212.0     |
| SHARPCIN ROCKFISH     | 216.7    | 0.6       | TR     | TR        | TR     | TR     | TR        | 217.3     |
| SILVERGREY ROCKFISH   | 320.8    | 0.1       | TR     | 0.2       | TR     | TR     | TR        | 321.1     |
| SPLITNOSE ROCKFISH    | 221.2    | 0.1       | TR     | 1.2       | TR     | TR     | TR        | 222.4     |
| YELLOW EYE ROCKFISH   | 132.6    | 0.1       | TR     | 48.1      | TR     | TR     | TR        | 180.8     |
| YELLOWMOUTH ROCKFISH  | 540.6    | TR        | TR     | TR        | TR     | TR     | TR        | 540.6     |
| YELLOWTAIL ROCKFISH   | 3521.9   | 415.4     | TR     | 210.1     | TR     | 8.6    | TR        | 4156.0    |
| OTHER ROCKFISH        | 1488.8   | 5.4       | TR     | 177.2     | TR     | TR     | 0.1       | 1671.5    |
| ___SEBASTES COMPLEX   | 12920.6  | 469.0     | 0.3    | 970.8     | 202.5  | 10.0   | 93.9      | 14667.0   |
| PACIFIC OCEAN PERCH   | 1387.4   | 3.1       | TR     | 0.1       | TR     | TR     | TR        | 1390.6    |
| THORNYHEADS           | 6387.4   | 2.2       | 0.6    | 70.8      | 4.8    | 0.2    | 69.9      | 6536.0    |
| WIDOW ROCKFISH        | 6724.6   | 25.3      | 0.6    | 56.3      | 116.6  | 0.1    | 8.2       | 6931.8    |
| UNSP. ROCKFISH        | 1101.6   | 279.2     | 11.8   | 2957.5    | 1131.7 | 56.5   | 452.9     | 5991.2    |
| ___ALL ROCKFISH       | 28525.8  | 778.9     | 13.3   | 4055.5    | 1455.7 | 66.8   | 624.9     | 35520.9   |
| JACK MACKEREL         | 139.3    | TR        | TR     | TR        | TR     | TR     | TR        | 139.3     |
| LINGCOD               | 2611.8   | 23.2      | 1.2    | 330.1     | 148.1  | 34.6   | 27.4      | 3176.4    |
| PACIFIC COD           | 1803.5   | 2.6       | TR     | 4.5       | TR     | 0.1    | TR        | 1810.7    |
| PACIFIC WHITING       | 210354.1 | TR        | TR     | 2.9       | 0.4    | TR     | 48.4      | 210405.8  |
| SABLEFISH             | 4863.4   | 17.5      | 1059.6 | 3384.9    | 33.9   | 16.2   | 76.9      | 9452.4    |
| OTHER ROUND FISH      | TR       | TR        | TR     | TR        | 22.8   | TR     | TR        | 22.8      |
| ___ALL ROUND FISH     | 219779.1 | 43.3      | 1060.7 | 3722.5    | 205.2  | 50.9   | 152.8     | 225014.5  |
| SPINY DOGFISH         | 692.8    | 0.1       | TR     | 207.7     | TR     | 0.1    | TR        | 900.7     |
| OTHER GROUND FISH     | 281.0    | 0.6       | 2.3    | 47.4      | 57.0   | 0.6    | 5.8       | 394.8     |
| UNSP. GROUND FISH     | 107.2    | TR        | TR     | 3.5       | 7.1    | TR     | 8.4       | 126.2     |
| ___MISC. GROUND FISH  | 1080.9   | 0.7       | 2.4    | 258.6     | 64.1   | 0.8    | 14.2      | 1421.8    |
| ALL GROUND FISH       | 279280.2 | 873.0     | 1081.6 | 8080.1    | 1799.5 | 118.6  | 1184.2    | 292417.3  |
| CALIFORNIA HALIBUT    | 158.1    | TR        | 1.4    | 38.1      | 235.4  | 0.8    | 34.0      | 467.8     |
| PACIFIC HALIBUT       | 0.5      | 0.1       | TR     | 166.4     | TR     | 1.7    | 0.1       | 168.8     |
| PINK SHRIMP           | 4643.2   | 14362.1   | TR     | TR        | TR     | TR     | TR        | 19005.4   |

Table 2. Landed catch of groundfish (mt) in Canadian waters (International North Pacific Fisheries Commission or INPFC areas) in 1991 by gear type. The catch of whiting is shown separately from that of other groundfish species.

| INPFC Area |         | Trawl   | Shrimp | Hk/Line | Net | Troll | Total   |
|------------|---------|---------|--------|---------|-----|-------|---------|
| Charlotte  | Other   | 33,797  | 0      | 3,122   | 1   | 93    | 37,013  |
| Vancouver  | Other   | 19,377  | 11     | 3,323   | 5   | 113   | 22,829  |
|            | Whiting | 104,522 | 0      | 0       | 0   | 0     | 104,522 |
| Total      |         | 157,696 | 11     | 6,445   | 6   | 206   | 164,364 |

#### 1.a. Midwater Trawl

The Pacific whiting fishery is the only midwater trawl groundfish fishery of significance in the PFMC representing 72 percent of Pacific coast groundfish landings. Midwater gear has been used to target widow rockfish, but this fishery has declined in recent years as trip limits became more restrictive. There have been some efforts to harvest shortbelly rockfish and jack mackerel with midwater gear, although these fisheries are still exploratory in nature. There is currently an experimental fishery proposed for up to 13,000 mt of shortbelly rockfish that would be taken off the California coast. The decision on whether to issue the permit has not been made. If the permit is issued, the fishery will likely be subject to area restrictions and NMFS-certified observers would examine every tow by whole-haul sampling for bycatch.

#### i. Description of the Pacific Whiting Resource

Pacific whiting is a migratory species that spawns off central California to northern Baja California, Mexico, during January-February. During March-April there is a northward migration of adults. Juveniles tend to remain off central California and larger, older whiting tend to migrate farthest north. The traditional fishery (see below) tended to begin in late April off northern California and Oregon. By June, whiting are available to the whiting fishery off Vancouver Island, Canada. While on the feeding grounds, whiting are semi-pelagic and found primarily over the continental shelf. The date of the return migration is not certain and some fishing has occurred through November. The total available harvest (U.S. plus Canada) fluctuates because of

extreme variation in recruitment, and is expected to average 221,000 mt in the long term (Figure 1).

## ii. Description of the Pacific Whiting Fishery

The fishery for Pacific whiting in U.S. waters has evolved through three eras since its inception in the mid-1960s. Throughout this period, whiting has been harvested almost entirely by midwater trawls. The first era was dominated by foreign fisheries that were restricted to operate offshore of 12 miles and north of 39 degrees. During the second era, 1978-1989, a joint venture fishery involving domestic catcher boats and foreign at-sea processors was initiated. The joint venture fishery grew to 203,578 mt in 1989 when it completely displaced the foreign fishery. During this same decade, the shorebased whiting fishery grew from less than 1,000 mt to 7,418 mt in 1989. The third era began in 1991 with the complete displacement of the joint venture fishery by domestic at-sea processors, domestic catcher-processors, and substantial growth in the shorebased whiting fishery (Figure 2). The distribution of catch among these groups in 1991 was influenced by allocation by the PFMC and resulted in 119,123 mt (including discards) to catcher-processors, 81,835 mt to motherships and 20,601 mt to shoreside.

In 1992, the harvest guideline for whiting in the U.S. fishery is 208,800 mt. The PFMC allocated 98,800 mt for processing at sea. Of the remainder, 80,000 mt is available for processing onshore and 30,000 mt is reserved for either shoreside or at-sea processing, although shoreside processors have priority. If the shoreside plants are unable to use any portion of their allocation, it may be reallocated for use by the at-sea fleet. The first decision regarding reallocation would be made on or about September 1, 1992. Additional management actions were taken in 1992 to limit bycatch, particularly in southern INPFC areas. Fishing for whiting inside of 100-fathoms was limited in the Eureka area, night fishing was prohibited and the area south of 42°N was closed to at-sea processing. The 1992 season opened on April 15. By May 5, the at-sea processors had taken all of the initial allocation and were closed pending possible reallocation of available surplus latter in the year.

The catch in the Canadian fishery averaged about 42,000 mt since 1966 accounting for an average of about one quarter of the total harvest coastwide (Figure 1). In recent years, the Canadian catch of whiting has increased. The catch since 1987 has averaged nearly 89,000 mt and totaled 104,522 mt in 1991 (Dorn and Methot 1992).

### iii. Salmon Bycatch in the Whiting Fishery

The bycatch of salmon in the foreign, joint venture, and at-sea domestic whiting fishery in PFMC waters has been well monitored by the NMFS Fishery Observer Program. With the exception of 1986, the annual salmon catch in the whiting fishery has ranged from 2,300 to 16,200 and averaged approximately 9,500 (Figure 3).

The reason for the higher bycatch in 1986 is unknown, but was due at least in part to the higher abundance of salmon, particularly in the Columbia area. Because of the changing nature of the fishery, catch patterns from more recent years are described in more detail and used to project the likely range of bycatch for 1992 and beyond.

The vast majority of salmon taken in the whiting fishery are chinook. Chinook comprised 82 to 98 percent of the salmon bycatch in the 1986-1990 U.S. joint venture whiting fishery. Most of the remainder are chum and coho. In the 1982-1987 foreign and joint venture fishery, sockeye bycatch averaged 22 fish per year. In the 1988-1990 joint venture fishery, no sockeye were observed. The salmon bycatch in the Canadian fishery over 3 years (1988-1990) comprised an average of 93 percent chinook and an average of 54 sockeye per year.

Patterns of salmon bycatch rate are summarized in Table 3 by International North Pacific Fisheries Commission (INPFC) area and user type (Figure 4). Areas with less than 1,000 mt of whiting catch are not presented because of the high variability in salmon bycatch (typically, salmon occur in about 27 percent of all whiting tows, but about 2 percent of the tows contribute 50 percent of the salmon bycatch).

Salmon bycatch rate in the Vancouver area typically has been two or three times the rate in the Columbia area. There has been little fishing in the U.S. Vancouver area, partly due to restrictions on foreign vessels, but increased activity by the domestic fleet is possible. The Canadian fishery in the Vancouver area has increased in recent years (Figure 2).

A large fraction of the whiting fishery occurs in the Columbia area. In four of the five years examined, the salmon bycatch rate by the joint venture fishery in this area was lower than the coastwide average (Table 3). The foreign fishery tended to have a higher salmon bycatch rate in the Columbia area than in the Eureka area, perhaps because the 12 mile from shore restriction on the foreign fishery moved them offshore of the high salmon

bycatch depth zone (<100 fathoms) in the Eureka area, but not in the Columbia area which has a wider shelf.

The bycatch rate of the 1991 domestic fishery in the Eureka area was similar to the rate achieved by the joint venture fishery in this area during 1988-90. In 1990 and 1991, the Eureka area rate was greater than the Columbia area rate, but this has not always been the case and is inconsistent with observations from the bottom trawl fishery (see below).

In 1989-1991, the Monterey area had a salmon bycatch rate that was slightly lower than the rate observed in the Columbia area, but the sample size was small in 1989 and 1990 (1,800 mt whiting in each year).

Table 3. Observed bycatch rates (# salmon/mt whiting) for salmon in the Canadian and PFMC area foreign, joint venture and domestic whiting fishery by INPFC catch area.

| Year                             | Vancouver | Columbia | Eureka | Monterey | Total |
|----------------------------------|-----------|----------|--------|----------|-------|
| <b>Canadian Waters</b>           |           |          |        |          |       |
| 1988                             | 0.148     |          |        |          |       |
| 1989                             | 0.150     |          |        |          |       |
| 1990                             | 0.103     |          |        |          |       |
| <b>U.S. Waters/Foreign</b>       |           |          |        |          |       |
| 1986                             |           | 0.201    | 0.065  |          | 0.146 |
| 1987                             |           | 0.094    |        |          | 0.094 |
| 1988                             |           | 0.126    | 0.053  |          | 0.121 |
| <b>U.S. Waters/Joint Venture</b> |           |          |        |          |       |
| 1986                             | 0.434     | 0.284    | 0.959  |          | 0.331 |
| 1987                             | 0.201     | 0.073    |        |          | 0.081 |
| 1988                             | 0.238     | 0.085    | 0.107  |          | 0.103 |
| 1989                             |           | 0.058    | 0.036  | 0.041    | 0.047 |
| 1990                             | 0.050     | 0.029    | 0.098  | 0.023    | 0.054 |
| <b>U.S. Waters/Domestic</b>      |           |          |        |          |       |
| 1991                             | 0.037     | 0.011    | 0.071  | 0.007    | 0.032 |

A depth effect has been observed in the Eureka area in the past with higher salmon bycatch rates observed inside of the 100 fathom contour (Table 4). Higher bycatch rates were also observed in near-shore areas in the bottom trawl fishery. The continental shelf off the Eureka area is narrow and the 100 fathom contour generally occurs 6 to 10 nautical miles offshore. In the Columbia and Vancouver areas, the shelf is broader, the 100 fathom isobath is further offshore, and much of the whiting fishery occurs inside of the 100 fathom contour. The PFMC restricted fishing inside of 100 fathoms in the Eureka area by emergency rule in 1992 based primarily on the analysis of data specific to the Eureka area.

Table 4. Salmon bycatch rate (# salmon/mt whiting) in the Eureka area whiting fishery.

| Year      | 1988  | 1989  | 1990  | 1991    |
|-----------|-------|-------|-------|---------|
| Nearshore | 0.476 | 0.093 | 0.335 | no tows |
| Offshore  | 0.083 | 0.015 | 0.029 | 0.071   |
| All       | 0.107 | 0.036 | 0.098 | 0.071   |

#### iv. Annual Variability in Bycatch

Bycatch rates in the Eureka and Vancouver area have not shown significant trends in recent years. However, the bycatch rate in the Columbia area has been on a downward trend, even without considering the high rate in 1986. It is not clear whether the low rate achieved by the domestic fishery in this area in 1991 is a continuation of this trend or a manifestation of an unknown difference in the fishing operations. The fishery was compressed into the April-June period, but the lack of apparent seasonality in bycatch suggests that this shift in timing had little effect on total bycatch.

#### v. Salmon Bycatch by Shorebased Vessels

Until recently shorebased vessels did not account for a significant amount of the whiting catch (Figure 2). However, the catch of the shorebased fleet grew to 20,500 mt in 1991 and further growth is expected in 1992. Shorebased vessels were not sampled by the observer program in 1991 or in previous years. Information related to salmon bycatch is therefore limited. The

Oregon Department of Fish and Wildlife (ODFW) did place observers on 25 vessel trips fishing out of Newport, Oregon, during 1991. These trips accounted for 1,026 mt of whiting and two chinook salmon (0.002 chinook/mt) (Claire Wood, ODFW, January 24, 1992, personal communication). ODFW instituted a more comprehensive sampling program in 1992. Preliminary information for the shorebased fleet operating out of Newport, Oregon, for the period April 15 to June 30, 1992, indicate that the bycatch rate is relatively low and comparable to that of the domestic at-sea processors that operated in the Columbia area in 1991. ODFW sampled 159 deliveries accounting for 6,149 mt of whiting and observed 86 salmon. The resulting bycatch rate is 0.014 salmon/mt whiting. In lieu of more comprehensive information on bycatch rates in the shore-based fishery for whiting, the rates observed in the at-sea fisheries were applied to the shorebased fishery.

#### vi. Expected Distribution of Whiting Fishery in 1992

The PFMC adopted a series of management actions for the 1992 season designed to reduce bycatch, particularly in the Eureka area. First, the opening date was delayed until April 15. Second, catcher-processors and at-sea processors were prevented from operating south of 42°N latitude. Third, directed harvest was prohibited inside of the 100-fathom contour within the Eureka area. Finally, fishing at night was prohibited coastwide. These management actions have affected the distribution of catch. For example, the April 15 opening date reduced the amount of fishing time in April and shifted the at-sea processors northward because of the northward migration of the fish. Additionally, warm water conditions associated with a moderate El Niño are occurring. This also moves the whiting, and their fishery, northwards. These factors indicate that only the shorebased fishery will operate to a substantial degree in the Eureka area. The at-sea fishery opened April 15, 1992, and closed on May 5 having taken their initial allocation. Preliminary data on the catch of the at-sea processors and the projected distribution of the shoreside fishery is shown by area in Table 5.

Table 5. Catch of whiting (mt) and salmon (#) in the 1992 PFMC whiting fishery. Observed catch includes catch of at-sea processors taken during the April 15 to May 5, 1992, opening. Projected catch represents the anticipated distribution for the remainder of the whiting harvest guideline.

| INPFC Area | Observed |        |        | Projected |
|------------|----------|--------|--------|-----------|
|            | Whiting  | Salmon | #/mt   | Whiting   |
| Vancouver  | 11,739   | 186    | 0.0158 | 15,000    |
| Columbia   | 69,515   | 1,039  | 0.0150 | 85,000    |
| Eureka     | 17,650   | 110    | 0.0062 | 10,000    |
| Monterey   | 0        | 0      | 0      | 0         |
| Total      | 98,904   | 1,335  | 0.0135 | 110,000   |

vii. Expected Bycatch Rates in 1992

There are two approaches that can be used for projecting bycatch rate in the U.S. fishery for the remainder of the season. Projections can be based on patterns observed in recent years or the rates observed to date for the 1992 fishery. In the Vancouver area, the expected rate based on recent years is 0.13 salmon per mt whiting (mean of the 1987-1991 rates; also equal to the 1988-90 rate reported for the Canadian hake fishery). In the Columbia area, the mean rate since 1987 has been 0.05 salmon per mt, but there has been a downward trend to 0.01 salmon per mt in 1991. In the Eureka area, the bycatch rate in 1992 is expected to be about 0.05 salmon per mt whiting which is the simple mean of the 1988-1991 rates observed while fishing offshore of the 100 fathom contour. Preliminary data from the 1992 at-sea fishery indicate that the rates have been lower than expected based on recent year averages (Table 5).

viii. Expected Salmon Bycatch in 1992

The expected salmon bycatch in 1992 ranges from 2,909 to 8,035 fish depending upon whether the recent year average rates or the lower rates observed during 1992 are used (Table 6). The mean of these two estimates, 5,472 salmon, is taken as a reasonable projection for the 1992 fishery. This would be substantially less than the overall bycatch observed in recent years (Table 7),

although it also shows a displacement of the fishery and bycatch from south to north.

Bycatch rates in the Canadian fishery averaged 0.134 salmon/mt from 1988-1990. The expected catch of whiting in the 1992 Canadian fishery is approximately 90,000 mt. The expected bycatch of salmon in 1992 is, therefore, approximately 12,000 salmon based on average bycatch rates from recent years or 1,400 based on the observed rate in the U.S. Vancouver area in 1992.

It is difficult to project the magnitude or distribution of salmon bycatch in the whiting fishery for future years. Bycatch will depend on the abundance of salmon and the success in finding management measures designed to reduce bycatch without unduly constraining the whiting fishery. It is likely that the PFMC will continue to experiment with management actions that can be used to reduce salmon bycatch. Given the current status and concerns regarding SRWRC and Klamath River fall chinook, PFMC will likely continue to focus their attention regarding bycatch on the Eureka and Monterey areas as was done in 1992. This will likely result in more whiting being caught in areas to the north.

Table 6. Projected bycatch of salmon (numbers of salmon) in the 1992 PFMC whiting fishery. Observed catch represents catch to date by at-sea processors. Projected catch is based on bycatch rates observed in 1992 (low) and those observed in recent years (average).

| INPFC Area | Observed | Projected |         | Total |         |
|------------|----------|-----------|---------|-------|---------|
|            |          | Low       | Average | Low   | Average |
| Vancouver  | 186      | 237       | 1,950   | 423   | 2,136   |
| Columbia   | 1,039    | 1,275     | 4,250   | 2,314 | 5,289   |
| Eureka     | 110      | 62        | 500     | 172   | 610     |
| Monterey   | 0        | 0         | 0       | 0     | 0       |
| Total      | 1,335    | 1,574     | 6,700   | 2,909 | 8,035   |

Table 7. Salmon bycatch (numbers of salmon) in the U.S. whiting fishery by INPFC area.

| Year              | Vancouver | Columbia | Eureka | Monterey | Total  |
|-------------------|-----------|----------|--------|----------|--------|
| 1986              | 4,920     | 27,372   | 4,867  | 18       | 37,177 |
| 1987              | 1,399     | 11,886   | 0      | 0        | 13,285 |
| 1988              | 2,969     | 10,453   | 2,744  | 2        | 16,168 |
| 1989              | 35        | 5,464    | 3,626  | 74       | 9,199  |
| 1990              | 326       | 2,945    | 5,995  | 42       | 9,308  |
| 1991              | 268       | 753      | 4,811  | 499      | 6,331  |
| 1992 <sup>1</sup> | 1,280     | 3,801    | 391    | 0        | 5,472  |

<sup>1</sup> Projected catch

Although the harvest of whiting is expected to average approximately 221,000 mt in the long-term, it is expected that the allowable catch of whiting in the near future will be reduced below 1992 levels (208,800 mt). The preliminary recommendation for whiting harvest in 1993 is 177,000 mt coastwide including Canada (PFMC 1992b).

Bycatch rates have varied considerably between years and areas in recent years, but it is expected that the bycatch rate can be kept below 0.05 salmon/mt calculated on an annual and coastwide basis. The 0.05 rate was adopted as a voluntary industry standard in 1991 and is used here to define the upper limit of expected catch of salmon for future years. The upper range of anticipated catch of salmon in the U.S. whiting fishery is, therefore, approximately 11,000 (221,000 mt \* 0.05 = 11,050) the majority of which will be chinook. This estimate and the projected catch for 1992 will be used to define the range of anticipated catch in the subsequent discussion regarding stock specific impacts.

How to approximate the likely bycatch for future Canadian fisheries is less clear. The bycatch rates have tended to be higher in the Vancouver area fisheries. The Canadian whiting fisheries are not subject to the same level of scrutiny as the U.S. fisheries and were not subject to the 0.05 salmon/mt whiting voluntary industry standard used by the United States. The bycatch rate in the Canadian fishery has been consistently higher

in recent years. For the purposes of this review, it is assumed that the bycatch of salmon may again be as high as it has been in recent years. The bycatch of salmon in 1989 was nearly 14,000 salmon taken in conjunction with nearly 100,000 mt of whiting. This is perhaps a reasonable estimate of the maximum catch in the near future since the allowable harvest of whiting is expected to decline.

#### I.b. Bottom Trawl

The primary source of information used for estimating salmon bycatch in the bottom trawl fishery was the report of Erickson and Pikitch (in prep.). The report summarized the results of a discard study conducted from 1985-1987 and a mesh size study conducted from 1988-1990. The discard study covered the Washington and northern Oregon coasts and all four quarters. Sampling in the mesh size study included the entire Pacific coast, but only the third and fourth quarters (Table 8).

Erickson and Pikitch used the Pacific States Marine Fisheries Commission (PSFMC) rather than INPFC catch areas to stratify their study design. To discuss the results of their study and summarize the results regarding anticipated bycatch, it is necessary to refer to the PSMFC and INPFC catch areas interchangeably. Reference to Figure 4 and Table 8 will help minimize the associated confusion.

Chinook were the dominate salmon species observed in both the discard (94 percent) and mesh size (98 percent) studies. This is consistent with the results from other bycatch studies involving trawl gear. In the midwater trawl fishery for Pacific whiting, chinook comprise 82-98 percent of the salmon taken in the 1986-1990 U.S. joint venture fishery. In the NMFS bottom trawl surveys, 617 of the 640 salmon taken (96 percent) were chinook.

Virtually all of the salmon caught in the trawl fishery were taken in relatively shallow water. Only one chinook was observed from tows in water that was greater than 300 fathoms and there were few taken in water greater than 100 fathoms. This depth effect was similar to that observed in the midwater trawl fishery.

Three different bottom trawl fishing strategies were investigated including the near-shore mixed, bottom rockfish and deepwater strategies. Bycatch rates did not differ between strategies (Erickson and Pikitch in prep.) thus permitting development of estimates of bycatch rate that were generally applicable to all bottom trawl gear types.

Table 8. Sampling effort (number of tows) by quarter and area in depths less than 549 m during discard and mesh size field studies for the bottom groundfish trawling strategy (Erickson and Pikitch, in prep.). The PSMFC area and approximate corresponding INPFC area are shown for reference.

| PSMFC Area | INPFC Area | Discard (1985-87) |    |     |     | Mesh Size (1988-90) |   |     |     |
|------------|------------|-------------------|----|-----|-----|---------------------|---|-----|-----|
|            |            | 1                 | 2  | 3   | 4   | 1                   | 2 | 3   | 4   |
| 3B         | Van        | 13                | 15 | 22  | 13  | -                   | - | 232 | 65  |
| 3A         | Col        | 49                | 12 | 95  | 74  | -                   | - | 101 | 52  |
| 2C         | Col        | 45                | 89 | 240 | 100 | -                   | - | 115 | 113 |
| 2B         | Col        | 46                | 34 | 85  | 95  | -                   | - | 115 | 22  |
| 2A         | Eur        | 5                 | 2  | -   | -   | -                   | - | 25  | 25  |
| 1C         | Eur        | -                 | -  | -   | -   | -                   | - | 40  | 11  |
| 1B         | Mon        | -                 | -  | -   | -   | -                   | - | 23  | 69  |
| 1A         | Con        | -                 | -  | -   | -   | -                   | - | -   | 8   |

Spatial patterns of chinook bycatch were also considered. In the 1985-87 study, Erickson and Pikitch (in prep.) reported that the bycatch rate in area 2B (central Oregon) was higher than areas to the north during each of the four quarters sampled. Area 2B also had the highest rate in the 1988-90 study, although the differences were not statistically significant. These results differed somewhat from those of the NMFS survey studies where the occurrence of salmon was highest in the Eureka area. Higher chinook bycatch in the Eureka area was also observed in the Pacific whiting midwater trawl fishery.

There were significant differences in the bycatch rate between seasons. Bycatch rates in the 1985-87 study were higher in the first and fourth quarters than during the second and third quarters. During the 1988-90 study, sampling was limited to the third and fourth quarters, but the results were consistent with those of the discard study (Table 9).

Table 9. Bycatch rate (number/tow hour) of salmon derived from the discard and mesh size studies (Methot 1992b). Sampling in the mesh size study was limited to the third and fourth quarters.

| Study               | Quarter |         |
|---------------------|---------|---------|
|                     | 1 and 4 | 2 and 3 |
| Discard (1985-87)   | 0.211   | 0.031   |
| Mesh Size (1988-90) | 0.280   | 0.015   |

Estimates of total chinook bycatch were developed by expanding bycatch rates using logbook estimates of total trawl hours.

Erickson and Pikitch compiled estimates of bottom trawl effort in depths less than 300 fathoms by quarter and PSMFC area for 1986 and 1987 (their Table 7) and 1990 (their Table 8). The effort estimates were multiplied by estimates of chinook bycatch rates for each quarter and PSMFC area (Methot 1992b). When the 1986 level of effort is applied to the 1985-87 rates, the estimated total chinook bycatch for the Washington and central Oregon coast (areas 2B through 3B-C) is 5,300 chinook. When the same calculation is made with the 1987 level of bottom trawl effort, the estimated bycatch of chinook is 7,757 chinook. When the 1990 effort is applied to the 1988-1990 rates, the estimated bycatch of chinook for the entire California, Oregon, and Washington coast is 9,178. This is a conservative estimate because of their recommended exclusion of an outlier. Approximately 990 of these chinook were estimated to have been taken south of the areas included in the 1986 and 1987 estimates. The resulting range of estimates for annual, coastwide chinook bycatch in the bottom trawl fishery is 6,290 to 9,178 fish.

The analysis therefore provides three estimates (from 1986, 1987, and 1990) of chinook bycatch in the bottom trawl fishery for the Washington and central Oregon coast (areas 2B through 3B-C) and one (from 1990) for the California and southern Oregon coast (areas 1A through 2A). There is obviously less certainty regarding the general magnitude of bycatch in the southern areas. Areas 1A through 2A (the Monterey and Eureka INPFC areas) were not as well represented in the sampling design as areas to the north. Observations from the midwater trawl whiting fishery suggest that bycatch rates in the Eureka area in particular, are

generally higher than areas to the north. This is inconsistent with the bottom trawl data. However, despite the relative uncertainty regarding bycatch in the south, it is useful to maintain the north/south stratification because it corresponds to assumptions related to the distribution of SRWRC and Snake River fall chinook discussed later.

An alternative calculation of total bycatch can be made by pooling some strata before calculating the expansions. This is possible because there tended to not be significant differences between areas and because the first and fourth quarters were similar, but different from the second and third quarters. The resulting estimate of coastwide, annual chinook bycatch during 1985-1990 is approximately 11,000 chinook. However, this approach did not provide the north/south stratification that was desirable for the subsequent analysis of stock specific impacts. The level of chinook bycatch in current and future bottom trawl fisheries is difficult to project. The available information suggests that the bycatch of chinook for northern areas is on the order of 5,000 to 8,000 with another 1,000 chinook taken off southern Oregon and California. Erickson and Pikitch (in prep.) strongly caution against extrapolating from the rates observed in their studies because of changing trawl mesh size and technique, changing abundance of salmon, and other factors. However, their studies do help define the approximate magnitude of chinook bycatch in the bottom trawl fishery and provide perspective when comparing to other fisheries. A coast-wide catch of 6,000 to 9,000 chinook compares roughly to the take in the midwater trawl whiting fishery, but is only a few percent of the annual catch of chinook salmon in commercial and recreational salmon fisheries (Table 10).

Table 10. Coastwide chinook salmon landings (numbers of salmon) for ocean troll and recreational fisheries (PFMC, 1992c).

| Year | Washington | Oregon  | California | Total     |
|------|------------|---------|------------|-----------|
| 1986 | 71,000     | 425,000 | 968,000    | 1,464,000 |
| 1987 | 125,000    | 589,000 | 1,069,000  | 1,783,000 |
| 1988 | 133,000    | 508,000 | 1,488,000  | 2,129,000 |
| 1989 | 106,000    | 386,000 | 718,000    | 1,210,000 |
| 1990 | 93,000     | 259,000 | 563,000    | 915,000   |
| 1991 | 63,000     | 89,000  | 376,000    | 528,000   |

### 1.c. Shrimp Trawl

A total of 247 shrimp trawl tows were examined for bycatch during the 1985-87 discard study. No salmon were observed in any of the tows. It is, therefore, reasonable to conclude that the shrimp fishery has negligible impact of salmon.

Erickson and Pikitch (in prep.) speculated that the absence of salmon in the shrimp trawl fishery may be due to timing of the fishery. The shrimp season takes place during the late spring and summer, when salmon bycatch for all trawl fisheries was generally lowest. They also suggested that the absence of salmon bycatch might be related to hydrodynamics of the small mesh net or slower towing speed.

### 2. Pot Gear

Pots are baited traps that are deployed on the bottom and used to target sablefish. The pot fishery in PFMC areas accounted for less than 1,100 mt or about 0.4 percent of groundfish landings in 1991. There is no direct information regarding bycatch in the pot fishery. However, because of the pelagic, visually oriented feeding strategy of salmon, it is unlikely salmon would enter a baited trap placed on the bottom. The bycatch of salmon in the pot fishery is assumed to be essentially zero.

### 3. Hook-and-Line

Hook-and-line gear is used to target primarily sablefish, Pacific halibut, and rockfish. (Pacific halibut are managed by the International Pacific Halibut Commission established by treaty between the United States and Canada, and are not one of the designated species managed under the groundfish FMP.) There are several different hook-and-line gear configurations. Longlines are strings of baited hooks that are anchored to the bottom and used to target sablefish and halibut. Vertical longlines are again strings of baited hooks that are fished vertically and used to target various rockfish species, particularly in southern Oregon and California. Jigs are fished differently, but are again strings of baited hooks or other attractants that are fished more actively from a vessel. Jigs are used to target primarily rockfish and some lingcod.

The hook-and-line fishery in 1991 took about 8,100 mt or about 2.8 percent of all of groundfish landings coastwide. Retention of salmon in groundfish fisheries is prohibited and, because of the scale of the fishery, there has been no monitoring program designed to collect bycatch information. As a result, there is

no specific data regarding the bycatch of salmon. It is unlikely that salmon would be taken by baited hooks on longlines anchored to the bottom, because of the general feeding habit of salmon. It is conceivable that salmon might be taken on the vertical longline or jig operations. However, based on personal communication with biologists involved in managing these fisheries in each of the states and fishermen that have been involved with these fisheries, it seems unlikely that the bycatch of salmon is more than an occasional event which would have negligible impact on the species of concern.

#### 4. Other Gear

There are a variety of localized setnet (gillnet and trammel net) fisheries located off the California coast. The use of gillnets is prohibited by the groundfish FMP north of 38° N latitude (just north of San Francisco Bay). In PFMC groundfish fisheries, sunken gillnets are used to target rockfish. Information from the central California area indicates that the rockfish fishery takes place in relatively deep water and that salmon interactions are negligible (Marine Resources Division 1987).

California halibut and white croaker are the primary target species of inshore fisheries, although these fisheries are managed under California State regulation and are not part of the groundfish FMP. The state fisheries have been monitored in recent years because of concerns for bird and marine mammal interactions. Estimates of the total salmon taken incidental to the gillnet and trammel net fisheries for the area from the Mendocino-Sonoma county line to Yankee Point south of Monterey Bay for 1983-1985 are 1,898, 1,663, and 2,170, respectively (Marine Resources Division 1987). Chinook salmon comprised 94 percent of the salmon catch. Many of the nearshore fishing areas where most of the bycatch was observed have been closed in recent years to minimize impacts on birds and mammals. These regulatory changes have also resulted in substantial reductions in the bycatch of salmon (Wild 1990).

## VI. Species Specific Impacts

### A. Sacramento River Winter-Run Chinook Salmon

Estimating the bycatch of SRWRC in the whiting fishery in any particular area depends on estimates of the catch of salmon and the relative abundance of salmon stocks present in that area. Projections of bycatch of salmon by INPFC area for 1992 were developed in a previous section (Table 6 and 7). The information necessary to estimate the relative abundance of SRWRC is

generally not available. However, an analysis was developed in the previous biological opinion regarding the impacts of the whiting fishery (NMFS 1991a) that provided a method for approximating the magnitude of bycatch of SRWRC. The analysis was based on a series of assumptions from existing data sources and management models. The numbers generated by this process are not intended for use as point estimates, but are rather best viewed as professional judgement of the approximate magnitude of the catch.

SRWRC are distributed primarily off the California coast. The abundance of SRWRC relative to other stocks in the Monterey and Eureka areas was previously estimated to be approximately 1/1500 and 1/5500, respectively (NMFS 1991a). The contribution of SRWRC to catch in the Columbia and Vancouver areas was not explicitly estimated, but would be substantially lower than in the Eureka area.

Management measures in 1992 have effectively eliminated the whiting fishery from the Monterey area. The delayed opening and ocean conditions have tended to displace the fishery to the north. At-sea processors are prohibited from fishing south of 42° north latitude (the Eureka extends from 43°00" to 40°30" N latitude). The capacity of the onshore processing fleet within the Eureka area is limited and the catch of whiting in the Eureka area is not expected to exceed 10,000 mt in 1992. There are no onshore processing plants for whiting south of Eureka, California or in the Monterey area. These same measures have also greatly reduced the projected bycatch of salmon in the Eureka area from a few thousand observed in recent years to a few hundred in 1992 (Table 7). Because of the more northerly distribution of the bycatch and assumptions regarding relative abundance of stocks, the probability of catching a SRWRC in the 1992 whiting fishery is considered negligible.

The prospects of impacting SRWRC in future years depends on the distribution and magnitude of the whiting fishery and bycatch rate. Substantial increases in the catch of whiting in the Eureka or particularly the Monterey areas would be cause for concern. However, for the foreseeable future, continuing concerns for SRWRC and Klamath River fall chinook are likely to lead to the continuing use of management actions to minimize bycatch in areas south of the Columbia area as was done in 1992.

It was estimated that the bycatch of salmon in the bottom trawl fishery in areas south of the Columbia area would be on the order of 1,000 fish per year. Determining the impact of this bycatch on SRWRC depends on how this catch is distributed across the

Eureka, Monterey and Conception areas. If we assume that all of the bycatch was taken in the Monterey area, the area of highest relative abundance, we would still estimate that less than one SRWRC would be taken per year.

#### B. Snake River Sockeye Salmon

There is no information to suggest that Snake River sockeye are harvested in Pacific coast groundfish fisheries. Nearly all of the salmon caught in the midwater whiting and bottom trawl fisheries are chinook. Chinook comprise 82 to 98 percent of the salmon bycatch in the 1986-90 U.S. joint venture whiting fishery. Most of the remainder are coho and chum. In the 1982-1987 foreign and joint venture fishery, sockeye bycatch averaged 22 fish per year. In the 1988-1990 joint venture fishery, no sockeye were observed. In the bottom trawl surveys, 96 percent of the salmon observed were chinook and none were sockeye.

The likelihood that any of the very few sockeye taken in groundfish fisheries are from the Snake River is extremely remote. The number of Snake River sockeye returning to the Columbia River is likely quite small (probably on the order of a few tens of fish) compared to the millions of sockeye from other stocks that enter the PFMC management area and pass primarily through the Strait of Juan de Fuca to the Fraser River. Methot (1992a, 1992b) concluded that the likelihood of taking any sockeye from the Snake River in whiting or bottom trawl fisheries is negligible.

#### C. Snake River Spring/Summer Chinook Salmon

Although chinook are the primary salmon species taken as bycatch in the groundfish fisheries, there is little affirmative evidence to suggest that Snake River spring/summer chinook are included in the bycatch. Snake River spring and summer chinook are assumed to be north migrating. As a result, any taking that may occur is likely limited to the northern Oregon and Washington coast.

Review of CWT recovery data also suggests that these stocks are absent from PFMC areas during most of their life history. The CWT data is problematic because survival rates of tagged fish have been quite low. However, over 2.8 million tagged spring chinook and nearly 1.6 million tagged summer chinook have been released over a twelve year time period beginning in 1976. None of these tags have ever been recovered from PFMC area groundfish fisheries; there have been very few tags recovered in PFMC area salmon. There have been four observed recoveries of spring chinook in ocean fisheries (all in Canadian waters) compared to

622 from inriver fisheries and escapement. There have been 20 estimated recoveries of summer chinook in U.S. ocean fisheries and seven more in Canadian ocean fisheries, compared to 195 estimated recoveries in the inriver fisheries and escapement. The STT (1992) concluded that there was insufficient information to determine the ocean distribution of Snake River spring or summer chinook, but based on the review of CWT and other information, that these stocks are unlikely to be significantly impacted by ocean salmon fisheries in the PFMC area.

Suggestive, albeit negative evidence (absence of tag recoveries where recoveries would be expected if spring/summer chinook were impacted), indicates that these stocks are not significantly affected by salmon or groundfish fisheries in the PFMC area. Therefore, NMFS concludes that fishing conducted under the groundfish FMP is not likely to jeopardize the continued existence of Snake River spring/summer chinook.

#### D. Snake River Fall Chinook Salmon

As was the case with SRWRC, estimating the impact of the groundfish FMP on Snake River fall chinook depends on estimates of bycatch and assumptions regarding the relative abundance of salmon stocks in the areas of concern. It was previously estimated that the bycatch of salmon in the whiting fishery in 1992 would be approximately 5,100 in the Vancouver and Columbia areas and 400 in the Eureka area (Table 6 and 7). It was also estimated that the bycatch of salmon in the whiting fishery is unlikely to exceed 11,000 per year coast-wide for the foreseeable future. There is some uncertainty regarding the geographic distribution of the whiting fishery in future years, but it is most likely to be located primarily to the north in the Columbia and Vancouver areas. Bycatch in the bottom trawl fishery is expected to be on the order of 1,000 salmon in the areas south of the Columbia area and 5,000 to 8,000 in Columbia and Vancouver areas.

There is some direct information indicating the presence of Snake River fall chinook in the whiting fishery bycatch. The CWT groups used to represent naturally spawning Snake River fall chinook are limited to non-experimental, fingerling type releases. Only releases from the Lyons Ferry Hatchery are incorporated in the Pacific Salmon Commission and PFMC salmon fishery models (Berkson 1991). There have been four observed recoveries of Lyons Ferry fingerling type CWTs in the whiting fishery. There were three additional recoveries of fingerling type CWT groups from the Hagerman Hatchery, although these are considered experimental type releases. All the CWTs were

recovered off the northern Oregon or Washington coasts during the summer months.

Estimates of the distribution and relative abundance of Snake River fall chinook were derived from recoveries of CWTs from the 1984 and 1985 brood year releases of the Lyons Ferry Hatchery stock that is used as a surrogate for naturally spawning Snake River fall chinook. The recovery information was recently incorporated into a chinook harvest model used by the PFMC for the first time in 1992 (CMWG 1990, 1991; PFMC 1992a) to assess impacts of ocean salmon fisheries on chinook stocks, particularly in the area north of Cape Falcon, Oregon (Figure 4). This same model was used to evaluate the impact of ocean salmon fisheries in the PFMC areas on Snake River fall chinook compared to the 1986-90 base period. The analysis provided the basis for the biological opinion regarding 1992 PFMC ocean salmon fisheries (NMFS 1992a).

One of the shortcomings of the analysis was the inability to estimate the absolute abundance of Snake River fall chinook. Without the appropriate stock scalars, it was not possible to estimate the number of fish actually caught, relative contribution to the various fisheries, or ocean escapement of Snake River fall chinook (i.e., the number of mature fish expected to return to the Columbia River mouth in 1992). Following completion of the ocean opinion, a subsequent biological assessment was developed regarding summer and fall season fisheries in the Columbia River (CRTS 1992). This assessment included an age-specific estimate of the ocean escapement of Snake River fall chinook. This was the information that was needed for scaling ocean abundance that was not available prior to completion of the earlier analysis. Using the new information, the initial abundance of Snake River fall chinook was scaled and the model rerun using the 1992 pre-season fishery structure. The model then provided estimates of the catch of Snake River fall chinook by fishery.

The estimates of catch by fishery were aggregated into three broad geographic areas to conform with estimates of salmon bycatch in the groundfish fisheries. The three areas included the west coast of Vancouver Island (representing the Canadian fishery), a northern U.S. area including the U.S. portion of the Vancouver INPFC area and the Columbia area, and a southern area including the Eureka, Monterey, and Conception areas. The catch of naturally spawning Snake River fall chinook estimated by the salmon harvest model was 1,776 in the Canadian area, 285 in the U.S. north and 7 in the U.S. south.

The expected catches of chinook in ocean commercial, recreational, and tribal salmon fisheries in Canada off the southwest coast of Vancouver Island and the northern and southern areas of the U.S. coast in 1992 are 300,000, 169,200 and 156,600, respectively (PFMC 1992a). The resulting ratios indicate that the contribution of Snake River fall chinook in the 1992 salmon fisheries were approximately  $1/170$  ( $300,000/1,776 = 169$ ),  $1/600$  ( $169,200/285 = 594$ ) and  $1/22,000$  ( $156,600/7 = 22,371$ ).

These ratios are used here to approximate the impact of bycatch in the groundfish fisheries on Snake River fall chinook. The expected bycatch of salmon in the northern area whiting fishery in 1992 is 5,081 (Table 7), which would include approximately 9 ( $5,081/594 = 8.6$ ) Snake River fall chinook. It was estimated that the bycatch of salmon in future U.S. whiting fisheries might be as high as 11,000. If all of that bycatch were taken in the Columbia and Vancouver areas, the catch of Snake River fall chinook could be as high as 19 ( $11,000/594 = 18.5$ ). The anticipated bycatch in the bottom trawl fishery in the northern areas ranged from 5,000 to 8,000 indicating that as many as 13 ( $8,000/594 = 13.5$ ) Snake River fall chinook might be taken in the bottom trawl fishery. The relative abundance of Snake river fall chinook in southern areas suggests that impacts from groundfish fisheries in areas south of the Columbia area will be negligible.

The contribution of Snake River fall chinook to the Canadian fishery off the southwest coast of Vancouver Island is substantially higher than that of the U.S. fisheries. It was projected that the bycatch of salmon in the whiting fishery could be as high as 14,000 in future years. This would result in an estimated take of approximately 83 ( $14,000/169 = 82.3$ ) Snake River fall chinook.

Determining the impact of other Canadian groundfish fisheries on Snake River fall chinook is more difficult. It is possible to tabulate groundfish landings, but the effect of these fisheries on Snake River fall chinook will depend to a large degree on where the fish are caught. The fishery takes place in both the Vancouver and Charlotte areas. A substantial portion of the catch occurs in inside waters where the relative contribution of Snake River fall chinook is likely quite low. There is no direct information of bycatch rates in Canadian fisheries or contribution rates in particular areas. The estimates for the U.S. fisheries were based on expansions of effort data, which are also unavailable. Given the absence of applicable information, no effort was made to estimate the impact on Snake River fall

chinook of Canadian groundfish fisheries directed at species other than whiting.

It is important to qualify these estimates and point out some of the underlying assumptions of the analysis. The basic assumption is that the distribution of stocks taken in the salmon fisheries is the same as that of the groundfish fisheries. There are several reasons to believe that this may not be the case. First, although very broad geographic areas have been defined, salmon fisheries are not coincident in time or place with groundfish fishery. For example, bottom trawl fisheries take place year around while salmon fisheries are restricted primarily to the summer months. Second, the catch in the groundfish fisheries is composed primarily of immature age-two and age-three fish, whereas the catch in salmon fisheries is composed primarily of older age classes. Third, the analysis of relative contribution is specific to the 1992 estimates of ocean abundance of all stocks in the model and is therefore year-specific. Also, the model itself is scaled based on recovery data from only 2 brood years. The estimates of stock distribution in the salmon fishery model will improve as the number of brood years in the model increases. Finally, a new and untested procedure was used for estimating the ocean escapement of Snake River fall chinook (CRTS 1992). The estimates of contribution rates derived from the model are directly related to the forecast of ocean escapement.

Although the assumption that the distribution of stocks in the salmon fisheries is the same as that of the groundfish fisheries is problematic, there is no inherent reason to believe that the relative impacts in the groundfish fisheries will be more or less than those of the salmon fisheries. The analysis, therefore, provides a reasonable approximation of the likely magnitude of the bycatch that is based on the best available data.

Given the shortcomings of the analysis, the estimates of the impact of the bycatch on Snake River fall chinook are not intended as point estimates, but are rather best viewed as a qualitative judgement regarding the approximate magnitude of the impact on the stock of concern. The estimated bycatch of salmon in all PFMC groundfish fisheries is probably on the order of 10,000, and may be as high as 20,000 in some years. The impact on Snake River fall chinook is probably on the order of a few tens of fish. It may be less, but is unlikely to be as many as 100. The impact from the Canadian whiting fishery of Snake River fall chinook is roughly comparable, perhaps somewhat higher than that of the U.S. groundfish fisheries; probably some tens of fish, but likely less than 100.

## VII. Cumulative Effects

Cumulative effects are those impacts of future non-Federal, state, and local government and private actions that are reasonably certain to occur within the area of Federal action under review. No such effects are anticipated. Future Federal actions, including future ocean and inriver fisheries, and renegotiation of the Pacific Salmon Treaty, will be subject to the consultation requirements of 50 CFR Part 402 and, therefore, are not considered cumulative to the proposed action. Consultations are anticipated regarding future in-river fisheries and the renegotiation of the Pacific Salmon Treaty.

## VIII. Conclusion

In this biological opinion, NMFS reviewed the available information regarding the bycatch of salmon for each of the major gear types. The review indicated that there were significant interactions in the midwater whiting and bottom trawl fisheries. For these gears, the magnitude and distribution of the bycatch of salmon was estimated. The likely impact on each of the listed salmon species was then reviewed in more detail. For the other gear types, including shrimp trawls, pots, hook-and-line and other miscellaneous net gear, there was little direct information, but reason to believe that the gears would not take significant numbers of salmon. Conclusions with respect to other gear types are reviewed briefly after consideration of species specific impacts due to midwater whiting and bottom trawl gear.

### A. Impacts of Trawl Fisheries

#### 1. Sacramento River Winter-Run Chinook Salmon

SRWRC are distributed primarily off the California coast. The relative abundance of SRWRC in the Monterey and Eureka areas was previously estimated to be approximately 1/1500 and 1/5500, respectively. The contribution of SRWRC to catch in the Columbia and Vancouver areas was not explicitly estimated, but would be substantially lower than in the Eureka area. Management actions taken in 1992 have effectively eliminated the whiting fishery from the Monterey area and greatly reduced to expected catch in the Eureka area. The bycatch of salmon in the Eureka area will be reduced from the few thousand observed in recent years to a few hundred in 1992. The prospects of impacting the SRWRC in future years depends on the distribution and magnitude of the whiting fishery and bycatch rate. However, for the foreseeable

future, continuing concerns for salmon stocks off the California coast are likely to lead to the continuing use of management actions to minimize bycatch in areas south of the Columbia area as was done in 1992.

Information on the bycatch of salmon in the bottom trawl fishery off the coast of southern Oregon and California is rather limited. However, based on the available information, it was estimated that the bycatch of salmon in these areas would be on the order of 1,000 salmon per year. If all of the bycatch was taken in the Monterey area, the area of highest relative abundance, the estimated catch of SRWRC would still be less than one per year. Given the above information, NMFS concludes that continuing implementation of the PFMC groundfish FMP is not likely to jeopardize the continue existence of SRWRC.

## 2. Snake River Sockeye Salmon

There is no information to suggest that Snake River sockeye are harvested in Pacific coast groundfish fisheries. The likelihood that any of the very few sockeye taken in groundfish fisheries are from the Snake River is extremely remote. The number of Snake River sockeye returning to the Columbia River is likely quite small (probably on the order of a few tens of fish) compared to the millions of sockeye from other stocks that enter the PFMC management area and pass primarily through the Strait of Juan de Fuca to the Fraser River. Given the above information, NMFS concludes that continuing implementation of the PFMC groundfish FMP is not likely to jeopardize the continue existence of Snake River sockeye salmon.

## 3. Snake River Spring/Summer Chinook Salmon

Although chinook are the primary salmon species taken as bycatch in the groundfish fisheries, there is little evidence to suggest that Snake River spring/summer chinook are included in the bycatch. The distribution of Snake River spring and summer chinook is likely limited to the northern Oregon and Washington coast since spring and summer chinook from the Snake River are assumed to be north migrating stocks. There are no CWT recoveries from these stocks in Pacific coast groundfish fisheries. The available evidence from ocean salmon fisheries also suggests that the spring and summer Snake River stocks are not affected to any significant degree by fisheries in the PFMC area (NMFS 1992a). Bycatch from other gear types has been determined to be negligible. Given the lack of affirmative

evidence that these stocks are significantly affected by salmon fisheries in the PFMC area and the absence of evidence regarding incidental takes in groundfish fisheries, NMFS concludes that fishing conducted under the groundfish FMP is not likely to jeopardize the continued existence of Snake River spring/summer chinook salmon.

#### 4. Snake River Fall Chinook Salmon

The greatest effect of PFMC groundfish fisheries on Snake River fall chinook will occur off the Washington and Oregon coast. It was estimated that the relative contribution of Snake River fall chinook in northern (Vancouver and Columbia) and southern (Eureka, Monterey and Conception) INPFC areas is approximately 1/600 and 1/22,000, respectively. These ratios were used to estimate the impact of bycatch in the groundfish fisheries on Snake River fall chinook. The expected bycatch of salmon in the northern area whiting fishery in 1992 is 5,081 (Table 7), which should include approximately 9 Snake River fall chinook. It was estimated that the bycatch of salmon in future U.S. fisheries might be as high as 11,000. If all of that bycatch was taken in the Columbia and Vancouver areas, the catch of Snake River fall chinook could be as high as 19. The anticipated bycatch in the bottom trawl fishery in the northern areas ranged from 5,000 to 8,000 indicating that as many as 13 Snake River fall chinook might be taken in the bottom trawl fishery. The relative abundance of Snake river fall chinook in southern areas suggests that impacts from groundfish fisheries in areas south of the Columbia area will be negligible.

The key assumption used in this analysis is that the distribution of stocks in the salmon fisheries is the same as that of the groundfish fisheries. There are a number of reasons which suggest that this may not be the case, but there is no inherent reason to believe that the relative impacts in the groundfish fisheries will be either more or less than those of the salmon fisheries. The analysis, therefore, provides a reasonable approximation of the likely magnitude of the bycatch that is based on the best available data.

Given the shortcomings of the available data, the estimated impacts of bycatch on Snake River fall chinook are not intended as point estimates, but are rather best viewed as a qualitative judgement regarding the approximate magnitude of the impact on the stock of concern. The estimated bycatch of salmon in all PFMC groundfish fisheries is probably on the order of 10,000,

perhaps as high as 20,000 per year. The impact on naturally spawning Snake River fall chinook is probably on the order of a few tens of fish. It may be less, but is unlikely to be as many as 100.

Bycatch in the whiting fishery will account for roughly half of the total salmon taken in groundfish fisheries. It is apparent that the PFMC and fishing industry are mindful of the bycatch problem and have taken management actions designed specifically to reduce the bycatch of salmon. Management actions taken in 1992 to reduce bycatch were implemented by emergency regulation. The PFMC is currently developing Amendment 7 to the plan that would provide them the authority to implement management measure designed to reduce bycatch on a routine basis. Additionally, for the past 2 years, the industry has voluntarily limited the incidental take of salmon to 0.05 salmon/mt whiting, a rate that is substantially below rates observed in most previous years

(Figure 5). Given the small magnitude of the catch of Snake River fall chinook relative to other actions and the actions taken to date to reduce bycatch, NMFS concludes that continuing implementation of the PFMC groundfish FMP is not likely to jeopardize the continued existence of Snake River fall chinook salmon.

#### B. Impacts of Other Gear Types

There is some observational data regarding the shrimp trawl fishery from the 1985-87 discard study. A total of 247 shrimp trawls were examined for bycatch, but no salmon were observed.

The bycatch of salmon in the pot fishery is assumed to be essentially zero. Because of the pelagic, visually oriented feeding strategy of salmon, it is unlikely that salmon would enter a baited trap placed on the bottom.

There are several different hook-and-line gear configurations including longlines fished on the bottom, various vertical longlines, and jigs. It is unlikely that salmon would be taken by baited hooks on longlines anchored to the bottom, because of their general feeding habit. It is conceivable that salmon might be taken on the vertical longline or jig operations. However, based on personal communication with biologists involved in managing these fisheries in each of the states and fishermen that have been involved with these fisheries, it seems unlikely that

the bycatch of salmon is more than an occasional event which would have negligible impact on the species of concern.

There have been a variety of localized setnet fisheries located off the California coast. The use of gillnets is prohibited by the groundfish FMP north of 38°N latitude (just north of San Francisco Bay). In PFMC groundfish fisheries, sunken gillnets have been used to target rockfish, but available information indicates that impacts on salmon are negligible.

Given the above considerations and absence of information to the contrary, NMFS concludes that the bycatch of salmon by the above described gear types is unlikely to be more than an occasional event that is unlikely to jeopardize the continued existence of any of the listed salmon species.

#### IX. Reinitiation of Consultation

Consultation should be reinitiated if (1) the amount or extent of taking specified in any incidental take statement is exceeded;

(2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) the action is subsequently modified in a manner that was not considered in the biological opinion; or (4) a new species listed, or critical habitat designated that may be affected by the action. In addition, if and when NMFS refines its methodology for determining whether proposed fisheries jeopardize listed Pacific salmonids in a way that may significantly affect the analysis and conclusions of this opinion, NMFS will reinitiate consultation.

#### X. Conservation Recommendations

Conservation recommendations are discretionary measures suggested to minimize or avoid adverse effects of a proposed action on listed species or critical habitat; to develop additional information, or to assist Federal agencies in complying with their obligations under section 7 of the ESA.

##### A. The PFMC should continue to pursue development of the groundfish data collection program.

The PFMC has developed a draft plan for an observer program that could be used to monitor vessels participating in groundfish fisheries other than the at-sea whiting fishery that is currently

covered by the NMFS observer program. One objective of the program will be collection of information pertaining to the bycatch of salmon. The PFMC should pursue development and funding of the observer program, and implement it as soon as possible.

**B. Improve available estimates regarding salmon bycatch in bottom trawl fisheries in the southern INPFC areas.**

Observations regarding bycatch in bottom trawl fisheries were concentrated in the Vancouver and Columbia areas with relatively few observations to the south. The available information suggests that bycatch in these areas is limited, but an effort should be made to reevaluate this conclusion once the observer program is in place or earlier based on other information if possible.

**C. Continue to evaluate and implement management measures currently used to minimize bycatch in the whiting fishery in the Eureka and Monterey areas.**

Previous analysis of bycatch rate in the whiting fishery have focused on the Eureka and Monterey areas. As a result, several management action were implemented including restrictions related to starting date, time of day, depth, and latitude. Efforts should continue to evaluate the effectiveness of these measures. Those that are considered effective in reducing bycatch rate should be implemented in the future.

**D. Monitor the bottom trawl fisheries for changing patterns of fishing activity.**

The available information indicates that bycatch rates in the bottom trawl fishery tend to be high during the winter months and in nearshore areas. Broad scale fishing patterns should be monitored in an effort to detect changes in the timing or location of the fisheries. The effect of proposed management actions should also be evaluated to avoid greatly increasing fishing activity in nearshore areas during the winter months.

**E. Seek additional information regarding salmon bycatch in the pot, hook-and-line and other gear type fisheries.**

There is little information available regarding salmon bycatch in the pot, hook-and-line, and other gear type fisheries. Although these are relatively small scale fisheries and available

information suggests that salmon encounters are minimal, efforts should be made to confirm the conclusions drawn based on available information. The gear types within this group most likely to encounter salmon are setnets and the various types of vertical longline gear.

**F. Any new groundfish fisheries should be monitored for bycatch.**

New fisheries proposed for development under the groundfish FMP should be monitored to determine the relative magnitude of salmon bycatch.

**G. Focus more attention on the analysis of bycatch in the Columbia and Vancouver areas with respect to actions that might be taken to reduce bycatch of salmon.**

Management actions in the south have tended to displace the whiting fishery into the northern INPFC areas. Previous analyses that have focused on the Eureka area may not be applicable to the Columbia or Vancouver areas. The available information should be reviewed to evaluate what actions could be used effectively to reduce the bycatch in the northern areas. These actions may differ from those used in the south.

**H. Continue to evaluate available information regarding the distribution and relative abundance of Snake River fall chinook in INPFC areas.**

Information from salmon management models was used to evaluate the relative abundance of Snake River fall chinook in various fishing areas. Salmon management models will be updated in the near future and annually, thereafter. If there are substantial changes in the assumed distribution of Snake River fall chinook, the estimated impacts from the groundfish fisheries should be reevaluated.

**I. Evaluate the assumption that the distribution of salmon stocks in the salmon and groundfish fisheries are similar.**

A key assumption of the analysis regarding impacts on Snake River fall chinook was that the relative abundance of stocks taken in the salmon fisheries is similar to that of the groundfish fisheries. There are reasons to believe that this may not be the case. The assumption should be evaluated by comparing CWT recovery information from groundfish and salmon fisheries in those time-area strata where the numbers of recoveries are sufficient to permit the analysis.

**J. Confirm estimates of ocean escapement of Snake River fall chinook.**

The impact analysis for Snake River fall chinook was directly related to the newly developed estimate of ocean escapement. If the actual ocean escapement is substantially different, it may be necessary to reevaluate the estimated impacts of the groundfish fisheries on Snake River fall chinook.

## XI. Incidental Take Statement

### A. Anticipated Incidental Take

Section 7(b)(4) of the Endangered Species Act (ESA) provides for the issuance of an incidental take statement on the agency action if the biological opinion concludes that the action is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat. In such a situation, the National Marine Fisheries Service (NMFS) will issue an incidental take statement specifying the impact of any incidental taking of endangered or threatened species, providing for reasonable and prudent measures that are necessary to minimize impacts, and setting forth the terms and conditions with which the action agency must comply in order to implement the reasonable and prudent measures. Incidental takings resulting from the agency action, including incidental takings caused by activities authorized by the agency, are authorized under the incidental take statement only if those takings are in compliance with the specified terms and conditions.

SRWRC are distributed primarily off the California and southern Oregon coast. The relative abundance of SRWRC was estimated to be approximately 1/1500 and 1/5500 in the Monterey and Eureka areas, respectively. Management actions applied to the whiting fishery in 1992 in the Eureka and Monterey areas have effectively reduced the anticipated bycatch to a few hundred salmon. It is expected that efforts to minimize bycatch of salmon in these areas will continue in the future. It is also expected that approximately 1,000 salmon will be taken in the bottom trawl fishery in areas off the California and southern Oregon coast in present and future fisheries. The expected impact on SRWRC depends on the assumed distribution of the bottom trawl bycatch, but in any case would be less than one fish. The bycatch of salmon in groundfish fisheries using other gear types managed under the groundfish FMP are assumed to occur infrequently and, thus, would not affect the estimated impact on SRWRC.

Sockeye salmon are rarely taken as bycatch in the groundfish fisheries. Given the abundance of Snake River sockeye relative to other stocks, the estimated impact on Snake River sockeye salmon is considered negligible.

Although chinook are the primary salmon species taken as bycatch in the groundfish fisheries, there is little evidence to suggest that Snake River spring/summer chinook are included in the bycatch. Given the lack of affirmative evidence that these

stocks are significantly affected by either salmon or groundfish fisheries in the PFMC area, the estimated impact from the groundfish FMP on Snake River spring/summer chinook is considered negligible.

Of the listed stocks, Snake River fall chinook salmon are the species most likely to be impacted by the groundfish fisheries. The greatest impacts will occur in the whiting and bottom trawl fisheries.

The data record regarding bycatch of salmon in the whiting fishery is sufficient to provide some understanding about the likely range of bycatch and the kinds of management measures that can be used to minimize the bycatch of salmon. In 1991 and 1992, the industry adopted a voluntary guideline for bycatch of 0.05 salmon/mt whiting. In 1992, the PFMC adopted particular management actions designed to minimize bycatch by emergency regulation and are now developing Amendment 7 to the FMP that would allow the Council to implement similar regulations on a permanent basis. The bycatch rate in 1991 and the observed bycatch rate to date in 1992 are substantially below the 0.05 target. For the purposes of this consultation, 0.05 salmon/mt of whiting was used to define the upper limit of anticipated bycatch in the whiting fishery.

The expected bycatch of salmon in the Vancouver and Columbia area whiting fishery in 1992 is approximately 5,100. This would include approximately nine Snake River fall chinook. It was estimated that the bycatch of salmon in future U.S. whiting fisheries might be as high as 11,000, and that if all of that bycatch were taken in the Columbia and Vancouver areas, the bycatch of Snake River fall chinook could be as high as 19. Because of the uncertainties related to these estimates, it is more appropriate to characterize the expected impact on Snake River fall chinook as a few tens of fish.

The estimated bycatch of salmon in the whiting fishery and estimates of impacts on listed species are based on the assumption that the bycatch rate in future fisheries will not exceed 0.05 salmon/mt whiting (calculated on an annual and coastwide basis). Therefore, pursuant to section 7(b)(4) of the ESA, NMFS authorizes the incidental take of salmon in the whiting fishery of 0.05 salmon/mt whiting.

There is less information available regarding bycatch of salmon in groundfish fisheries using gear types other than the midwater trawls used in targeting whiting. It was estimated that 6,000 to 9,000 salmon have been taken in the bottom trawl fishery in

recent years and that 5,000 to 8,000 of these are likely to be taken in the Vancouver and Columbia catch areas where Snake River fall chinook are most likely to be impacted. The estimated impact on Snake River fall chinook would be as high as 13, although this was again intended as an approximate measure of impact rather than a point estimate. Available information indicates that salmon bycatch in groundfish fisheries using other gear types is unlikely to be more than a rare event that would not affect the estimated impact on Snake River fall chinook.

Setting incidental take limits in the bottom trawl fishery is more problematic. In absence of a monitoring program, it is not possible to assess directly an incidental take limit that would normally be expressed as some measure of salmon bycatch or bycatch rate. It was estimated that as many as 9,000 salmon would be taken annually in the bottom trawl fishery and that such a take is not likely to jeopardize the continued existence of any of the listed species. Therefore, pursuant to section 7(b)(4) of the ESA, NMFS authorizes a bycatch of 9,000 salmon per year.

This estimate of bycatch in the bottom trawl fishery is based on an analysis of available information from 1985-1990. Because bycatch is not being monitored directly, expectations of bycatch in future years are based on the assumption that the general character of the fishery will not change substantially, particularly in times and places where bycatch rates are assumed to be higher. If the fishery in future years changes substantially in magnitude or character compared to 1985-1990, and in particular, if there is increased catch in nearshore areas or during the winter months or in the Eureka or Monterey areas, consultation should be reinitiated.

Review of available information regarding salmon bycatch for other groundfish gear types, including shrimp trawls, pots, hook-and-line gear and setnets used in PFMC area fisheries indicated that salmon interactions are unlikely to be more than a rare event and that the impacts on listed species will be negligible. As a result, NMFS concludes that the taking of any of the listed salmon species by these gear types is neither anticipated or authorized.

#### **B. Reasonable and Prudent Measures and Terms and Conditions for Implementation**

The estimated impacts included in the incidental take statement for the whiting fishery are based, in part, on the assumed bycatch rate of 0.05 salmon/mt. In order to evaluate whether that assumption is valid for future fisheries, continued

monitoring of salmon bycatch in the whiting fishery is necessary. Until recently, the shorebased fishery has accounted for a relatively small proportion of the total catch of whiting and was not included in the monitoring program. The shorebased fishery is expanding. It is possible that fishing patterns and, thus, bycatch rates for the shorebased fishery differ from those of the at-sea processors. The monitoring efforts initiated in 1992 must continue at a level sufficient to define the bycatch rate of the shorebased fleet and any distinguishing patterns of bycatch that may become evident.

In addition to collecting bycatch information in the whiting fishery, it is necessary to evaluate, at least monthly, the projected annual total bycatch rate of the fishery. If at anytime during the fishery, it is anticipated that the seasonal, coastwide bycatch rate will exceed 0.05 salmon/mt whiting, then consultation must be reinitiated and the PFMC must take action to implement additional management measures to reduce the bycatch rate such that the annual authorized take limit can be met. If and when it becomes apparent, based on analyses by either NMFS or PFMC that management measures cannot adequately reduce the bycatch rate to the prescribed level, consultation must be reinitiated.

In 1992, a number of management measures were implemented that were specifically designed to reduce the bycatch of salmon in the Eureka and Monterey areas. These included a delayed opening until April 15, no nighttime fishing, no at-sea processing south of 42°N and no targeted harvest of whiting inside of 100 fathoms in the Eureka area. Of these, the only management action that will be specified as a condition of the incidental take statement in this opinion is the restriction regarding targeted harvest inside of 100 fathoms in the Eureka area. This provision is specified because the available information indicates that bycatch rates are generally higher in nearshore areas. It is not applied to the rest of the coast because previous analyses of depth related effects in the whiting fishery were specific to the Eureka area. A subsequent conservation recommendation requires further analysis of depth effects and other measures that may be used to reduce bycatch rates in the future.

Two of the other measures used in 1992, including the delayed opening and restriction to at-sea processing south of 42°N, are not established here as a condition of the incidental take statement because the principal effect is to displace the fishery to the north rather than reduce bycatch rate. Although these measures clearly reduce bycatch in the Eureka and Monterey areas and impacts on SRWRC, they have the undesired effect of

increasing bycatch in the Columbia and Vancouver areas. As a result, impacts on Snake River fall chinook are higher. The nighttime closure is not set as a condition because the analyses provided to date do not clearly demonstrate the desired benefit of reducing the bycatch rate. Further analysis of controls related to time of day is suggested as a conservation recommendation.

The bottom trawl fishery is not being monitored directly for bycatch at this time. The incidental take statement permits an annual bycatch of 9,000 salmon, but assumes that the magnitude and character of the fishery will not increase substantially, particularly in those times and areas where bycatch rates are assumed to be higher. In order to meet this assumed condition, the PFMC must develop an annual summary that characterizes the bottom trawl fishery and can thus be used to evaluate potential changing trends in fishing patterns.

↑  
Groundfish SAFE  
document?

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## Catch of Pacific Whiting in Canadian and PFMC Area Fisheries

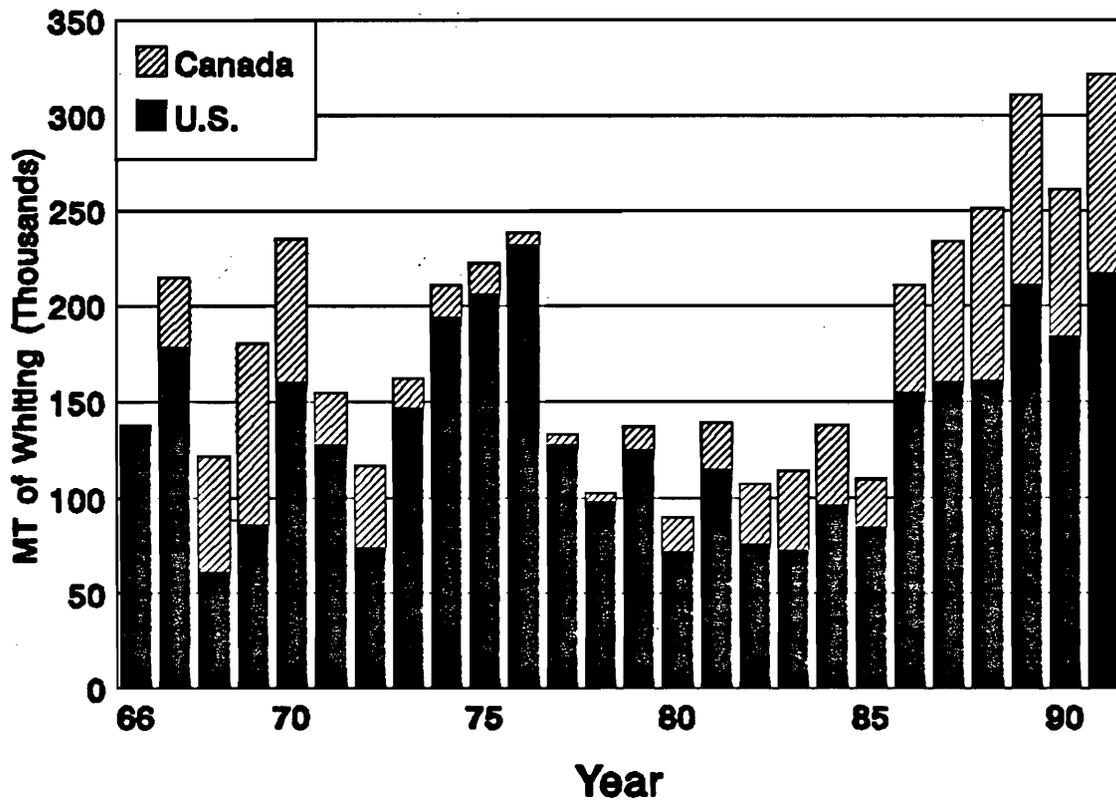


Figure 1. The catch of Pacific whiting in Canadian and U.S. fisheries.

## Foreign, JV and Domestic Catch of Pacific Whiting (metric tons)

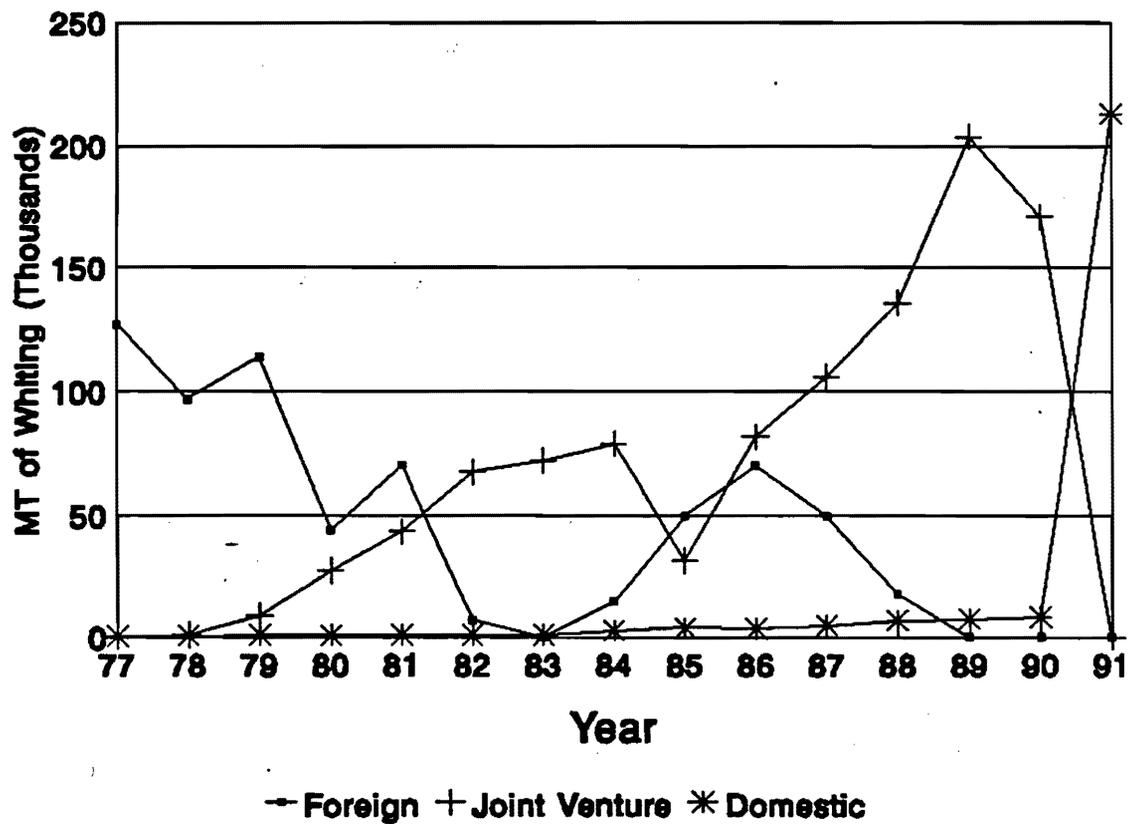


Figure 2. The catch of Pacific whiting in the PFMC area by the foreign, joint venture and domestic fisheries.

## Salmon Bycatch in the PFMC Area Pacific Whiting Fishery

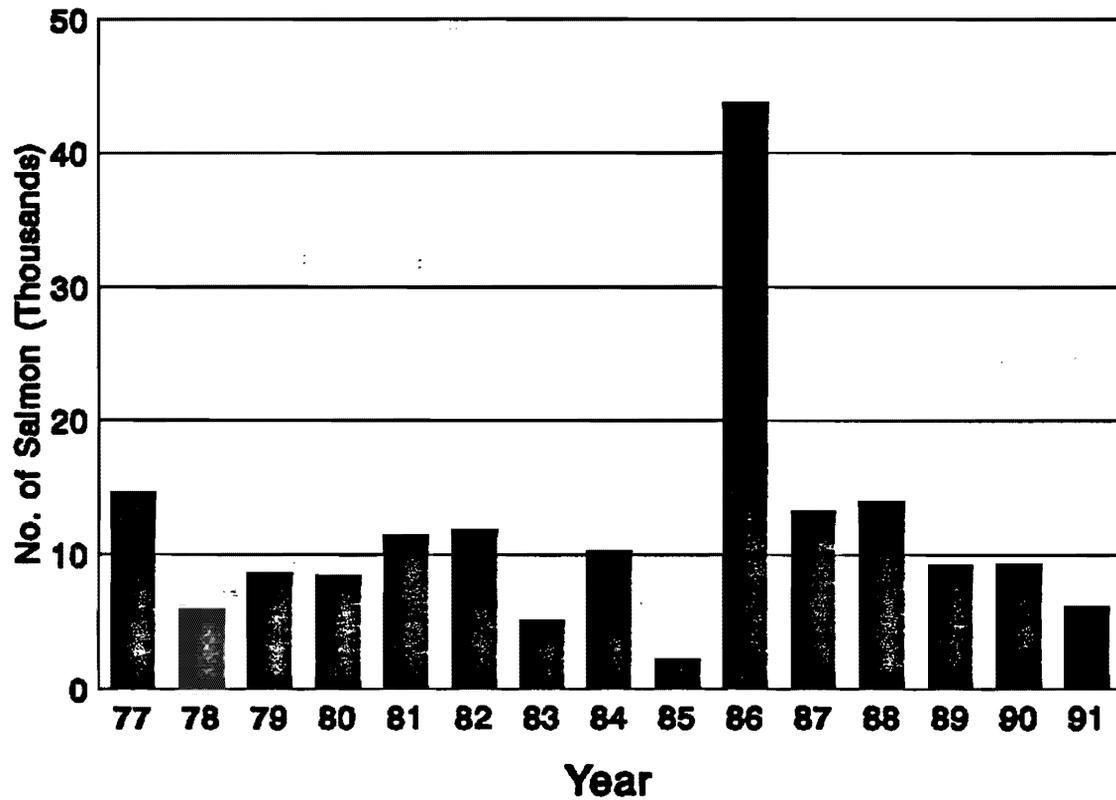


Figure 3. Salmon bycatch in the U.S. Pacific whiting fishery.

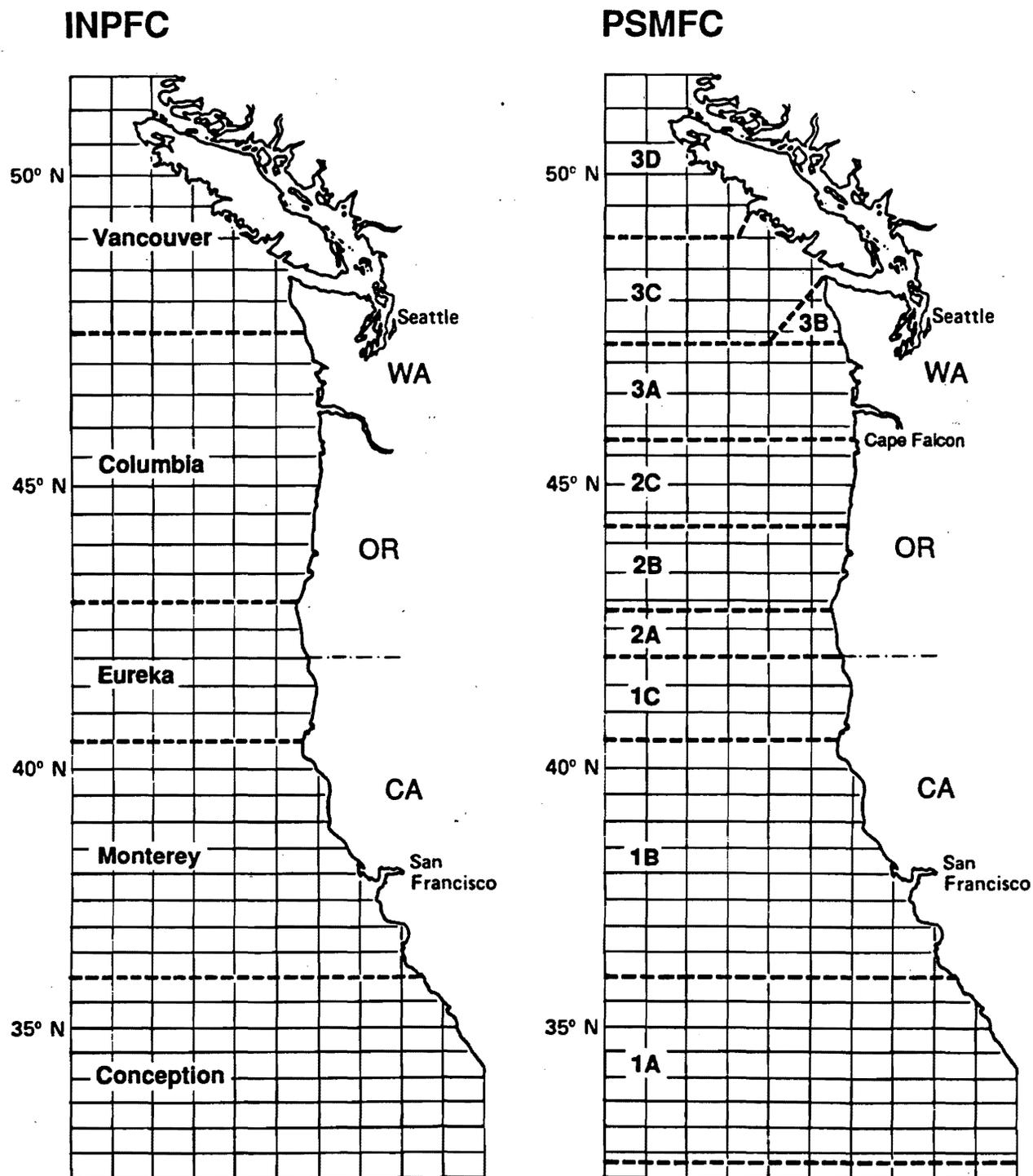


Figure 4. Pacific States Marine Fisheries Commission and International North Pacific Fisheries Commission catch areas.

## Salmon Bycatch Rate in the Pacific Whiting Fishery

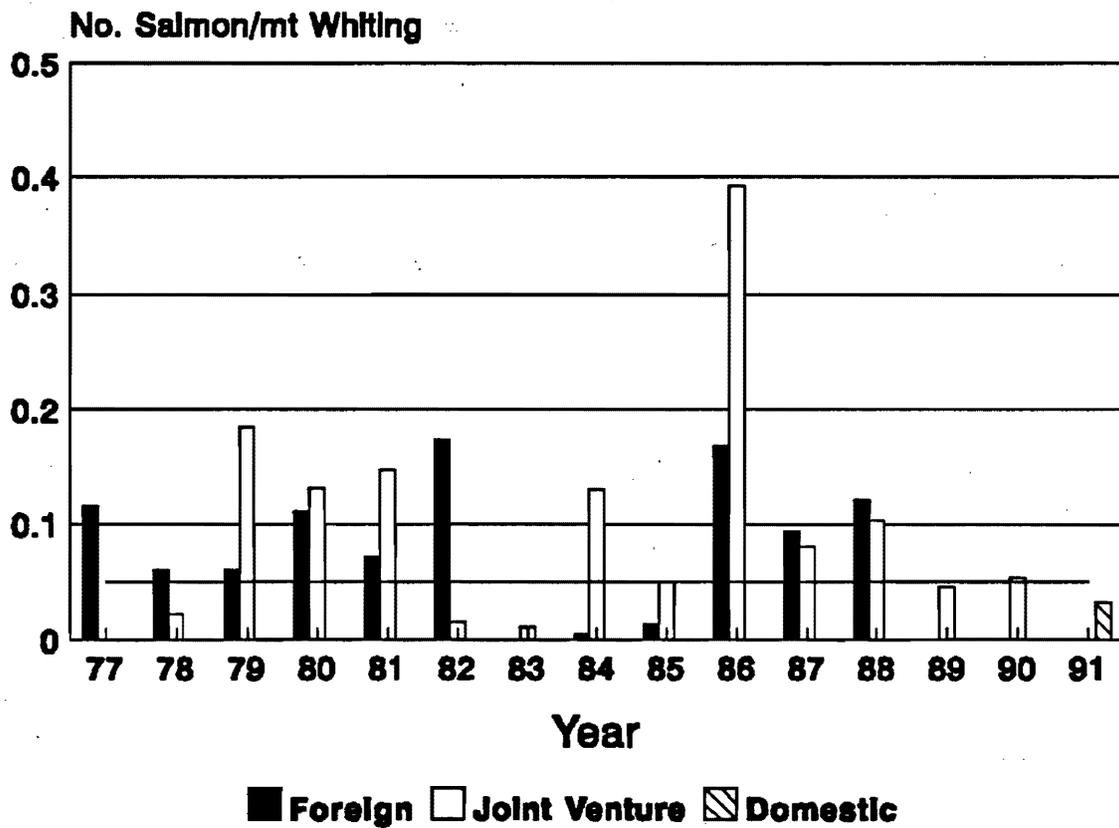


Figure 5. Bycatch rate of salmon in the Foreign, joint venture and domestic whiting fisheries. The horizontal line indicates relation to 0.05 salmon/mt whiting bycatch rate standard.

Endangered Species Act - Reinitiated Section 7 Consultation

BIOLOGICAL OPINION

Fishing Conducted under the Pacific Coast  
Groundfish Fishery Management Plan  
for the California, Oregon, and Washington  
Groundfish Fishery

Agency: National Marine Fisheries Service,  
Northwest and Southwest Regional  
Sustainable Fisheries Divisions

Consultation Conducted by  
National Marine Fisheries Service  
Protected Resources Division

Date Issued: 12/15/99  
Dan Kumbler

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## INTRODUCTION

The National Marine Fisheries Service (NMFS) has reinitiated consultation under the Endangered Species Act (ESA) section 7(a)(2) on the fishing conducted under the Pacific Fishery Management Council's (PFMC) Pacific Coast Groundfish Fishery Management Plan (FMP) for the California, Oregon, and Washington groundfish fishery. Consultation was reinitiated to consider the effect of the FMP on 22 new Evolutionarily Significant Units (ESUs) of salmonids that have been added to the list of threatened and endangered species since the last consultation on May 14, 1996 (Table 1).

The groundfish fisheries in the Exclusive Economic Zone (EEZ) off Washington, Oregon, and California are managed under authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). Annual management recommendations are developed according to the FMP of the PFMC. The PFMC provides its management recommendations to the Secretary of Commerce, who implements the measures in the EEZ if they are found to be consistent with the Magnuson-Stevens Act and other applicable law. Because the Secretary, acting through NMFS, has the ultimate authority for the FMP as modified by Amendment 11 and its implementation, NMFS is both the action agency and the consulting agency in this consultation.

### A. Background

The Pacific coast groundfish fishery is a year-round, multi-species fishery that takes place off the coasts of Washington, Oregon, and California. Most of the Pacific coast non-tribal, commercial groundfish harvest is taken by the limited entry fleet. The groundfish limited entry program was established in 1994 for trawl, longline, and trap (or pot) gears. There are also several open access fisheries that take groundfish incidentally or in small amounts; participants in those fisheries may use, but are not limited to longline, vertical hook-and-line, pot, setnet, trammel net, shrimp and prawn trawl, California halibut trawl, and sea cucumber trawl. In addition to these non-tribal commercial fisheries, members of the Makah, Quileute, Hoh, and Quinault tribes participate in commercial, and ceremonial and subsistence fisheries for groundfish off the Washington coast. Participants in the tribal commercial fishery use similar gear to non-tribal fishers who operate off Washington. Groundfish caught in the tribal commercial fishery is sold through the same markets as non-tribal commercial groundfish catch.

One of the primary goals of the Pacific coast groundfish FMP is to keep the fishery open throughout the entire year. Harvest rates in the limited entry fishery are constrained by annual harvest guidelines, two-month cumulative period landings limits, individual trip limits, size limits, species-to-species ratio restrictions, and other measures, all designed to control effort so that the allowable catch is taken at a slow rate that will stretch the season out to a full year. The two-month cumulative landings limits approach allows each vessel to catch up to a specific amount of different groundfish species over a two-month period, with not more than 60 percent of the cumulative period total to be taken in either month of the period. Cumulative period catch limits are set by comparing current or previous landings rates with the year's total available catch.

Landing limits have been used to slow the pace of the fishery and stretch the fishing season out

**Table 1. Summary of salmon species listed and proposed for listing under the ESA.**

| Species  | Evolutionarily Significant Unit  | Present Status      | Federal Register Notice |
|--|----------------------------------|---------------------|-------------------------|
| Chinook Salmon<br>( <i>O. tshawytscha</i> )    | Sacramento River Winter          | Endangered          | 54 FR 32085 8/1/89      |
|  | Snake River Fall                 | Threatened          | 57 FR 14653 4/22/92     |
|  | Snake River Spring/Summer        | Threatened          | 57 FR 14653 4/22/92     |
|  | Central Valley Spring            | Threatened          | 64 FR 50394 9/16/99     |
|  | California Coastal               | Threatened          | 64 FR 50394 9/16/99     |
|  | Puget Sound                      | Threatened          | 64 FR 14308 3/24/99     |
|  | Lower Columbia River             | Threatened          | 64 FR 14308 3/24/99     |
|  | Upper Willamette River           | Threatened          | 64 FR 14308 3/24/99     |
|  | Upper Columbia River Spring      | Endangered          | 64 FR 14308 3/24/99     |
| Chum Salmon<br>( <i>O. keta</i> )              | Hood Canal Summer-Run            | Threatened          | 64 FR 14508 3/25/99     |
|  | Columbia River                   | Threatened          | 64 FR 14508 3/25/99     |
| Coho Salmon<br>( <i>O. kisutch</i> )           | Central California Coastal       | Threatened          | 61 FR 56138 10/31/96    |
|  | S. Oregon/ N. California Coastal | Threatened          | 62 FR 24588 5/6/97      |
|  | Oregon Coastal                   | Threatened          | 63 FR 42587 8/10/98     |
| Sockeye Salmon<br>( <i>O. nerka</i> )          | Snake River                      | Endangered          | 56 FR 58619 11/20/91    |
|  | Ozette Lake                      | Threatened          | 64 FR 14528 3/25/98     |
| Steelhead<br>( <i>O. mykiss</i> )              | Southern California              | Endangered          | 62 FR 43937 8/18/97     |
|  | South-Central California         | Threatened          | 62 FR 43937 8/18/97     |
|  | Central California Coast         | Threatened          | 62 FR 43937 8/18/97     |
|  | Upper Columbia River             | Endangered          | 62 FR 43937 8/18/97     |
|  | Snake River Basin                | Threatened          | 62 FR 43937 8/18/97     |
|  | Lower Columbia River             | Threatened          | 63 FR 13347 3/19/98     |
|  | California Central Valley        | Threatened          | 63 FR 13347 3/19/98     |
|  | Upper Willamette River           | Threatened          | 64 FR 14517 3/25/99     |
|  | Middle Columbia River            | Threatened          | 64 FR 14517 3/25/99     |
| Cutthroat Trout<br>( <i>O. clarki clarki</i> ) | Umpqua River                     | Endangered          | 61 FR 41514 8/9/96      |
|  | Southwest Washington/Columbia    | Proposed Threatened | 64 FR 16397             |

over as many months as possible, so that the overall harvest target is not reached until the end of the year. Open access fisheries that land groundfish are more commonly targeting non-groundfish species (e.g., shrimp, prawns, albacore, California halibut, sea cucumbers, etc.) with some incidental groundfish landings. Open access fishery limits are primarily set as monthly cumulative limits that may not exceed 50% of the 2-month limited entry limit for that same species.

There are about 500 vessels with Pacific coast groundfish limited entry permits, of which approximately 55% are trawl vessels, 40% are longline vessels, and 5% are trap vessels. Each permit is endorsed for a particular gear type and that gear endorsement cannot be changed, so the

distribution of permits between gear types is fairly stable. The number of total permits will only change if multiple permits are combined to create a new permit with a longer length endorsement. Limited entry permits can be sold and leased out by their owners, so the distribution of permits between the three states often shifts. At the beginning of 1998, roughly 40% of the limited entry permits were assigned to vessels making landings in California, 35% to vessels making landings in Oregon, and 25% to vessels making landings in Washington.

Because open access groundfish landings vary according to which non-groundfish fisheries are landing groundfish as bycatch, the number of open access boats that land groundfish accordingly varies with the changes in those non-groundfish fisheries. In recent years, however, there have been approximately 2,000 vessels per year that have been making small groundfish landings against open access allocations. Of these vessels, about 1350 land their catch in California, about 500 land their catch in Oregon, and about 150 land their catch in Washington.

Limited entry fishers who use bottom trawl, longline, and pot gears target on many different species, with the largest landings by volume (other than Pacific whiting) from these species: Dover sole, sablefish, thornyheads, widow rockfish, and yellowtail rockfish. There are 55 rockfish species managed by the Pacific coast groundfish FMP and, taken as a whole, rockfish landings represent the highest volume of non-whiting landings in the Pacific coast commercial groundfish fishery (PFMC 1999a). This is a high technology, highly skilled fleet, and it is reasonable to expect that, except where ocean conditions and geologic formations make fishing impossible, commercial fishers have found ways to target concentrations of the target species.

In addition to these mixed-species fisheries, there is a distinct mid-water trawl fishery that targets Pacific whiting (*Merluccius productus*). Pacific whiting landings are significantly higher in volume than any other Pacific coast groundfish species. In 1998, whiting accounted for approximately 66% of all Pacific coast commercial groundfish landings by weight. The Pacific whiting fleet includes catcher boats that deliver to shore-based processing plants and to at-sea processor ships, as well as catcher-processor ships. Whiting is a high volume species, but it commands a relatively low price per pound, so it accounts for only about 21% of all Pacific coast commercial groundfish landings by value (PFMC 1999a).

With the exception of the portion of Pacific whiting catch that is processed at sea, all other Pacific coast groundfish catch is processed in shore-based processing plants along the Pacific coast. By weight, commercial groundfish landings are distributed amongst the three states as follows: Washington, 15%; Oregon, 66%; California, 19%. By value, commercial groundfish landings are distributed amongst the three states as follows: Washington, 17%; Oregon, 42%; California, 41%. The discrepancies between the Oregon and California portions of the landings are expected because Oregon processors handle a relatively high percent of the shore-based whiting landings, a high volume, low value fishery. Conversely, California fishers land more of the low volume, high value species as a proportion of the total state-wide catch than Oregon fishers.

Catcher vessel owners and captains employ a variety of strategies to fill out a year of fishing. Fishers from the northern ports may fish in waters off of Alaska, as well as in the West Coast

groundfish fishery. Others may change their operations throughout the year, targeting on salmon, shrimp, crab, or albacore, in addition to various high-value groundfish species, so as to spend more time in waters close to their communities. Factory trawlers and motherships fishing for or processing Pacific whiting off of the West Coast usually also participate in the Alaska pollock seasons, allowing the vessels and crews to spend more time at sea. Commercial fisheries landings for species other than groundfish vary along the length of the coast. Dungeness crab landings are particularly high in Washington state, squid, anchovies, and other coastal pelagics figure heavily in California commercial landings, with salmon, shrimp, and highly migratory species like albacore more widely distributed, and varying from year to year.

Whiting has been processed into surimi, sold in headed and gutted form, filleted, and converted to meal and oil. Other, higher quality fish like Dover sole are dressed and rushed to fresh, local markets as quickly as possible, while most sablefish is frozen and sent to foreign markets. The quantity of groundfish caught off of the West Coast is just a small percent of the amount of groundfish caught in federal waters off Alaska, so West Coast groundfish moves through many of the same markets as Alaska groundfish, taking prices set by the northern fleet.

## CONSULTATION HISTORY

NMFS has considered the impacts to salmon species listed under the ESA resulting from PFMC groundfish fisheries in several biological opinions (Table 2).

On August 10, 1990, NMFS issued a biological opinion that considered the effects that Amendment 4 of the Pacific Coast Groundfish Management Plan may have on threatened and endangered populations off California, Oregon, and Washington. The opinion reviewed impacts on marine mammals, sea turtles, and Sacramento River winter-run chinook salmon (SRWR), and concluded that the FMP, as amended, would not jeopardize the continued existence of any of the species considered.

A November 26, 1991, biological opinion considered the impact of the whiting fishery, a mid-water trawl gear, on SRWR chinook salmon in more detail than the 1990 opinion, and also briefly addressed the effects on Snake River sockeye salmon, which was newly listed (November 20, 1991) just as the opinion was being finalized.

An August 28, 1992, biological opinion considered the effects on Pacific salmon species listed under the ESA from fisheries conducted under the PFMC's Pacific Coast Groundfish FMP. The listed species considered in that biological opinion included SRWR chinook salmon, Snake River sockeye salmon, Snake River spring/summer chinook salmon, and Snake River fall (SRF) chinook salmon. The biological opinion concluded that impacts of fishing conducted under the groundfish FMP on SRWR chinook, Snake River sockeye, and Snake River spring/summer chinook salmon were negligible. This opinion further concluded that the estimated bycatch of SRF chinook salmon was low, most likely on the order of a few tens of fish per year. Based on the available information, NMFS concluded that operation of the fishery under the groundfish FMP was not likely to jeopardize the continued existence of these species.

Since the August 1992 biological opinion was issued, section 7 consultation was reinitiated twice: September 27, 1993, and May 14, 1996. The September 1993 reinitiation was caused by an unexpectedly high bycatch of pink salmon which, when incorporated into the aggregated bycatch, exceeded the incidental bycatch limit of 0.05 salmon/mt whiting specified in the opinion. Since the bycatch limits specified in the August 1992 opinion were designed to protect chinook salmon, the September 27, 1993 opinion was amended to clarify that the 0.05 salmon/mt of whiting bycatch rate limit would in the future be expressed in terms of chinook salmon with the expectation that the total bycatch of chinook in the whiting fishery would not exceed 11,000 “chinook” salmon per year or 0.05 “chinook” salmon/mt whiting. The May 1996 opinion was reinitiated because the bycatch in the 1995 fishery was estimated at the time to be 14,557 chinook salmon (0.08 chinook/mt whiting) and exceeded the limits designated in the August 1992 and September 1993 opinions. The May 1996 opinion concluded that, although the chinook limit was exceeded, it was not likely to jeopardize the continued existence of listed salmon species because impacts to listed species remained low and within the numerical range anticipated during the original analysis. Because critical habitat for these species did not include open ocean areas, the activities considered by NMFS in previous consultations determined that they were not likely to result in the destruction or adverse modification of critical habitat.

**Table 2. NMFS biological opinions on PFMC groundfish fisheries implemented under the FMP.**

| Date               | ESU covered   |
|--------------------|---|
| August 10, 1990    | Sacramento River winter-run chinook salmon  |
| November 26, 1991  | Sacramento River winter-run chinook salmon and Snake River sockeye salmon   |
| August 28, 1992    | Sacramento River winter-run chinook salmon, Snake River sockeye salmon, Snake River spring/summer chinook salmon, and Snake River fall chinook salmon |
| September 27, 1993 | Snake River fall chinook salmon   |
| May 14, 1996       | Snake River fall chinook salmon   |

## **BIOLOGICAL OPINION**

### **I. Description of the Proposed Action**

#### **A. Proposed Action**

Pursuant to the Magnuson-Stevens Act, the National Marine Fisheries Service proposes to continue and promulgate ocean groundfish fishing regulations developed in accordance with the Pacific Coast Groundfish Plan as amended by Amendment 11.

Amendment 11 was submitted by the PFMC to make the Pacific Coast Groundfish FMP consistent with the Magnuson-Stevens Act by: amending the FMP framework that defines “optimum yield” for setting annual groundfish harvest limits; setting framework control rules on defining rates of “overfishing” and levels at which managed stocks are considered “overfished”;

defining Pacific Coast groundfish essential fish habitat; setting a bycatch management objective and a framework for bycatch reduction measures; establishing a management objective to take the importance of fisheries to fishing communities into account when setting groundfish management measures; providing authority within the FMP for the PFMC to require groundfish use permits for all groundfish users; authorizing the use of fish for compensation for private vessels conducting NMFS-approved resource surveys; removing jack mackerel from the fishery management unit; and updating FMP objectives, definitions and industry descriptions.

The Pacific Coast Groundfish FMP provides a framework for certain PFMC actions without requiring cumbersome amendment procedures for those actions. Portions of this amendment that are designed to meet several of the new Magnuson-Stevens Act requirements will change the way that the PFMC manages the groundfish fishery without changing the regulations that implement the FMP. A new definition of optimum yield, specific overfishing and overfished levels, and accounting for the needs of fishing communities in setting fishery management measures will become part of the guidelines the PFMC uses to set its annual specifications and management measures. Amendment 11 provides a framework to implement fishery management measures to protect groundfish essential fish habitat, which the PFMC will use to, among other things, investigate implementing marine research reserves.

The primary purpose of Amendment 11 was to incorporate the more conservative management requirements resulting from the Magnuson-Stevens Act into the existing FMP. Because of the more conservative nature of the Act, Amendment 11 will lead to less fishing than would have occurred under the previous FMP. This is immediately apparent from the preseason planning for the 2000 fisheries which were developed under provisions of Amendment 11. Several groundfish stocks were designated as overfished which led to greatly restricted fishing in 2000 and, likely, for the foreseeable future. After evaluating Amendment 11, NMFS concluded that the Amendment was not likely to adversely affect threatened or endangered species or designated critical habitat because the Amendment would have reduced the effects of the fishery on listed species to a level below the effects that supported NMFS' previous "no jeopardy" conclusion. Instead, this consultation focuses on the effect of Amendment 11 of the groundfish FMP on the ESUs that were listed since consultation was last completed in 1996 (NMFS 1996a).

The groundfish fishery off the west coast of Washington, Oregon, and California is prosecuted by three major gear types including trawl, pots, and hook-and-line gear with small amounts of additional catch taken by other miscellaneous gear types. The gear types that take the largest percentage of groundfish are trawls, principally mid-water, bottom, and shrimp trawls.

NMFS' August 28, 1992, biological opinion on the FMP concluded that shrimp trawls, pot gear, hook-and-line, and the other miscellaneous gear types in the groundfish fishery catch few if any salmonids. There have been no recent reports of salmon bycatch in these gears since the 1992 opinion, hence it is reasonable to conclude that they will continue to have a negligible impact on salmon. The two gear types that have a record of salmon bycatch are the mid-water and bottom trawls.

The Pacific whiting fishery is the only mid-water trawl groundfish fishery of significance in the

PFMC. The fishery is prosecuted by a combination of sectors including shore-based, and catcher processor and mothership operators (which includes tribal) occurring roughly during April through November period (Dorn *et al.* 1999). Dorn (1998) described the spatial distribution of the whiting fishery from the 1992 NMFS west coast acoustic survey as an area north to south of approximately 600 km, from Vancouver Island to Central California, and at widths ranging from 10-30 km running through the shelf break region at bottom depths ranging from 150-600 m. The highest whiting densities were in three areas, Heceta Bank off central Oregon, Willapa and Guide canyons off southwest Washington, and Juan de Fuca Canyon off Cape Flattery.

The bottom trawl fishery off the west coast harvests a mixture of species that include flatfishes, rockfishes, and roundfishes (Erickson and Pikitch 1994). These fisheries operate at depths ranging from 10 m to 1,200 m with various seasons overlapping for the various species and stocks throughout the year. The chinook salmon that are encountered most frequently and in greatest numbers with this gear type are typically caught in the 100-482 m depths during winter, and in summer chinook are not frequently caught and are usually encountered at depths less than 220 m (Erickson and Pikitch 1994). The areas where chinook are encountered most frequently appear to vary, but the data is quite limited.

#### B. Conservation Measures Included in the Proposed Action

As a result of the previous consultations, the whiting fishery is already subject to several conservation related constraints designed to minimize the bycatch of chinook salmon in particular. The targeted harvest of whiting inside of 100 fathoms in the Eureka catch area is prohibited. The start of the whiting fishery north of 42°00' north latitude is delayed annually until at least May 15. Finally, bycatch of chinook salmon in the whiting fishery is monitored in each sector of the fishery and limited to a bycatch rate of 0.05 chinook/mt whiting and a total bycatch of 11,000 chinook annually.

#### C. Action Area

NMFS establishes fishery management measures for ocean groundfish fisheries occurring in the EEZ (3-200 nautical miles off shore). Annual management recommendations are developed according to the "Pacific Coast Groundfish Fishery Management Plan" of the PFMC. The PFMC provides its management recommendations to the Secretary of Commerce, who implements the measures in the EEZ if they are found to be consistent with the Magnuson-Stevens Act and other applicable law. In the case where a state's actions substantially and adversely affect the carrying out of the FMP, the Secretary may, under the Magnuson-Stevens Act, assume responsibility for the regulation of ocean fishing in state marine waters; however that authority does not extend to a state's internal waters. For the purposes of this opinion, the action area is the EEZ, which is directly affected by the federal action, as well as the marine waters (other than internal) off the States of Washington, Oregon and California, which may be indirectly affected by the federal action.

## II. Status of the Species and Critical Habitat

## A. Analysis of Species Likely to be Affected

A preliminary analysis of the available data for the ongoing consultation indicates that the steelhead, sockeye, and cutthroat trout are rarely, if ever, encountered in the groundfish fishery. Coho and chum are caught in relatively low numbers in the whiting fishery with average catch per year coastwide on the order of tens to a few hundred fish (See IV.A. and Table 14), and in the bottom trawl fishery on the order of tens of fish per year (See IV.B. and NMFS 1992). NMFS therefore concludes that there is little or no affect to the steelhead, sockeye, cutthroat trout, coho, or chum salmon ESUs listed in Table 1 as a result of the groundfish FMP. Relevant information supporting this conclusion is reviewed briefly in section IV, but is not the focus of this opinion.

Substantial numbers of chinook salmon are caught in some of the whiting and bottom trawl fisheries. This opinion therefore focuses on the effect of the groundfish FMP on the newly listed chinook ESUs, and reconsiders conclusions related to SRF chinook and the other previously listed ESUs.

## B. Species and Critical Habitat Description

### *Snake River Fall Chinook*

The SRF chinook ESU includes all natural-origin populations of fall chinook in the mainstem Snake River and several tributaries including the Tucannon, Grande Ronde, Salmon, and Clearwater rivers. Fall chinook from the Lyons Ferry Hatchery are included in the ESU but are not listed.

Critical habitat was designated for SRF chinook salmon on December 28, 1993 (58 FR 68543). The essential features of the critical habitat include four components: (1) spawning and juvenile rearing areas, (2) juvenile migration corridors, (3) areas of growth and development to adulthood, and (4) adult migration corridors. Marine areas including those within the action area, are not included as part of the designated critical habitat.

### *Puget Sound (PS) Chinook*

The PS chinook ESU includes all runs of chinook salmon in the Puget Sound region from the North Fork Nooksack River to the Elwha River on the Olympic Peninsula. Chinook salmon in this area all exhibit an ocean-type life history although there are several populations with an adult spring run timing and ocean distribution. Although some spring-run chinook salmon populations in the PS ESU have a high proportion of yearling smolt emigrants, the proportion varies substantially from year to year and appears to be environmentally mediated rather than genetically determined. Several hatchery populations are also listed including spring run chinook from Kendall Creek, the North Fork Stillaguamish River, White River, and Dungeness River, and fall run fish from the Elwha River.

### *Lower Columbia River (LRC) Chinook*

The LCR ESU includes all native populations from the mouth of the Columbia River to the crest of the Cascade Range, excluding populations above Willamette Falls. Celilo Falls, which corresponds to the edge of the drier Columbia Basin Ecosystem and historically may have presented a migrational barrier to chinook salmon at certain times of the year, is the eastern boundary for this ESU. Not included in this ESU are “stream-type” spring-run chinook salmon found in the Klickitat River (which are considered part of the Mid-Columbia River Spring-Run ESU) or the introduced Carson spring-chinook salmon strain. “Tule” fall chinook salmon in the Wind and Little White Salmon Rivers are included in this ESU, but not introduced “upriver bright” fall-chinook salmon populations in the Wind, White Salmon, and Klickitat Rivers. For this ESU, the Cowlitz, Kalama, Lewis, White Salmon, and Klickitat Rivers are the major river systems on the Washington side, and the Willamette and Sandy Rivers are foremost on the Oregon side. The majority of this ESU is represented by fall-run fish and includes both north migrating tule-type stocks and far-north migrating bright stocks. There are also several spring stocks that are considered part of the ESU. None of the hatchery populations in the Lower Columbia River are listed.

#### *Upper Willamette River (UWR) Chinook*

The UWR chinook ESU occupies the Willamette River and tributaries upstream of Willamette Falls. Historically, access above Willamette Falls was restricted to the spring when flows were high. In autumn low flows prevented fish from ascending past the falls. The Upper Willamette spring chinook are one of the most genetically distinct chinook groups in the Columbia River Basin. Fall chinook salmon spawn in the Upper Willamette but are not considered part of the ESU because they are not native. None of the hatchery populations in the Willamette River is listed, although the spring-run hatchery stocks were included in the ESU.

#### *Upper Columbia River Spring (UCRS) Chinook*

The UCRS chinook ESU includes stream-type chinook salmon spawning above Rock Island Dam including the Wenatchee, Entiat, and Methow River basins. All chinook in the Okanogan River are apparently ocean-type and are considered part of the Upper Columbia River Summer- and Fall-run ESU. The Wenatchee and Entiat rivers are in the Northern Cascades Physiographic Province and the Methow River is in the Okanogan Highlands Physiographic Province. Several hatchery populations are also listed including those from the Chiwawa, Methow, Twisp, Chewuch, and White rivers, and Nason Creek.

#### *Central Valley Spring (CVS) Chinook*

Central Valley spring chinook exhibit a characteristic run timing and other adaptive features which allow them to enter the upper reaches of river systems prior to the onset of the low flows and high water temperatures that inhibit access to these areas during the fall. The run appears in the Sacramento River and its tributaries from February to July and spawning occurs from late August through early October, with a peak in September. Their higher fat reserves, smaller body size and entry into fresh water with undeveloped gonads facilitate the ascent to higher streams (up to 1,500 m elevation) (Yoshiyama et al. 1996). Spring chinook in the Sacramento River

exhibit an ocean-type life history, emigrating as fry, sub-yearlings, and yearlings.

### *California Coastal (CC) Chinook*

This ESU includes all naturally spawned coastal spring and fall chinook salmon spawning from the Eel River to the Russian River. Chinook salmon spawn in several small tributaries to San Francisco Bay, however it is uncertain whether these small populations are part of this ESU, or strays from Central Valley chinook salmon ESUs.

#### C. Life History

##### *Chinook Salmon*

Chinook salmon is the largest of the Pacific salmon. The species' distribution historically ranged from the Ventura River in California to Point Hope, Alaska in North America, and in northeastern Asia from Hokkaido, Japan to the Anadyr River in Russia (Healey 1991). Additionally, chinook salmon have been reported in the Mackenzie River area of northern Canada (McPhail and Lindsey 1970). Of the Pacific salmon, chinook salmon exhibit arguably the most diverse and complex life history strategies. Healey (1986) described 16 age categories for chinook salmon, 7 total ages with 3 possible freshwater ages. This level of complexity is roughly comparable to sockeye salmon, although sockeye salmon have a more extended freshwater residence period and utilize different freshwater habitats (Miller and Brannon 1982, Burgner 1991). Two generalized freshwater life-history types were initially described by Gilbert (1912): "stream-type" chinook salmon reside in freshwater for a year or more following emergence, whereas "ocean-type" chinook salmon migrate to the ocean within their first year. Healey (1983, 1991) has promoted the use of broader definitions for "ocean-type" and "stream-type" to describe two distinct races of chinook salmon. This racial approach incorporates life history traits, geographic distribution, and genetic differentiation and provides a valuable frame of reference for comparisons of chinook salmon populations. For the purposes of this Opinion, those chinook salmon (spring and summer runs) that spawn upriver from the Cascade crest are generally "stream-type"; those which spawn down river of the Cascade Crest (including in the Willamette River) are generally "ocean-type".

The generalized life history of Pacific salmon involves incubation, hatching, and emergence in freshwater, migration to the ocean, and subsequent initiation of maturation and return to freshwater for completion of maturation and spawning. Juvenile rearing in freshwater can be minimal or extended. Additionally, some male chinook salmon mature in freshwater, thereby foregoing emigration to the ocean. The timing and duration of each of these stages is related to genetic and environmental determinants and their interactions to varying degrees. Salmon exhibit a high degree of variability in life-history traits; however, there is considerable debate as to what degree this variability is the result of local adaptation or the general plasticity of the salmonid genome (Ricker 1972, Healey 1991, Taylor 1991). More detailed descriptions of the key features of chinook salmon life history can be found in Myers, et al. (1998) and Healey (1991).

#### D. Population Dynamics and Distribution

##### *Snake River Fall Chinook*

The spawning grounds between Huntington (RM 328) and Auger Falls (RM 607) were historically the most important for this species. Only limited spawning activity was reported downstream from RM 273 (Waples, et al. 1991), about one mile upstream of Oxbow Dam. Since then, irrigation and hydropower projects on the mainstem Snake River have blocked access to or inundated much of this habitat—causing the fish to seek out less-preferable spawning grounds wherever they are available. Natural fall chinook salmon spawning now occurs primarily in the Snake River below Hells Canyon Dam and the lower reaches of the Clearwater, Grand Ronde, Salmon, and Tucannon Rivers.

Adult SRF chinook salmon enter the Columbia River in July and migrate into the Snake River from August through October. Fall chinook salmon generally spawn from October through November and fry emerge from March through April. Downstream migration generally begins within several weeks of emergence (Becker 1970, Allen and Meekin 1973), and juveniles rear in backwaters and shallow water areas through mid-summer prior to smolting and migrating to the ocean—thus they exhibit an “ocean” type juvenile history. Once in the ocean, they spend one to four years (though usually, three) before beginning their spawning migration. Fall returns in the Snake River system are typically dominated by four-year-old fish. For detailed information on the SRF chinook salmon, see NMFS (1991) and June 27, 1991, 56 FR 29542.

No reliable estimates of historical abundance are available, but because of their dependence on mainstem habitat for spawning, fall chinook have probably been impacted to a greater extent by the development of irrigation and hydroelectric projects than any other species of salmon. It has been estimated that the mean number of adult SRF chinook salmon declined from 72,000 in the 1930s and 1940s to 29,000 during the 1950s. In spite of this, the Snake River remained the most important natural production area for fall chinook in the entire Columbia River basin through the 1950s. The number of adults counted at the uppermost Snake River mainstem dams averaged 12,720 total spawners from 1964 to 1968, 3,416 spawners from 1969 to 1974, and 610 spawners from 1975 to 1980 (Waples, et al. 1991).

Counts of adult fish of natural-origin continued to decline through the 1980s reaching a low of 78 individuals in 1990 (Table 3). Since then the return of natural-origin fish to Lower Granite Dam (LGD) has been variable, but generally increasing reaching a recent year high of 797 in 1997. The 1998 return declined to 306. This was not anticipated and is of particular concern because it is close to the low threshold escapement level of 300 that is indicative of increased risk (BRWG 1994). It has been suggested that the low return in 1998 was due to severe flooding in 1995 that affected the primary contributing brood year. The expected return of natural-origin adults to LGD in 1999 given the anticipated ocean and in-river fisheries is 518.

Unlike many of the listed salmonid ESUs, SRF chinook is probably represented by only a single population that spawns in the parts of the mainstem that remain accessible and the lower reaches of the associated tributaries. The more complex population structure that likely existed

historically was eliminated by the upstream dams.

The recovery standard identified in the 1995 Proposed Recovery Plan (NMFS 1995a) for SRF chinook was a population of at least 2,500 naturally produced spawners (to be calculated as an eight year geometric mean) in the lower Snake River and its tributaries. The LGD counts can not be compared directly to the natural spawner escapement objective since it is also necessary to account for adults which may fall back below the dam after counting and pre-spawning mortality. A preliminary estimate suggested that a LGD count of 4,300 would be necessary to meet the 2,500 fish escapement goal (NMFS 1995a). For comparison, the geometric mean of the LGD counts of natural-origin fall chinook over the last eight years is 481.

A further consideration regarding the status of SRF chinook is the existence of the Lyons Ferry Hatchery stock which is considered part of the ESU. There have been several hundred adults returning to the Lyons Ferry Hatchery in recent years (Table 3). More recently, supplementation efforts designed to accelerate rebuilding were initiated beginning with smolt outplants from the 1995 brood year. The existence of the Lyons Ferry program has been an important consideration in evaluating the status of the ESU since it reduces the short-term risk of extinction by providing a reserve of fish from the ESU. Without the hatchery program the risk of extinction would have to be considered high since the ESU would otherwise be comprised of a few hundred individuals from a single population, in marginal habitat, with a demonstrated record of low productivity. Although the supplementation program likely contributes future natural origin spawners, it does little to change the productivity of the system upon which a naturally spawning population must rely. Supplementation is, therefore, not a long-term substitute for recovery. [See NMFS (1999e) for further discussion on the SRF chinook supplementation program.]

Recent analyses conducted through the PATH process (Plan for Analyzing and Testing Hypotheses) considered the prospects for survival and recovery given several future management options for the hydro system and other mortality sectors (Marmorek et al. 1998, Peters et al. 1999). That analysis indicated that the prospects of survival for SRF chinook were good, but that full recovery was relatively unlikely except under a very limited range of assumptions, or unless draw down was implemented for at least the four lower Snake River dams operated by the U.S. Army Corps of Engineers. Consideration of the draw down options led to a high likelihood that both survival and recovery objectives could be achieved.

The Northwest Fisheries Science Center (NFSC) has recently considered the extinction risk for SRF chinook as part of their Cumulative Risk Initiative (CRI). The results indicate that the probability of extinction for SRF chinook over the next ten years is near zero while the risk of extinction over 100 years is between 6-17% (depending on whether 1980 is included in the baseline analysis).

| Year | L. Granite Count | Marked Fish to Lyons Ferry Hatch. | L. Granite Dam Escapement | Stock Comp. of L. Granite Escapement |          |              |
|------|------------------|-----------------------------------|---------------------------|--------------------------------------|----------|--------------|
|      |                  |                                   |                           | Wild                                 | Snake R. | Non-Snake R. |
| 1975 | 1000             |                                   | 1000                      | 1000                                 |          |              |
| 1976 | 470              |                                   | 470                       | 470                                  |          |              |
| 1977 | 600              |                                   | 600                       | 600                                  |          |              |
| 1978 | 640              |                                   | 640                       | 640                                  |          |              |
| 1979 | 500              |                                   | 500                       | 500                                  |          |              |
| 1980 | 450              |                                   | 450                       | 450                                  |          |              |
| 1981 | 340              |                                   | 340                       | 340                                  |          |              |
| 1982 | 720              |                                   | 720                       | 720                                  |          |              |
| 1983 | 540              |                                   | 540                       | 428                                  | 112      |              |
| 1984 | 640              |                                   | 640                       | 324                                  | 310      | 6            |
| 1985 | 691              |                                   | 691                       | 438                                  | 241      | 12           |
| 1986 | 784              |                                   | 784                       | 449                                  | 325      | 10           |
| 1987 | 951              |                                   | 951                       | 253                                  | 644      | 54           |
| 1988 | 627              |                                   | 627                       | 368                                  | 201      | 58           |
| 1989 | 706              |                                   | 706                       | 295                                  | 206      | 205          |
| 1990 | 385              | 50                                | 335                       | 78                                   | 174      | 83           |
| 1991 | 630              | 40                                | 590                       | 318                                  | 202      | 70           |
| 1992 | 855              | 187                               | 668                       | 549                                  | 100      | 19           |
| 1993 | 1170             | 218                               | 952                       | 742                                  | 43       | 167          |
| 1994 | 791              | 185                               | 606                       | 406                                  | 20       | 180          |
| 1995 | 1067             | 430                               | 637                       | 350                                  | 1        | 286          |
| 1996 | 1308             | 389                               | 919                       | 639                                  | 74       | 206          |
| 1997 | 1451             | 444                               | 1007                      | 797                                  | 20       | 190          |
| 1998 | 1909             | 947                               | 962                       | 306                                  | 479      | 177          |

<sup>1</sup>Information taken from Revised Tables for the Biological Assessment of Impacts of Anticipated 1996-1998 Fall Season Columbia River Mainstem and Tributary Fisheries on Snake River Salmon Species Listed Under the ESA, prepared by the U.S. v. Oregon Technical Advisory Committee.

### *Puget Sound Chinook*

This ESU encompasses all runs of chinook salmon in the Puget Sound region from the North Fork Nooksack River in the east to the Elwha River on the Olympic Peninsula. Chinook salmon in this area all exhibit an ocean-type life history. Although some spring-run chinook salmon

populations in the PS ESU have a high proportion of yearling smolt emigrants, the proportion varies substantially from year to year and appears to be environmentally mediated rather than genetically determined. Puget Sound stocks all tend to mature at ages 3 and 4 and exhibit similar, coastally-oriented, ocean migration patterns.

The peak recorded harvest landed in Puget Sound occurred in 1908, when 95,210 cases of canned chinook salmon were packed. This corresponds to a run-size of approximately 690,000 chinook salmon at a time when both ocean harvest and hatchery production were negligible. [This estimate, as with other historical estimates, needs to be viewed cautiously; Puget Sound cannery pack probably included a portion of fish landed at Puget Sound ports but originating in adjacent areas, and the estimates of exploitation rates (ER) used in run-size expansions are not based on precise data.] Recent mean spawning escapements totaling 71,000 correspond to a run entering Puget Sound of approximately 160,000 fish. Based on an exploitation rate of one-third in intercepting ocean fisheries, the recent average potential run-size would be 240,000 chinook salmon (Pacific Salmon Commission 1994).

The 5-year geometric mean of spawning escapement of natural chinook salmon runs in North Puget Sound for 1992-96 is approximately 13,000. Both long and short-term trends for these runs were negative, with few exceptions. In South Puget Sound, spawning escapement of the natural runs has averaged 11,000 spawners. In this area, both long and short-term trends are predominantly positive.

Puget Sound chinook are the largest and most complex ESU that is considered in detail in this opinion. WDF et al. (1993) identified 28 stocks that were distributed among five geographic regions and 12 management units or basins (Table 4). [The Hoko River stock was included in WDF's initial inventory, but was subsequently assigned to the neighboring ESU.] NMFS is currently engaged in delineating the population structure of PS chinook and other ESUs as an initial step in a formal recovery planning effort that is now underway. These determinations have not been finalized at this time, but it is clear that these 28 stocks represent the greatest level of potential stratification and that some further aggregation of these stocks is likely (Myers, J. NWFSC/NMFS, pers. com. P. Dygert, NMFS, Sept. 2, 1999). By considering the status of the stocks as described by WDF, NMFS can be reasonably certain that we are not overlooking population structures that may be important to the ESU.

Table 4. Distribution of stocks identified in WDF (1993) by recovery category. Stock timing designations are spring (SP), summer (S), fall (F), and summer/fall (SF).

| Region of Origin       | Management Unit        | Stock/Timing         | Recovery Category |
|------------------------|------------------------|----------------------|-------------------|
| Strait of Juan de Fuca | Strait of Juan de Fuca | Elwha/Morse Cr./SF   | 1                 |
|                        |                        | Dungeness/SP         | 1                 |
| Hood Canal             | Hood Canal             | Hood Canal/SF        | 2 & 3             |
| North Sound            | Nooksack/Samish        | NF Nooksack/SP       | 1                 |
|                        |                        | SF Nooksack/SP       | 1                 |
|                        |                        | Nooksack/F           | 2                 |
|                        | Skagit Spring          | Upper Sauk/SP        | 1                 |
|                        |                        | Suiattle/SP          | 1                 |
|                        |                        | Cascade/SP           | 1                 |
| Skagit Summer/Fall     | Upper Skagit/S         | 1                    |                   |
|                        | Lower Skagit/F         | 1                    |                   |
|                        | Lower Sauk/S           | 1                    |                   |
| Stillaguamish          | Stillaguamish          | Stillaguamish/S      | 1                 |
|                        |                        | Stillaguamish/F      | 1                 |
| Snohomish              | Snohomish              | Snohomish/S          | 1                 |
|                        |                        | Wallace/SF           | 1                 |
|                        |                        | Snohomish/F          | 1                 |
|                        |                        | Bridal Veil Cr/F     | 1                 |
| Mid-Sound              | Lake Washington        | Issaquah/SF          | 2                 |
|                        |                        | N Lake WA Tribs/SF   | 2                 |
|                        |                        | Cedar/SF             | 1                 |
|                        | Duwamish/Green         | Duwamish/Green       | Duwamish/Green/SF |
| Newaukum Cr/SF         |                        |                      | 1                 |
| South Sound            | Puyallup               | White River/SP       | 1                 |
|                        |                        | White River/SF       | 2                 |
|                        |                        | Puyallup River /SF   | 2                 |
|                        | Nisqually              | Nisqually River/SF   | 2                 |
|                        | South Sound Tribs      | South Sound Tribs/SF | 3                 |

Puget Sound includes areas where the habitat still supports self-sustaining natural production of chinook, areas where habitat for natural production has been irrevocably lost, and areas where chinook salmon were never self-sustaining. In addition, the Puget Sound contains areas where indigenous local stocks persist and areas where local stocks are a composite of indigenous stocks and introduced hatchery fish that may or may not be of local origin. In some areas where natural production has been lost, hatchery production has been used to mitigate for lost natural production.

The status of each of the identified stocks is discussed in more detail in a recent biological opinion concerning the effects of the Pacific Salmon Treaty on listed salmonids (NMFS 1999f). That discussion is incorporated here by reference. However, the analysis in this opinion requires less detail and just focuses on the aggregates of spring and summer/fall type chinook stocks. The spring stocks as a group are the most depressed component of the ESU. The status of the fall stocks varies with some being at or near spawning escapement objectives and other being quite depressed.

#### *Lower Columbia River Chinook*

The LCR ESU includes spring stocks and fall tule and bright components. Spring-run chinook salmon on the lower Columbia River, like those from coastal stocks, enter freshwater in March and April well in advance of spawning in August and September. Historically, fish migrations were synchronized with periods of high rainfall or snowmelt to provide access to upper reaches of most tributaries where spring stocks would hold until spawning (Fulton 1968, Olsen et al. 1992, WDF et al. 1993).

Fall chinook predominate the Lower Columbia River salmon runs. Fall chinook return to the river in mid-August and spawn within a few weeks (WDF et al. 1993, Kostow 1995). The majority of fall-run chinook salmon emigrate to the marine environment as sub-yearlings (Reimers and Loeffel 1967, Howell et al. 1985, WDF et al. 1993). A portion of returning adults whose scales indicate a yearling smolt migration may be the result of extended hatchery-rearing programs rather than of natural, volitional yearling emigration. It is also possible that modifications in the river environment may have altered the duration of freshwater residence. Adults return to tributaries in the Lower Columbia River at 3 and 4 years of age for fall-run fish and 4 to 5 years of age for spring-run fish. This may be related to the predominance of yearling smolts among spring-run stocks. Marine coded-wire-tag recoveries for lower Columbia River stocks tend to occur off the British Columbia and Washington coasts, though a small proportion of the tags are recovered in Alaskan waters.

There are no reliable estimates of historic abundance for this ESU, but it is generally agreed that there have been vast reductions in natural production over the last century. Recent abundance of spawners includes a 5-year geometric mean natural spawning escapement of 29,000 natural spawners and 37,000 hatchery spawners (1991-95), but according to the accounting of PFMC (1996), approximately 68% of the natural spawners are first-generation hatchery strays.

All basins in the region are affected to varying degrees by habitat degradation. Major habitat

problems are related primarily to blockages, forest practices, urbanization in the Portland and Vancouver areas, and agriculture in flood plains and low-gradient tributaries. Substantial chinook salmon spawning habitat has been blocked (or passage substantially impaired) in the Cowlitz (Mayfield Dam 1963, RKm 84), Lewis (Merwin Dam 1931, RKm 31), Clackamas (North Fork Dam 1958, RKm 50), Hood (Powerdale Dam 1929, RKm 7), and Sandy (Marmot Dam 1912, RKm 48; Bull Run River-dams in the early 1900s) rivers (WDF et al. 1993, Kostow 1995).

Hatchery programs to enhance chinook salmon fisheries in the lower Columbia River began in the 1870s, expanded rapidly, and have continued throughout this century. Although the majority of the stocks have come from within this ESU, over 200 million fish from outside the ESU have been released since 1930. A particular concern noted at the time of listing related to the straying by Rogue River fall-run chinook salmon, which are released into the lower Columbia River to augment harvest opportunities. The release strategy has since been modified to minimize straying, but it is too early to assess the effect of the change. Available evidence indicates a pervasive influence of hatchery fish on most natural populations throughout this ESU, including both spring- and fall-run populations (Howell et al. 1985, Marshall et al. 1995). In addition, the exchange of eggs between hatcheries in this ESU has led to the extensive genetic homogenization of hatchery stocks (Utter et al. 1989).

The remaining spring chinook stocks in the LCR ESU are found in the Sandy on the Oregon side and Lewis, Cowlitz, and Kalama on the Washington side. Spring chinook in the Clackamas River are considered part of the UWR ESU. Naturally spawning spring chinook in the Sandy River are included in the LCR ESU despite substantial influence of Willamette hatchery fish from past years since they likely contain all that remains of the original genetic legacy for that system. Recent escapements above Marmot Dam on the Sandy River average 2,800 and have been increasing (ODFW 1998b). Hatchery-origin spring chinook are no longer released above Marmot Dam; the proportion of first generation hatchery fish in the escapement is relatively low, on the order of 10-20% in recent years.

On the Washington side spring chinook were present historically in the Cowlitz, Kalama, and Lewis rivers. Spawning areas were blocked by dam construction in the Cowlitz and Lewis. The native Lewis run became extinct soon after completion of Merwin Dam in 1932. Production in the Kalama was limited by the dams and by 1950 only a remnant population remained. Spring chinook in the Cowlitz, Kalama, and Lewis are currently all hatchery fish. There is some natural spawning in the three rivers, but these are believed to be primarily from hatchery strays (ODFW 1998b). The recent averages (1994-1998) for naturally spawning spring chinook in the Cowlitz, Kalama, and Lewis are 235, 224, and 372, respectively. The amount of natural production resulting from these escapements is unknown, but is presumably small since the remaining habitat in the lower rivers is not the preferred habitat for spring chinook. The Lewis and Kalama hatchery stocks have been mixed with out of basin stocks, but are nonetheless included in the ESU. The Cowlitz stock is largely free of introductions and is considered essential for recovery although not listed. The number of spring chinook returning to the Cowlitz, Kalama, and Lewis rivers have declined in recent years, but still number several hundred to a few thousand in each system (Table 5). Hatchery escapement goals have been consistently met in the Cowlitz and

Lewis Rivers. The goal has not been met in all years in the Kalama, but WDFW continues to use brood stock from the Lewis to meet production goals in the Kalama. Although the status of hatchery stocks are not always a concern or priority from an ESA perspective, in situations where the historic spawning habitat is no longer accessible, the status of the hatchery stocks is pertinent.

Table 5. Estimated Lower Columbia River spring chinook tributary returns, 1992-1999. (Source: Pettit 1998, ODFW/WDFW 1998.)

| Year | Sandy R. | Cowlitz R. | Lewis R. | Kalama R. | Total Returns Excluding the Willamette System |
|------|----------|------------|----------|-----------|---|
| 1992 | 8,600    | 10,400     | 5,600    | 2,400     | 27,200  |
| 1993 | 6,400    | 9,500      | 6,600    | 3,000     | 25,500  |
| 1994 | 3,500    | 3,100      | 3,000    | 1,300     | 10,900  |
| 1995 | 2,500    | 2,200      | 3,700    | 700       | 9,100   |
| 1996 | 4,100    | 1,800      | 1,700    | 600       | 8,200   |
| 1997 | 5,200    | 1,900      | 2,200    | 600       | 9,900   |
| 1998 | 4,300    | 1,100      | 1,600    | 400       | 7,400   |
| 1999 |          | 1,600      | 1,900    | 600       |   |

There are apparently three self-sustaining natural populations of tule chinook in the Lower Columbia River (Coweeman, East Fork Lewis, and Clackamas) that are not substantially influenced by hatchery strays. Returns to the East Fork and Coweeman have been stable and near interim escapement goals in recent years. Recent 5 and 10 year average escapements to the East Fork Lewis have been about 300 compared to an interim escapement goal of 300. Recent 5 and 10 year average escapements to the Coweeman are 900 and 700, respectively compared to an interim natural escapement goal of 1000 (pers. comm., from G. Norman, WDFW to P. Dygert NMFS, February 22, 1999). Natural escapement on the Clackamas has averaged about 350 in recent years. There have been no releases of hatchery fall chinook in the Clackamas since 1981 and there are apparently few hatchery strays. The population is considered depressed, but stable and self-sustaining (ODFW 1998b). There is some natural spawning of tule fall chinook in the Wind and Little White Salmon Rivers, tributaries above Bonneville Dam (the only component of the ESU that is affected by tribal fisheries). Although there may be some natural production in these systems, the spawning results primarily from hatchery-origin strays.

The LCR bright stocks are among the few healthy natural chinook stocks in the Columbia River Basin. Escapement to the North Fork Lewis River has exceed its escapement goal of 5,700 by a substantial margin every year since 1980 with a recent five year average escapement of 10,000. The forecast in 1999 is for an exceptionally low return of about 2,500 and if correct would

obviously be under the escapement goal. The low return in 1999 has been attributed to severe flooding that occurred in 1995 and 1996. Despite this apparent aberration, this population is considered healthy.

There are two smaller populations of LCR brights in the Sandy and East Fork Lewis River. Run sizes in the Sandy have averaged about 1000 and been stable for the last 10-12 years. The fall chinook hatchery program in the Sandy was discontinued in 1977, which has certainly reduced the number of hatchery strays in the system. There is also a late spawning component in the East Fork Lewis that is comparable in timing to the other bright stocks. The escapement of these fish is less well documented, but it appears to be stable and largely unaffected by hatchery fish (ODFW 1998b).

### *Upper Willamette River Chinook*

Upper Willamette River chinook are one of the most genetically distinct groups of chinook in the Columbia River Basin. This may be related in part to the narrow time window available for passage above Willamette Falls. Chinook populations in this ESU have a life history pattern that includes traits from both ocean- and stream-type life histories. Smolt emigrations occur as young of the year and as age-1 fish. Ocean distribution of chinook in this ESU is consistent with an ocean-type life history with the majority of chinook being caught off the coasts of British Columbia and Alaska. Spring chinook from the Willamette River have the earliest return timing of chinook stocks in the Columbia Basin with freshwater entry beginning in February. Historically, spawning occurred between mid-July and late October. However, the current spawn timing of hatchery and wild chinook in September and early October likely is due to hatchery fish introgression.

The abundance of naturally-produced spring chinook in the ESU has declined substantially from historic levels. Historic escapement levels may have been as high as 200,000 fish per year. The production capacity of the system has been reduced substantially by extensive dam construction and habitat degradation. From 1946-50, the geometric mean of Willamette Falls counts for spring chinook was 31,000 fish (Myers et al. 1998), which represented primarily naturally-produced fish. The most recent 5 year (1995-1999) geometric mean escapement above the falls was 27,800 fish, comprised predominantly of hatchery-produced fish (Table 6). Nicholas (1995) estimated 3,900 natural spawners in 1994 for the ESU, with approximately 1,300 of these spawners being naturally produced. There has been a gradual increase in naturally spawning fish in recent years, but it is believed that many of these are first generation hatchery fish. The long-term trend for total spring chinook abundance within the ESU has been approximately stable although there was a series of higher returns in the late-80s and early-90s that are associated with years of higher ocean survival. The great majority of fish returning to the Willamette River in recent years have been of hatchery-origin.

Historically, there were five major basins that produced spring chinook including the Clackamas, North and South Santiam Rivers, McKenzie, and the Middle Fork Willamette. However, between 1952-1968 dams were built on all of the major tributaries occupied by spring chinook, blocking over half the most important spawning and rearing habitat. Dam operations have also

reduced habitat quality in downstream areas due to thermal and flow effects. Dams on the South Fork Santiam and Middle Fork Willamette eliminated wild spring chinook in those systems (ODFW 1997). Although there is still some natural spawning in these systems below the dams, habitat quality is such that there is probably little resulting production and the spawners are likely of hatchery origin. Populations in several smaller tributaries that also used to support spring chinook are believed to be extinct (Nicholas 1995).

The available habitat in the North Fork Santiam and McKenzie rivers was reduced to 1/4 and 2/3, respectively, of its original capacity. Spring chinook on the Clackamas were extirpated from the upper watershed after the fish ladder at Faraday Dam washed out in 1917, but recolonized the system after 1939 when the ladder was repaired. NMFS was unable to determine, based on available information whether this represents a historical affinity or a recent, human-mediated expansion into the Clackamas River. Regardless, NMFS included natural-origin spring chinook as part of the listed populations and considers Clackamas spring chinook as a potentially important genetic resource for recovery.

The McKenzie, Clackamas, and North Santiam are therefore the primarily basins that continue to support natural production. Of these the McKenzie is considered the most important. Prior to construction of major dams on Willamette tributaries, the McKenzie produced 40% of the spring chinook above Willamette Falls and it may now account for half the production potential in the Basin. Despite dam construction and other habitat degradations, the McKenzie still supports substantial production with most of the better quality habitat locate above Leaburg Dam. The interim escapement objective for the area above the Dam is 3,000-5,000 spawners (ODFW 1998a). Pristine production in that area may have been as high as 10,000, although substantial habitat improvements would be required to again achieve pristine production levels. Estimates of the number of natural-origin spring chinook returning to Leaburg Dam are available since 1994 when adults from releases of hatchery reared smolts above the dam were no longer present. The number of natural-origin fish at the Dam has increased steadily from 786 in 1994 to 1,458 in 1999 (Table 6). Additional spawning in areas below the Dam accounts for about 20% of the McKenzie return.

The Clackamas River currently accounts for about 20% of the production in the Willamette Basin. The production comes from one hatchery and natural production areas located primarily above the North Fork Dam. The interim escapement goal for the area above the Dam is 2,900 adults (ODFW 1998a). This system is heavily influenced by hatchery production so it is difficult to distinguish natural from hatchery-origin spawners. Most of the natural spawning occurs above the North Fork Dam with 1,000- 1,500 adults crossing the Dam in recent years. There were 380 redds counted above the dam in 1998 and similar counts in 1997 (Lindsay et. al. 1998). There is some spawning in the area below the Dam as well although the origin and productivity of these fish is again uncertain. There were 48 spring chinook redds counted below the North Fork Dam in 1998.

Over 70% of the production capacity of the North Santiam system was blocked by the Detroit Dam. There are no passage facilities at the Dam so all of the current natural production potential remains downstream. The remaining habitat is adversely affected by warm water and flow

regulation. The system is again influenced substantially by hatchery production, although the original genetic resources have been maintained since Marion Forks Hatchery stock has been derived almost exclusively from North Santiam brood sources (ODFW 1998a). Despite these limitations there continues to be natural spawning in the lower river. There were 194 redds counted in the area below Minto Dam (the lower-most dam) in 1998, which was marginally higher than during the prior two years (Lindsay et. al. 1998). The origin of the spawning adults or their reproductive success has not been determined.

Mitigation hatcheries were built to offset the substantial habitat losses resulting from dam construction and, as a result, 85%-95% of the production in the basin is now hatchery origin fish. On the one hand these hatchery populations represent a risk to the ESU. The genetic diversity of the ESU has been largely homogenized due to the past practice of broodstock transfers within the basin. Domestication is also a risk given the predominance of hatchery fish. Nevertheless, the hatchery populations also represent a genetic resource. All five of the hatchery stocks were included in the ESU and therefore are available to support recovery efforts. Given the extensive network of dams in the basin and other pervasive habitat degradations, it is clear that most, if not all, of the remaining populations would have been eliminated had it not been for the hatchery programs.

NMFS is currently engaged in a consultation to consider the future operation of the hatchery facilities in the Willamette Basin. This will reduce future risks associated with hatchery operations. Substantial efforts have already been taken to remedy some of the past hatchery practices including limiting the proportion of hatchery spawners in some natural production areas and reincorporating local-origin wild fish into the hatchery broodstock (ODFW 1998a). All hatchery produced fish in the Basin are now externally marked. Once these fish are fully recruited, the mass marking will allow implementation of selective fisheries in terminal areas and thus provide harvest opportunity with limited impacts to natural origin fish. The marking program will also greatly improve the managers' ability to monitor and control hatchery straying and production. The fall chinook hatchery production program was also noted as a risk to the species since fall chinook were not historically present above Willamette Falls. The fall production program at Stayton Ponds has now been closed with the last release made in 1995. It is reasonable to expect that the return of fall chinook will diminish rapidly as a result.

Table 6. Run size of spring chinook at the mouth of the Willamette River and counts at Willamette Falls and Leaburg Dam on the McKenzie River (Nicholas 1995; ODFW and WDFW 1998). The Leaburg counts show wild and hatchery combined and wild only since 1994.

| Return Year | Estimated number entering Willamette River | Willamette Falls Count | Leaburg Dam Count |           |
|-------------|--|------------------------|-------------------|-----------|
|             |  |                        | Combined          | Wild Only |
| 1985        | 57,100                                     | 34,533                 | 825               |           |
| 1986        | 62,500                                     | 39,155                 | 2,061             |           |
| 1987        | 82,900                                     | 54,832                 | 3,455             |           |
| 1988        | 103,900                                    | 70,451                 | 6,753             |           |
| 1989        | 102,000                                    | 69,180                 | 3,976             |           |
| 1990        | 106,300                                    | 71,273                 | 7,115             |           |
| 1991        | 95,200                                     | 52,516                 | 4,359             |           |
| 1992        | 68,000                                     | 42,004                 | 3,816             |           |
| 1993        | 63,900                                     | 31,966                 | 3,617             |           |
| 1994        | 47,200                                     | 26,102                 | 1,526             | 786       |
| 1995        | 42,600                                     | 20,592                 | 1,622             | 894       |
| 1996        | 34,600                                     | 21,605                 | 1,445             | 1,086     |
| 1997        | 35,000                                     | 26,885                 | 1,176             | 981       |
| 1998        | 45,100                                     | 34,461                 | 1,874             | 1,364     |
| 1999        | 58,000*                                    | 40,410                 | 1,458             | 1,416     |

\*preliminary

### *Upper Columbia River Spring Chinook*

Upper Columbia River Spring chinook have a stream-type life history. Adults return to the Wenatchee River from late March to early May, and from late March to June in the Entiat and Methow Rivers. Most adults return after spending two years in the ocean, while 20%-40% return after three years at sea. Peak spawning for all three populations occurs from August to September. Smolts typically spend one year in freshwater before migrating downstream. This ESU has slight genetic differences from other ESUs containing stream-type fish, but more importantly it has ecological differences in spawning and rearing habitats that were used to define the ESU boundary (Myers et al. 1998). The Grand Coulee Fish Maintenance Project

(1939-1943) was also a major influence on this ESU because fish from multiple populations were mixed into one relatively homogenous group and redistributed into streams throughout the Upper Columbia Region.

The ocean distribution of this ESU is generally to the north and offshore. Upper Columbia River Spring chinook are similar to Snake River spring/summer chinook in that they are subject to very little ocean harvest which is confirmed again here in relation to the groundfish fisheries. The status of UCRS chinook is discussed in more detail in NMFS (1999f) which is incorporated here by reference.

### *Central Valley Spring Chinook*

Historically, spring chinook were most abundant in the San Joaquin Basin and the dominant run in both the Sacramento and San Joaquin River systems (Clark 1929, Fry 1961). Native populations in the San Joaquin River have apparently all been extirpated (Campbell and Moyle, 1990). The ESU presently occupies the Sacramento River Basin, occurring consistently in Mill, Deer and Butte creeks, with intermittent populations in Antelope, Big Chico, and Beegum creeks. Some spawning may occur in the main stem Sacramento. The long term abundance trends for the Mill, Deer, and Butte creek populations are negative (Myers et al. 1998), however since 1991 these populations have been increasing. The mean adult replacement rates for the 1991 - 1996 brood years have been 2.0, 1.9 and 3.0 for Mill, Deer and Butte creeks respectively. The Butte Creek population is genetically distinct from the Deer and Mill Creek populations, returning earlier and spawning at lower elevations.

"Deer Creek is currently believed to have sufficient habitat to support "sustainable populations" of 4,000 spring-run (CDFG 1993)." (Yoshiyama et al. 1996). The Deer Creek population has been increasing since 1993; 1,900 and 1,500 adults returned in 1998 and 1999 respectively.

**Artificial Propagation** Efforts to enhance runs of Sacramento River spring chinook salmon through artificial propagation date back over a century. Since 1967, artificial production has focused on the program at the Feather River Hatchery. The use of a fixed date to distinguish returning spring- and fall-run fish at the Feather River Hatchery, however, has likely resulted in considerable hybridization between the two runs. In half of the years between 1987 and 1994 substantial numbers (21-46%) of the progeny of fish spawned as fall run were subsequently spawned as spring run (CDFG 1998). Genetic analysis revealed that spring-run chinook salmon from the Feather River Hatchery are genetically intermediate between spring- and fall-run samples and most similar to the sample of Feather River Hatchery fall-run chinook salmon (Myers et al. 1999). The Dept of Fish and Game compared CWT recovery rates of Feather River Hatchery spring run and Central Valley fall run (CDFG 1998). While there were minimal differences in the spacial ocean distribution of fall- and spring-run fish, they reported that 68% of the total annual harvest of age-3 Feather River Hatchery spring-run occurred during the months of February through April, compared to 41% for the fall run. Because of the hybridization of the spring and fall runs at the Feather River Hatchery, CDFG questioned whether the Feather River Hatchery spring run was an appropriate surrogate for the evaluation of the effects of ocean harvest on wild populations of spring chinook.

### *California Coastal Chinook*

Chinook salmon from coastal areas north of the Eel River, from the Central Valley and from Klamath River Basin upstream from the Trinity River confluence are genetically and ecologically distinguishable from those in this ESU. Chinook salmon in this ESU exhibit an ocean-type life-history. No information exists on ocean distribution (based on marine CWT recoveries). Life-history information on the ESU is extremely limited. Additionally, only anecdotal or incomplete information exists on abundance of several spring-run populations including Mad and Eel Rivers.

Allozyme data indicate that this ESU is genetically distinguishable from the Oregon Coast, Upper Klamath and Trinity River, and Central Valley ESUs. Life history differences also exist between spring- and fall-run fish in this ESU, but not to the same extent as is observed in larger inland basins. Ecologically, the majority of the river systems in this ESU are relatively small and heavily influenced by a maritime climate. Low summer flows and high temperatures in many rivers result in seasonal physical and thermal barrier bars that block movement by anadromous fish.

### **III. Environmental Baseline**

Environmental baselines for biological opinions include the past and present impacts of all state, federal or private actions and other human activities in the action area, the anticipated impacts of all proposed federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of state or private actions which are contemporaneous with the consultation in process (50 CFR §402.02).

#### **A. Status of the Species and Critical Habitat within the Action Area**

The assessments of the size, variability and stability of chinook populations, described in the previous sections, are made in fresh water spawning and migratory environments and closely reflect the status of chinook populations in the marine environment.

Critical habitat has not been designated for any of the newly listed chinook ESUs considered in this opinion. Critical habitat has been designated for SRF chinook. Marine habitats (i.e., oceanic or near shore areas seaward of the mouth of coastal rivers) are clearly vital to the species, and ocean conditions are believed to have a major influence on chinook salmon survival and productivity (see review in Pearcy, 1992). To date NMFS has not included marine areas when designating critical habitat for other salmon ESUs because there has been no apparent need for special management action to protect offshore areas. NMFS has not included marine areas when designating critical habitat for SRF chinook, or other salmon ESUs. Inshore marine areas, such as those in Puget Sound, may be more critical to the species survival. In the event that marine areas are designated for newly listed chinook salmon, the effect of ocean fisheries on critical habitat will be reconsidered.

## B. Factors Affecting Species Environment Within the Action Area

### *Commercial and Recreational Salmon Fisheries off the Coasts of Washington, Oregon, and California of the Pacific Fishery Management Council*

Since 1989, NMFS has listed 26 ESUs of salmon, steelhead and cutthroat trout (Table 1). As the listings have occurred, NMFS has initiated formal section 7 consultations and issued biological opinions (Table 7) which consider the impacts to listed salmonid species, and some proposed salmonid species, resulting from proposed implementation of the Pacific Coast Salmon Plan (Salmon FMP), or in some cases, from implementation of the annual management measures. NMFS has also reinitiated consultation on certain ESUs when new information has become available on the status of the stocks or on the impacts of the Salmon FMP on the stocks.

In the biological opinion dated March 8, 1996, NMFS considered the impacts to salmon species then listed under the ESA resulting from implementation of the Salmon FMP including spring/summer chinook, fall chinook, and sockeye salmon from the Snake River and SRWR chinook. Provisions of the March 8, 1996, opinion regarding SRWR chinook were revised in a reinitiated section 7 biological opinion dated February 18, 1997. Two subsequent biological opinions dated April 30, 1997 and April 29, 1998 considered the effects of PFMC fisheries on the growing catalogue of listed species (Table 1). However, these latter two opinions were specific to the annual regulations adopted pursuant to implementation of the Salmon FMP and therefore were limited in duration to the year in question. The biological opinion concerning PFMC salmon fisheries, dated April 28, 1999, considered the effect of implementing Amendment 13 to the Salmon FMP on three currently listed coho ESUs. Because this opinion was programmatic in that it considered the amendment itself rather than just the annual regulations, it provides long-term coverage for PFMC fisheries regarding the three listed coho ESUs. The most recent biological opinion concerning PFMC salmon fisheries, was dated April 30, 1999, and covered ocean salmon fisheries for the 1999-2000 season.

This consultation history provides a mix of long and short-term coverage for the various ESUs with respect to PFMC ocean salmon fisheries. The effects of implementing the FMP on the three Snake River ESUs, SRWR chinook, and the three coho ESUs are covered by outstanding and still applicable opinions. The effects of PFMC fisheries on Umpqua River cutthroat and several steelhead ESUs have been considered previously, but only in opinions with an annual duration. Nine additional ESUs of chinook, sockeye, and chum salmon and steelhead were listed on March 24, 1999 (Table 1). The effects of PFMC fisheries on these species had not been previously considered. This biological opinion therefore considered the effects of the 1999 PFMC fisheries on the nine newly listed ESUs and the previously listed cutthroat and steelhead ESUs not currently covered by an existing opinion.

The Salmon FMP is currently being revised and amended primarily to incorporate required changes resulting from the Magnuson-Stevens Act. This revision, known as Amendment 14, will also be subject to consultation. Amendment 14 to the Salmon FMP and its accompanying supplemental environmental impact statement (Amendment 14) represent a comprehensive updating of the Salmon FMP. NMFS is therefore conducting a consultation under section 7 of

the ESA on the effects that Amendment 14, as submitted to NMFS, may have on listed salmon stocks. This consultation considers whether any of the provisions of Amendment 14 will modify the Salmon FMP in a manner that adversely affects any of the listed species or designated critical habitat. In general, Amendment 14 will result in more conservative management in response to the requirements of the Magnuson-Stevens Act.

Table 7. NMFS biological opinions on ocean salmon fisheries implemented under the PFMC Salmon FMP and duration of the proposed action covered by each opinion.

| Date              | ESU covered and effective period  |
|-------------------|---|
| March 1, 1991     | Sacramento River winter-run chinook (now superseded)  |
| March 8, 1996     | Snake River chinook and sockeye (until reinitiated), Sacramento River winter-run chinook (5 years)  |
| February 18, 1997 | Sacramento River winter-run chinook (4 years)   |
| April 30, 1997    | SONCC coho, CCC coho, Umpqua River cutthroat trout, all steelhead ESUs proposed for listing (1 year) S. Oregon/ N. California Coastal coho, Central California Coastal coho, Umpqua River cutthroat trout, all steelhead ESUs proposed for listing (1 year) |
| April 29, 1998    | S. Oregon/ N. California Coastal coho, Central California Coastal coho, Umpqua River cutthroat trout, seven listed steelhead ESUs (1 year)  |
| April 28, 1999    | Oregon Coastal coho, S. Oregon/ N. California Coastal coho, Central California Coastal coho (until reinitiated)   |
| April 30, 1999    | Upper Columbia River Spring chinook, Upper Willamette River chinook, Lower Columbia River chinook, Puget Sound chinook (1 year)   |

### C. Factors Affecting Chinook Outside the Action Area

#### *Salmon Fisheries Outside the Action Area - Fishing Activities*

NMFS recently completed a series of consultation regarding salmon fisheries that affect the listed chinook ESUs of concern in this opinion. Consultation on the 1999 ocean salmon fisheries in Alaska was completed on June 30, 1999 (NMFS 1999a). Consultation regarding fall season fisheries in the Columbia River Basin was completed on July 30, 1999 (NMFS 1999e). On November 18, 1999, NMFS signed an opinion covering the recently completed Pacific Salmon Treaty (PST) agreement (NMFS 1999f). The PST opinion specifically covered salmon fisheries in Alaska and Canada that are subject to the agreement, but also analyzed and accounted for impacts that occurred in southern fisheries. This set of opinions provides the most recent review of harvest related impacts in salmon fisheries. Some of the information from those opinions is summarized here and is used indirectly in analyzing the species and stock-specific impacts to

listed chinook resulting from the groundfish fisheries.

Until recently the exploitation rates on most of the chinook ESUs being considered here have been too high for many of the component stocks and have contributed to their decline particularly because of what we now know about the long-term decline in ocean productivity (see following section). Upper Columbia River spring chinook is an exception. The timing and distribution of these stocks is such that ocean harvest mortality is near zero. Inriver harvest rates over the last 15 or 20 years have been 10% or less (ODFW and WDFW 1998). The current depressed status of UCRS chinook is therefore largely unrelated to harvest.

The following series of tables, which was first developed for use in the Alaska fishery opinion (NMFS 1999a), shows the magnitude and distribution of exploitation rates for the chinook ESUs or components of the ESUs. The tables show the total adult equivalent exploitation rates by brood year as well as how that exploitation was distributed across the major fisheries. The estimates are based on coded-wire-tag (CWT) recoveries which provides the most direct estimates of exploitation rates. The adult equivalent calculation is a procedure that discounts catch for expected future natural mortality which would occur prior to spawning. The estimates are reported by brood year. For example, the exploitation rate of the 1992 brood accounts for harvest mortality that occurred on age 2-5 fish in years 1994-97. The data is complete through the 1992 brood and 1997 fishery. The 1993 brood is reported, but is incomplete in that the five year old recoveries from the 1998 fishery are not yet available. There is generally a year-long time lag in updating the coast-wide CWT data base necessary to provide these estimates.

Exploitation rates can also be calculated using harvest management models by catch year. These models use the same CWT data to model exploitation rates that occurred in past years. However, once the models are calibrated, they can also be used for management planning purposes to estimate exploitation rates that would be associated with a given fishery structure in particular year. Because the models are projections, they can be used to characterize exploitation rate trends from past years and how they compare to the most recent years - 1998 and 1999 in this case - that are not available when using the more direct brood year, CWT estimates. In some cases, the model estimates are reported as an index calculated as the ratio of current exploitation rate divided by the 1989-93 average exploitation rate. Model estimates of ER for the 1999 fisheries are also reported.

The PST opinion (NMFS 1999f) used a somewhat different approach, relying primarily on the a model developed by the Chinook Technical Committee of the Pacific Salmon Commission. These model-based estimates are not directly comparable to those derived from the CWT data in part because of assumptions made in the modeling process, and in part because different stock aggregates are analyzed. For example, the CWT summary uses an aggregate of PS spring stocks while the CTC model is specific to Nooksack spring chinook, one of the component stocks. The data summaries from the Alaska opinion are used in this analysis because they permit comparison of the catch and resulting exploitation rates in PFMC salmon fisheries and with catches in groundfish fisheries.

The total brood year exploitation rate of UWR chinook averaged 0.54 from 1975 through 1990.

The average exploitation rate for the more recent 1991-93 broods was 0.35. Upper Willamette River chinook are a far-north migrating stock (Table 8). The ocean harvest occurs primarily in the Alaskan and northern Canadian fisheries. Because of their northerly distribution and earlier return timing, the exploitation rate of UWR chinook in PFMC fisheries is low, averaging 0.01 both in the past and most recent years (Table 8). The exploitation rate in the river fishery is higher, averaging 0.35 through 1990. Harvest in the river fisheries has declined substantially in recent years because of concerns for Snake River spring/summer chinook and other upriver spring stocks. Commercial harvest in the mainstem have been largely eliminated since 1992. The lower river sport fishery has been closed since 1995. Sport fisheries in the Willamette River and the tributaries have been increasingly restrictive as the return of hatchery and wild fish has declined through the 1990s. The Oregon Department of Fish and Wildlife (ODFW) is now implementing a mass marking and selective fishery program that is expected to reduce inriver recreational harvest rates on natural fish by 80% relative to the 1980-96 average once fully implemented in 2002 (Kruzic 1999).

The Lower Columbia River chinook ESU has three components including spring stocks, tule stocks, and far-north migrating bright stocks. These components have different distributions and are subject to different rates of harvest. The time series of ER for the spring component is not currently available, but the model base period (1979-82) ER for Cowlitz spring chinook in PFMC fisheries is 12%.

The total brood year exploitation rates on tule stocks have averaged 0.75 through 1990 although there has been a pattern of decline over that time period (Table 9). Total exploitation rates from 1991-93 averaged 0.39. The distribution of the tule stocks is more southerly with the ocean harvest concentrated in Canadian and PFMC fisheries. Exploitation rates in the PFMC fishery averaged 0.25 through 1990 and 0.09 for the 1991-93 brood years. The long-term exploitation rate in the river fisheries averaged 0.18. The most recent 3 year average is 0.15.

North Fork Lewis River fall chinook are the primary representative of the bright component of the Lower Columbia River ESU. As noted above this is one of the few healthy wild stocks in the Lower Columbia River. Total exploitation rates have averaged 0.49 through 1990 and 0.29 between 1991-92. This is a far-north migrating stock so the ocean harvest occurs primarily in Alaska and Canada. The long term average exploitation rate in PFMC is 0.05. The more recent average ER is 0.01. Inriver ERs have averaged 0.22 through 1990 and 0.11 in recent years (Table 10).

The PS chinook ESU includes both spring and fall components. The long-term average ER on the spring component is 0.71, but averaged 0.52 for the 1991-93 broods (Table 11). Most of the harvest occurs in Canadian and Puget Sound fisheries. PS spring chinook stocks are subject to little harvest in PFMC fisheries. The long term average ER is 0.01. The estimated ER for the most recent brood years is 0.00.

The distribution of PS fall stocks is similar although their timing is such that they are subject to somewhat higher ERs. The long-term average ER is 0.83. The most recent brood years have been subject to an ER of 0.57. Harvest of PS fall chinook again occurs primarily in Canada and

Puget Sound. The ER in PFMC fisheries averaged 0.03 through 1990 and 0.01 from 1991-93 (Table 12).

A time series of model estimates of total exploitation rates are also available for the PS spring and fall chinook stocks. These are reported as an index relative to the 1989-93 average ER. The estimated total ER indices for spring and fall stocks in 1999 are 0.67 and 0.76, respectively. This is thus an indicator of the magnitude of ER reductions across all fisheries in 1999. Although the decline in ER is moderate relative to the 1989-93 base period, Figure 1 indicates that the ER has declined steadily and more substantially since 1983.

Figure 1. Total adult equivalent exploitation rate index for a composite of Puget Sound spring and fall chinook stocks relative to the 1989-93 average ER.

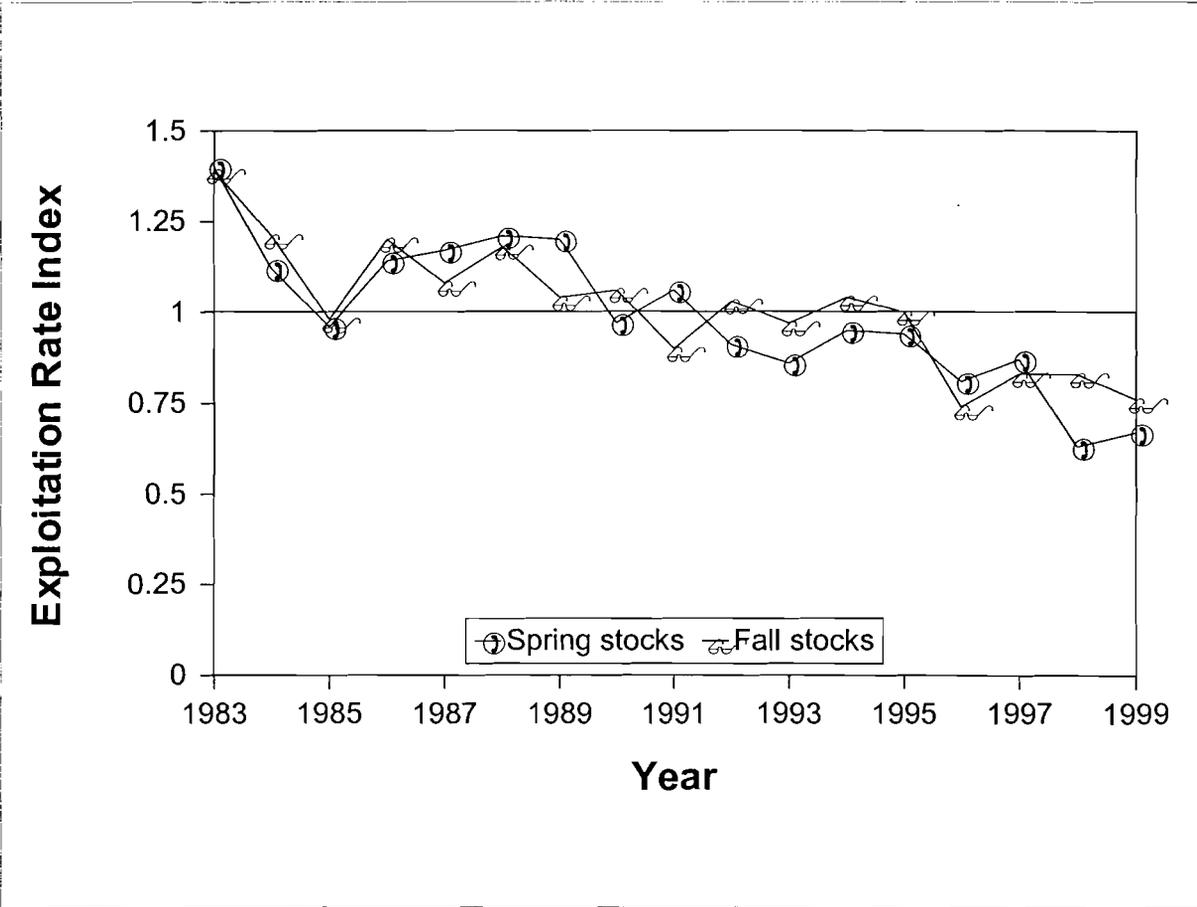


Table 8. Summary of total adult equivalent exploitation rates for the Upper Willamette River chinook ESU.

| Brood Year | Willamette Spring Hatchery |      |        |      |             |       |
|------------|----------------------------|------|--------|------|-------------|-------|
|            | Total                      | SEAK | Canada | PFMC | Columbia R. | Other |
| 1971       |                            |      |        |      |             |       |
| 1972       |                            |      |        |      |             |       |
| 1973       |                            |      |        |      |             |       |
| 1974       |                            |      |        |      |             |       |
| 1975       | 0.51                       | 0.02 | 0.14   | 0.01 | 0.32        | 0.02  |
| 1976       | 0.66                       | 0.13 | 0.27   | 0.03 | 0.22        | 0.00  |
| 1977       | 0.38                       | 0.06 | 0.12   | 0.01 | 0.18        | 0.01  |
| 1978       | 0.41                       | 0.06 | 0.10   | 0.01 | 0.23        | 0.01  |
| 1979       | 0.54                       | 0.12 | 0.12   | 0.03 | 0.26        | 0.01  |
| 1980       | 0.44                       | 0.05 | 0.07   | 0.01 | 0.32        | 0.00  |
| 1981       | 0.48                       | 0.13 | 0.07   | 0.01 | 0.26        | 0.00  |
| 1982       | 0.48                       | 0.08 | 0.06   | 0.00 | 0.33        | 0.02  |
| 1983       | 0.73                       | 0.16 | 0.10   | 0.02 | 0.44        | 0.00  |
| 1984       | 0.55                       | 0.07 | 0.07   | 0.01 | 0.38        | 0.00  |
| 1985       | 0.54                       | 0.04 | 0.05   | 0.01 | 0.43        | 0.00  |
| 1986       | 0.61                       | 0.10 | 0.05   | 0.01 | 0.45        | 0.00  |
| 1987       | 0.66                       | 0.10 | 0.03   | 0.00 | 0.53        | 0.01  |
| 1988       | 0.52                       | 0.08 | 0.04   | 0.03 | 0.37        | 0.01  |
| 1989       | 0.61                       | 0.12 | 0.04   | 0.02 | 0.43        | 0.00  |
| 1990       | 0.47                       | 0.04 | 0.02   | 0.00 | 0.40        | 0.00  |
| 1991       | 0.51                       | 0.06 | 0.02   | 0.00 | 0.44        | 0.00  |
| 1992       | 0.26                       | 0.02 | 0.01   | 0.01 | 0.22        | 0.01  |
| 1993       | 0.29                       | 0.08 | 0.02   | 0.02 | 0.17        | 0.00  |
| 1975-1990  | 0.54                       | 0.09 | 0.08   | 0.01 | 0.35        | 0.01  |
| 1991-1993  | 0.35                       | 0.05 | 0.02   | 0.01 | 0.27        | 0.00  |

Table 9. Summary of total adult equivalent exploitation rates for an aggregate of tule stocks from the Lower Columbia River chinook ESU.

| Brood Year | Tule (Spring Creek, Stayton Ponds, Cowlitz, Bonneville) |      |        |      |             |       |
|------------|---|------|--------|------|-------------|-------|
|            | Total   | SEAK | Canada | PFMC | Columbia R. | Other |
| 1971       |   |      |        |      |             |       |
| 1972       | 0.89  | 0.00 | 0.27   | 0.27 | 0.29        | 0.05  |
| 1973       | 0.93  | 0.00 | 0.15   | 0.44 | 0.28        | 0.06  |
| 1974       | 0.86  | 0.00 | 0.22   | 0.33 | 0.24        | 0.07  |
| 1975       | 0.84  | 0.00 | 0.32   | 0.28 | 0.19        | 0.05  |
| 1976       | 0.85  | 0.01 | 0.35   | 0.27 | 0.16        | 0.06  |
| 1977       | 0.80  | 0.02 | 0.28   | 0.34 | 0.11        | 0.04  |
| 1978       | 0.75  | 0.01 | 0.32   | 0.27 | 0.11        | 0.04  |
| 1979       | 0.82  | 0.02 | 0.31   | 0.31 | 0.15        | 0.03  |
| 1980       | 0.73  | 0.01 | 0.41   | 0.15 | 0.10        | 0.06  |
| 1981       | 0.70  | 0.01 | 0.42   | 0.08 | 0.15        | 0.02  |
| 1982       | 0.67  | 0.02 | 0.28   | 0.18 | 0.15        | 0.05  |
| 1983       | 0.76  | 0.01 | 0.29   | 0.15 | 0.27        | 0.04  |
| 1984       | 0.77  | 0.01 | 0.25   | 0.20 | 0.27        | 0.04  |
| 1985       | 0.79  | 0.01 | 0.26   | 0.24 | 0.22        | 0.06  |
| 1986       | 0.65  | 0.02 | 0.16   | 0.26 | 0.15        | 0.05  |
| 1987       | 0.59  | 0.04 | 0.22   | 0.18 | 0.10        | 0.05  |
| 1988       | 0.59  | 0.02 | 0.23   | 0.17 | 0.14        | 0.03  |
| 1989       | 0.69  | 0.02 | 0.18   | 0.34 | 0.09        | 0.05  |
| 1990       | 0.56  | 0.01 | 0.17   | 0.19 | 0.15        | 0.04  |
| 1991       | 0.38  | 0.02 | 0.24   | 0.01 | 0.10        | 0.02  |
| 1992       | 0.45  | 0.01 | 0.03   | 0.24 | 0.16        | 0.01  |
| 1993       | 0.34  | 0.03 | 0.10   | 0.03 | 0.18        | 0.00  |
| 1972-1990  | 0.75  | 0.01 | 0.27   | 0.25 | 0.18        | 0.05  |
| 1991-1993  | 0.39  | 0.02 | 0.12   | 0.09 | 0.15        | 0.01  |

Table 10. Summary of total adult equivalent exploitation rates for the North Fork Lewis River bright stock from the Lower Columbia River chinook ESU.

| Brood Year | Bright (Lewis River) |      |        |      |             |       |
|------------|----------------------|------|--------|------|-------------|-------|
|            | Total                | SEAK | Canada | PFMC | Columbia R. | Other |
| 1971       |                      |      |        |      |             |       |
| 1972       |                      |      |        |      |             |       |
| 1973       |                      |      |        |      |             |       |
| 1974       |                      |      |        |      |             |       |
| 1975       |                      |      |        |      |             |       |
| 1976       |                      |      |        |      |             |       |
| 1977       | 0.51                 | 0.09 | 0.19   | 0.06 | 0.16        | 0.01  |
| 1978       | 0.56                 | 0.15 | 0.14   | 0.09 | 0.16        | 0.02  |
| 1979       | 0.50                 | 0.10 | 0.16   | 0.07 | 0.17        | 0.01  |
| 1980       |                      |      |        |      |             |       |
| 1981       |                      |      |        |      |             |       |
| 1982       | 0.59                 | 0.09 | 0.16   | 0.02 | 0.31        | 0.00  |
| 1983       | 0.67                 | 0.06 | 0.20   | 0.06 | 0.35        | 0.01  |
| 1984       | 0.45                 | 0.03 | 0.15   | 0.03 | 0.24        | 0.00  |
| 1985       | 0.45                 | 0.08 | 0.12   | 0.07 | 0.17        | 0.02  |
| 1986       | 0.41                 | 0.05 | 0.15   | 0.05 | 0.16        | 0.01  |
| 1987       | 0.37                 | 0.04 | 0.13   | 0.05 | 0.15        | 0.01  |
| 1988       | 0.46                 | 0.05 | 0.16   | 0.03 | 0.21        | 0.01  |
| 1989       | 0.43                 | 0.00 | 0.08   | 0.05 | 0.30        | 0.00  |
| 1990       | 0.45                 | 0.08 | 0.09   | 0.01 | 0.27        | 0.00  |
| 1991       | 0.32                 | 0.13 | 0.06   | 0.02 | 0.11        | 0.00  |
| 1992       | 0.27                 | 0.15 | 0.00   | 0.01 | 0.11        | 0.00  |
| 1977-1990  | 0.49                 | 0.07 | 0.14   | 0.05 | 0.22        | 0.01  |
| 1991-1992* | 0.29                 | 0.14 | 0.03   | 0.01 | 0.11        | 0.00  |

\*Unresolved data uncertainties associated with CWT recoveries of this stock in the 1997 return year precluded reporting of results for the 1993 brood year.

Table 11. Summary of total adult equivalent exploitation rates for a composite of Puget Sound spring chinook stocks.

| Brood Year | Puget Sound Spring |      |        |      |           |       |
|------------|--------------------|------|--------|------|-----------|-------|
|            | Total              | SEAK | Canada | PFMC | Puget Snd | Other |
| 1971       |                    |      |        |      |           |       |
| 1972       |                    |      |        |      |           |       |
| 1973       |                    |      |        |      |           |       |
| 1974       |                    |      |        |      |           |       |
| 1975       |                    |      |        |      |           |       |
| 1976       |                    |      |        |      |           |       |
| 1977       |                    |      |        |      |           |       |
| 1978       |                    |      |        |      |           |       |
| 1979       | 0.90               | 0.00 | 0.02   | 0.03 | 0.86      | 0.00  |
| 1980       | 0.76               | 0.02 | 0.32   | 0.00 | 0.41      | 0.00  |
| 1981       | 0.72               | 0.01 | 0.41   | 0.00 | 0.29      | 0.00  |
| 1982       | 0.81               | 0.00 | 0.42   | 0.00 | 0.38      | 0.00  |
| 1983       | 0.78               | 0.00 | 0.19   | 0.01 | 0.59      | 0.00  |
| 1984       | 0.68               | 0.00 | 0.32   | 0.01 | 0.36      | 0.00  |
| 1985       | 0.72               | 0.00 | 0.20   | 0.02 | 0.50      | 0.00  |
| 1986       | 0.77               | 0.00 | 0.15   | 0.02 | 0.60      | 0.00  |
| 1987       | 0.60               | 0.00 | 0.17   | 0.01 | 0.42      | 0.00  |
| 1988       | 0.61               | 0.00 | 0.29   | 0.01 | 0.31      | 0.00  |
| 1989       | 0.59               | 0.01 | 0.27   | 0.01 | 0.31      | 0.00  |
| 1990       | 0.65               | 0.00 | 0.21   | 0.00 | 0.43      | 0.00  |
| 1991       | 0.55               | 0.00 | 0.00   | 0.00 | 0.55      | 0.00  |
| 1992       | 0.47               | 0.00 | 0.17   | 0.00 | 0.29      | 0.00  |
| 1993       | 0.55               | 0.00 | 0.25   | 0.00 | 0.29      | 0.00  |
| 1979-1990  | 0.71               | 0.00 | 0.25   | 0.01 | 0.45      | 0.00  |
| 1991-1993  | 0.52               | 0.00 | 0.14   | 0.00 | 0.38      | 0.00  |

Table 12. Summary of total adult equivalent exploitation rates for a composite of Puget Sound fall chinook stocks.

| Brood Year | Puget Sound Fall |      |        |      |           |       |
|------------|------------------|------|--------|------|-----------|-------|
|            | Total            | SEAK | Canada | PFMC | Puget Snd | Other |
| 1971       | 0.82             | 0.00 | 0.29   | 0.05 | 0.48      | 0.00  |
| 1972       | 0.89             | 0.00 | 0.56   | 0.01 | 0.32      | 0.00  |
| 1973       | 0.90             | 0.00 | 0.43   | 0.03 | 0.44      | 0.00  |
| 1974       | 0.93             | 0.00 | 0.49   | 0.02 | 0.43      | 0.00  |
| 1975       | 0.91             | 0.00 | 0.40   | 0.05 | 0.45      | 0.00  |
| 1976       |                  |      |        |      |           |       |
| 1977       |                  |      |        |      |           |       |
| 1978       | 0.87             | 0.00 | 0.34   | 0.03 | 0.49      | 0.02  |
| 1979       | 0.95             | 0.00 | 0.36   | 0.02 | 0.57      | 0.01  |
| 1980       | 0.93             | 0.00 | 0.34   | 0.01 | 0.58      | 0.00  |
| 1981       | 0.83             | 0.00 | 0.24   | 0.01 | 0.57      | 0.00  |
| 1982       | 0.79             | 0.00 | 0.32   | 0.03 | 0.44      | 0.00  |
| 1983       | 0.77             | 0.00 | 0.28   | 0.02 | 0.46      | 0.00  |
| 1984       | 0.85             | 0.00 | 0.33   | 0.04 | 0.44      | 0.04  |
| 1985       | 0.76             | 0.00 | 0.25   | 0.04 | 0.47      | 0.00  |
| 1986       | 0.79             | 0.00 | 0.27   | 0.05 | 0.47      | 0.00  |
| 1987       | 0.75             | 0.01 | 0.25   | 0.03 | 0.46      | 0.00  |
| 1988       | 0.79             | 0.00 | 0.25   | 0.06 | 0.48      | 0.00  |
| 1989       | 0.81             | 0.01 | 0.33   | 0.07 | 0.40      | 0.00  |
| 1990       | 0.69             | 0.00 | 0.25   | 0.01 | 0.42      | 0.00  |
| 1991       | 0.58             | 0.02 | 0.20   | 0.01 | 0.35      | 0.00  |
| 1992       | 0.55             | 0.00 | 0.16   | 0.02 | 0.36      | 0.00  |
| 1993       | 0.57             | 0.01 | 0.19   | 0.01 | 0.35      | 0.00  |
| 1971-1990  | 0.83             | 0.00 | 0.33   | 0.03 | 0.46      | 0.00  |
| 1991-1993  | 0.57             | 0.01 | 0.18   | 0.01 | 0.36      | 0.00  |

*Bering Sea/Aleutian Islands and Gulf of Alaska Groundfish Fisheries*

Salmon are taken incidentally in the Bering Seas/Aleutian Islands and the Gulf of Alaska (GOA) groundfish fisheries off of the coast of Alaska. NMFS has conducted section 7 consultations on the impacts of fishing conducted under the Bering Sea and Aleutian Islands and Gulf of Alaska Fishery Management Plans (BSAI/GOA FMP) of the NPFMC on ESA listed species and concluded that impacts on species listed at that time were low and not likely to jeopardize their continued existence (NMFS 1994, 1995b). Section 7 consultation on this fishery has been reinitiated, but a biological opinion has not been issued. However, information from these previous opinions can be used to characterize the potential catch of these fisheries on the newly listed ESUs.

The incidental catch of chinook from all stocks in the BSAI groundfish fisheries has averaged 40,150 and 0.01 chinook/metric ton groundfish (range = 0 to 6 chinook/metric ton groundfish) (1990-1998)(NOAA 1999). The most recent biological opinion on the groundfish fisheries (NMFS 1995a) concluded that, given a bycatch of approximately this size, the catch of ocean-type fall chinook in the BSAI fishery would be on the order of 2,200 per year. The UWR spring and LCR brights are both ocean-type stocks that migrate to northern waters. Since the incidental catch of ocean-type chinook off the Alaskan coast is unlikely to exceed more than a few thousand fish per year including those from British Columbia, the Washington coast and the unlisted hatchery components, the catch of listed UWR spring chinook is likely to be only a rare event. This conclusion is supported by the analysis of exploitation rates (see sections II.D and IV) in the ocean salmon fishery which are generally low despite a catch that is more than an order of magnitude higher than that of the groundfish bycatch. However, the northern distribution of the LCR bright stock and the possibility that the increase in exploitation rate on the LCR bright stock in the SEAK salmon fishery in the last several years may also be occurring in the BSAI fisheries warrants consideration of the incidental catch of LCR chinook in the groundfish fishery as part of the analysis of the effect of the salmon fishery on the ESU.

The available information is insufficient to estimate impacts in the BSAI fisheries on UCRS chinook ESU. However, the UCRS and SR spring/summers share similar life history and presumably ocean distribution patterns. In its 1994 biological opinion, NMFS concluded that the catch of Snake River spring/summer chinook in the BSAI fisheries was unlikely to average more than one fish per year. Although PS chinook and LCR tules are caught more frequently than UCR springs in ocean fisheries, they have a more southerly distribution and are therefore also not likely to be caught in BSAI fisheries. Although it is possible that UCR spring, PS or LCR tule chinook are taken in the BSAI fisheries, the lack of or low numbers of coded-wire tag (CWT) recoveries in the SEAK salmon fisheries which take many more chinook, and the fact that the majority of chinook caught in the BSAI fisheries are of Alaskan or Asian origin (NMFS 1994) suggest that the annual catch of listed fish would be extremely low. A more definitive analysis of the incidental catch of listed chinook will be made in the re-initiated groundfish opinion.

The incidental catch of chinook from all stocks in the GOA groundfish fisheries has averaged 15,582 annually and 0.04 chinook/metric ton groundfish (range = 0 to 1 chinook/mt groundfish) (1990-1998)(NMFS 1999c). The most recent biological opinion on the groundfish fisheries

(NMFS 1995b) concluded that it was difficult to determine the region of origin or life history type in the GOA fishery, although it did surmise that the GOA fishery would include more stream-type fish than the SEAK fishery, because of the dominance of stream-type fish in the BSAI fishery which is further north and west. The Upper Willamette spring and Lower Columbia River brights are both ocean-type, far north migrating stocks. It is reasonable to assume that these stocks are less impacted in the GOA groundfish fishery than in the SEAK salmon fishery given the probable lower presence of ocean-type fish in the GOA groundfish fishery. The exploitation rate for UWR chinook in the SEAK salmon fishery averaged 5% over the 1990-1993 brood years. However, the average catch in the salmon fishery during those years was approximately 275,000 compared to less than 16,000 in the groundfish fishery. If we assume that the relative abundance of UWR chinook in the fisheries was similar, the estimated ER in the groundfish fishery would be about 0.3%.

A similar analysis was done for the bright component of the LCR ESU. The average 1990-1992 brood year ER in the SEAK salmon fishery is 12%. Given the relative magnitude of catches in the salmon and groundfish fisheries and assuming a similar relative stock composition, the ER in the groundfish fishery would be about 0.7%. However, much of the bycatch of the groundfish fishery is further north and west along the Aleutian Islands. These are therefore likely substantial overestimates of the actual ERs for UWR chinook and the bright component of the LCR chinook ESU in the GOA groundfish fishery.

Puget Sound chinook and LCR tules are caught less frequently in the SEAK salmon fisheries than UWR or LCR brights. The average exploitation rates for PS spring stocks, PS fall stocks, and LCR tules in the SEAK salmon fisheries are 0, < 1%, and < 2%, respectively. Because of their more southerly distribution and they are even less likely to be caught in the GOA groundfish fishery.

There are also groundfish fisheries in Canadian waters that also catch salmon incidentally. Canadian groundfish fisheries have not undergone prior consultation. The bycatch in the Canadian whiting fishery was considered in NMFS original biological opinion concerning the PFMC groundfish fishery (NMFS 1992). Although that has not been subsequently reviewed or updated, the assumption at the time was that the annual bycatch of salmon would be no greater than 14,000 fish per year. Most of these would be chinook so there would likely be some catch of listed fish. However, the total additional catch of chinook in this fishery is small relative to that being considered as part of the directed salmon fisheries. For example, the catch of chinook in the NCBC and WCVI chinook fisheries in Canada in 1998 was about 150,000, a level much reduced from what would have been allowed under the agreement given the estimated abundance levels. Bycatch in the whiting fishery is therefore not likely to be a significant additional impact. We have not reviewed other components of the Canadian groundfish fishery, but NMFS concluded in reviewing PFMC fisheries that the bycatch from bottom trawl gear was likely the same magnitude as that in the whiting fishery and that other gear types such as long lines or pots would have little or no additional catch of salmon.

#### D. Factors Affecting the Species Outside the Action Area - Other Human Activities

All of the listed species are affected, often substantially, by mortality factors related to other human activities that are commonly referred to as the "Hs". In addition to the harvest H that is considered in detail in this opinion, the species of concern are affected by impacts related to habitat degradation, hatchery programs, and hydro-development. The relative effect of each H to the ESUs, and to each stock within an ESU, differs. However, in general, human development associated with forestry, farming, grazing, road construction, mining, and urbanization have all contributed to the decline of the species. The combined effect of multitude of habitat degradations often poses the greatest risk and greatest challenge to species recovery because they are often the result of multiple dispersed actions, each of which must be addressed. Additionally, habitat degradations by their nature can only be remedied over time as the affected systems slowly recover their properly functioning condition.

Hatcheries have both positive and negative effects. Hatcheries are playing an increasingly important role in conserving natural populations in areas where the habitat can no longer support natural production or where the numbers of returning adults are now so low that intervention is required to reduce the immediate risk of extinction. However, there are also negative consequences associated with hatchery programs, particularly as they were developed and managed in the past. There are genetic interactions associated with the interbreeding of hatchery and wild fish. There are a number of ecological interactions such as predation of wild fish by larger hatchery fish, competition for food and space, and disease transmission. In addition, fisheries that target hatchery fish may over harvest less productive wild populations. Hatchery activities in Puget Sound and the Columbia Basin are currently the subject of ongoing section 7 consultation that are designed to address the adverse effects of ongoing hatchery programs.

Hydro development also has substantially affected or eliminated some populations or even whole ESUs. In some cases, the effects are direct as the dams block access to spawning and rearing habitat. In other cases, the effects are less direct, but nonetheless significant as they increase downstream and upstream passage mortality, change natural flow regimes, dewater or reduce flow to downstream areas, block the recruitment of spawning gravel, or result in elevated temperatures.

Although it is not possible to review here the relative importance of each of these factors on each ESU or stock within the ESUs, it is clear that it is the combined effect of all of the H's that has led to the decline and resulting current status of the species of concern. In this opinion, NMFS focuses on harvest, in the context of the environmental baseline and the current status of the species. Although harvest can be reduced in response to the species depressed status and the reduced productivity that results from the degradations related to other human activities, the recovery of the listed species depends on improving the productivity of the natural populations in the wild. These improvements can only be made by addressing the factors of decline related to all of the H's that will be the subject of future opinions and recovery planning efforts.

## E. Natural Factors Causing Variability in Population Abundance

Changes in the abundance of chinook populations are a result of variations in freshwater and marine environments. For example, large scale changes in climatic regimes, such as El Niño, likely affect changes in ocean productivity; much of the Pacific coast was subject to a series of very dry years during the first part of the decade which adversely affected some the stocks. In more recent years, severe flooding has adversely affected some stocks. For example, the anticipated low return of Lewis River bright fall chinook in 1999 is attributed to flood events during both 1995 and 1996.

Salmon are exposed to high rates of natural predation, particularly during freshwater rearing and migration stages. Ocean predation likely also contributes to significant natural mortality, although the levels of predation are largely unknown. In general, chinook are prey for pelagic fishes, birds, and marine mammals, including harbor seals, sea lions, and killer whales. There have been recent concerns that the rebounding of seal and sea lion populations, following their protection under the Marine Mammal Protection Act of 1972, has resulted in substantial mortality for salmonids. In recent years, for example, sea lions have learned to target UWR spring chinook at Willamette Falls and have gone so far as to climb into the fish ladder where they can easily pick-off migrating spring chinook.

A key factor that has substantially affected many west coast salmon stocks has been the general pattern of long-term decline in ocean productivity. The mechanism whereby stocks are affected is not well understood. The pattern of response to these changing ocean conditions has differed between stocks, presumably due to differences in their timing and distribution. It is presumed that ocean survival is driven largely by events between ocean entry and recruitment to a sub-adult life stage.

Recent evidence suggests that marine survival of salmon species fluctuates in response to 20-30 year long periods of either above or below average survival that is driven by long-term cycles of climatic conditions and ocean productivity (Cramer 1999). This has been referred to as the Pacific Decadal Oscillation (PDO). It is apparent that ocean conditions and resulting productivity affecting many of northwest salmon populations have been in a low phase of the cycle for some time. Smolt-to-adult return rates provide another measure of survival and the effect of ocean conditions on salmon stocks. The smolt-to-adult survival rates for PS chinook stocks, for example, dropped sharply beginning with the 1979 broods to less than half of what they were during the 1974-1977 brood years (Cramer 1999). The variation in ocean conditions has been an important contributor to the decline of many stocks. However, the survival and recovery of these species depends on the ability of these species to persist through periods of low ocean survival when stocks may depend on better quality freshwater habitat and lower relative harvest rates.

The natural factors affecting salmon abundance are extremely variable, specific to different life stages, and have different magnitudes. Where possible, variations in productivity and natural mortality are incorporated in management models.

#### **IV. Effects of the Action**

The standards for determining jeopardy are set forth in Section 7(a)(2) of the ESA as defined at 50 CFR §402.02. This section of the biological opinion applies those standards in determining whether the proposed fisheries are likely to jeopardize the continued existence of one or more of the listed ESUs that may be adversely affected by the fisheries. This analysis considers the direct, indirect, interrelated, and interdependent effects of the proposed fisheries and compares them against the environmental baseline to determine if the proposed fisheries will appreciably reduce the likelihood of survival and recovery of these listed salmon in the wild. The jeopardy determinations are also based on a consideration of the magnitude of salmon bycatch by species, the geographic distribution of the bycatch, and the available information indicating the relative magnitude of impacts to each ESU. Consideration is also given to the proposed management actions taken to reduce the catch of listed fish. The jeopardy determinations are largely qualitative at this time. The ESUs considered here have just recently been listed. Impacts to these ESUs in the groundfish fisheries have not been previously analyzed and are not tied to more quantitative analysis that are typically part of salmon fishery management models or more holistic life cycle or risk assessment analysis. Such analyses will necessarily be developed over time. In the meantime, NMFS must rely on the best available information in making its judgement about the risk of the proposed action to the newly listed ESUs.

For many of the ESUs considered in the opinion critical habitat has not been designated. As a result, this section will not determine, for those species, if the proposed fisheries are likely to destroy or adversely modify critical habitat. For those ESUs with designated or proposed critical habitat, the action area is outside the range of the designated habitat. As a result, the proposed fisheries are not likely to destroy or adversely modify the critical habitat of any ESU.

There are two general patterns of ocean distribution for the listed chinook ESUs. The chinook ESUs originating in CA (SRWR, CVS, CC chinook) are generally distributed off the California and southern Oregon coast. The other chinook ESUs from Puget Sound and the Columbia River basin are either north on far-north migrating stocks that will be found only rarely to the south. It is therefore useful to first consider both the magnitude and geographic distribution of the anticipated bycatch of chinook in order to characterize the likely impact on each ESU of concern.

There is insufficient information to characterize the stocks composition of the chinook bycatch in the groundfish fisheries. It is therefore not possible to estimate directly of the catch mortality by ESU. More qualitative impact estimates can be derived based on our general understanding of the distribution and timing of stocks that are derived from analysis of salmon fisheries. For some of the ESUs or stocks within an ESU the salmon management models can be used to generally characterize the relative abundance of listed fish in terms of catch per thousand. In other cases, it is more appropriate to use estimates of the exploitation rates in the salmon fisheries along with the associated catch to get a general sense of the level of impact associated with the groundfish fisheries occurring in similar areas and times. However, these estimates are best considered as approximations, as the salmon and groundfish fisheries do not occur in the same time and place, and therefore catch different stock mixes. We know, for example, that the chinook caught in the groundfish fishery are generally smaller and younger-aged fish.

Information from the salmon fishery models is supplemented in the opinion by an analysis of the CWT recoveries that are available for the whiting fishery in particular. Reported recoveries for hatchery or wild salmon stocks from each ESU that are used to represent the distribution of listed fish contribute to our understanding of the presence or absence and distribution of listed fish in the groundfish fisheries. For the SRF chinook ESU only sub-yearling release groups were used to represent the ocean distribution. There were additional releases of yearling smolts from the Lyons Ferry Hatchery. However, because the yearling releases have a different age at maturity and different ocean distribution, they are not considered representative of the listed natural origin fish.

The total annual bycatch of other listed species (coho, chum, sockeye, steelhead, and cutthroat) are reviewed briefly, but are not analyzed in detail because of the consistently low level of catch.

#### A. Mid-water Trawl - Whiting Fishery

The whiting catch and associated salmonid bycatch for 1991-99 seasons for at-sea and shoreside fisheries is summarized in Table 14. Chinook salmon represent the major portion of the salmon bycatch, with coho, chum, pink and sockeye making up the lesser portion in both the shoreside and at-sea components of the whiting fisheries. Coho encounters averaged only 292 fish per year in the combined shoreside and at-sea fisheries. The highest annual catch of coho was 1,379 fish caught in 1995 in the at-sea fishery compared to 138,000 coho in the ocean salmon fisheries (PFMC 1999b); the highest annual catch of chum was 215 fish caught in the 1994 season, with an average of 105 fish per year from 1991-98; and the highest annual catch of sockeye was 116 fish caught in the 1993 season, with an average of 15 fish per year from 1991-98. There is no reported bycatch of either steelhead or cutthroat trout in whiting fisheries for the eight year period summarized in Table 14.

Most salmon caught in the whiting fishery are chinook salmon. The estimated coastwide bycatch of chinook in the whiting fishery has averaged 6,182 annually since 1991 (Table 14). Limits on chinook bycatch in the whiting fishery were set as result of previous consultation. The bycatch rate is limited to 0.05 chinook/mt of whiting with an associated total catch of 11,000 chinook. Reinitiation of the biological opinion is required if both the bycatch rate and bycatch limit are exceeded (NMFS 1996a). This compares to a catch of chinook in the ocean salmon fisheries off the Oregon and Washington coast that has averaged 167,000 annually during the same 1991 to 1998 time frame (PFMC 1999b). (The salmon fishery catch off the Washington and Oregon coast is used for comparison because that is where most of the whiting fishery occurs.) Time and area restrictions that were designed to avoid areas where bycatch rates were generally higher have been implemented as a result of previous consultations (NMFS 1996a). The start of the whiting fishery in areas north of 42°00' latitude is now delayed until May 15. Fishing inside of 100 fathoms in the Eureka area is prohibited.

As a result of a combination of factors, the distribution of the chinook bycatch in the whiting fishery is primarily to the north in the Columbia and Vancouver INPFC catch areas. There is now very little catch in the Eureka area off southern Oregon and northern California or further south. This represents a substantial change in the distribution of salmon bycatch from what it

was prior to 1992 when, for some years, as much as half of the bycatch came from the Eureka area (NMFS 1992). Table 13 summarizes the distribution of chinook bycatch from the at-sea fishery for more recent years. These numbers differ slightly from those provided in Table 14 because the more detailed distributional data shown in Table 13 was taken from older summaries. Nevertheless, this summary is adequate to make the general points that there is now little bycatch to the south and that there has been a shift in the distribution of the bycatch to the more northerly Vancouver catch area in recent years. This is partly due to declining bycatch in the at-sea fishery in the Columbia area and partly due to higher bycatch associated with the tribal fishery. The underlying reasons for this shift in bycatch from south to north is not clear. It is likely due in part to the annual dynamics of the fishery that responds to the distribution of the target species. The fishery is actively managed to avoid salmon bycatch and those efforts have become increasingly sophisticated in recent years. The reasons for the generally higher bycatch and bycatch rate in the tribal fishery are also not well understood, but are likely related in part to the fact that the tribal fishery is limited geographically which limits their ability to move to areas with lower bycatch. It is not clear at this time whether salmon abundance is generally higher in the tribal fishing area or if other factors are involved.

Table 13. Pacific Whiting Fishery - At-Sea Chinook Bycatch By Area.

|      | Vancouver - 670<br>Non-Tribal(Tribal)* | Columbia - 710<br>Non-Tribal | Eureka - 720<br>Non-Tribal |
|------|--|------------------------------|----------------------------|
| 1994 | 757                                    | 2,870                        | 0                          |
| 1995 | 705                                    | 10,763                       | 111                        |
| 1996 | 871 (1,468)                            | 575                          | 0                          |
| 1997 | 377 (2,524)                            | 625                          | 396                        |
| 1998 | 584 (2,085)                            | 893                          | 0                          |
| 1999 | 3,651 (4,491)                          | 740                          | 0                          |

\* Tribal whiting fishery started in 1996.

**Table 14. Salmon Bycatch in the Pacific Whiting Fisheries - Summary 1991-99.**

**At -Sea Fishery (Catcher -processors and vessels delivery to motherships combined)**

| Year   | Whiting (mt) | Chinook (no) | Chinook rate (no/mt whiting) | Coho (no) | Coho rate (no/mt whiting) | Pink (no) | Pink rate (no/mt whiting) | Chum (no) | Sockeye (no) | Steelhead (no) | Total Salmon (no) | Total Salmon (rate) | Chinook CWT Recoveries |
|--------|--------------|--------------|------------------------------|-----------|---------------------------|-----------|---------------------------|-----------|--------------|----------------|-------------------|---------------------|------------------------|
| 1991*  | 201,755      | 6,153        | 0.031                        | 138       | 0.0007                    | 24        | 0.0001                    | 8         | 0            | 0              | 6,323             | 0.031               | 27                     |
| 1992*  | 152,076      | 4,262        | 0.028                        | 193       | 0.0013                    | 0         | 0                         | 48        | 0            | 0              | 4,503             | 0.030               | 13                     |
| 1993*  | 93,590       | 4,968        | 0.053                        | 17        | 0.0002                    | 3,397     | 0.0363                    | 58        | 116          | 0              | 8,556             | 0.091               | 14                     |
| 1994*  | 176,401      | 4,024        | 0.023                        | 65        | 0.0004                    | 32        | 0.0002                    | 214       | 0            | 0              | 4,335             | 0.025               | 56                     |
| 1995*  | 101,858      | 12,108       | 0.119                        | 1,379     | 0.0135                    | 1,575     | 0.0155                    | 181       | 6            | 0              | 15,249            | 0.150               | 104                    |
| 1996*  | 128,059      | 1,676        | 0.013                        | 64        | 0.0005                    | 0         | 0                         | 178       | 0            | 0              | 1,918             | 0.015               | 38                     |
| 1997*  | 145,459      | 4,414        | 0.030                        | 348       | 0.0024                    | 497       | 0.0034                    | 114       | 0            | 0              | 5,373             | 0.037               | NA                     |
| 1998** | 144,960      | 3,563        | 0.025                        | 114       | 0.0008                    | 4         | .00003                    | 30        | 0            | 0              | 3,681             | 0.025               | NA                     |
| 1999** | 141,105      | 8,882        | 0.063                        | 117       | 0.0008                    | 496       | .0035                     | 465       | 0            | 0              | 9964              | 0.071               | NA                     |

Source: NMFS Observer Database (\* = Updated as of 5/18/98; \*\* = Updated as of 11/29/99).

**Shoreside Fishery (Vessels delivering to on-shore processing)**

|       |        |       |       |   |  |    |  |   |   |   |       |       |     |
|-------|--------|-------|-------|---|--|----|--|---|---|---|-------|-------|-----|
| 1991  | 20,359 | 41    | 0.002 |   |  |    |  |   |   |   | 41    | 0.002 | 0   |
| 1992  | 49,092 | 491   | 0.010 |   |  |    |  |   |   |   | 491   | 0.010 | 10  |
| 1993  | 41,926 | 419   | 0.010 |   |  |    |  |   |   |   | 419   | 0.010 | 11  |
| 1994  | 72,367 | 581   | 0.008 | 4 |  | 0  |  | 0 | 0 |   | 585   | 0.008 | 11  |
| 1995  | 73,397 | 2,954 | 0.040 | 2 |  | 15 |  | 1 | 0 |   | 2,972 | 0.040 | 146 |
| 1996  | 84,680 | 651   | 0.008 | 0 |  | 0  |  | 0 | 0 |   | 651   | 0.008 | 23  |
| 1997  | 87,499 | 1,482 | 0.017 | 2 |  | 0  |  | 0 | 0 |   | 1,484 | 0.017 | NA  |
| 1998  | 87,627 | 1,699 | 0.019 | 8 |  | 0  |  | 5 | 1 | 0 | 1,713 | 0.020 | NA  |
| 1999* | 83,350 |       |       |   |  |    |  |   |   |   | 1,630 | 0.020 | NA  |

Sources: ODFW 1997, Weeks and Hutton 1998. Note :1994-99 shoreside rates based on salmon turned over by processors, 1991-93 salmon numbers based on observed rates (approx. 50% observer coverage). (\* = Preliminary).

## B. Bottom Trawl Fishery

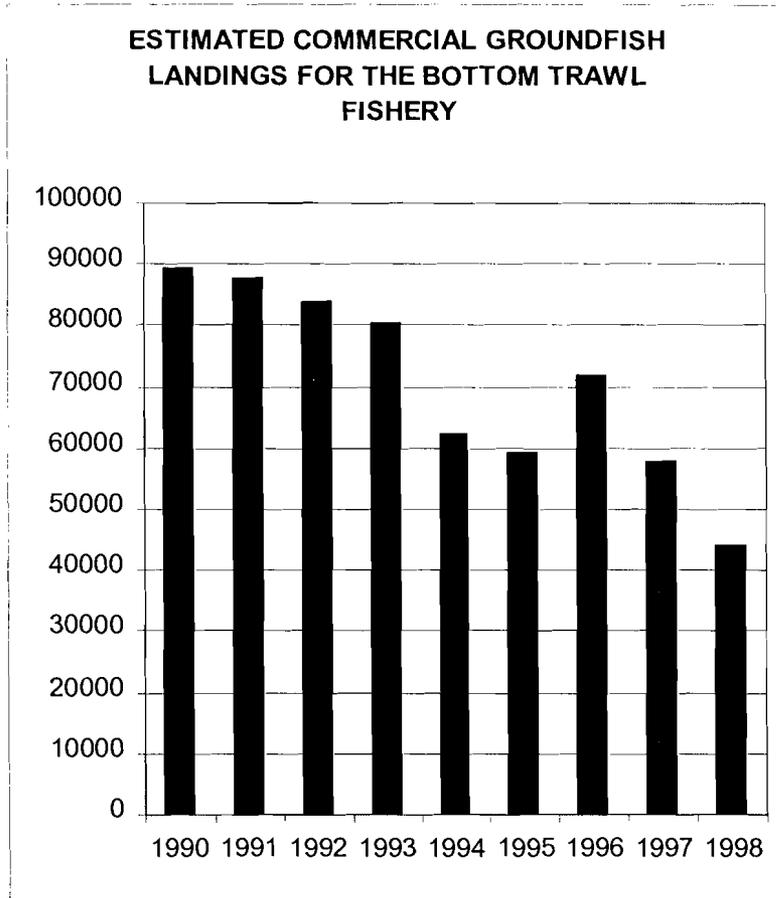
The magnitude and distribution of salmonid bycatch in the bottom trawl fishery was last reviewed in the August 28, 1992 biological opinion. As is the case in the whiting fishery, the salmon bycatch is almost entirely chinook salmon. The NMFS bottom trawl surveys indicated that 96% of the salmon bycatch was chinook (NMFS 1992). Erickson and Pikitch (1994) evaluated incidental catch of chinook salmon in the commercial bottom trawl fishery off the west coast during two time periods, 1985-1987 and 1988-1990. Erickson (Personal communication, 9/17/97) encountered no steelhead or cutthroat trout in these time periods, and a total of 22 coho salmon for the six overlapping years of study.

In the 1992 opinion the estimates of bycatch were developed by expanding bycatch rates using logbook estimates of total trawl hours. Estimates of bottom trawl effort in depths less than 300 fathoms by quarter (Erickson and Pikitch 1994), were then multiplied by estimates of chinook bycatch rates for each quarter and the PFMC area. The resulting catch of chinook in the bottom trawl fishery coastwide was estimated to be between 6,000 and 9,000 fish per year. The available information also suggested that the bycatch of chinook for northern areas is on the order of 5,000 to 8,000 off Washington and northern Oregon, with another 1,000 chinook taken off southern Oregon and California. For 1998 the bycatch rate using logbook estimates of total trawl hours off Oregon and Washington was 6,398. This is within the range that was estimated in the 1992 opinion, and indicates that the bycatch of chinook has not increased.

There has been a significant decrease in the bycatch and effort data in recent years suggesting that the associated bycatch may also be on the decline. Since 1990 the catch in the bottom trawl fishery has decreased by about half (Figure 2). There has been a coincident decline in effort. The reported trawl hours, by state and quarter for tows less than 300 fathoms, indicates that the trend in effort off Washington and Oregon has decreased approximately 63% from 1991 to 1998. Off California from 1991 to 1997 the trend appears to be more constant, with an increase in tow hours only in 1997.

The declining trend is likely to continue in the future. Lingcod, Bocaccio, Canary, Pacific Ocean Perch, and Cowcod were all recently designated as overfished species. In 2000 the Pacific Coast groundfish fisheries will be substantially restricted relative to recent years to protect these species. Of these overfished species, all but Pacific Ocean Perch, occur nearshore, hence the management measures that reduce the harvest of these stocks and associated species will likely result in reduced chinook interceptions.

Figure 2. Estimated commercial groundfish landings (mts) for the bottom trawl fisheries (Extracted from PacFIN July 29<sup>th</sup>, 1999).



### C. Species Specific Affects of the Bycatch

Review of the recent salmon bycatch information suggests that estimates of the magnitude and distribution of bycatch have not changed substantially from those included in previous biological opinions. It is apparent that virtually all of the salmon bycatch is chinook and that other species are little affected by the groundfish fisheries. The chinook bycatch in the whiting fishery continues to be subject to an 11,000 fish constraint. The chinook bycatch in the whiting fishery exceeded the 11,000 fish standard only once in 1995, but has otherwise averaged only 6186 from 1991-98. In recent years the bycatch has been distributed somewhat more to the north.

There is relatively little new information regarding salmon bycatch in the bottom trawl fishery. NMFS therefore continues to rely largely on estimates from the 1992 opinion that suggested a range of 6,000-9,000 salmon per year. This was presumed to include about 1,000 salmon annually in bottom trawl fisheries in California and southern Oregon. Estimates of bycatch in the bottom trawl fishery in Oregon and Washington for 1998 are consistent with expectations. Both catch and effort in the bottom trawl fishery have declined over the last decade and NMFS

expects that trend will continue as the recent more restrictive management actions are implemented.

#### *Previously Listed ESUs*

NMFS concluded in its earlier biological opinions associated with this fishery (NMFS 1992, 1993, 1996) that the impacts to listed SR sockeye, SR spring/summer chinook, and SRW chinook resulting from implementation of the groundfish FMP were negligible and that the fishery was not likely to jeopardize their continued existence.

NMFS has provided a range of estimates for the expected annual mortality of SRF chinook in the past depending on the available information. In the 1992 opinion, NMFS concluded that the impact on naturally spawning SRF chinook is probably on the order of a few tens of fish, and that it may be less, but is unlikely to be as many as 100. NMFS reviewed its prior estimates and jeopardy conclusion with respect to SRF chinook in 1993 and 1996 and confirmed that the proposed fisheries were not likely to jeopardize the continued existence of the ESU.

For this biological opinion, NMFS again reviewed the available information on CWT recoveries in the groundfish fisheries, information on the catch and distribution of the chinook bycatch, and the associated impact to the ESU. CWT data from fingerling, non-transported releases from the Lyons Ferry Hatchery have been used to represent the SRF chinook ESU. From the analysis of salmon fishery recoveries it is apparent that SRF chinook are widely distributed and susceptible to marine fisheries from California to Alaska (NMFS 1992). However, recoveries from south of central Oregon are relatively rare. The center of distribution of SRF chinook is off the west coast of Vancouver Island. The relative abundance of SRF chinook off the Washington and northern Oregon coasts may be lower, but SRF chinook are still subject to measurable impacts in these areas. There were five observed recoveries of the Lyons Ferry indicator stock reported in the recovery data all from the Washington and northern Oregon coast. The catch rate of the listed SRF chinook in the 1999 ocean salmon fishery in the area off the Washington coast was about 3 listed fish per 1,000. The bycatch of chinook off the Washington and Oregon coasts in the combined groundfish fisheries has ranged from about 10,000-20,000 chinook per year. This suggests that the bycatch of listed SRF chinook is in order of 30-60 per year assuming that the catch rate of SRF chinook is the same in all the groundfish fisheries as it is in the salmon fisheries off the Washington coast. In fact, the concentration of SRF chinook decreases to the south. This estimate is therefore likely biased high. This estimate is consistent with prior expectations, although NMFS again cautions against comparing these directly to other estimates of catch or abundance derived using different methods.

#### *Puget Sound Chinook*

PS chinook is a complex ESU with many components each of which has a somewhat different timing and distribution. However, the salmon management models indicate that PS chinook as a group are subject to relative little harvest off the Washington coast and virtually none further south, with most of the catch occurring in Canadian and Puget Sound fisheries (NMFS 1999a).

The available information suggest that the exploitation rate on PS spring chinook as a group in PFMC salmon fisheries was zero for the 1991-1993 brood years, and only 1% in earlier years when salmon fisheries were generally higher (Table 11). The exploitation rate on PS fall stocks averaged 1% for the 1991-1993 brood years, again confirming the relative low abundance of PS stocks off the Washington coast. The average catch off the Washington coast, north of Leadbetter Point, from 1993-1998, that would have contributed to the 1991-1993 brood year harvests, was 22,950 chinook per year (PFMC 1999b). Exploitation rates in earlier years averaged about 3% (Table 12). Catches during the 1980s off the Washington coast, north of Leadbetter Point, averaged 97,800 chinook per year (PFMC 1999c). This compares to estimates of chinook bycatch in the groundfish fishery that are 10,000-20,000 fish per year coastwide. Although some PS chinook are probably caught in the groundfish fishery, the impacts to PS spring chinook, which are the most depressed component of the ESU, are close to zero. This qualitative analysis suggests that the exploitation rate to PS fall stocks is likely only a fraction of 1% per year.

There were 52 CWT recoveries from in the groundfish fishery database from the PS ESU. The distribution of those CWT recoveries in the whiting fishery were off Washington and northern Oregon. The catch rate of these CWT chinook were distributed evenly in the 1980 to 1997 time period, with an average of a 3 to 4 CWT observed recoveries per year. The relative paucity of recoveries confirms the above conclusion that PS chinook are caught only rarely in the groundfish fishery.

### *Lower Columbia River Chinook*

The LCR chinook ESU is composed of spring run, and fall run tule and bright stocks. There are three spring stocks, three self-sustaining natural tule stocks, and likewise, three identified bright stocks that rely primarily on natural production. The population structure of the ESU has not been determined, but it is intuitively obvious that the spring, tule, and bright life history types warrant independent review with respect to their status and the effect of the proposed action. The effects analysis therefore considers each of these life history types independently and, where possible, also considers the status of and presumed effect on each stock.

The three remaining spring stocks within the ESU include those on the Cowlitz, Kalama, and Lewis rivers. Although some spring chinook spawn naturally in each of these rivers, the historic habitat for spring chinook is now largely inaccessible. The remaining spring stocks are therefore dependent, for the time being, on the associated hatchery production programs. The hatcheries have met their escapement objectives in recent years thus insuring that what remains of the genetic legacy is preserved. Harvest constraints for other stocks, including those provided specifically as a result of the recent PST agreement, will provide additional protection for the hatchery programs until such time that a more comprehensive recovery plan is implemented.

Information from salmon fishery management models provides some perspective about the distribution and likely impact to LCR spring chinook from the groundfish fisheries. The salmon fishery model base period (1979-82) ER for the Cowlitz River spring chinook is 12% for the PFMC fisheries. The 1999 model estimates are for a PFMC ER of 7.2% and a total ocean

fishery ER of 10.6%. This suggests that LCR spring stocks have a more southerly distribution than the upriver spring stocks which is consistent with the ocean-type juvenile life history that is characteristic of all LCR chinook. The 7.2% ER estimate in 1999 was associated with expected chinook mortalities in the salmon fisheries of 80,000 off the Washington coast and an additional 156,000 off the Oregon coast in the area north of Humbug Mountain which is close to the southern boundary of the Columbia INPFC catch area. This again compares to an anticipated chinook bycatch in the groundfish fisheries of 10,000-20,000 fish coast-wide.

The LCR is dominated by hatchery-origin tule stocks. The three natural-origin tule stocks in the ESU include those on the Coweeman, East Fork Lewis, and Clackamas rivers. These are apparently self-sustaining natural populations without substantial influence from hatchery-origin fish. These stocks are all relatively small. The interim escapement goals on the Coweeman and East Fork Lewis are 1,000 and 300, respectively. Escapements have been below these goals 8 of the past 10 years for the Coweeman, and 5 of the past 10 years for the East Fork Lewis. The 10 year average escapement for the Coweeman is 700, compared to a recent 5 year average of 995 (range 146-2,100). In the East Fork Lewis, the 10 year average escapement is 300, compared to a recent 5 year average of 279. There is currently no escapement goal for the Clackamas where escapements have averaged about 350 per year.

Until recently tule hatchery production has been prioritized to support ocean and Lower Columbia River fisheries thus providing the potential for very high ERs. The tule stocks are north migrating, but are most vulnerable to catch in fisheries off the Washington coast and the west coast of Vancouver Island and in the lower river.

The total adult equivalent ERs in the PFMC salmon for the tule hatchery stocks averaged 9% for the 1991-1993 brood years and 19.5% for the decade of the 80s (Table 9). These exploitation rates were associated with average catches of 22,950 for the associated recent catch years, 1993-98, and 97,500 for the earlier time series. Because of their more southerly distribution, fisheries off the Oregon coast impact these stocks as well. The catches of chinook off the Oregon coast during these same time periods were 139,900 and 291,250, respectively. These catches and associated ERs again provide some perspective about the anticipated impacts associated with the groundfish fisheries with expected catches coasted-wide of 10,000-20,000 chinook per year.

There are also three remaining natural-origin bright stocks in the LCR ESU. There is a relatively large and healthy stock on the North Fork Lewis River. The escapement goal for this system is 5,700. That goal has been met, and often exceeded by a substantial margin every year since 1980 with the exception of 1999. In 1999 the return is expected to be substantially below goal because of severe flooding during the 1995 and 1996 brood years. Nonetheless, the stock is considered healthy. The Sandy and East Fork Lewis stocks are smaller. Escapements to the Sandy have been stable and on the order of 1,000 fish per year for the last 10-12 years. Less is known about the East Fork stock, but it too appears to be stable in abundance.

The LCR bright stocks are far-north migrating stocks and so are less in PFMC fisheries than other stocks from the ESU. The total adult equivalent brood year ER in the PFMC salmon fisheries averaged 1% in recent years and about 5% in the past (Table 10) when catches were

generally higher. Information from the PFMC salmon fishery models for 1999 suggest that the catch rate of chinook from the North Fork Lewis in fisheries off the Washington coast was approximately 2 fish per 1,000, again suggesting that the impact associated with the PFMC groundfish fisheries are quite limited.

#### *Upper Willamette River Chinook*

Because of their far-north migrating distribution and spring timing, UWR chinook are subject to relatively little harvest in PFMC fishery catch areas. Upper Willamette Spring chinook reside primarily to the north. They are an early returning spring stock so that adult migrants have largely exited the ocean by March or early April. The whiting fishery in particular does not start in areas north of 42° north latitude until May 15.

The average total brood year ER on UWR chinook in PFMC salmon fisheries is estimated to be about 1% in both the past and near-term time series (Table 8). The traditional start of the salmon fishing season is May 1 so that the salmon fisheries also miss most of the adult migrants.

Despite their distribution and timing, it is apparent from the CWT data that UWR chinook are taken occasionally in the whiting fishery. There were 68 observed recoveries of hatchery origin chinook spring from the Willamette during the 1980-1997 time period with some taken as far south as central Oregon.

The current limitation on opening the whiting fishery after May 15 did not take affect until 1996. About one third of the observed recoveries in past years occurred prior to May 1. The fishery delay my therefore help reduce the likelihood that UWR chinook will be taken in the whiting fishery in the future.

The available information suggests that UWR chinook are taken occasionally in the PFMC groundfish fisheries. The estimated ER in the salmon fisheries is 1%, but these are associated with catches that are substantially larger than the 10,000-20,000 chinook caught coast-wide in the groundfish fisheries. The catch of salmon of the Washington coast alone averaged 22,950 during the 1993-1998 period and 97,500 during the decade of the 1980s.

#### *Upper Columbia River Spring Chinook*

Upper Columbia River Spring chinook have a stream-type life history, and their ocean distribution generally to the north and offshore. Upper Columbia River Spring chinook are similar to Snake River spring/summer chinook in that they are subject to very little ocean harvest which is confirmed again here in relation to the groundfish fisheries. The available in suggests that the overall ocean exploitation rate on UCRS is quite low in the salmon fisheries, and is treated a zero in life cycling modeling efforts designed to assess extinction risk and options to promote recovery (NMFS 1999f). Hence it is reasonable to expect even lower impacts in the groundfish fisheries. There were no recoveries of UCRS chinook in the groundfish fisheries. This is consistent with what is known about their life history and distribution. Upper Columbia River chinook are similar to SR spring/summer chinook which are little affected by ocean

salmon fisheries either to the north or in PFMC catch areas and therefore presumably are also not affected by the PFMC groundfish fisheries.

### *California Chinook ESUs*

Two additional ESUs located in California were recently listed including CVS chinook and CC chinook. Both are distributed primarily off of California. Of nearly 13,000 CWT recoveries (estimates expanded for sample size) in the salmon fisheries from the Feather River Hatchery indicator stock, 88% were taken off of California and 10% off of Oregon. Of nearly 400 estimated recoveries for the Mad River Hatchery indicator stock, 63% were found off of California with an additional 29% off of the Oregon coast. The remainder were found off of Washington with few recoveries in Canada. Although the observed recoveries from the groundfish fisheries are not directly comparable because they are not expanded for sample size, the counts were low. There were only five observed recoveries representing the CVS chinook and 11 representing CC chinook in the groundfish recovery data base.

Indicator stocks for these newly listed ESUs are not currently include in salmon management models so there are no associated estimates of the ER in salmon fisheries. However, the distribution of the chinook bycatch in the groundfish fisheries is primarily to the north away from the primary areas of distribution for these fish. The bycatch of chinook in the whiting fishery in the Eureka area from southern Oregon south has largely been eliminated in recent years (Table 13). Of the 6,000-9,000 chinook that were expected to be caught annually in the bottom trawl fishery coast-wide, only 1,000 were expected to be taken off of California. This information suggests that CVS chinook and CC chinook are taken rarely in the groundfish fisheries.

## **V. Cumulative Effects**

Cumulative effects are defined as the “effects of future state or private activities, not involving federal activities, which are reasonably certain to occur within the action area of the federal action subject to consultation” (50 CFR 402.02). For the purposes of this analysis, the action area includes ocean fishing areas off the coast of Washington, Oregon, and California. The production of chinook and coho salmon, steelhead, and cutthroat trout by state hatchery programs will likely continue and has the potential to add cumulative impacts to listed populations in the ocean, through competition and predation. Hatchery salmon production also provides targeted harvest opportunity in the ocean through increasing chinook and coho salmon abundance above that which would occur naturally, although harvest mortality associated with these fisheries is specifically considered salmon harvest opinions. At this time, the extent of cumulative impacts from hatchery salmon production is not known. Further evaluation is warranted but this can best be done as part of an overall assessment of species specific hatchery programs.

Because the action area is limited to offshore marine areas, no additional cumulative effects to the listed species are anticipated.

## **VI. Integration and Synthesis of Effects**

NMFS reinitiated consultation regarding the PFMC groundfish FMP to consider the impacts to recently listed species that were not subject to previous review. NMFS has reviewed the current status of each of the newly listed salmonid species shown in Table 1, the environmental baseline for the action area, the effects of the proposed action both to the newly listed and previously listed species, and the cumulative effects. Based upon this review, NMFS concludes that continued implementation of the PFMC groundfish FMP as amended will not jeopardize the continued existence of any of the salmonid ESUs listed or proposed for listing as threatened or endangered under section 7 of the ESA. For the currently listed salmonid species, critical habitat is either not yet designated, or if designated does not include marine areas affected by the groundfish fisheries. The proposed action is therefore also not likely to destroy or adversely modify designated critical habitat for any of the listed salmonid ESUs.

The analysis of the available information indicates that coastal cutthroat trout, steelhead, and sockeye are rarely, if ever, encountered in the groundfish fishery. Coho and chum are caught in relatively low numbers with an annual catch in the combined whiting and mid-water trawl fisheries of tens to a few hundred of fish coast-wide. The majority of these will be unlisted natural-origin or hatchery fish. Given the low bycatch, NMFS concludes it is unlikely that the proposed action will jeopardize the continued existence of any of the currently listed or proposed listed cutthroat trout, steelhead, sockeye, coho, or chum ESUs listed in Table 1.

The bycatch of chinook salmon in the PFMC groundfish fishery is more substantial and does result in the taking of chinook for at least some of the listed ESUs. However, the bycatch of chinook continues to be constrained and within the limits set by previous consultations. Chinook bycatch in the whiting fishery is closely monitored with on-board observer coverage for the mothership and at-sea processors and is limited subject to further consultation to a maximum of 11,000 chinook per year coast-wide. The 11,000 chinook limit has been exceeded in only one year since 1992 (approximately 15,000 in 1995), and, absent 1995, has averaged 6186 from 1991-98 (Table 14).

Substantive management actions have been taken to reduce bycatch in the whiting fishery, particularly in the south. Beginning in 1996 the start of the whiting fishery in the area north of 42° north latitude was delayed until May 15 because of information suggesting that bycatch was higher earlier in the year. The whiting fishery is also closed in the Eureka area inside the 100 fathom line. Most of the vessels participating in the shoreside and at-sea fisheries continue to actively monitor salmon bycatch and use a system of real-time information exchange that allows them to redirect their effort to minimize bycatch when necessary.

There has been one unanticipated change in the pattern of bycatch since the last consultation on the groundfish fishery in 1996. A tribal fishery directed at whiting began in 1996 using a mothership and several catch boats. The tribal fishery is constrained geographically to a relatively small area off the coast south of Neah Bay in the Vancouver INPFC area. Bycatch rates of chinook in the tribal fishery have been consistently higher than other mothership or at-sea operations. Bycatch rates in the tribal fishery have averaged 0.115 chinook/mt whiting

compared to 0.019 chinook/mt whiting in the other at-sea components of the fishery for the same period. It may be that the higher bycatch rate is the result of the geographic limitation of the fishery. However, further assessment of the monitoring and response program in the tribal fishery is in order to ensure that chinook bycatch is minimized to the degree possible in the future.

Although the tribal fishery has resulted in more chinook bycatch to the north, it does not substantively change NMFS' assessment of impacts to listed fish or prior conclusions with respect to jeopardy. There is no information to suggest that the concentration of listed chinook in the tribal catch area is higher than off the Washington coast in general. The total bycatch of chinook may be higher than it would have been absent the tribal fishery. However, the tribes' allocation of whiting in recent years has been 14% or less of the total allowable catch which limits the potential bycatch increase. Even with the higher bycatch rates associated with the tribal fishery, the whiting fishery as a whole is still constrained by the 11,000 chinook bycatch limit. Prior assessments with respect to jeopardy were done assuming an annual bycatch of up to 11,000 chinook.

Chinook are also caught incidental to the bottom trawl fishery. Estimates made using available information at the time of the 1992 opinion suggested an annual bycatch of 6,000-9,000 chinook per year most of which occur off Oregon and Washington. There is little new direct information about salmon bycatch in the bottom trawl fishery because of the absence of a bycatch monitoring program. However, both effort and landings in the bottom trawl fishery have declined by about half over the last decade suggesting that the bycatch of salmon is likely declining as well.

After considering the available information on the magnitude and distribution of the chinook bycatch in the whiting and bottom trawl fisheries, NMFS reviewed the information related to anticipated impacts to each of the newly listed chinook ESUs. NMFS reviewed information on CWT recoveries from the groundfish fisheries. Although, the CWT data was used largely to indicate distribution and presence or absence in the fishery. NMFS also used information from salmon fishery management models to approximate the likely range of impacts given the relative magnitude of catch in the respective salmon and groundfish fisheries.

There were no recoveries of UCR chinook in the groundfish fisheries. This is consistent with what is known about their life history and distribution. Upper Columbia River chinook are similar to SR spring/summer chinook which are little affected by ocean salmon fisheries either to the north or in PFMC catch areas and therefore presumably are also not affected by the PFMC groundfish fisheries.

NMFS considered the likely impacts to the spring and summer/fall components of the PS chinook ESU. NMFS concluded that spring stocks were likely caught only rarely in the groundfish fisheries. Summer/fall stocks are likely caught off the Washington coast, but the available information suggests that the ERs are likely a fraction of 1% per year.

The spring and tule components of the LCR chinook ESU are also likely taken in groundfish fisheries off the Oregon and Washington coast. Again, the relative magnitude of catch in salmon

and groundfish fisheries in those areas suggests that the exploitation rates on these stocks are quite low, likely less than 1% per year. The bright component of the LCR ESU has a more northerly distribution and is therefore subject to relatively little harvest in the PFMC groundfish fisheries, again likely some small fraction of 1% per year. Estimates for UWR chinook are about the same as those for LCR brights; some small fraction of 1% per year.

Finally, NMFS reviewed the likely impacts to CVS chinook and CC chinook. The California ESUs are distributed primarily off of California where there is relatively little bycatch of chinook. Management actions have been taken that largely preclude the whiting fishery from areas off of California and southern Oregon. Estimates indicate that the catch of chinook in the bottom trawl fishery in the south are on the order of 1,000 fish per year. As a result, this information suggest that CVS chinook and CC chinook are rarely taken in the groundfish fisheries.

NMFS recently reviewed the effect of the recent PST between the U.S. and Canada on the listed salmonid ESUs and also focused on the chinook ESUs that were the primarily subject of this opinion. NMFS considered PFMC groundfish fisheries as part of the Environmental Baseline section in the PST opinion while noting that consultation on the groundfish fisheries was, at the time, underway. This opinion now provides more of the specifics in terms of qualitative estimates of impacts for each ESU and confirms that these impacts are quite low.

## **Conclusion**

After reviewing the current status of listed salmon, the environmental baseline for the action area, the effects of the continued implementation of the Pacific Fishery Management Council's groundfish Fishery Management Plan and the cumulative effects, it is NMFS' biological opinion that the PFMC groundfish FMP, as proposed, is not likely to jeopardize the continued existence of the listed Pacific salmon. No critical habitat has been designated for this species, therefore, none will be affected.

## **INCIDENTAL TAKE STATEMENT**

Section 9 of the ESA and federal regulation pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by both FWS and NMFS to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by both FWS and NMFS as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limit to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the ESA

provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary, and must be undertaken by the agencies so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, for the exemption in section 7(o)(2) to apply. The agencies have a continuing duty to regulate the activity covered by this incidental take statement. If the agencies (1) fail to assume and implement the terms and conditions or (2) fail to require the applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, the agencies or applicant must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement. [50 CFR §402.14(i)(3)]

## **I. Amount or Extent of Incidental Take**

### *Whiting Fishery*

Estimates of the bycatch of listed salmon in the whiting fishery are based on the distribution of the fishery and the observed bycatch of salmon in recent years. The estimated bycatch of listed salmon in the whiting fishery in the future assumes that the distribution of catch will not change substantially, that the bycatch will not exceed 0.05 chinook salmon/mt whiting, and that the total bycatch of chinook will not exceed 11,000 fish per year.

Because of the substantial differences in the timing, location, and capacity of the shoreside, at-sea, and Tribal components of this fishery, compliance with the 0.05 chinook salmon/mt whiting bycatch rate will be evaluated separately. Consultation shall be reinitiated if either the shoreside, catcher/processor, mothership, or Tribal components of the fishery exceed or are expected to exceed the bycatch rate of 0.05 chinook salmon/mt whiting and the expected total bycatch of chinook in the fishery is expected to exceed 11,000 fish.

### *Bottom Trawl Fishery*

It was estimated that 6,000 to 9,000 salmon are taken in the bottom trawl fishery annually, and that 5,000 to 8,000 of these are likely to be taken in the Vancouver and Columbia catch areas. However, because there is no bycatch monitoring program, it is not possible to access directly an incidental take limit that would normally be expressed as some measure of salmon bycatch or bycatch rate. This estimate of bycatch in the bottom trawl fishery is based on an analysis of available information from 1985-1990. Because bycatch is not being monitored directly, expectations of bycatch in the future are based on the assumption that the general character of the fishery will not change substantially, particularly in times and places where bycatch rates are assumed to be higher. If the fishery in the future changes substantially in magnitude or character compared to 1985-1990, and particularly, if there is increased catch in nearshore areas or during the winter months or in the Eureka or Monterey areas, consultation shall be reinitiated.

### *Miscellaneous Gear*

Review of available information regarding salmon bycatch for other groundfish gear types, including shrimp trawls, pots, hook-and-line gear, and setnets used in PFMC area fisheries indicates that salmon interactions are unlikely to be more than rare events and that the impacts on listed species will be negligible. As a result, NMFS concludes that the taking of any of the listed salmonid species by these gear types is neither anticipated or authorized.

## **II. Effect of the Take**

In the accompanying biological opinion, NMFS determined that the level of anticipated take in the proposed groundfish fisheries is not likely jeopardize the continued existence of any of the currently listed or proposed salmonid ESUs shown in Table 1, or result in the destruction or adverse modification of their critical habitat.

## **III. Reasonable and Prudent Measures**

NMFS included reasonable and prudent measures in the incidental take statement of the August 28, 1992, and May 14, 1996, biological opinions, which remain in effect:

### *Whiting Fishery*

The impacts included in the incidental take statement for the whiting fishery are based, in part, on the assumed bycatch rate of 0.05 chinook salmon/mt whiting. In order to evaluate whether that assumption is valid for future fisheries, continued monitoring at a level sufficient to define the bycatch rate of the motherships and at-sea processors, Tribal, and shorebased components is required to estimate bycatch rates and detect any changing patterns of bycatch.

In addition to collecting bycatch information in the whiting fishery, it is necessary to evaluate, at least monthly, the projected annual total bycatch rate of the fishery. If at anytime during the fishery, it is anticipated that the seasonal coastwide bycatch will exceed 11,000 chinook salmon, NMFS and the PFMC must take action to reduce the bycatch to ensure that the annual authorized take limit can be met. If and when it becomes apparent, based on analysis by either NMFS or PFMC that management measures cannot adequately reduce the bycatch rate to the prescribed level, consultation must be reinitiated.

As specified in the August 1996 biological opinion, the restriction on targeted harvest of whiting inside of 100 fathoms in the Eureka area continues as a condition of the incidental take statement. In addition, the delay of the start of the season until May 15 in areas north of 42° 00' N. latitude will continue.

### *Bottom Trawl Fishery*

The bottom trawl fishery is not being monitored at this time. The incidental take statement permits an annual bycatch of 9,000 salmon, but assumes that the magnitude and character of the

fishery will not increase substantially, particularly in those times and areas where bycatch rates are assumed to be higher. In order to evaluate this condition, the PFMC must provide an annual summary that characterizes the bottom trawl fishery and can thus be used to evaluate potential changing trends in fishing patterns.

#### **IV. Terms and Conditions**

The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action or RPA. In order to be exempt from the prohibitions of sections 9 and 4(d) of the ESA, NMFS must continue to comply with all of the terms and conditions listed in the August 28, 1992, biological opinion, as amended by the September 27, 1993 and May 14, 1996, biological opinions. In addition, NMFS must comply with the following terms and conditions to implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

1. NMFS shall confer with the affected states, Tribes, and PFMC chair to ensure that in-season management actions taken during the course of the fisheries are consistent with the harvest objectives established pre-season.
2. NMFS, in cooperation with the affected states, Tribes, and PFMC chair, shall monitor the catch and implementation of other management measures at levels that are sufficient to ensure compliance with specified management limitations.
3. NMFS, in cooperation with the affected states, Tribes, and PFMC chair, shall sample the fisheries for stock composition, including the collection of CWTs in all fisheries and other biological information to allow for a thorough post-season analysis of fishery impacts on listed species.

#### **CONSERVATION RECOMMENDATIONS**

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of threatened and endangered species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. NMFS believes the following conservation recommendations, in addition to those included in the August 28, 1992, biological opinion, are consistent with these obligations, and therefore should be implemented by NMFS.

1. Since the tribal whiting fishery was initiated in 1996, the associated bycatch rates of salmon have exceeded the 0.05 chinook salmon/mt whiting monitoring standard and have been substantially higher than other components of the fleet. The chinook bycatch rate in the tribal fishery has averaged 0.115 chinook salmon/mt whiting since 1996 compared to estimates for the mothership (excluding tribal), catcher/processor, and shoreside fleets of 0.022, 0.016, and 0.016, respectively. It is not clear at this time whether the bycatch rate could be reduced by

better monitoring or more active inseason management or if the observed rate is the result of geographic limitations associated with the tribal fishery or some other factor. To address this situation, NMFS, in cooperation with the effected tribe or tribes, should review the available information prior to the start of the 2000 fishery and develop an inseason monitoring program and action plan that is designed to minimize the bycatch of salmon to the maximum extent practical.

### **REINITIATION OF CONSULTATION**

This concludes formal consultation on the Pacific Coast Groundfish FMP as amended by Amendment 11. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take specified in the Incidental Take Statement is exceeded; (2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) the identified action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in the biological opinion; (4) a new species is listed or critical habitat designated that may be affected by the identified action. In instances where the amount or extent of incidental take is exceeded, the action agency must immediately reinitiate formal consultation.

In the Reasonable and Prudent Measures of the Incidental Take Statement, NMFS made it clear that if and when it becomes apparent, based on analyses by either NMFS or PFMC, that management measures cannot adequately reduce the bycatch rate to prescribed levels, the amount or extent of incidental take will have been exceeded and section 7 consultation must be reinitiated.

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State, local or tribal governments, in the aggregate, or by the private sector, of more than \$100 million annually (adjusted for inflation). The assessment may be combined with other assessments, as it is here.

This final rule is not likely to result in expenditures by State, local or tribal governments or automobile manufacturers and/or their suppliers of more than \$100 million annually. If adopted, it would not impose any new burdens on manufacturers of vehicles built in two or more stages or vehicle alterers. Further, this final rule limits certain existing requirements as they apply to multistage vehicles, and exclude a narrow group of multistage vehicles manufactured from chassis without occupant compartments from the same requirements.

*g. Paperwork Reduction Act*

Under the Paperwork Reduction Act of 1995 (PRA), a person is not required to respond to a collection of information by a Federal agency unless the collection displays a valid OMB control number. This final rule contains no reporting requirements or requests for information.

*h. Regulation Identifier Number (RIN)*

The Department of Transportation assigns a regulation identifier number (RIN) to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. You may use the RIN contained in the heading at the beginning of this document to find this action in the Unified Agenda.

*i. Privacy Act*

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477-78) or you may visit <http://dms.dot.gov>.

**VI. Regulatory Text**

**List of Subjects in 49 CFR Part 571**

Motor vehicle safety, Reporting and recordkeeping requirements, Tires.

■ In consideration of the foregoing, NHTSA amends chapter V of title 49 of the Code of Federal Regulations by amending 49 CFR § 571.201 to read as follows:

**PART 571—[AMENDED]**

■ 1. The authority citation of Part 571 continues to read as follows:

**Authority:** 49 U.S.C. 322, 2011, 30115, 30116 and 30117; delegation of authority at 49 CFR 1.50.

■ 2. Section 571.201 is amended by revising S6.1.4 through S6.1.4.2, S6.3(b) and S6.3(c) to read as set forth below:

**§ 571.201 Standard No. 201; Occupant protection in interior impact.**

\* \* \* \* \*

S6.1.4 *Phase-in Schedule #4* A final stage manufacturer or alterer may, at its option, comply with the requirements set forth in S6.1.4.1 and S6.1.4.2.

S6.1.4.1 Vehicles manufactured on or after September 1, 1998 and before September 1, 2009 are not required to comply with the requirements specified in S7.

S6.1.4.2 Vehicles manufactured on or after September 1, 2009 shall comply with the requirements specified in S7.

\* \* \* \* \*

S6.3 \* \* \*

(b) Any target located rearward of a vertical plane 600 mm behind the seating reference point of the rear-most designated seating position. For altered vehicles and vehicles built in two or more stages, including ambulances and motor homes, any target located rearward of a vertical plane 300 mm behind the seating reference point of the driver's designated seating position (tests for altered vehicles and vehicles built in two or more stages do not include, within the time period for measuring HIC(d), any free motion headform contact with components rearward of this plane). If an altered vehicle or vehicle built in two or more stages is equipped with a transverse vertical partition positioned between the seating reference point of the driver's designated seating position and a vertical plane 300 mm behind the seating reference point of the driver's designated seating position, any target located rearward of the vertical partition is excluded.

(c) Any target in a vehicle manufactured in two or more stages that is delivered to a final stage manufacturer without an occupant compartment. Note: Motor homes, ambulances, and other vehicles manufactured using a chassis cab, a cut-away van, or any other incomplete vehicle delivered to a final stage manufacturer with a furnished front compartment are not excluded under this S6.3(c).

\* \* \* \* \*

Issued: August 30, 2007.

**Nicole R. Nason,**  
*Administrator.*

[FR Doc. 07-4324 Filed 8-30-07; 4:52 pm]

**BILLING CODE 4910-59-P**

**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration (NOAA)**

**50 CFR Part 660**

[Docket No. 070323069-7117-02; I.D. 031907A]

**RIN 0648-AV46**

**Pacific Coast Groundfish Fishery**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Final rule.

**SUMMARY:** NMFS issues a final rule to establish catch accounting requirements for persons who receive, buy, or accept Pacific whiting deliveries of 4,000 pounds (lb) (1.18 mt) or more from vessels using midwater trawl gear during the Pacific whiting primary season for the shore-based sector. This action is intended to improve NMFS's ability to effectively monitor the Pacific whiting shoreside fishery such that catch of Pacific whiting and incidentally caught species, including overfished groundfish species, do not result in a species' optimum yield (OY), harvest guideline, allocations, or bycatch limits being exceeded. This action is also intended to provide for timely reporting of Chinook salmon take as specified in the Endangered Species Act (ESA) Section 7 Biological Opinion for Chinook salmon catch in the Pacific groundfish fishery. This action is consistent with the conservation goals and objectives of the Pacific Coast Groundfish Fishery Management Plan (FMP).

**DATES:** Effective October 5, 2007.

**ADDRESSES:** Copies of the Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis (EA/RIR/IRFA), Finding of No Significant Impact (FONSI), Initial Regulatory Flexibility Analysis (IRFA), Final Regulatory Flexibility Analysis (FRFA), and the Small Entity Compliance Guide are available from D. Robert Lohn, Administrator, Northwest Region, NMFS, 7600 Sand Point Way NE, Seattle, WA 98115-0070, phone: 206-526-6150.

Written comments regarding the burden-hour estimates or other aspects of the collection-of-information requirements contained in this final rule may be submitted to D. Robert Lohn, Administrator, Northwest Region, NMFS, 7600 Sand Point Way NE, Seattle, WA 98115-0070, and by e-mail to [DavidRostker@omb.eop.gov](mailto:DavidRostker@omb.eop.gov), or by fax to (202) 395-7285.

**FOR FURTHER INFORMATION CONTACT:** Becky Renko, phone: 206-526-6110, fax: 206-526-6736, or e-mail: [becky.renko@noaa.gov](mailto:becky.renko@noaa.gov).

**SUPPLEMENTARY INFORMATION:**

**Electronic Access**

This **Federal Register** document is also accessible via the internet at the website of the Office of the **Federal Register**: [www.gpoaccess.gov/fr/index.html](http://www.gpoaccess.gov/fr/index.html).

**Background**

This action establishes an electronic catch accounting system and other monitoring improvements for the shore-based sector of the Pacific whiting fishery. The shore-based Pacific whiting fishery needs to have a catch reporting system in place that: provides timely reporting of catch data so that Pacific whiting, overfished species and Chinook salmon can be adequately monitored and accounted for inseason; and, specifies catch sorting and weight requirements necessary to maintain the integrity of data used to manage groundfish species OYs, trip limits, and bycatch limits.

This final rule applies to persons called "first receivers" (generally, first receivers are Pacific whiting shoreside processing facilities, but may also include entities that truck Pacific whiting to other facilities.) This final rule requires first receivers who receive, buy, or accept Pacific whiting deliveries of 4,000 lb (1.8 mt) or more from vessels using midwater trawl gear during the Pacific whiting primary season to have and use a NMFS-approved electronic fish ticket software or a NMFS-approved software that meets defined data export specifications, and to send catch reports to the Pacific States Marine Fish Commission (PSMFC) within 24 hours of when the catch is landed. Electronic fish ticket reports will be used to track catch allocations, bycatch limits and prohibited species catch. First receivers will provide the computer hardware, software, and internet access necessary to support the NMFS-approved software and provide for e-mail transmissions.

The electronic fish tickets are used to collect information similar to information currently required by the

States of Washington, Oregon and California on fish receiving tickets or landing receipts (state fish tickets). These Federal regulations will be in addition to the existing state fish ticket requirements and will not replace any state recordkeeping or reporting requirements.

New sorting requirements are specified in this final rule for Pacific whiting catch received by first receivers, as deliveries may contain groundfish in excess of trip limits, unmarketable groundfish, prohibited species, and protected species that are not addressed by current groundfish regulations. In addition, Federal groundfish regulations are revised to require deliveries from vessels participating in the Pacific whiting shoreside fishery to be adequately sorted by species or species group, and the catch be weighed following offloading from the vessel and prior to transporting the catch. First receivers are required to report, on electronic fish tickets, actual and accurate weights derived from scales. If sorting and weighing requirements specified in Federal regulation are more stringent than state fish ticket requirements, the first receiver is required to follow Federal requirements for sorting, weighing, and reporting species or species groups on electronic fish ticket submissions.

This final rule is part of an ongoing process to develop a maximized retention program for the Pacific whiting shoreside fishery. At its June 11-15, 2007, meeting in Foster City, California, the Council will consider recommending a rulemaking for 2008 and beyond for a related action titled "A Maximized Retention and Monitoring Program for the Pacific Whiting Shoreside Fishery."

Further detail on this action appears in the EA/RIR prepared by the NMFS for this action and in the proposed rule published on April 9, 2007 (72 FR 17469). NMFS requested public comment on the proposed rule through April 24, 2007. See the preamble to the proposed rule for additional background information on the fishery and on this rule.

**Comments and Responses**

NMFS received two e-mailed comments on the proposed rule: one email was received from a state government and the other email was from an industry organization. These comments are addressed here:

*Comment 1:* The commentor indicated that a reference on page 17470 of the proposed rule preamble, regarding the Pacific Fishery Management Council discussion on

further rulemaking "at its April 2007 meeting," should be revised or eliminated because the discussion did not occur.

*Response:* The preamble reference to Pacific Fishery Management Council discussion on further rulemaking has been revised in the final rule preamble to reference pending discussion at the June 11-15, 2007 Council meeting.

*Comment 2:* The commentor believes that the reliance on Research Group publications from 2006 based on 2004 fishery data, referenced on page 17471 of the proposed rule preamble, is questionable given the age of the data and the fact that no peer review of the information has been done for this analysis.

*Response:* NMFS recognizes that the Research Group publications are not peer reviewed documents. However, given the lack of available information on the West Coast seafood processing industry, NMFS must rely on various sorts of information to determine the classification of processing companies including determining whether various companies are "affiliated" according to Small Business Administration (SBA) standards. As stated in the analysis, the information was based on a review of company websites, state employment websites, and newspaper articles. The discussion drew no hard conclusions because the Research Group publications use data from various sources and such data may be of various vintages. NMFS believes that the information from the Research Group publications, although not peer-reviewed is credible supporting information given its consistency with other data sources. These publications are the only publications available that describe West Coast fishing industry in a manner useful for assessing ownership relationships between companies. NMFS believes it has used these Research publications in a credible manner as this information was used in conjunction with NMFS's own review of company websites, state employment websites, and newspaper articles. Because of this NMFS independent reviews, without the use of the Research Group publications, the same conclusions about company size and affiliation would have been made. The basic conclusion was that there appears to be 13 major Pacific whiting processors that can be grouped into nine SBA businesses based on analysis of affiliates and that among these businesses are three large and six small SBA businesses based on SBA size standards. One purpose of the IRFA is to solicit comments on the economic analysis in the proposed rule and

whether the basic conclusions are reasonable. This comment was the only one received on the economic analysis and it only questions the use of Research Group publications, but not the basic conclusions. The use of non-peer reviewed information in its conclusions is noted in the classifications section of this document.

*Comment 3:* The commentor objects to the inclusion of the proposed § 660.306 (f)(6)(i), which prohibits a first receiver from receiving Pacific whiting from a vessel that does not have a properly functioning electronic monitoring system (EMS), unless a waiver for EMS coverage was granted by NMFS for that trip. The commentor believes that a first receiver on shore has no way of knowing whether a vessel's EMS is operating or not, or whether it was properly deployed while the vessel was harvesting Pacific whiting. The commentor suggests the language be modified to insert "knowingly" at the start of the sentence to enable enforcement action to be taken, but not lead to action against a processor who buys from a vessel in good faith.

*Response:* NMFS has modified the proposed language in § 660.306 (f)(6)(i) so that an undue burden is not placed on the first receivers in 2007. In response to this comment, NMFS has removed the language in § 660.306 (f)(6)(i). Maintaining the integrity of catch data includes knowing that each delivery was properly monitored at-sea. Therefore, NMFS encourages processors to obtain verification from the vessel operator, that the EMS was working properly or that a waiver for EMS coverage was granted to the vessel for that trip. NMFS intends to address this issue in its entirety in a related action titled "A Maximized Retention and Monitoring Program for the Pacific Whiting Shoreside Fishery."

*Comment 4:* The commentor supports the language in § 660.373 (j)(1)(ii) indicating that first receivers have the choice of using either software supplied by the PSMFC or "NMFS-approved" software compatible with the software available from PSMFC. The commentor strongly supports having this choice, but believes it would be helpful to know what software is approved by NMFS and what format is considered compatible.

*Response:* In response to the commentor, NMFS has added clarifying language to § 660.373 (j)(1)(ii) which identifies where a first receiver may obtain the specifications for NMFS-approved software other than the software supplied by the PSMFC.

*Comment 5:* The commentor suggests that a definition be added for "Electronic fish tickets."

*Response:* NMFS has added a definition for electronic fish tickets. The term is defined as a software program or data files meeting data export specifications approved by NMFS that is used to send landing data to the Pacific States Marine Fisheries Commission. Electronic fish tickets are used to collect information similar to the information required in state fish receiving tickets or landing receipts, but do not replace or change any state requirements.

*Comment 6:* The commentor suggests that the term "Pacific whiting shoreside vessel", which has been defined in regulation, be used consistently throughout the regulations rather than using the terms "delivery vessel" and "catcher vessel" to describe the same group of vessels.

*Response:* NMFS has made the appropriate changes to the regulatory language.

#### Changes From the Proposed Rule

In response to the comments that were received, the following changes were made from the proposed rule: A definition for the term "Electronic fish ticket" was added to the regulations in § 660.302 Definitions; References to "delivery vessel" and "catcher vessel" were changed to Pacific whiting shoreside vessel in § 660.303, reporting and recordkeeping, paragraph (e)(1)(iii) and (iv)(B), and in § 660.306, prohibitions, (f)(6)(iii); and, in § 660.373, Pacific whiting fishery management, paragraph (j)(1)(ii)(A)(3) contact information for obtaining NMFS-approved software was added, proposed language in § 660.306 (f)(6)(i) was removed, and in paragraph (j)(1)(ii)(C)(3) the term first receivers was added.

#### Classification

An environmental assessment was prepared for this action. NMFS finds that no significant impact on the human environment will result from its implementation and has signed the Finding of No Significant Impacts (FONSI).

This final rule has been determined to be not significant for purposes of Executive Order 12866.

A final regulatory flexibility analysis (FRFA) was prepared. The FRFA incorporates the IRFA, and a summary of the analyses completed to support the action. A copy of this analysis is available from or NMFS (see ADDRESSES). A summary of the FRFA follows.

The Pacific whiting shoreside fishery needs to have a catch reporting system in place to: adequately track the incidental take of Chinook salmon as required in the ESA Section 7 Biological Opinion for Chinook salmon catch in the Pacific whiting fishery; and to track the catch of target and overfished groundfish species such that the fishing industry is not unnecessarily constrained and that the sector allocation and bycatch limits are not exceeded.

This action will allow NMFS to effectively manage the Pacific whiting fishery such that harvests of Pacific whiting and incidentally caught groundfish species, including overfished species, do not result in allocations, harvest guidelines, species' OY, or bycatch limits for overfished species being exceeded. One comment was received regarding the IRFA (see Comment 2 above). No changes to the proposed rule resulted from this comment. During 2006, 23 different processors/companies paid \$17 million to fishers who delivered a combined 280 million lbs (127,002 mt) of Pacific whiting. A major processor is one that has purchased more than 1,000,000 lbs of Pacific whiting. There were 13 major Pacific whiting processors in 2006, with the remaining 10 processors all being minor processors, as their production levels ranged from 2 lbs to 7,000 lbs (3,175 kg). There were no processors in the 7,000 lb to 1,000,000 lb (4,536 kg) range. None of these minor processors were associated with a trawl landing that was greater than 4,000 lbs (1,814 kg) and so it is presumed they would be unaffected by these regulations. Note that not all minor entities are "processors" in the traditional sense since some of these entities may be fishers who directly sell their fish to a restaurant. These fishers, although they may be small businesses, are not affected because the direct sale of their landings would not be subject to this rule.

The SBA has established size criteria for all major industry sectors in the U.S. including fish harvesting entities, for-hire entities, fish processing businesses, and fish dealers. A business involved in fish harvesting is a small business if it is independently owned and operated and not major in the field of operation (including its affiliates) and if it has combined annual receipts not in excess of \$3.5 million for all its affiliated operations worldwide. For-hire vessels are considered small entities, if they have annual receipts not in excess of \$6 million. A seafood processor is a small business if it is independently owned and operated, not major in its field of

operation, and employs 500 or few persons on a full-time, part-time, temporary, or other basis, at all its affiliated operations world wide. Finally, a wholesale business servicing the fishing industry (fish dealer) is a small business if it employs 100 or few persons on a full time, part-time, temporary, or other basis, at all its affiliated operations worldwide. Because of the lack of available information on the West Coast seafood processing industry, NMFS must rely on various sorts of information to determine the classification of processing companies including determining if various companies are "affiliated" according to SBA standards.

Based on the SBA criteria and a review of company websites, state employment websites, newspaper articles, personal communications, and non-peered review research documents, it appears that the 13 major Pacific whiting processors can be grouped into nine SBA businesses based on analysis of affiliates. Within these nine SBA businesses, there appears to be three "large" businesses, each of which generated at least \$500 million in sales in 2003 and employ over 500 employees each. In addition, there are six "small" businesses that participated in the shorebased Pacific whiting processing sector in 2006. Annual sales information for these "small" businesses is unavailable, but total ex-vessel revenues (the value of the fish purchased from fisherman) is available. In 2006, these six businesses purchased approximately \$40 million in hake and other fish and shellfish from west coast fishermen. This compares to the \$60 million in hake and other fish and shellfish purchased by the three large businesses. These regulations would require Pacific whiting shoreside processors to have and use a NMFS approved electronic fish ticket program to send daily catch reports. The electronic fish tickets are based on information currently required in state fish receiving tickets or landing receipts (fish tickets). In the States of Washington and California, processors would continue to complete and submit the required paper fish tickets on forms provided by the state and then transfer the same information to the electronic fish ticket for submission. In the State of Oregon, processors could either complete paper fish ticket forms provided by the state, or as is allowed by state law, they could submit a printed and signed copy of the electronic fish tickets. The majority of the companies affected appear to be small businesses.

Given the relatively small numbers of applicants, separate requirements based on size of business were not developed. To the extent possible, however, this final rule builds on existing state reporting requirements or on equipment that the companies typically already have. Therefore, implementation of these rules will require firms to bear minimal costs in reporting data electronically that they already are required to report on paper to the states. In terms of equipment purchases, it is expected that there will be few if any instances where processors have to purchase computers or software because this is equipment that most business already have. It is also not expected that processors will need to purchase scale equipment as the presumption about this final rule is that it enhances existing state regulations that already require processors to use scales in conducting their businesses but may not specifically require the use of scale weights in reporting fisheries data to state agencies. There may be some interest by a few small processors to weigh and count fish at locations other than the point of first landing, but these instances appear to be few.

Additional measures were taken to minimize the costs of the catch accounting requirements by providing: (1) fish ticket software at no cost; (2) fish ticket software that used a standard operating system and common software already owned by most businesses; (3) fish ticket software that is compatible with the existing fish ticket requirements in each of the three states; and, (4) software that can be used to print a paper copy for submission to the state, when state law allows. Because the information is already being gathered by the processors there is no requirement that additional data be gathered. Only the minimum data required to meet the objectives are requested from all applicants. There were no other alternatives to the proposed rule that accomplish the stated objectives. Under Status Quo, general catch sorting requirements and prohibited actions would continue to be specified for limited entry trawl vessel; each state would continue to specify requirements for landing reports. This alternative was rejected because it does not meet the defined need for accurate catch accounting.

Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996 states that, for each rule or group of related rules for which an agency is required to prepare a FRFA, the agency shall publish one or more guides to assist small entities in complying with the rule, and shall designate such

publications as "small entity compliance guides." The agency shall explain the actions a small entity is required to take to comply with a rule or group of rules. As part of this rulemaking process, a public notice that also serves as small entity compliance guide (the guide) was prepared. The guide and final rule will be sent to all of the Pacific whiting shoreside processors that have been designated by the states of Washington, Oregon, or California as participants in the 2007 fishery. Copies of this final rule and the guide are available from the NMFS Northwest Regional Office (see **ADDRESSES**) and are available on our website at [www.nwr.noaa.gov](http://www.nwr.noaa.gov) (Click on "Groundfish Fishery Management," then on either "Public Notices" or "Whiting management").

This final rule contains a collection-of-information requirement subject to the Paperwork Reduction Act (PRA) and which has been approved by OMB under control number 0648-0563. Public reporting burden for preparing and submitting electronic fish tickets is estimated to average ten minutes per individual response for Pacific whiting shoreside processors/first receivers in the states of California and Washington, and two minutes per individual response for Pacific whiting shoreside processors/first receivers in the State of Oregon, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collected information. Send comments regarding these burden estimates or any other aspect of this data collection, including suggestions for reducing the burden, to NMFS (see **ADDRESSES**) and by e-mail to [David\\_Rostker@omb.eop.gov](mailto:David_Rostker@omb.eop.gov), or fax to 202-395-7285.

Notwithstanding any other provision of the law, no person is required to respond to, and no person shall be subject to penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless that collection of information displays a currently valid OMB control number.

Pursuant to Executive Order 13175, this final rule was developed after meaningful consultation and collaboration with tribal officials from the area covered by the FMP. At the Council's September and November 2006 meetings, NMFS informed the Council, which includes a tribal representative, of the intent to evaluate and implement catch accounting requirements for Pacific whiting shoreside processors. This action does not alter the treaty allocation of Pacific

whiting, nor does it affect the prosecution of the tribal fishery.

List of Subjects in 50 CFR Part 660

Fisheries, Fishing, Indian fisheries.
Dated: August 29, 2007.

John Oliver,
Deputy Assistant Administrator for
Operations, National Marine Fisheries
Service.

For the reasons set out in the
preamble, 50 CFR part 660 is amended
as follows:

PART 660—FISHERIES OFF WEST
COAST STATES

1. The authority citation for part 660
continues to read as follows:

Authority: 16 U.S.C. 1801 et seq.

2. In § 660.302, the definitions for
‘Electronic Fish Ticket’, ‘Electronic
Monitoring System,’ ‘Pacific whiting
shoreside or shore-based fishery,’
‘Pacific whiting shoreside first
receiver,’ and ‘Pacific whiting
shoreside vessel’ are added to read as
follows:

§ 660.302 Definitions.

\* \* \* \* \*

Electronic fish ticket means a software
program or data files meeting data
export specifications approved by
NMFS that is used to send landing data
to the Pacific States Marine Fisheries
Commission. Electronic fish tickets are
used to collect information similar to
the information required in state fish
receiving tickets or landing receipts, but
do not replace or change any state
requirements.

Electronic Monitoring System (EMS)
means a data collection tool that uses a
software operating system connected to
an assortment of electronic components,
including video recorders, to create a
collection of data on vessel activities.

\* \* \* \* \*

Pacific whiting shoreside or shore-
based fishery means Pacific whiting
shoreside vessels and Pacific whiting
shoreside first receivers.

Pacific whiting shoreside first
receivers means persons who receive,
purchase, or take custody, control, or
possession of Pacific whiting onshore
directly from a Pacific whiting shoreside
vessel.

Pacific whiting shoreside vessel
means any vessel that fishes using
midwater trawl gear to take, retain,
possess and land 4,000 lb (1,814 kg) or
more of Pacific whiting per fishing trip
from the Pacific whiting shore-based
sector allocation for delivery to a Pacific

whiting shoreside first receiver during
the primary season.

\* \* \* \* \*

3. In § 660.303, paragraph (a) is
revised and paragraph (e) is added to
read as follows:

§ 660.303 Reporting and recordkeeping.

(a) This subpart recognizes that catch
and effort data necessary for
implementing the PCGFMP are
collected by the States of Washington,
Oregon, and California under existing
state data collection requirements.

\* \* \* \* \*

(e) Participants in the Pacific whiting
shoreside fishery. Reporting
requirements defined in the following
section are in addition to reporting
requirements under applicable state law
and requirements described at
§ 660.303(b).

(1) Reporting requirements for any
Pacific whiting shoreside first receiver—

(i) Responsibility for compliance. The
Pacific whiting shoreside first receiver
is responsible for compliance with all
reporting requirements described in this
paragraph.

(ii) General requirements. All records
or reports required by this paragraph
must: be maintained in English, be
accurate, be legible, be based on local
time, and be submitted in a timely
manner as required in paragraph
(e)(1)(iv) of this section.

(iii) Required information. All Pacific
whiting shoreside first receivers must
provide the following types of
information: date of landing, Pacific
whiting shoreside vessel that made the
delivery, gear type used, first receiver,
round weights of species landed listed
by species or species group including
species with no value, number of
salmon by species, number of Pacific
halibut, and any other information
deemed necessary by the Regional
Administrator as specified on the
appropriate electronic fish ticket form.

(iv) Electronic fish ticket submissions.
The Pacific whiting shoreside first
receiver must:

(A) Sort all fish, prior to first
weighing, by species or
species groups as specified at
§ 660.370 (h)(6)(iii).

(B) Include as part of each electronic
fish ticket submission, the actual scale
weight for each groundfish species as
specified by requirements at § 660.373
(j)(2)(i) and the Pacific whiting
shoreside vessel identification number.

(C) Use for the purpose of submitting
electronic fish tickets, and maintain in
good working order, computer
equipment as specified at § 660.373
(j)(2)(ii)(A);

(D) Install, use, and update as
necessary, any NMFS-approved
software described at § 660.373
(j)(2)(ii)(B);

(E) Submit a completed electronic fish
ticket for every landing that includes
4,000 lb (1,814 kg) or more of Pacific
whiting (round weight equivalent) no
later than 24 hours after the date the fish
are received, unless a waiver of this
requirement has been granted under
provisions specified at paragraph (e)(1)
(vii) of this section.

(v) Revising a submitted electronic
fish ticket submission. In the event that
a data error is found, electronic fish
ticket submissions may be revised by
resubmitting the revised form.
Electronic fish tickets are to be used for
the submission of final data.
Preliminary data, including estimates of
fish weights or species composition,
shall not be submitted on electronic fish
tickets.

(vi) Retention of records. [Reserved]

(vii) Waivers for submission of
electronic fish tickets upon written
request. On a case-by-case basis, a
temporary written waiver of the
requirement to submit electronic fish
tickets may be granted by the Assistant
Regional Administrator or designee if
he/she determines that circumstances
beyond the control of a Pacific whiting
shoreside first receiver would result in
inadequate data submissions using the
electronic fish ticket system. The
duration of the waiver will be
determined on a case-by-case basis.

(viii) Reporting requirements when a
temporary waiver has been granted.
Pacific whiting shoreside first receivers
that have been granted a temporary
waiver from the requirement to submit
electronic fish tickets must submit on
paper the same data as is required on
electronic fish tickets within 24 hours of
the date received during the period that
the waiver is in effect. Paper fish tickets
must be sent by facsimile to NMFS,
Northwest Region, Sustainable Fisheries
Division, 206–526–6736 or by delivering
it in person to 7600 Sand Point Way NE,
Seattle, WA 98115. The requirements
for submissions of paper tickets in this
paragraph are separate from, and in
addition to existing state requirements
for landing receipts or fish receiving
tickets.

(2) [Reserved]

4. In § 660.306, paragraphs (f)(6) is
redesignated as (f)(7), and
paragraph(b)(4) and a new (f)(6) are
added to read as follows:

§ 660.306 Prohibitions.

\* \* \* \* \*

(b) \* \* \*

(4) Fail to comply with all requirements at § 660.303 (d); including failure to submit information, submission of inaccurate information, or intentionally submitting false information on any report required at § 660.303 (d) when participating in the Pacific whiting shoreside fishery.

\* \* \* \* \*

(f) \* \* \*

(6) *Pacific whiting shoreside first receivers.*

(i) [Reserved]

(ii) Fail to sort fish received from a Pacific whiting shoreside vessel prior to first weighing after offloading as specified at § 660.370 (h)(6)(iii) for the Pacific whiting fishery.

(iii) Process, sell, or discard any groundfish received from a Pacific whiting shoreside vessel that has not been weighed on a scale that is in compliance with requirements at § 660.373 (j)(1)(i) and accounted for on an electronic fish ticket with the identification number for the Pacific whiting shoreside vessel that delivered the fish.

(iv) Fail to weigh fish landed from a Pacific whiting shoreside vessel prior to transporting any fish from that landing away from the point of landing.

\* \* \* \* \*

■ 5. In § 660.370, paragraph (h)(6)(iii) is added to read as follows:

**§ 660.370 Specifications and management measures.**

\* \* \* \* \*

(h) \* \* \*

(6) \* \* \*

(iii) *Sorting requirements for the Pacific whiting shoreside fishery.* Fish delivered to Pacific whiting shoreside first receivers (including shoreside processing facilities and buying stations that intend to transport catch for processing elsewhere) must be sorted, prior to first weighing after offloading from the vessel and prior to transport away from the point of landing, to the species groups specified in paragraph (h)(6)(i)(A) of this section for vessels with limited entry permits. Prohibited species must be sorted according to the

following species groups: Dungeness crab, Pacific halibut, Chinook salmon, Other salmon. Non-groundfish species must be sorted as required by the state of landing.

\* \* \* \* \*

■ 6. In § 660.373, paragraph (j) is redesignated as (k), and a new paragraph (j) is added to read as follows:

**§ 660.373 Pacific whiting (whiting) fishery management.**

\* \* \* \* \*

(j) *Additional requirements for participants in the Pacific Whiting Shoreside fishery—(1) Pacific whiting shoreside first receiver responsibilities—(i) Weights and measures.* All groundfish weights reported on fish tickets must be recorded from scales with appropriate weighing capacity that ensures accuracy for the amount of fish being weighed. For example: amounts of fish less than 1,000 lb (454 kg) should not be weighed on scales that have an accuracy range of 1,000 lb–7,000 lb (454 - 3,175 kg) and are therefore not capable of accurately weighing amounts less than 1,000 lb (454 kg).

(ii) *Electronic fish tickets—(A) Hardware and software requirements.* First receivers using the electronic fish ticket software provided by Pacific States Marine Fish Commission are required to meet the hardware and software requirements below. Those whiting first receivers who have NMFS-approved software compatible with the standards specified by Pacific States Marine Fish Commission for electronic fish tickets are not subject to any specific hardware or software requirements.

(1) A personal computer with Pentium 75-MHz or higher. Random Access Memory (RAM) must have sufficient megabyte (MB) space to run the operating system, plus an additional 8 MB for the software application and available hard disk space of 217 MB or greater. A CD-ROM drive with a Video Graphics Adapter(VGA) or higher resolution monitor (super VGA is recommended).

(2) Microsoft Windows 2000 (64 MB or greater RAM required), Windows XP

(128 MB or greater RAM required) or later operating system.

(3) Microsoft Access 2003 or newer for:

(i) *NMFS Approved Software Standards and Internet Access.*

The Pacific whiting shoreside first receiver is responsible for obtaining, installing and updating electronic fish tickets software either provided by Pacific States Marine Fish Commission, or compatible with the data export specifications specified by Pacific States Marine Fish Commission and for maintaining internet access sufficient to transmit data files via email. Requests for data export specifications can be submitted to: Attn: Frank Lockhart, National Marine Fisheries Service, Northwest Region Sustainable Fisheries Division, 7600 Sand Point Way NE, Seattle, WA 98115, or via email to [frank.lockhart@noaa.gov](mailto:frank.lockhart@noaa.gov).

(ii) *Maintenance.* The Pacific whiting shoreside first receiver is responsible for ensuring that all hardware and software required under this subsection are fully operational and functional whenever the Pacific whiting primary season deliveries are accepted.

(2) Pacific whiting shoreside first receivers and processors that receive groundfish species other than Pacific whiting in excess of trip limits from Pacific whiting shoreside vessels fishing under an EFP issued by the Assistant Regional Administrator are authorized to possess the catch.

(3) Vessel owners and operators, first receivers, or shoreside processor owners, or managers may contact NMFS in writing to request assistance in improving data quality and resolving monitoring issues. Requests may be submitted to: Attn: Frank Lockhart, National Marine Fisheries Service, Northwest Region Sustainable Fisheries Division, 7600 Sand Point Way NE, Seattle, WA 98115, or via email to [frank.lockhart@noaa.gov](mailto:frank.lockhart@noaa.gov).

\* \* \* \* \*

[FR Doc. E7-17523 Filed 9-4-07; 8:45 am]

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amount equal to five percent of the combined amounts covered each fiscal year into the Federal aid to wildlife restoration fund under section 3 of the Act of September 2, 1937, and paid, transferred, or otherwise credited each fiscal year to the Sport Fishing Restoration Account established under 1016 of the Act of July 18, 1984.

(2) Amounts deposited into the special fund are authorized to be appropriated annually and allocated in accordance with subsection (d) of this section.

#### INTERAGENCY COOPERATION

SEC. 7. [16 U.S.C. 1536] (a) FEDERAL AGENCY ACTIONS AND CONSULTATIONS.—(1) The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this Act. All other Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 4 of this Act.

(2) Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as an “agency action”) is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with affected States, to be critical, unless such agency has been granted an exemption for such action by the Committee pursuant to subsection (h) of this section. In fulfilling the requirements of this paragraph each agency shall use the best scientific and commercial data available.

(3) Subject to such guidelines as the Secretary may establish, a Federal agency shall consult with the Secretary on any prospective agency action at the request of, and in cooperation with, the prospective permit or license applicant if the applicant has reason to believe that an endangered species or a threatened species may be present in the area affected by his project and that implementation of such action will likely affect such species.

(4) Each Federal agency shall confer with the Secretary on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under section 4 or result in the destruction or adverse modification of critical habitat proposed to be designated for such species. This paragraph does not require a limitation on the commitment of resources as described in subsection (d).

(b) OPINION OF SECRETARY.—(1)(A) Consultation under subsection (a)(2) with respect to any agency action shall be concluded within the 90-day period beginning on the date on which initiated or, subject to subparagraph (B), within such other period of time as is mutually agreeable to the Secretary and the Federal agency.

(B) In the case of an agency action involving a permit or license applicant, the Secretary and the Federal agency may not mutually agree to conclude consultation within a period exceeding 90 days unless the Secretary, before the close of the 90th day referred to in subparagraph (A)—

(i) if the consultation period proposed to be agreed to will end before the 150th day after the date on which consultation was initiated, submits to the applicant a written statement setting forth—

(I) the reasons why a longer period is required;

(II) the information that is required to complete the consultation; and

(III) the estimated date on which consultation will be completed; or

(ii) if the consultation period proposed to be agreed to will end 150 or more days after the date on which consultation was initiated, obtains the consent of the applicant to such period.

The Secretary and the Federal agency may mutually agree to extend a consultation period established under the preceding sentence if the Secretary, before the close of such period, obtains the consent of the applicant to the extension.

(2) Consultation under subsection (a)(3) shall be concluded within such period as is agreeable to the Secretary, the Federal agency, and the applicant concerned.

(3)(A) Promptly after conclusion of consultation under paragraph (2) or (3) of subsection (a), the Secretary shall provide to the Federal agency and the applicant, if any, a written statement setting forth the Secretary's opinion, and a summary of the information on which the opinion is based, detailing how the agency action affects the species or its critical habitat. If jeopardy or adverse modification is found, the Secretary shall suggest those reasonable and prudent alternatives which he believes would not violate subsection (a)(2) and can be taken by the Federal agency or applicant in implementing the agency action.

(B) Consultation under subsection (a)(3), and an opinion based by the Secretary incident to such consultation, regarding an agency action shall be treated respectively as a consultation under subsection (a)(2), and as an opinion issued after consultation under such subsection, regarding that action if the Secretary reviews the action before it is commenced by the Federal agency and finds, and notifies such agency, that no significant changes have been made with respect to the action and that no significant change has occurred regarding the information used during the initial consultation.

(4) If after consultation under subsection (a)(2) of this section, the Secretary concludes that—

(A) the agency action will not violate such subsection, or offers reasonable and prudent alternatives which the Secretary believes would not violate such subsection;

(B) the taking of an endangered species or a threatened species incidental to the agency action will not violate such subsection; and

(C) if an endangered species or threatened species of a marine mammal is involved, the taking is authorized pursuant to section 101(a)(5) of the Marine Mammal Protection Act of 1972; the Secretary shall provide the Federal agency and the applicant concerned, if any, with a written statement that—

(i) specifies the impact of such incidental taking on the species,

(ii) specifies those reasonable and prudent measures that the Secretary considers necessary or appropriate to minimize such impact,

(iii) in the case of marine mammals, specifies those measures that are necessary to comply with section 101(a)(5) of the Marine Mammal Protection Act of 1972 with regard to such taking, and

(iv) sets forth the terms and conditions (including, but not limited to, reporting requirements) that must be complied with by the Federal agency or applicant (if any), or both, to implement the measures specified under clauses (ii) and (iii).

(c) **BIOLOGICAL ASSESSMENT.**—(1) To facilitate compliance with the requirements of subsection (a)(2) each Federal agency shall, with respect to any agency action of such agency for which no contract for construction has been entered into and for which no construction has begun on the date of enactment of the Endangered Species Act Amendments of 1978, request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action. If the Secretary advises, based on the best scientific and commercial data available, that such species may be present, such agency shall conduct a biological assessment for the purpose of identifying any endangered species or threatened species which is likely to be affected by such action. Such assessment shall be completed within 180 days after the date on which initiated (or within such other period as in mutually agreed to by the Secretary and such agency, except that if a permit or license applicant is involved, the 180-day period may not be extended unless such agency provides the applicant, before the close of such period, with a written statement setting forth the estimated length of the proposed extension and the reasons therefor) and, before any contract for construction is entered into and before construction is begun with respect to such action. Such assessment may be undertaken as part of a Federal agency's compliance with the requirements of section 102 of the National Environmental Policy Act of 1969 (42 U.S.C. 4332).

(2) Any person who may wish to apply for an exemption under subsection (g) of this section for that action may conduct a biological assessment to identify any endangered species or threatened species which is likely to be affected by such action. Any such biological assessment must, however, be conducted in cooperation with the Secretary and under the supervision of the appropriate Federal agency.

(d) **LIMITATION ON COMMITMENT OF RESOURCES.**—After initiation of consultation required under subsection (a)(2), the Federal agency and the permit or license applicant shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection (a)(2).

(e)(1) **ESTABLISHMENT OF COMMITTEE.**—There is established a committee to be known as the Endangered Species Committee (hereinafter in this section referred to as the "Committee").

(2) The Committee shall review any application submitted to it pursuant to this section and determine in accordance with sub-

section (h) of this section whether or not to grant an exemption from the requirements of subsection (a)(2) of this action for the action set forth in such application.

(3) The Committee shall be composed of seven members as follows:

- (A) The Secretary of Agriculture.
- (B) The Secretary of the Army.
- (C) The Chairman of the Council of Economic Advisors.
- (D) The Administrator of the Environmental Protection Agency. Agency.<sup>1</sup>
- (E) The Secretary of the Interior.
- (F) The Administrator of the National Oceanic and Atmospheric Administration.

(G) The President, after consideration of any recommendations received pursuant to subsection (g)(2)(B) shall appoint one individual from each affected State, as determined by the Secretary, to be a member of the Committee for the consideration of the application for exemption for an agency action with respect to which such recommendations are made, not later than 30 days after an application is submitted pursuant to this section.

(4)(A) Members of the Committee shall receive no additional pay on account of their service on the Committee.

(B) While away from their homes or regular places of business in the performance of services for the Committee, members of the Committee shall be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in the Government service are allowed expenses under section 5703 of title 5 of the United States Code<sup>1</sup>

(5)(A) Five members of the Committee or their representatives shall constitute a quorum for the transaction of any function of the Committee, except that, in no case shall any representative be considered in determining the existence of a quorum for the transaction of any function of the Committee if that function involves a vote by the Committee on any matter before the Committee.

(B) The Secretary of the Interior shall be the Chairman of the Committee.

(C) The Committee shall meet at the call of the Chairman or five of its members.

(D) All meetings and records of the Committee shall be open to the public.

(6) Upon request of the Committee, the head of any Federal agency is authorized to detail, on a nonreimbursable basis, any of the personnel of such agency to the Committee to assist it in carrying out its duties under this section.

(7)(A) The Committee may for the purpose of carrying out its duties under this section hold such hearings, sit and act at such times and places, take such testimony, and receive such evidence, as the Committee deems advisable.

<sup>1</sup>So in law. At the end of section 7(e)(3)(D) of the Endangered Species Act of 1973, the second "Agency." should had been stricken.

<sup>1</sup>So in law. At the end of section 7(e)(4)(B) of the Endangered Species Act of 1973, the period at end of the paragraph was omitted.

(B) When so authorized by the Committee, any member or agent of the Committee may take any action which the Committee is authorized to take by this paragraph.

(C) Subject to the Privacy Act, the Committee may secure directly from any Federal agency information necessary to enable it to carry out its duties under this section. Upon request of the Chairman of the Committee, the head of such Federal agency shall furnish such information to the Committee.

(D) The Committee may use the United States mails in the same manner and upon the same conditions as a Federal agency.

(E) The Administrator of General Services shall provide to the Committee on a reimbursable basis such administrative support services as the Committee may request.

(8) In carrying out its duties under this section, the Committee may promulgate and amend such rules, regulations, and procedures, and issue and amend such orders as it deems necessary.

(9) For the purpose of obtaining information necessary for the consideration of an application for an exemption under this section the Committee may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents.

(10) In no case shall any representative, including a representative of a member designated pursuant to paragraph (3)(G) of this subsection, be eligible to cast a vote on behalf of any member.

(f) REGULATIONS.—Not later than 90 days after the date of enactment of the Endangered Species Act Amendments of 1978, the Secretary shall promulgate regulations which set forth the form and manner in which applications for exemption shall be submitted to the Secretary and the information to be contained in such applications. Such regulations shall require that information submitted in an application by the head of any Federal agency with respect to any agency action include but not be limited to—

(1) a description of the consultation process carried out pursuant to subsection (a)(2) of this section between the head of the Federal agency and the Secretary; and

(2) a statement describing why such action cannot be altered or modified to conform with the requirements of subsection (a)(2) of this section.

(g) APPLICATION FOR EXEMPTION AND REPORT TO THE COMMITTEE.—(1) A Federal agency, the Governor of the State in which an agency action will occur, if any, or a permit or license applicant may apply to the Secretary for an exemption for an agency action of such agency if, after consultation under subsection (a)(2), the Secretary's opinion under subsection (b) indicates that the agency action would violate subsection (a)(2). An application for an exemption shall be considered initially by the Secretary in the manner provided for in this subsection, and shall be considered by the Committee for a final determination under subsection (h) after a report is made pursuant to paragraph (5). The applicant for an exemption shall be referred to as the "exemption applicant" in this section.

(2)(A) An exemption applicant shall submit a written application to the Secretary, in a form prescribed under subsection (f), not later than 90 days after the completion of the consultation process; except that, in the case of any agency action involving a permit or

license applicant, such application shall be submitted not later than 90 days after the date on which the Federal agency concerned takes final agency action with respect to the issuance of the permit or license. For purposes of the preceding sentence, the term "final agency action" means (i) a disposition by an agency with respect to the issuance of a permit or license that is subject to administrative review, whether or not such disposition is subject to judicial review; or (ii) if administrative review is sought with respect to such disposition, the decision resulting after such review. Such application shall set forth the reasons why the exemption applicant considers that the agency action meets the requirements for an exemption under this subsection.

(B) Upon receipt of an application for exemption for an agency action under paragraph (1), the Secretary shall promptly (i) notify the Governor of each affected State, if any, as determined by the Secretary, and request the Governors so notified to recommend individuals to be appointed to the Endangered Species Committee for consideration of such application; and (ii) publish notice of receipt of the application in the Federal Register, including a summary of the information contained in the application and a description of the agency action with respect to which the application for exemption has been filed.

(3) The Secretary shall within 20 days after the receipt of an application for exemption, or within such other period of time as is mutually agreeable to the exemption applicant and the Secretary—

(A) determine that the Federal agency concerned and the exemption applicant have—

(i) carried out the consultation responsibilities described in subsection (a) in good faith and made a reasonable and responsible effort to develop and fairly consider modifications or reasonable and prudent alternatives to the proposed agency action which would not violate subsection (a)(2);

(ii) conducted any biological assessment required by subsection (c); and

(iii) to the extent determinable within the time provided herein, refrained from making any irreversible or irretrievable commitment of resources prohibited by subsection (d); or

(B) deny the application for exemption because the Federal agency concerned or the exemption applicant have not met the requirements set forth in subparagraph (A)(i), (ii), and (iii).

The denial of an application under subparagraph (B) shall be considered final agency action for purposes of chapter 7 of title 5, United States Code.

(4) If the Secretary determines that the Federal agency concerned and the exemption applicant have met the requirements set forth in paragraph (3)(A) (i), (ii) and (iii) he shall, in consultation with the Members of the Committee, hold a hearing on the application for exemption in accordance with sections 554, 555, and 556 (other than subsection (b) (1) and (2) thereof) of title 5, United States Code, and prepare the report to be submitted pursuant to paragraph (5).

(5) Within 140 days after making the determinations under paragraph (3) or within such other period of time as in mutually agreeable to the exemption applicant and the Secretary, the Secretary shall submit to the Committee a report discussing—

(A) the availability and reasonable and prudent alternatives to the agency action, and the nature and extent of the benefits of the agency action and of alternative courses of action consistent with conserving the species of the critical habitat;

(B) a summary of the evidence concerning whether or not the agency action is in the public interest and is of national or regional significance;

(C) appropriate reasonable mitigation and enhancement measures which should be considered by the Committee; and

(D) whether the Federal agency concerned and the exemption applicant refrained from making any irreversible or irretrievable commitment of resources prohibited by subsection (d).

(6) To the extent practicable within the time required for action under subsection (g) of this section, and except to the extent inconsistent with the requirements of this section, the consideration of any application for an exemption under this section and the conduct of any hearing under this subsection shall be in accordance with sections 554, 555, and 556 (other than subsection (b)(3) of section 556) of title 5, United States Code.

(7) Upon request of the Secretary, the head of any Federal agency is authorized to detail, on a nonreimbursable basis, any of the personnel of such agency to the Secretary to assist him in carrying out his duties under this section.

(8) All meetings and records resulting from activities pursuant to this subsection shall be open to the public.

(h) EXEMPTION.—(1) The Committee shall make a final determination whether or not to grant an exemption within 30 days after receiving the report of the Secretary pursuant to subsection (g)(5). The Committee shall grant an exemption from the requirements of subsection (a)(2) for an agency action if, by a vote of not less than five of its members voting in person—

(A) it determines on the record, based on the report of the Secretary, the record of the hearing held under subsection (g)(4), and on such other testimony or evidence as it may receive, that—

(i) there are no reasonable and prudent alternatives to the agency action;

(ii) the benefits of such action clearly outweigh the benefits of alternative courses of action consistent with conserving the species or its critical habitat, and such action is in the public interest;

(iii) the action is of regional or national significance; and

(iv) neither the Federal agency concerned nor the exemption applicant made any irreversible or irretrievable commitment of resources prohibited by subsection (d); and

(B) it establishes such reasonable mitigation and enhancement measures, including, but not limited to, live propagation, transplantation, and habitat acquisition and improvement, as

are necessary and appropriate to minimize the adverse effects of the agency action upon the endangered species, threatened species, or critical habitat concerned.

Any final determination by Committee under this subsection shall be considered final agency action for purposes of chapter 7 of title 5 of the United States Code.

(2)(A) Except as provided in subparagraph (B), an exemption for an agency action granted under paragraph (1) shall constitute a permanent exemption with respect to all endangered or threatened species for the purposes of completing such agency action—

(i) regardless whether the species was identified in the biological assessment; and

(ii) only if a biological assessment has been conducted under subsection (c) with respect to such agency action.

(B) An exemption shall be permanent under subparagraph (A) unless—

(i) the Secretary finds, based on the best scientific and commercial data available, that such exemption would result in the extinction of a species that was not the subject of consultation under subsection (a)(2) or was not identified in any biological assessment conducted under subsection (c), and

(ii) the Committee determines within 60 days after the date of the Secretary's finding that the exemption should not be permanent.

If the Secretary makes a finding described in clause (i), the Committee shall meet with respect to the matter within 30 days after the date of the finding.

(i) REVIEW BY SECRETARY OF STATE.—Notwithstanding any other provision of this Act, the Committee shall be prohibited from considering for exemption any application made to it, if the Secretary of State, after a review of the proposed agency action and its potential implications, and after hearing, certifies, in writing, to the Committee within 60 days of any application made under this section that the granting of any such exemption and the carrying out of such action would be in violation of an international treaty obligation or other international obligation of the United States. The Secretary of State shall, at the time of such certification, publish a copy thereof in the Federal Register.

(j) Notwithstanding any other provision of this Act, the Committee shall grant an exemption for any agency action if the Secretary of Defense finds that such exemption is necessary for reasons of national security.

(k) SPECIAL PROVISIONS.—An exemption decision by the Committee under this section shall not be a major Federal action for purposes of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.): *Provided*, That an environmental impact statement which discusses the impacts upon endangered species or threatened species or their critical habitats shall have been previously prepared with respect to any agency action exempted by such order.

(l) COMMITTEE ORDERS.—(1) If the Committee determines under subsection (h) that an exemption should be granted with respect to any agency action, the Committee shall issue an order granting the exemption and specifying the mitigation and enhance-

ment measures established pursuant to subsection (h) which shall be carried out and paid for by the exemption applicant in implementing the agency action. All necessary mitigation and enhancement measures shall be authorized prior to the implementing of the agency action and funded concurrently with all other project features.

(2) The applicant receiving such exemption shall include the costs of such mitigation and enhancement measures within the overall costs of continuing the proposed action. Notwithstanding the preceding sentence the costs of such measures shall not be treated as project costs for the purpose of computing benefit-cost or other ratios for the proposed action. Any applicant may request the Secretary to carry out such mitigation and enhancement measures. The costs incurred by the Secretary in carrying out any such measures shall be paid by the applicant receiving the exemption. No later than one year after the granting of an exemption, the exemption applicant shall submit to the Council on Environmental Quality a report describing its compliance with the mitigation and enhancement measures prescribed by this section. Such report shall be submitted annually until all such mitigation and enhancement measures have been completed. Notice of the public availability of such reports shall be published in the Federal Register by the Council on Environmental Quality.

(m) NOTICE.—The 60-day notice requirement of section 11(g) of this Act shall not apply with respect to review of any final determination of the Committee under subsection (h) of this section granting an exemption from the requirements of subsection (a)(2) of this section.

(n) JUDICIAL REVIEW.—Any person, as defined by section 3(13) of this Act, may obtain judicial review, under chapter 7 of title 5 of the United States Code, of any decision of the Endangered Species Committee under subsection (h) in the United States Court of Appeals for (1) any circuit wherein the agency action concerned will be, or is being, carried out, or (2) in any case in which the agency action will be, or is being, carried out outside of any circuit, the District of Columbia, by filing in such court within 90 days after the date of issuance of the decision, a written petition for review. A copy of such petition shall be transmitted by the clerk of the court to the Committee and the Committee shall file in the court the record in the proceeding, as provided in section 2112, of title 28, United States Code. Attorneys designated by the Endangered Species Committee may appear for, and represent the Committee in any action for review under this subsection.

(o) EXEMPTION AS PROVIDING EXCEPTION ON TAKING OF ENDANGERED SPECIES.—Notwithstanding sections 4(d) and 9(a)(1)(B) and (C) of this Act, sections 101 and 102 of the Marine Mammal Protection Act of 1972, or any regulation promulgated to implement any such section—

(1) any action for which an exemption is granted under subsection (h) of this section shall not be considered to be a taking of any endangered species or threatened species with respect to any activity which is necessary to carry out such action; and

(2) any taking that is in compliance with the terms and conditions specified in a written statement provided under subsection (b)(4)(iv) of this section shall not be considered to be a prohibited taking of the species concerned.

(p) EXEMPTIONS IN PRESIDENTIALLY DECLARED DISASTER AREAS.—In any area which has been declared by the President to be a major disaster area under the Disaster Relief and Emergency Assistance Act, the President is authorized to make the determinations required by subsections (g) and (h) of this section for any project for the repair or replacement of a public facility substantially as it existed prior to the disaster under section 405 or 406 of the Disaster Relief and Emergency Assistance Act, and which the President determines (1) is necessary to prevent the recurrence of such a natural disaster and to reduce the potential loss of human life, and (2) to involve an emergency situation which does not allow the ordinary procedures of this section to be followed. Notwithstanding any other provision of this section, the Committee shall accept the determinations of the President under this subsection.

#### INTERNATIONAL COOPERATION

SEC. 8. [16 U.S.C. 1537] (a) FINANCIAL ASSISTANCE.—As a demonstration of the commitment of the United States to the worldwide protection of endangered species and threatened species, the President may, subject to the provisions of section 1415 of the Supplemental Appropriation Act, 1953 (31 U.S.C. 724), use foreign currencies accruing to the United States Government under the Agricultural Trade Development and Assistance Act of 1954 or any other law to provide to any foreign country (with its consent) assistance in the development and management of programs in that country which the Secretary determines to be necessary or useful for the conservation of any endangered species or threatened species listed by the Secretary pursuant to section 4 of this Act. The President shall provide assistance (which includes, but is not limited to, the acquisition, by lease or otherwise, of lands, waters, or interests therein) to foreign countries under this section under such terms and conditions as he deems appropriate. Whenever foreign currencies are available for the provision of assistance under this section, such currencies shall be used in preference to funds appropriated under the authority of section 15 of this Act.

(b) ENCOURAGEMENT OF FOREIGN PROGRAMS.—In order to carry out further the provisions of this Act, the Secretary, through the Secretary of State shall encourage—

(1) foreign countries to provide for the conservation of fish or wildlife and plants including endangered species and threatened species listed pursuant to section 4 of this Act;

(2) the entering into of bilateral or multilateral agreements with foreign countries to provide for such conservation; and

(3) foreign persons who directly or indirectly take fish or wildlife or plants in foreign countries or on the high seas for importation into the United States for commercial or other purposes to develop and carry out with such assistance as he may provide, conservation practices designed to enhance such fish or wildlife or plants and their habitat.

**SEC. 303. CONTENTS OF FISHERY MANAGEMENT PLANS 16 U.S.C. 1853**

**95-354, 99-659, 101-627, 104-297**

(a) **REQUIRED PROVISIONS.**—Any fishery management plan which is prepared by any Council, or by the Secretary, with respect to any fishery, shall—

(1) contain the conservation and management measures, applicable to foreign fishing and fishing by vessels of the United States, which are—

(A) necessary and appropriate for the conservation and management of the fishery to prevent overfishing and rebuild overfished stocks, and to protect, restore, and promote the long-term health and stability of the fishery;

(B) described in this subsection or subsection (b), or both; and

(C) consistent with the national standards, the other provisions of this Act, regulations implementing recommendations by international organizations in which the United States participates (including but not limited to closed areas, quotas, and size limits), and any other applicable law;

(2) contain a description of the fishery, including, but not limited to, the number of vessels involved, the type and quantity of fishing gear used, the species of fish involved and their location, the cost likely to be incurred in management, actual and potential revenues from the fishery, any recreational interest in the fishery, and the nature and extent of foreign fishing and Indian treaty fishing rights, if any;

(3) assess and specify the present and probable future condition of, and the maximum sustainable yield and optimum yield from, the fishery, and include a summary of the information utilized in making such specification;

(4) assess and specify—

(A) the capacity and the extent to which fishing vessels of the United States, on an annual basis, will harvest the optimum yield specified under paragraph (3),

(B) the portion of such optimum yield which, on an annual basis, will not be harvested by fishing vessels of the United States and can be made available for foreign fishing, and

(C) the capacity and extent to which United States fish processors, on an annual basis, will process that portion of such optimum yield that will be harvested by fishing vessels of the United States;

**109-479**

(5) specify the pertinent data which shall be submitted to the Secretary with respect to commercial, recreational, charter fishing, and fish processing in the fishery, including, but not limited to, information regarding the type and quantity of fishing gear used, catch by species in numbers of fish or weight thereof, areas in which fishing was engaged in, time of fishing, number of hauls, economic information necessary to meet the requirements of this Act, and the estimated processing capacity of, and the actual processing capacity utilized by, United States fish processors;

(6) consider and provide for temporary adjustments, after consultation with the Coast Guard and persons utilizing the fishery, regarding access to the fishery for vessels otherwise prevented from harvesting because of weather or other ocean conditions affecting the safe conduct of the fishery; except that the adjustment shall not adversely affect conservation efforts in other fisheries or discriminate among participants in the affected fishery;

(7) describe and identify essential fish habitat for the fishery based on the guidelines established by the Secretary under section 305(b)(1)(A), minimize to the extent practicable adverse effects on such habitat caused by fishing, and identify other actions to encourage the conservation and enhancement of such habitat;

(8) in the case of a fishery management plan that, after January 1, 1991, is submitted to the Secretary for review under section 304(a) (including any plan for which an amendment is submitted to the Secretary for such review) or is prepared by the Secretary, assess and specify the nature and extent of scientific data which is needed for effective implementation of the plan;

**109-479**

(9) include a fishery impact statement for the plan or amendment (in the case of a plan or amendment thereto submitted to or prepared by the Secretary after October 1, 1990) which shall assess, specify, and analyze the likely effects, if any, including the cumulative conservation, economic, and social impacts, of the conservation and management measures on, and possible mitigation measures for—

(A) participants in the fisheries and fishing communities affected by the plan or amendment;

(B) participants in the fisheries conducted in adjacent areas under the authority of another Council, after consultation with such Council and representatives of those participants; and

(C) the safety of human life at sea, including whether and to what extent such measures may affect the safety of participants in the fishery;

(10) specify objective and measurable criteria for identifying when the fishery to which the plan applies is overfished (with an analysis of how the criteria were determined and the relationship of the criteria to the reproductive potential of stocks of fish in that fishery) and, in the case of a fishery which the Council or the Secretary has determined is approaching an overfished condition or is overfished, contain conservation and management measures to prevent overfishing or end overfishing and rebuild the fishery;

(11) establish a standardized reporting methodology to assess the amount and type of bycatch occurring in the fishery, and include conservation and management measures that, to the extent practicable and in the following priority—

(A) minimize bycatch; and

(B) minimize the mortality of bycatch which cannot be avoided;

**16 U.S.C. 1853**  
**MSA § 303**

(12) assess the type and amount of fish caught and released alive during recreational fishing under catch and release fishery management programs and the mortality of such fish, and include conservation and management measures that, to the extent practicable, minimize mortality and ensure the extended survival of such fish;

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(13) include a description of the commercial, recreational, and charter fishing sectors which participate in the fishery, including its economic impact, and, to the extent practicable, quantify trends in landings of the managed fishery resource by the commercial, recreational, and charter fishing sectors;

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(14) to the extent that rebuilding plans or other conservation and management measures which reduce the overall harvest in a fishery are necessary, allocate, taking into consideration the economic impact of the harvest restrictions or recovery benefits on the fishery participants in each sector, any harvest restrictions or recovery benefits fairly and equitably among the commercial, recreational, and charter fishing sectors in the fishery and;

**109-479**

(15) establish a mechanism for specifying annual catch limits in the plan (including a multiyear plan), implementing regulations, or annual specifications, at a level such that overfishing does not occur in the fishery, including measures to ensure accountability.

**97-453, 99-659, 101-627, 102-251, 104-297**

(b) DISCRETIONARY PROVISIONS.—Any fishery management plan which is prepared by any Council, or by the Secretary, with respect to any fishery, may—

(1) require a permit to be obtained from, and fees to be paid to, the Secretary, with respect to—

(A) any fishing vessel of the United States fishing, or wishing to fish, in the exclusive economic zone [or special areas,]\* or for anadromous species or Continental Shelf fishery resources beyond such zone [or areas]\*;

(B) the operator of any such vessel; or

(C) any United States fish processor who first receives fish that are subject to the plan;

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(2)(A) designate zones where, and periods when, fishing shall be limited, or shall not be permitted, or shall be permitted only by specified types of fishing vessels or with specified types and quantities of fishing gear;

(B) designate such zones in areas where deep sea corals are identified under section 408, to protect deep sea corals from physical damage from fishing gear or to prevent loss or damage to such fishing gear from interactions with deep sea corals, after considering long-term sustainable uses of fishery resources in such areas; and

(C) with respect to any closure of an area under this Act that prohibits all fishing, ensure that such closure—

- (i) is based on the best scientific information available;
- (ii) includes criteria to assess the conservation benefit of the closed area;
- (iii) establishes a timetable for review of the closed area's performance that is consistent with the purposes of the closed area; and
- (iv) is based on an assessment of the benefits and impacts of the closure, including its size, in relation to other management measures (either alone or in combination with such measures), including the benefits and impacts of limiting access to: users of the area, overall fishing activity, fishery science, and fishery and marine conservation;

(3) establish specified limitations which are necessary and appropriate for the conservation and management of the fishery on the—

- (A) catch of fish (based on area, species, size, number, weight, sex, bycatch, total biomass, or other factors);
- (B) sale of fish caught during commercial, recreational, or charter fishing, consistent with any applicable Federal and State safety and quality requirements; and
- (C) transshipment or transportation of fish or fish products under permits issued pursuant to section 204;

(4) prohibit, limit, condition, or require the use of specified types and quantities of fishing gear, fishing vessels, or equipment for such vessels, including devices which may be required to facilitate enforcement of the provisions of this Act;

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(5) incorporate (consistent with the national standards, the other provisions of this Act, and any other applicable law) the relevant fishery conservation and management measures of the coastal States nearest to the fishery and take into account the different circumstances affecting fisheries from different States and ports, including distances to fishing grounds and proximity to time and area closures;

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(6) establish a limited access system for the fishery in order to achieve optimum yield if, in developing such system, the Council and the Secretary take into account—

- (A) present participation in the fishery;
- (B) historical fishing practices in, and dependence on, the fishery;
- (C) the economics of the fishery;
- (D) the capability of fishing vessels used in the fishery to engage in other fisheries;
- (E) the cultural and social framework relevant to the fishery and any affected fishing communities;
- (F) the fair and equitable distribution of access privileges in the fishery; and
- (G) any other relevant considerations;

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(7) require fish processors who first receive fish that are subject to the plan to submit data which are necessary for the conservation and management of the fishery;

(8) require that one or more observers be carried on board a vessel of the United States engaged in fishing for species that are subject to the plan, for the purpose of collecting data necessary for the conservation and management of the fishery; except that such a vessel shall not be required to carry an observer on board if the facilities of the vessel for the quartering of an observer, or for carrying out observer functions, are so inadequate or unsafe that the health or safety of the observer or the safe operation of the vessel would be jeopardized;

(9) assess and specify the effect which the conservation and management measures of the plan will have on the stocks of naturally spawning anadromous fish in the region;

(10) include, consistent with the other provisions of this Act, conservation and management measures that provide harvest incentives for participants within each gear group to employ fishing practices that result in lower levels of bycatch or in lower levels of the mortality of bycatch;

(11) reserve a portion of the allowable biological catch of the fishery for use in scientific research;

**109-479**

(12) include management measures in the plan to conserve target and non-target species and habitats, considering the variety of ecological factors affecting fishery populations; and

(14)[sic]<sup>15</sup> prescribe such other measures, requirements, or conditions and restrictions as are determined to be necessary and appropriate for the conservation and management of the fishery.

**97-453, 104-297**

(c) PROPOSED REGULATIONS.—Proposed regulations which the Council deems necessary or appropriate for the purposes of—

(1) implementing a fishery management plan or plan amendment shall be submitted to the Secretary simultaneously with the plan or amendment under section 304; and

(2) making modifications to regulations implementing a fishery management plan or plan amendment may be submitted to the Secretary at any time after the plan or amendment is approved under section 304.

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<sup>15</sup> So in original.

**P.L. 109-479, sec. 104(b), MSA § 303 note**

**16 U.S.C. 1853 note**

**EFFECTIVE DATES; APPLICATION TO CERTAIN SPECIES.**—The amendment made by subsection (a)(10)<sup>16</sup>—

(1) shall, unless otherwise provided for under an international agreement in which the United States participates, take effect—

(A) in fishing year 2010 for fisheries determined by the Secretary to be subject to overfishing; and

(B) in fishing year 2011 for all other fisheries; and

(2) shall not apply to a fishery for species that have a life cycle of approximately 1 year unless the Secretary has determined the fishery is subject to overfishing of that species; and

(3) shall not limit or otherwise affect the requirements of section 301(a)(1) or 304(e) of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1851(a)(1) or 1854(e), respectively).

**109-479**

**SEC. 303A. LIMITED ACCESS PRIVILEGE PROGRAMS.**

**16 U.S.C. 1853a**

(a) **IN GENERAL.**—After the date of enactment of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, a Council may submit, and the Secretary may approve, for a fishery that is managed under a limited access system, a limited access privilege program to harvest fish if the program meets the requirements of this section.

(b) **NO CREATION OF RIGHT, TITLE, OR INTEREST.**—Limited access privilege, quota share, or other limited access system authorization established, implemented, or managed under this Act—

(1) shall be considered a permit for the purposes of sections 307, 308, and 309;

(2) may be revoked, limited, or modified at any time in accordance with this Act, including revocation if the system is found to have jeopardized the sustainability of the stock or the safety of fishermen;

(3) shall not confer any right of compensation to the holder of such limited access privilege, quota share, or other such limited access system authorization if it is revoked, limited, or modified;

(4) shall not create, or be construed to create, any right, title, or interest in or to any fish before the fish is harvested by the holder; and

(5) shall be considered a grant of permission to the holder of the limited access privilege or quota share to engage in activities permitted by such limited access privilege or quota share.

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<sup>16</sup> Section 104(a)(10) of P.L. 109-479 added section 303(a)(15).

(c) REQUIREMENTS FOR LIMITED ACCESS PRIVILEGES.—

(1) IN GENERAL.—Any limited access privilege program to harvest fish submitted by a Council or approved by the Secretary under this section shall—

(A) if established in a fishery that is overfished or subject to a rebuilding plan, assist in its rebuilding;

(B) if established in a fishery that is determined by the Secretary or the Council to have over-capacity, contribute to reducing capacity;

(C) promote—

(i) fishing safety;

(ii) fishery conservation and management; and

(iii) social and economic benefits;

(D) prohibit any person other than a United States citizen, a corporation, partnership, or other entity established under the laws of the United States or any State, or a permanent resident alien, that meets the eligibility and participation requirements established in the program from acquiring a privilege to harvest fish, including any person that acquires a limited access privilege solely for the purpose of perfecting or realizing on a security interest in such privilege;

(E) require that all fish harvested under a limited access privilege program be processed on vessels of the United States or on United States soil (including any territory of the United States);

(F) specify the goals of the program;

(G) include provisions for the regular monitoring and review by the Council and the Secretary of the operations of the program, including determining progress in meeting the goals of the program and this Act, and any necessary modification of the program to meet those goals, with a formal and detailed review 5 years after the implementation of the program and thereafter to coincide with scheduled Council review of the relevant fishery management plan (but no less frequently than once every 7 years);

(H) include an effective system for enforcement, monitoring, and management of the program, including the use of observers or electronic monitoring systems;

(I) include an appeals process for administrative review of the Secretary's decisions regarding initial allocation of limited access privileges;

(J) provide for the establishment by the Secretary, in consultation with appropriate Federal agencies, for an information collection and review process to provide any additional information needed to determine whether any illegal acts of anti-competition, anti-trust, price collusion, or price fixing have occurred among regional fishery associations or persons receiving limited access privileges under the program; and

(K) provide for the revocation by the Secretary of limited access privileges held by any person found to have violated the antitrust laws of the United States.

(2) WAIVER.—The Secretary may waive the requirement of paragraph (1)(E) if the Secretary determines that—

- (A) the fishery has historically processed the fish outside of the United States; and
- (B) the United States has a seafood safety equivalency agreement with the country where processing will occur.

(3) FISHING COMMUNITIES.—

(A) IN GENERAL.—

(i) ELIGIBILITY.—To be eligible to participate in a limited access privilege program to harvest fish, a fishing community shall—

- (I) be located within the management area of the relevant Council;
- (II) meet criteria developed by the relevant Council, approved by the Secretary, and published in the Federal Register;
- (III) consist of residents who conduct commercial or recreational fishing, processing, or fishery-dependent support businesses within the Council's management area; and
- (IV) develop and submit a community sustainability plan to the Council and the Secretary that demonstrates how the plan will address the social and economic development needs of coastal communities, including those that have not historically had the resources to participate in the fishery, for approval based on criteria developed by the Council that have been approved by the Secretary and published in the Federal Register.

(ii) FAILURE TO COMPLY WITH PLAN.—The Secretary shall deny or revoke limited access privileges granted under this section for any person who fails to comply with the requirements of the community sustainability plan. Any limited access privileges denied or revoked under this section may be reallocated to other eligible members of the fishing community.

- (B) PARTICIPATION CRITERIA.—In developing participation criteria for eligible communities under this paragraph, a Council shall consider—
- (i) traditional fishing or processing practices in, and dependence on, the fishery;
  - (ii) the cultural and social framework relevant to the fishery;
  - (iii) economic barriers to access to fishery;
  - (iv) the existence and severity of projected economic and social impacts associated with implementation of limited access privilege programs on harvesters, captains, crew, processors, and other businesses substantially dependent upon the fishery in the region or subregion;
  - (v) the expected effectiveness, operational transparency, and equitability of the community sustainability plan; and
  - (vi) the potential for improving economic conditions in remote coastal communities lacking resources to participate in harvesting or processing activities in the fishery.

(4) REGIONAL FISHERY ASSOCIATIONS.—

(A) IN GENERAL.—To be eligible to participate in a limited access privilege program to harvest fish, a regional fishery association shall—

- (i) be located within the management area of the relevant Council;
- (ii) meet criteria developed by the relevant Council, approved by the Secretary, and published in the Federal Register;
- (iii) be a voluntary association with established by-laws and operating procedures;
- (iv) consist of participants in the fishery who hold quota share that are designated for use in the specific region or subregion covered by the regional fishery association, including commercial or recreational fishing, processing, fishery-dependent support businesses, or fishing communities;
- (v) not be eligible to receive an initial allocation of a limited access privilege but may acquire such privileges after the initial allocation, and may hold the annual fishing privileges of any limited access privileges it holds or the annual fishing privileges that is [sic]<sup>17</sup> members contribute; and
- (vi) develop and submit a regional fishery association plan to the Council and the Secretary for approval based on criteria developed by the Council that have been approved by the Secretary and published in the Federal Register.

(B) FAILURE TO COMPLY WITH PLAN.—The Secretary shall deny or revoke limited access privileges granted under this section to any person participating in a regional fishery association who fails to comply with the requirements of the regional fishery association plan.

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<sup>17</sup> So in original.

(C) PARTICIPATION CRITERIA.—In developing participation criteria for eligible regional fishery associations under this paragraph, a Council shall consider—

- (i) traditional fishing or processing practices in, and dependence on, the fishery;
- (ii) the cultural and social framework relevant to the fishery;
- (iii) economic barriers to access to fishery;
- (iv) the existence and severity of projected economic and social impacts associated with implementation of limited access privilege programs on harvesters, captains, crew, processors, and other businesses substantially dependent upon the fishery in the region or subregion;
- (v) the administrative and fiduciary soundness of the association; and
- (vi) the expected effectiveness, operational transparency, and equitability of the fishery association plan.

(5) ALLOCATION.—In developing a limited access privilege program to harvest fish a Council or the Secretary shall—

(A) establish procedures to ensure fair and equitable initial allocations, including consideration of—

- (i) current and historical harvests;
- (ii) employment in the harvesting and processing sectors;
- (iii) investments in, and dependence upon, the fishery; and
- (iv) the current and historical participation of fishing communities;

(B) consider the basic cultural and social framework of the fishery, especially through—

- (i) the development of policies to promote the sustained participation of small owner-operated fishing vessels and fishing communities that depend on the fisheries, including regional or port-specific landing or delivery requirements; and
- (ii) procedures to address concerns over excessive geographic or other consolidation in the harvesting or processing sectors of the fishery;

(C) include measures to assist, when necessary and appropriate, entry-level and small vessel owner-operators, captains, crew, and fishing communities through set-asides of harvesting allocations, including providing privileges, which may include set-asides or allocations of harvesting privileges, or economic assistance in the purchase of limited access privileges;

(D) ensure that limited access privilege holders do not acquire an excessive share of the total limited access privileges in the program by—

- (i) establishing a maximum share, expressed as a percentage of the total limited access privileges, that a limited access privilege holder is permitted to hold, acquire, or use; and
- (ii) establishing any other limitations or measures necessary to prevent an inequitable concentration of limited access privileges; and

(E) authorize limited access privileges to harvest fish to be held, acquired, used by, or issued under the system to persons who substantially participate in the fishery, including in a specific sector of such fishery, as specified by the Council.

(6) PROGRAM INITIATION.—

(A) LIMITATION.—Except as provided in subparagraph (D), a Council may initiate a fishery management plan or amendment to establish a limited access privilege program to harvest fish on its own initiative or if the Secretary has certified an appropriate petition.

(B) PETITION.—A group of fishermen constituting more than 50 percent of the permit holders, or holding more than 50 percent of the allocation, in the fishery for which a limited access privilege program to harvest fish is sought, may submit a petition to the Secretary requesting that the relevant Council or Councils with authority over the fishery be authorized to initiate the development of the program. Any such petition shall clearly state the fishery to which the limited access privilege program would apply. For multispecies permits in the Gulf of Mexico, only those participants who have substantially fished the species proposed to be included in the limited access program shall be eligible to sign a petition for such a program and shall serve as the basis for determining the percentage described in the first sentence of this subparagraph.

(C) CERTIFICATION BY SECRETARY.—Upon the receipt of any such petition, the Secretary shall review all of the signatures on the petition and, if the Secretary determines that the signatures on the petition represent more than 50 percent of the permit holders, or holders of more than 50 percent of the allocation in the fishery, as described by subparagraph (B), the Secretary shall certify the petition to the appropriate Council or Councils.

(D) NEW ENGLAND AND GULF REFERENDUM.—

(i) Except as provided in clause (iii) for the Gulf of Mexico commercial red snapper fishery, the New England and Gulf Councils may not submit, and the Secretary may not approve or implement, a fishery management plan or amendment that creates an individual fishing quota program, including a Secretarial plan, unless such a system, as ultimately developed, has been approved by more than 2/3 of those voting in a referendum among eligible permit holders, or other persons described in clause (v), with respect to the New England Council, and by a majority of those voting in the referendum among eligible permit holders with respect to the Gulf Council. For multispecies permits in the Gulf of Mexico, only those participants who have substantially fished the species proposed to be included in the individual fishing quota program shall be eligible to vote in such a referendum. If an individual fishing quota program fails to be approved by the requisite number of those voting, it may be revised and submitted for approval in a subsequent referendum.

(ii) The Secretary shall conduct a referendum under this subparagraph, including notifying all persons eligible to participate in the referendum and making available to them information concerning the schedule, procedures, and eligibility requirements for the referendum process and the proposed individual fishing quota program. Within 1 year after the date of enactment of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, the Secretary shall publish guidelines and procedures to determine procedures and voting eligibility requirements for referenda and to conduct such referenda in a fair and equitable manner.

(iii) The provisions of section 407(c) of this Act shall apply in lieu of this subparagraph for an individual fishing quota program for the Gulf of Mexico commercial red snapper fishery.

(iv) Chapter 35 of title 44, United States Code, (commonly known as the Paperwork Reduction Act) does not apply to the referenda conducted under this subparagraph.

(v) The Secretary shall promulgate criteria for determining whether additional fishery participants are eligible to vote in the New England referendum described in clause (i) in order to ensure that crew members who derive a significant percentage of their total income from the fishery under the proposed program are eligible to vote in the referendum.

(vi) In this subparagraph, the term ‘individual fishing quota’ does not include a sector allocation.

(7) TRANSFERABILITY.—In establishing a limited access privilege program, a Council shall—

(A) establish a policy and criteria for the transferability of limited access privileges (through sale or lease), that is consistent with the policies adopted by the Council for the fishery under paragraph (5); and

(B) establish, in coordination with the Secretary, a process for monitoring of transfers (including sales and leases) of limited access privileges.

(8) PREPARATION AND IMPLEMENTATION OF SECRETARIAL PLANS.—This subsection also applies to a plan prepared and implemented by the Secretary under section 304(c) or 304(g).

(9) ANTITRUST SAVINGS CLAUSE.—Nothing in this Act shall be construed to modify, impair, or supersede the operation of any of the antitrust laws. For purposes of the preceding sentence, the term ‘antitrust laws’ has the meaning given such term in subsection (a) of the first section of the Clayton Act, except that such term includes section 5 of the Federal Trade Commission Act to the extent that such section 5 applies to unfair methods of competition.

**16 U.S.C. 1853a**  
**MSA § 303A**

(d) AUCTION AND OTHER PROGRAMS.—In establishing a limited access privilege program, a Council shall consider, and may provide, if appropriate, an auction system or other program to collect royalties for the initial, or any subsequent, distribution of allocations in a limited access privilege program if—

(1) the system or program is administered in such a way that the resulting distribution of limited access privilege shares meets the program requirements of this section; and

(2) revenues generated through such a royalty program are deposited in the Limited Access System Administration Fund established by section 305(h)(5)(B) and available subject to annual appropriations.

(e) COST RECOVERY.—In establishing a limited access privilege program, a Council shall—

(1) develop a methodology and the means to identify and assess the management, data collection and analysis, and enforcement programs that are directly related to and in support of the program; and

(2) provide, under section 304(d)(2), for a program of fees paid by limited access privilege holders that will cover the costs of management, data collection and analysis, and enforcement activities.

(f) CHARACTERISTICS.—A limited access privilege established after the date of enactment of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 is a permit issued for a period of not more than 10 years that—

(1) will be renewed before the end of that period, unless it has been revoked, limited, or modified as provided in this subsection;

(2) will be revoked, limited, or modified if the holder is found by the Secretary, after notice and an opportunity for a hearing under section 554 of title 5, United States Code, to have failed to comply with any term of the plan identified in the plan as cause for revocation, limitation, or modification of a permit, which may include conservation requirements established under the plan;

(3) may be revoked, limited, or modified if the holder is found by the Secretary, after notice and an opportunity for a hearing under section 554 of title 5, United States Code, to have committed an act prohibited by section 307 of this Act; and

(4) may be acquired, or reacquired, by participants in the program under a mechanism established by the Council if it has been revoked, limited, or modified under paragraph (2) or (3).

(g) LIMITED ACCESS PRIVILEGE ASSISTED PURCHASE PROGRAM.—

(1) IN GENERAL.—A Council may submit, and the Secretary may approve and implement, a program which reserves up to 25 percent of any fees collected from a fishery under section 304(d)(2) to be used, pursuant to section 53706(a)(7) of title 46, United States Code, to issue obligations that aid in financing—

(A) the purchase of limited access privileges in that fishery by fishermen who fish from small vessels; and

(B) the first-time purchase of limited access privileges in that fishery by entry level fishermen.

(2) ELIGIBILITY CRITERIA.—A Council making a submission under paragraph (1) shall recommend criteria, consistent with the provisions of this Act, that a fisherman must meet to qualify for guarantees under subparagraphs (A) and (B) of paragraph (1) and the portion of funds to be allocated for guarantees under each subparagraph.

(h) EFFECT ON CERTAIN EXISTING SHARES AND PROGRAMS.—Nothing in this Act, or the amendments made by the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, shall be construed to require a reallocation or a reevaluation of individual quota shares, processor quota shares, cooperative programs, or other quota programs, including sector allocation in effect before the date of enactment of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006.

(i) TRANSITION RULES.—

(1) IN GENERAL.—The requirements of this section shall not apply to any quota program, including any individual quota program, cooperative program, or sector allocation for which a Council has taken final action or which has been submitted by a Council to the Secretary, or approved by the Secretary, within 6 months after the date of enactment of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, except that—

(A) the requirements of section 303(d) of this Act in effect on the day before the date of enactment of that Act shall apply to any such program;

(B) the program shall be subject to review under subsection (c)(1)(G) of this section not later than 5 years after the program implementation; and

(C) nothing in this subsection precludes a Council from incorporating criteria contained in this section into any such plans.

(2) PACIFIC GROUND FISH PROPOSALS.—The requirements of this section, other than subparagraphs (A) and (B) of subsection (c)(1) and subparagraphs (A), (B), and (C) of paragraph (1) of this subsection, shall not apply to any proposal authorized under section 302(f) of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 that is submitted within the timeframe prescribed by that section.

**16 U.S.C. 1853a note, 1854**  
**MSA §§ 303A note, 304**

**P.L. 109-479, sec. 106(e), MSA § 303A note**

**16 U.S.C. 1853a note**

**APPLICATION WITH AMERICAN FISHERIES ACT.**—Nothing in section 303A of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.), as added by subsection (a) [P.L. 109-479], shall be construed to modify or supersede any provision of the American Fisheries Act (46 U.S.C. 12102 note; 16 U.S.C. 1851 note; et alia).

**P.L. 104-297, sec. 108(i), MSA § 303 note**

**EXISTING QUOTA PLANS.**—Nothing in this Act [P.L.104-297] or the amendments made by this Act shall be construed to require a reallocation of individual fishing quotas under any individual fishing quota program approved by the Secretary before January 4, 1995.

## **SEC. 304. ACTION BY THE SECRETARY**

**16 U.S.C. 1854**

### **104-297**

(a) REVIEW OF PLANS.—

(1) Upon transmittal by the Council to the Secretary of a fishery management plan or plan amendment, the Secretary shall—

(A) immediately commence a review of the plan or amendment to determine whether it is consistent with the national standards, the other provisions of this Act, and any other applicable law; and

(B) immediately publish in the Federal Register a notice stating that the plan or amendment is available and that written information, views, or comments of interested persons on the plan or amendment may be submitted to the Secretary during the 60-day period beginning on the date the notice is published.

(2) In undertaking the review required under paragraph (1), the Secretary shall—

(A) take into account the information, views, and comments received from interested persons;

(B) consult with the Secretary of State with respect to foreign fishing; and

(C) consult with the Secretary of the department in which the Coast Guard is operating with respect to enforcement at sea and to fishery access adjustments referred to in section 303(a)(6).

(3) The Secretary shall approve, disapprove, or partially approve a plan or amendment within 30 days of the end of the comment period under paragraph (1) by written notice to the Council. A notice of disapproval or partial approval shall specify—

(A) the applicable law with which the plan or amendment is inconsistent;

(B) the nature of such inconsistencies; and

(C) recommendations concerning the actions that could be taken by the Council to conform such plan or amendment to the requirements of applicable law.

If the Secretary does not notify a Council within 30 days of the end of the comment period of the approval, disapproval, or partial approval of a plan or amendment, then such plan or amendment shall take effect as if approved.

104-297

**SEC. 402. INFORMATION COLLECTION**

16 U.S.C. 1881a

109-479

(a) COLLECTION PROGRAMS.—

(1) COUNCIL REQUESTS.—If a Council determines that additional information would be beneficial for developing, implementing, or revising a fishery management plan or for determining whether a fishery is in need of management, the Council may request that the Secretary implement an information collection program for the fishery which would provide the types of information specified by the Council. The Secretary shall undertake such an information collection program if he determines that the need is justified, and shall promulgate regulations to implement the program within 60 days after such determination is made. If the Secretary determines that the need for an information collection program is not justified, the Secretary shall inform the Council of the reasons for such determination in writing. The determinations of the Secretary under this paragraph regarding a Council request shall be made within a reasonable period of time after receipt of that request.

(2) SECRETARIAL INITIATION.—If the Secretary determines that additional information is necessary for developing, implementing, revising, or monitoring a fishery management plan, or for determining whether a fishery is in need of management, the Secretary may, by regulation, implement an information collection or observer program requiring submission of such additional information for the fishery.

109-479

(b) CONFIDENTIALITY OF INFORMATION.—

(1) Any information submitted to the Secretary, a State fishery management agency, or a marine fisheries commission by any person in compliance with the requirements of this Act shall be confidential and shall not be disclosed except—

(A) to Federal employees and Council employees who are responsible for fishery management plan development, monitoring, or enforcement;

(B) to State or Marine Fisheries Commission employees as necessary to further the Department's mission, subject to a confidentiality agreement that prohibits public disclosure of the identity of business of any person;

(C) to State employees who are responsible for fishery management plan enforcement, if the States employing those employees have entered into a fishery enforcement agreement with the Secretary and the agreement is in effect;

(D) when required by court order;

(E) when such information is used by State, Council, or Marine Fisheries Commission employees to verify catch under a limited access program, but only to the extent that such use is consistent with subparagraph (B);

(F) when the Secretary has obtained written authorization from the person submitting such information to release such information to persons for reasons not otherwise provided for in this subsection, and such release does not violate other requirements of this Act;

(G) when such information is required to be submitted to the Secretary for any determination under a limited access program; or

(H) in support of homeland and national security activities, including the Coast Guard's homeland security missions as defined in section 888(a)(2) of the Homeland Security Act of 2002 (6 U.S.C. 468(a)(2)).

(2) Any observer information shall be confidential and shall not be disclosed, except in accordance with the requirements of subparagraphs (A) through (H) of paragraph (1), or—

(A) as authorized by a fishery management plan or regulations under the authority of the North Pacific Council to allow disclosure to the public of weekly summary bycatch information identified by vessel or for haul-specific bycatch information without vessel identification;

(B) when such information is necessary in proceedings to adjudicate observer certifications; or

(C) as authorized by any regulations issued under paragraph (3) allowing the collection of observer information, pursuant to a confidentiality agreement between the observers, observer employers, and the Secretary prohibiting disclosure of the information by the observers or observer employers, in order—

(i) to allow the sharing of observer information among observers and between observers and observer employers as necessary to train and prepare observers for deployments on specific vessels; or

(ii) to validate the accuracy of the observer information collected.

(3) The Secretary shall, by regulation, prescribe such procedures as may be necessary to preserve the confidentiality of information submitted in compliance with any requirement or regulation under this Act, except that the Secretary may release or make public any such information in any aggregate or summary form which does not directly or indirectly disclose the identity or business of any person who submits such information. Nothing in this subsection shall be interpreted or construed to prevent the use for conservation and management purposes by the Secretary, or with the approval of the Secretary, the Council, of any information submitted in compliance with any requirement or regulation under this Act or the use, release, or publication of bycatch information pursuant to paragraph (2)(A).

**(c) RESTRICTION ON USE OF CERTAIN INFORMATION.—**

(1) The Secretary shall promulgate regulations to restrict the use, in civil enforcement or criminal proceedings under this Act, the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361 et seq.), and the Endangered Species Act (16 U.S.C. 1531 et seq.), of information collected by voluntary fishery data collectors, including sea samplers, while aboard any vessel for conservation and management purposes if the presence of such a fishery data collector aboard is not required by any of such Acts or regulations thereunder.

(2) The Secretary may not require the submission of a Federal or State income tax return or statement as a prerequisite for issuance of a permit until such time as the Secretary has promulgated regulations to ensure the confidentiality of information contained in such return or statement, to limit the information submitted to that necessary to achieve a demonstrated conservation and management purpose, and to provide appropriate penalties for violation of such regulations.

**16 U.S.C. 1881a-1881b**  
**MSA §§ 402-403**

(d) **CONTRACTING AUTHORITY.**—Notwithstanding any other provision of law, the Secretary may provide a grant, contract, or other financial assistance on a sole-source basis to a State, Council, or Marine Fisheries Commission for the purpose of carrying out information collection or other programs if—

(1) the recipient of such a grant, contract, or other financial assistance is specified by statute to be, or has customarily been, such State, Council, or Marine Fisheries Commission; or

(2) the Secretary has entered into a cooperative agreement with such State, Council, or Marine Fisheries Commission.

(e) **RESOURCE ASSESSMENTS.**—

(1) The Secretary may use the private sector to provide vessels, equipment, and services necessary to survey the fishery resources of the United States when the arrangement will yield statistically reliable results.

(2) The Secretary, in consultation with the appropriate Council and the fishing industry--

(A) may structure competitive solicitations under paragraph (1) so as to compensate a contractor for a fishery resources survey by allowing the contractor to retain for sale fish harvested during the survey voyage;

(B) in the case of a survey during which the quantity or quality of fish harvested is not expected to be adequately compensatory, may structure those solicitations so as to provide that compensation by permitting the contractor to harvest on a subsequent voyage and retain for sale a portion of the allowable catch of the surveyed fishery; and

(C) may permit fish harvested during such survey to count toward a vessel's catch history under a fishery management plan if such survey was conducted in a manner that precluded a vessel's participation in a fishery that counted under the plan for purposes of determining catch history.

(3) The Secretary shall undertake efforts to expand annual fishery resource assessments in all regions of the Nation.

**104-297**

**SEC. 403. OBSERVERS**

**16 U.S.C. 1881b**

(a) **GUIDELINES FOR CARRYING OBSERVERS.**—Within one year after the date of enactment of the Sustainable Fisheries Act, the Secretary shall promulgate regulations, after notice and opportunity for public comment, for fishing vessels that carry observers. The regulations shall include guidelines for determining—

(1) when a vessel is not required to carry an observer on board because the facilities of such vessel for the quartering of an observer, or for carrying out observer functions, are so inadequate or unsafe that the health or safety of the observer or the safe operation of the vessel would be jeopardized; and

(2) actions which vessel owners or operators may reasonably be required to take to render such facilities adequate and safe.

permit sanctions following the assessment of a civil penalty or the imposition of a criminal fine. In sum, the Magnuson-Stevens Act treats sanctions against the fishing vessel permit to be the carrying out of a purpose separate from that accomplished by civil and criminal penalties against the vessel or its owner or operator.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998]

**§ 600.745 Scientific research activity, exempted fishing, and exempted educational activity.**

(a) *Scientific research activity.* Nothing in this part is intended to inhibit or prevent any scientific research activity conducted by a scientific research vessel. Persons planning to conduct scientific research activities on board a scientific research vessel in the EEZ are encouraged to submit to the appropriate Regional Administrator or Director, 60 days or as soon as practicable prior to its start, a scientific research plan for each scientific activity. The Regional Administrator or Director will acknowledge notification of scientific research activity by issuing to the operator or master of that vessel, or to the sponsoring institution, a Letter of Acknowledgment. This Letter of Acknowledgment is separate and distinct from any permit or consultation required by the MMPA, the ESA, or any other applicable law. The Regional Administrator or Director will include text in the Letter of Acknowledgment informing the applicant that such a permit may be required and should be obtained from the agency prior to embarking on the activity. If the Regional Administrator or Director, after review of a research plan, determines that it does not constitute scientific research but rather fishing, the Regional Administrator or Director will inform the applicant as soon as practicable and in writing. In making this determination, the Regional Administrator, Director, or designee shall consider: the merits of the individual proposal and the institution(s) involved; whether the proposed activity meets the definition of scientific research activity; and whether the vessel meets all the requirements for a scientific research vessel. The Regional Administrator or Direc-

tor may also make recommendations to revise the research plan to ensure the activity will be considered to be scientific research activity or recommend the applicant request an EFP. The Regional Administrator or Director may designate a Science and Research Director, or the Assistant Regional Administrator for Sustainable Fisheries, to receive scientific research plans and issue Letters of Acknowledgment. In order to facilitate identification of the activity as scientific research, persons conducting scientific research activities are advised to carry a copy of the scientific research plan and the Letter of Acknowledgment on board the scientific research vessel and to make it available for inspection upon the request of any authorized officer. It is recommended that for any scientific research activity, any fish, or parts thereof, retained pursuant to such activity be accompanied, during any ex-vessel activities, by a copy of the Letter of Acknowledgment. Activity conducted in accordance with a scientific research plan acknowledged by such a Letter of Acknowledgment is presumed to be scientific research activity. An authorized officer may overcome this presumption by showing that an activity does not fit the definition of scientific research activity or is outside the scope of the scientific research plan.

(b) *Exempted fishing—(1) General.* A NMF'S Regional Administrator or Director may authorize, for limited testing, public display, data collection, exploratory fishing, compensation fishing, conservation engineering, health and safety surveys, environmental cleanup, and/or hazard removal purposes, the target or incidental harvest of species managed under an FMP or fishery regulations that would otherwise be prohibited. Exempted fishing may not be conducted unless authorized by an EFP issued by a Regional Administrator or Director in accordance with the criteria and procedures specified in this section. Compensation fishing must be conducted under an EFP if the activity would otherwise be prohibited by applicable regulations unless the activity is specifically authorized under an FMP or a scientific

research permit. Conservation engineering that does not meet the definition of scientific research activity, but does meet the definition of fishing must be conducted under an EFP if the activity would otherwise be prohibited by applicable regulations. Data collection designed to capture and land quantities of fish for product development, market research, and/or public display must be permitted under exempted fishing procedures. An EFP exempts a vessel only from those regulations specified in the EFP. All other applicable regulations remain in effect. The Regional Administrator or Director may charge a fee to recover the administrative expenses of issuing an EFP. The amount of the fee will be calculated, at least annually, in accordance with procedures of the NOAA Handbook for determining administrative costs of each special product or service; the fee may not exceed such costs. Persons may contact the appropriate Regional Administrator or Director to determine the applicable fee.

(2) *Application.* An applicant for an EFP shall submit a completed application package to the appropriate Regional Administrator or Director, as soon as practicable and at least 60 days before the desired effective date of the EFP. Submission of an EFP application less than 60 days before the desired effective date of the EFP may result in a delayed effective date because of review requirements. The application package must include payment of any required fee as specified by paragraph (b)(1) of this section, and a written application that includes, but is not limited to, the following information:

- (i) The date of the application.
- (ii) The applicant's name, mailing address, and telephone number.
- (iii) A statement of the purposes and goals of the exempted fishery for which an EFP is needed, including justification for issuance of the EFP.
- (iv) For each vessel to be covered by the EFP, as soon as the information is available and before operations begin under the EFP:

(A) A copy of the USCG documentation, state license, or registration of each vessel, or the information contained on the appropriate document.

(B) The current name, address, and telephone number of the owner and master, if not included on the document provided for the vessel.

(v) The species (target and incidental) expected to be harvested under the EFP, the amount(s) of such harvest necessary to conduct the exempted fishing, the arrangements for disposition of all regulated species harvested under the EFP, and any anticipated impacts on the environment, including impacts on fisheries, marine mammals, threatened or endangered species, and EFH.

(vi) For each vessel covered by the EFP, the approximate time(s) and place(s) fishing will take place, and the type, size, and amount of gear to be used.

(vii) The signature of the applicant.

(viii) The Regional Administrator or Director, as appropriate, may request from an applicant additional information necessary to make the determinations required under this section. An incomplete application or an application for which the appropriate fee has not been paid will not be considered until corrected in writing and the fee paid. An applicant for an EFP need not be the owner or operator of the vessel(s) for which the EFP is requested.

(3) *Issuance.* (i) The Regional Administrator or Director, as appropriate, will review each application and will make a preliminary determination whether the application contains all of the required information and constitutes an activity appropriate for further consideration. If the Regional Administrator or Director finds that any application does not warrant further consideration, both the applicant and the affected Council(s) will be notified in writing of the reasons for the decision. If the Regional Administrator or Director determines that any application warrants further consideration, notification of receipt of the application will be published in the FEDERAL REGISTER with a brief description of the proposal. Interested persons will be given a 15- to 45-day opportunity to comment on the notice of receipt of the EFP application. In addition, comments may be requested during public testimony at a Council meeting. If the Council intends to take comments on

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EFP applications at a Council meeting, it must include a statement to this effect in the Council meeting notice and meeting agenda. Multiple applications for EFPs may be published in the same FEDERAL REGISTER document and may be discussed under a single Council agenda item. The notification may establish a cut-off date for receipt of additional applications to participate in the same, or a similar, exempted fishing activity. The Regional Administrator or Director will also forward copies of the application to the Council(s), the U.S. Coast Guard, and the appropriate fishery management agencies of affected states, accompanied by the following information:

(A) The effect of the proposed EFP on the target and incidental species, including the effect on any TAC.

(B) A citation of the regulation or regulations that, without the EFP, would prohibit the proposed activity.

(C) Biological information relevant to the proposal, including appropriate statements of environmental impacts, including impacts on fisheries, marine mammals, threatened or endangered species, and EFH.

(ii) If the application is complete and warrants additional consultation, the Regional Administrator or Director may consult with the appropriate Council(s) concerning the permit application during the period in which comments have been requested. The Council(s) or the Regional Administrator or Director shall notify the applicant in advance of any public meeting at which the application will be considered, and offer the applicant the opportunity to appear in support of the application.

(iii) As soon as practicable after receiving a complete application, including all required analyses and consultations (e.g., NEPA, EFH, ESA and MMPA), and having received responses from the public, the agencies identified in paragraph (b)(3)(i) of this section, and/or after the consultation, if any, described in paragraph (b)(3)(ii) of this section, the Regional Administrator or Director shall issue the EFP or notify the applicant in writing of the decision to deny the EFP and the reasons for the denial. Grounds for denial of an EFP include, but are not limited to, the following:

(A) The applicant has failed to disclose material information required, or has made false statements as to any material fact, in connection with his or her application; or

(B) According to the best scientific information available, the harvest to be conducted under the permit would detrimentally affect the well-being of the stock of any regulated species of fish, marine mammal, threatened or endangered species, or EFH; or

(C) Issuance of the EFP would have economic allocation as its sole purpose (other than compensation fishing); or

(D) Activities to be conducted under the EFP would be inconsistent with the intent of this section, the management objectives of the FMP, or other applicable law; or

(E) The applicant has failed to demonstrate a valid justification for the permit; or

(F) The activity proposed under the EFP could create a significant enforcement problem.

(iv) The decision of a Regional Administrator or Director to grant or deny an EFP is the final action of NMFS. If the permit, as granted, is significantly different from the original application, or is denied, NMFS may publish notification in the FEDERAL REGISTER describing the exempted fishing to be conducted under the EFP or the reasons for denial.

(v) The Regional Administrator or Director should attach, as applicable, terms and conditions to the EFP, consistent with the purpose of the exempted fishing and as otherwise necessary for the conservation and management of the fishery resources and the marine environment, including, but not limited to:

(A) The maximum amount of each regulated species that can be harvested and landed during the term of the EFP, including trip limitations, where appropriate.

(B) The number, size(s), name(s), and identification number(s) of the vessel(s) authorized to conduct fishing activities under the EFP.

(C) A citation of the regulations from which the vessel is exempted.

(D) The time(s) and place(s) where exempted fishing may be conducted.

(E) The type, size, and amount of gear that may be used by each vessel operated under the EFP.

(F) Whether observers, a vessel monitoring system, or other electronic equipment must be carried on board vessels operating under the EFP, and any necessary conditions, such as predeployment notification requirements.

(G) Data reporting requirements necessary to document the activities, including catches and incidental catches, and to determine compliance with the terms and conditions of the EFP and established time frames and formats for submission of the data to NMFS.

(H) Other conditions as may be necessary to assure compliance with the purposes of the EFP, consistent with the objectives of the FMP and other applicable law.

(I) Provisions for public release of data obtained under the EFP that are consistent with NOAA confidentiality of statistics procedures at set out in subpart E. An applicant may be required to waive the right to confidentiality of information gathered while conducting exempted fishing as a condition of an EFP.

(4) *Acknowledging permit conditions.* Upon receipt of an EFP, the permit holder must date and sign the permit, and retain the permit on board the vessel(s). The permit is not valid until signed by the permit holder. In signing the permit, the permit holder:

(i) Agrees to abide by all terms and conditions set forth in the permit, and all restrictions and relevant regulations; and

(ii) Acknowledges that the authority to conduct certain activities specified in the permit is conditional and subject to authorization and revocation by the Regional Administrator or Director.

(5) *Duration.* Unless otherwise specified in the EFP or a superseding notice or regulation, an EFP is valid for no longer than 1 year. EFPs may be renewed following the application procedures in this section.

(6) *Alteration.* Any permit that has been altered, erased, or mutilated is invalid.

(7) *Inspection.* Any EFP issued under this section must be carried on board the vessel(s) for which it was issued.

The EFP must be presented for inspection upon request of any authorized officer. Any fish, or parts thereof, retained pursuant to an EFP issued under this paragraph must be accompanied, during any ex-vessel activities, by a copy of the EFP.

(8) *Inspection.* Any EFP issued under this section must be carried on board the vessel(s) for which it was issued. The EFP must be presented for inspection upon request of any authorized officer.

(9) *Sanctions.* Failure of a permittee to comply with the terms and conditions of an EFP may be grounds for revocation, suspension, or modification of the EFP with respect to all persons and vessels conducting activities under the EFP. Any action taken to revoke, suspend, or modify an EFP for enforcement purposes will be governed by 15 CFR part 904, subpart D.

(c) *Reports.* (1) NMFS requests that persons conducting scientific research activities from scientific research vessels submit a copy of any report or other publication created as a result of the activity, including the amount, composition, and disposition of their catch, to the appropriate Science and Research Director and Regional Administrator or Director.

(2) Upon completion of the activities of the EFP, or periodically as required by the terms and conditions of the EFP, persons fishing under an EFP must submit a report of their catches and any other information required, to the appropriate Regional Administrator or Director, in the manner and within the time frame specified in the EFP, but no later than 6 months after concluding the exempted fishing activity. Persons conducting EFP activities are also requested to submit a copy of any publication prepared as a result of the EFP activity.

(d) *Exempted educational activities—(1) General.* A NMFS Regional Administrator or Director may authorize, for educational purposes, the target or incidental harvest of species managed under an FMP or fishery regulations that would otherwise be prohibited. The trade, barter or sale of fish taken under this authorization is prohibited. The decision of a Regional Administrator or Director to grant or deny an

exempted educational activity authorization is the final action of NMFS. Exempted educational activities may not be conducted unless authorized in writing by a Regional Administrator or Director in accordance with the criteria and procedures specified in this section. Such authorization will be issued without charge.

(2) *Application.* An applicant for an exempted educational activity authorization shall submit to the appropriate Regional Administrator or Director, at least 15 days before the desired effective date of the authorization, a written application that includes, but is not limited to, the following information:

- (i) The date of the application.
- (ii) The applicant's name, mailing address, and telephone number.
- (iii) A brief statement of the purposes and goals of the exempted educational activity for which authorization is requested, including a general description of the arrangements for disposition of all species collected.
- (iv) Evidence that the sponsoring institution is a valid educational institution, such as accreditation by a recognized national or international accreditation body.
- (v) The scope and duration of the activity.
- (vi) For each vessel to be covered by the authorization:
  - (A) A copy of the U.S. Coast Guard documentation, state license, or registration of the vessel, or the information contained on the appropriate document.
  - (B) The current name, address, and telephone number of the owner and master, if not included on the document provided for the vessel.
  - (vii) The species and amounts expected to be caught during the exempted educational activity, and any anticipated impacts on the environment, including impacts on fisheries, marine mammals, threatened or endangered species, and EFH.
  - (viii) For each vessel covered by the authorization, the approximate time(s) and place(s) fishing will take place, and the type, size, and amount of gear to be used.
  - (ix) The signature of the applicant.

(x) The Regional Administrator or Director may request from an applicant additional information necessary to make the determinations required under this section. An incomplete application will not be considered until corrected in writing.

(3) *Issuance.* (i) The Regional Administrator or Director, as appropriate, will review each application and will make a determination whether the application contains all of the required information, is consistent with the goals, objectives, and requirements of the FMP or regulations and other applicable law, and constitutes a valid exempted educational activity. The applicant will be notified in writing of the decision within 5 working days of receipt of the application.

(ii) The Regional Administrator or Director should attach, as applicable, terms and conditions to the authorization, consistent with the purpose of the exempted educational activity and as otherwise necessary for the conservation and management of the fishery resources and the marine environment, including, but not limited to:

- (A) The maximum amount of each regulated species that may be harvested.
- (B) A citation of the regulations from which the vessel is being exempted.
- (C) The time(s) and place(s) where the exempted educational activity may be conducted.
- (D) The type, size, and amount of gear that may be used by each vessel operated under the authorization.
- (E) Data reporting requirements necessary to document the activities and to determine compliance with the terms and conditions of the exempted educational activity.
- (F) Such other conditions as may be necessary to assure compliance with the purposes of the authorization, consistent with the objectives of the FMP or regulations.
- (G) Provisions for public release of data obtained under the authorization, consistent with NOAA confidentiality of statistics procedures in subpart E. An applicant may be required to waive the right to confidentiality of information gathered while conducting exempted educational activities as a condition of the authorization.

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(iii) The authorization will specify the scope of the authorized activity and will include, at a minimum, the duration, vessel(s), persons, species, and gear involved in the activity, as well as any additional terms and conditions specified under paragraph (d)(3)(ii) of this section.

(4) *Duration.* Unless otherwise specified, authorization for an exempted educational activity is effective for no longer than 1 year, unless revoked, suspended, or modified. Authorizations may be renewed following the application procedures in this section.

(5) *Alteration.* Any authorization that has been altered, erased, or mutilated is invalid.

(6) *Transfer.* Authorizations issued under this paragraph (d) are not transferable or assignable.

(7) *Inspection.* Any authorization issued under this paragraph (d) must be carried on board the vessel(s) for which it was issued, or be in the possession of at least one of the persons identified in the authorization, who must be present while the exempted educational activity is being conducted. The authorization must be presented for inspection upon request of any authorized officer. Activities that meet the definition of "fishing," despite an educational purpose, are fishing. An authorization may allow covered fishing activities; however, fishing activities conducted outside the scope of an authorization for exempted educational activities are illegal. Any fish, or parts thereof, retained pursuant to an authorization issued under this paragraph must be accompanied, during any ex-vessel activities, by a copy of the authorization.

(e) *Observers.* NMFS-sanctioned observers or biological technicians conducting activities within NMFS-approved sea sampling and/or observer protocols are exempt from the requirement to obtain an EFP. For purposes of this section, NMFS-sanctioned observers or biological technicians include NMFS employees, NMFS observers, observers who are employees of NMFS-contracted observer providers, and observers who are employees of NMFS-permitted observer providers.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998; 74 FR 42794, Aug. 25, 2009]

**§ 600.746 Observers.**

(a) *Applicability.* This section applies to any fishing vessel required to carry an observer as part of a mandatory observer program or carrying an observer as part of a voluntary observer program under the Magnuson-Stevens Act, MMPA (16 U.S.C. 1361 *et seq.*), the ATCA (16 U.S.C. 971 *et seq.*), the South Pacific Tuna Act of 1988 (16 U.S.C. 973 *et seq.*), or any other U.S. law.

(b) *Observer safety.* An observer will not be deployed on, or stay aboard, a vessel that is inadequate for observer deployment as described in paragraph (c) of this section.

(c) *Vessel inadequate for observer deployment.* A vessel is inadequate for observer deployment if it:

(1) Does not comply with the applicable regulations regarding observer accommodations (see 50 CFR parts 229, 285, 300, 600, 622, 635, 648, 660, and 679), or

(2) Has not passed a USCG Commercial Fishing Vessel Safety Examination, or for vessels less than 26 ft (8 m) in length, has not passed an alternate safety equipment examination, as described in paragraph (g) of this section.

(d) *Display or show proof.* A vessel that has passed a USCG Commercial Fishing Vessel Safety Examination must display or show proof of a valid USCG Commercial Fishing Vessel Safety Examination decal that certifies compliance with regulations found in 33 CFR Chapter 1 and 46 CFR Chapter 1, and which was issued within the last 2 years or at a time interval consistent with current USCG regulations or policy.

(1) In situations of mitigating circumstances, which may prevent a vessel from displaying a valid safety decal (broken window, etc.), NMFS, the observer, or NMFS' designated observer provider may accept the following associated documentation as proof of the missing safety decal described in paragraph (d) of this section:

(i) A certificate of compliance issued pursuant to 46 CFR 28.710;

(ii) A certificate of inspection pursuant to 46 U.S.C. 3311; or

(iii) For vessels not required to obtain the documents identified in (d)(1)(i) and (d)(1)(ii) of this section, a

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the official number from an enforcement vessel or aircraft.

(c) *Commercial passenger vessels.* This section does not apply to vessels carrying fishing parties on a per-capita basis or by charter.

### § 660.306 Prohibitions.

In addition to the general prohibitions specified in § 600.725 of this chapter, it is unlawful for any person to:

(a) *General.* (1) Sell, offer to sell, or purchase any groundfish taken in the course of recreational groundfish fishing.

(2) Retain any prohibited species (defined in § 660.302 and restricted in § 660.370(e)) caught by means of fishing gear authorized under this subpart, unless authorized by part 600 or part 300 of this chapter. Prohibited species must be returned to the sea as soon as practicable with a minimum of injury when caught and brought on board.

(3) Falsify or fail to affix and maintain vessel and gear markings as required by § 660.305 or §§ 660.382 and 660.383.

(4) Fish for groundfish in violation of any terms or conditions attached to an EFP under § 600.745 of this chapter or § 660.350.

(5) Fish for groundfish using gear not authorized in this subpart or in violation of any terms or conditions attached to an EFP under § 660.350 or part 600 of this chapter.

(6) Take and retain, possess, or land more groundfish than specified under §§ 660.370 through 660.373 or §§ 660.381 through 660.385, or under an EFP issued under § 660.350 or part 600 of this chapter.

(7) Fail to sort, prior to the first weighing after offloading, those groundfish species or species groups for which there is a trip limit, size limit, scientific sorting designation, quota, harvest guideline, or OY, if the vessel fished or landed in an area during a time when such trip limit, size limit, scientific sorting designation, quota, harvest guideline, or OY applied.

(8) Possess, deploy, haul, or carry on-board a fishing vessel subject to this subpart a set net, trap or pot, longline, or commercial vertical hook-and-line that is not in compliance with the gear restrictions in §§ 660.382 and 660.383, un-

less such gear is the gear of another vessel that has been retrieved at sea and made inoperable or stowed in a manner not capable of being fished. The disposal at sea of such gear is prohibited by Annex V of the International Convention for the Prevention of Pollution From Ships, 1973 (Annex V of MARPOL 73/78).

(9) When requested or required by an authorized officer, refuse to present fishing gear for inspection, refuse to present fish subject to such persons control for inspections; or interfere with a fishing gear or marine animal or plant life inspection.

(10) Take, retain, possess, or land more than a single cumulative limit of a particular species, per vessel, per applicable cumulative limit period, except for sablefish taken in the primary limited entry, fixed gear sablefish season from a vessel authorized under § 660.372(a) to participate in that season, as described at § 660.372(b).

(11) Take and retain, possess, or land groundfish in excess of the landing limit for the open access fishery without having a valid limited entry permit for the vessel affixed with a gear endorsement for the gear used to catch the fish.

(12) Transfer fish to another vessel at sea unless a vessel is participating in the primary whiting fishery as part of the mothership or catcher-processor sectors, as described at § 660.373(a).

(13) Fish with dredge gear (defined in § 660.302) anywhere within EFH within the EEZ. For the purposes of regulation, EFH within the EEZ is described at 660.395.

(14) Fish with beam trawl gear (defined in § 660.302) anywhere within EFH within the EEZ. For the purposes of regulation, EFH within the EEZ is described at 660.395.

(b) *Reporting and recordkeeping.* (1) Falsify or fail to make and/or file, retain or make available any and all reports of groundfish landings, containing all data, and in the exact manner, required by the applicable State law, as specified in § 660.303, provided that person is required to do so by the applicable state law.

(2) Fail to retain on board a vessel from which groundfish is landed, and provide to an authorized officer upon

request, copies of any and all reports of groundfish landings, or receipts containing all data, and made in the exact manner required by the applicable state law throughout the cumulative limit period during which such landings occurred and for 15 days thereafter.

(3) Fail to retain on board a vessel from which sablefish caught in the primary sablefish season is landed, and provide to an authorized officer upon request, copies of any and all reports of sablefish landings against the sablefish endorsed permit's tier limit, or receipts containing all data, and made in the exact manner required by the applicable state law throughout the primary sablefish season during which such landings occurred and for 15 days thereafter.

(c) *Limited entry fisheries.* (1) Fish with groundfish trawl gear, or carry groundfish trawl gear on board a vessel that also has groundfish on board, unless the vessel is registered for use with a valid limited entry permit with a trawl gear endorsement, with the following exception.

(i) The vessel is in continuous transit from outside the fishery management area to a port in Washington, Oregon, or California; or

(ii) The vessel is a mothership, in which case trawl nets and doors must be stowed in a secured and covered manner, and detached from all towing lines, so as to be rendered unusable for fishing.

(2) Carry on board a vessel, or deploy, limited entry gear when the limited entry fishery for that gear is closed, except that a vessel may carry on board limited entry groundfish trawl gear as provided in paragraph (c)(1) of this section.

(d) *Black rockfish fisheries.* Have on-board a commercial hook-and-line fishing vessel (other than a vessel operated by persons under § 660.370(c)(1)(ii), more than the amount of the trip limit set for black rockfish by § 660.371 while that vessel is fishing between the U.S.-Canada border and Cape Alava (48°09'30" N. lat.), or between Destruction Island (47°40'00" N. lat.) and Leadbetter Point (46°38'10" N. lat.).

(e) *Fixed gear sablefish fisheries.* (1) Take, retain, possess or land sablefish

under the cumulative limits provided for the primary limited entry, fixed gear sablefish season, described in § 660.372(b), from a vessel that is not registered to a limited entry permit with a sablefish endorsement.

(2) Beginning January 1, 2007, take, retain, possess or land sablefish in the primary sablefish season described at § 660.372(b) unless the owner of the limited entry permit registered for use with that vessel and authorizing the vessel to participate in the primary sablefish season is on board that vessel. Exceptions to this prohibition are provided at § 660.372(b)(4)(i) and (ii).

(3) Beginning January 1, 2007, process sablefish taken at-sea in the limited entry primary sablefish fishery defined at § 660.372(b), from a vessel that does not have a sablefish at-sea processing exemption, defined at § 660.334(e).

(f) *Pacific whiting fisheries.* (1) Process whiting in the fishery management area during times or in areas where at-sea processing is prohibited for the sector in which the vessel participates, unless:

(i) The fish are received from a member of a Pacific Coast treaty Indian tribe fishing under §§ 660.324 or 660.385;

(ii) The fish are processed by a waste-processing vessel according to § 660.373(i); or

(iii) The vessel is completing processing of whiting taken on board during that vessel's primary season.

(2) During times or in areas where at-sea processing is prohibited, take and retain or receive whiting, except as cargo or fish waste, on a vessel in the fishery management area that already has processed whiting on board. An exception to this prohibition is provided if the fish are received within the tribal U&A from a member of a Pacific Coast treaty Indian tribe fishing under §§ 660.324 or 660.385.

(3) Participate in the mothership or shore-based sector as a catcher vessel that does not process fish, if that vessel operates in the same calendar year as a catcher/processor in the whiting fishery, according to § 660.373(h)(2).

(4) Operate as a waste-processing vessel within 48 hours of a primary season for whiting in which that vessel operates as a catcher/processor or mothership, according to § 660.373(i).

(5) Fail to keep the trawl doors on board the vessel and attached to the trawls on a vessel used to fish for whiting, when taking and retention is prohibited under § 660.373(f).

(6) Fish for or land whiting, or process whiting at sea, while participating in a specific sector (as defined at § 660.373(a)), from May 14, 2007 and through November 13, 2007 with a vessel that has no history of participation within that specific sector of the whiting fishery in the period after December 31, 1996, and prior to January 1, 2007, as specified in § 660.373(j).

(g) *Limited entry permits.* (1) If a limited entry permit is registered for use with a vessel, fail to carry that permit onboard the vessel registered for use with the permit. A photocopy of the permit may not substitute for the original permit itself.

(2) Make a false statement on an application for issuance, renewal, transfer, vessel registration, replacement of a limited entry permit, or a declaration of ownership interest in a limited entry permit.

(h) *Fishing in conservation areas.* (1) Fish in a conservation area with: any trawl gear, including non-trawl gear used to take pink shrimp, ridgeback prawns, and south of Pt. Arena, CA, California halibut and sea cucumber; with trawl gear from a tribal vessel; or with any gear from a vessel registered to a groundfish limited entry permit. An exception to this prohibition is provided if the vessel owner or operator has a valid declaration confirmation code or receipt for fishing in a conservation area, as specified at § 660.303(d)(5).

(2) Operate any vessel registered to a limited entry permit with a trawl endorsement and trawl gear on board in any Trawl Rockfish Conservation Area, Cowcod Conservation Area, or Essential Fish Habitat Conservation Area. Exceptions to this prohibition are provided if: the vessel is in continuous transit, with all groundfish trawl gear stowed in accordance with § 660.381(d)(4), or if the vessel operation is otherwise authorized in the groundfish management measures published at § 660.381(d)(4).

(3) Operate any vessel registered to a limited entry permit with a longline or

trap (pot) endorsement and longline and/or trap gear onboard in a Nontrawl Rockfish Conservation Area or a Cowcod Conservation Area (as defined at § 660.302), except for purposes of continuous transiting, or except as authorized in the annual or biennial groundfish management measures published in the FEDERAL REGISTER.

(4) Fish with bottom trawl gear (defined in § 660.302) anywhere within EFH within the EEZ seaward of a line approximating the 700-fm (1280-m) depth contour, as defined in § 660.396. For the purposes of regulation, EFH seaward of 700-fm (1280-m) within the EEZ is described at 660.395.

(5) Fish with bottom trawl gear (defined in § 660.302) with a footrope diameter greater than 19 inches (48 cm) (including rollers, bobbins or other material encircling or tied along the length of the footrope) anywhere within EFH within the EEZ. For the purposes of regulation, EFH within the EEZ is described at 660.395.

(6) Fish with bottom trawl gear (defined in § 660.302) with a footrope diameter greater than 8 inches (20 cm) (including rollers, bobbins or other material encircling or tied along the length of the footrope) anywhere within the EEZ shoreward of a line approximating the 100-fm (183-m) depth contour (defined in § 660.393).

(7) Fish with bottom trawl gear (as defined in § 660.302), within the EEZ in the following areas (defined in § 660.397 and § 660.398): Olympic 2, Biogenic 1, Biogenic 2, Grays Canyon, Biogenic 3, Astoria Canyon, Nehalem Bank/Shale Pile, Siletz Deepwater, Daisy Bank/Nelson Island, Newport Rockpile/Stonewall Bank, Heceta Bank, Deepwater off Coos Bay, Bandon High Spot, Rogue Canyon.

(8) Fish with bottom trawl gear (as defined in § 660.302), other than demersal seine, unless otherwise specified in this section or section 660.381, within the EEZ in the following areas (defined in § 660.399): Eel River Canyon, Blunts Reef, Mendocino Ridge, Delgada Canyon, Tolo Bank, Point Arena North, Point Arena South Biogenic Area, Cordell Bank/Biogenic Area, Farallon Islands/Fanny Shoal, Half Moon Bay, Monterey Bay/Canyon, Point Sur Deep, Big Sur Coast/Port

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San Luis, East San Lucia Bank, Point Conception, Hidden Reef/Kidney Bank (within Cowcod Conservation Area West), Catalina Island, Potato Bank (within Cowcod Conservation Area West), Cherry Bank (within Cowcod Conservation Area West), and Cowcod EFH Conservation Area East.

(9) Fish with bottom contact gear (as defined in § 660.302) within the EEZ in the following areas (defined in § 660.398 and § 660.399): Thompson Seamount, President Jackson Seamount, Cordell Bank (50–fm (91–m) isobath), Harris Point, Richardson Rock, Scorpion, Painted Cave, Anacapa Island, Carrington Point, Judith Rock, Skunk Point, Footprint, Gull Island, South Point, and Santa Barbara.

(10) Fish with bottom contact gear (as defined in § 660.302), or any other gear that is deployed deeper than 500–fm (914–m), within the Davidson Seamount area (defined in § 660.395).

(i) *Groundfish observer program.* (1) Forcibly assault, resist, oppose, impede, intimidate, harass, sexually harass, bribe, or interfere with an observer.

(2) Interfere with or bias the sampling procedure employed by an observer, including either mechanically or physically sorting or discarding catch before sampling.

(3) Tamper with, destroy, or discard an observer's collected samples, equipment, records, photographic film, papers, or personal effects without the express consent of the observer.

(4) Harass an observer by conduct that:

(i) Has sexual connotations,

(ii) Has the purpose or effect of interfering with the observer's work performance, and/or

(iii) Otherwise creates an intimidating, hostile, or offensive environment. In determining whether conduct constitutes harassment, the totality of the circumstances, including the nature of the conduct and the context in which it occurred, will be considered. The determination of the legality of a particular action will be made from the facts on a case-by-case basis.

(5) Fish for, land, or process fish without observer coverage when a vessel is required to carry an observer under § 660.314(c).

(6) Require, pressure, coerce, or threaten an observer to perform duties normally performed by crew members, including, but not limited to, cooking, washing dishes, standing watch, vessel maintenance, assisting with the setting or retrieval of gear, or any duties associated with the processing of fish, from sorting the catch to the storage of the finished product.

(7) Fail to provide departure or cease fishing reports specified at § 660.312(c)(2).

(8) Fail to meet the vessel responsibilities specified at § 660.312(d).

(j) *Vessel monitoring systems.* (1) Use any vessel registered to a limited entry permit to operate in State or Federal waters seaward of the baseline from which the territorial sea is measured off the States of Washington, Oregon or California, unless that vessel carries a NMFS OLE type-approved mobile transceiver unit and complies with the requirements described at § 660.312.

(2) Fail to install, activate, repair or replace a mobile transceiver unit prior to leaving port as specified at § 660.312.

(3) Fail to operate and maintain a mobile transceiver unit on board the vessel at all times as specified at § 660.312.

(4) Tamper with, damage, destroy, alter, or in any way distort, render useless, inoperative, ineffective, or inaccurate the VMS, mobile transceiver unit, or VMS signal required to be installed on or transmitted by a vessel as specified at § 660.312.

(5) Fail to contact NMFS OLE or follow NMFS OLE instructions when automatic position reporting has been interrupted as specified at § 660.312.

(6) Register a VMS transceiver unit registered to more than one vessel at the same time.

[69 FR 42348, July 15, 2004, as amended at 69 FR 77029, Dec. 23, 2004; 70 FR 16148, Mar. 30, 2005; 71 FR 10620, Mar. 2, 2006; 71 FR 27415, May 11, 2006; 71 FR 66139, Nov. 13, 2006; 71 FR 78653, Dec. 29, 2006]

EFFECTIVE DATE NOTE: At 72 FR 27764, May 17, 2007, § 660.306 was amended by adding paragraph (f)(6), effective May 14, 2007, through November 13, 2007.

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EFFECTIVE DATE NOTE: At 72 FR 50910, Sept. 5, 2007, §660.306 was amended by redesignating paragraph (f)(6) as (f)(7), and paragraph(b)(4) and a new (f)(6) were added, effective Oct. 5, 2007. For the convenience of the user, the added text is set forth as follows:

**§ 660.306 Prohibitions.**

\* \* \* \* \*

(b) \* \* \*

(4) Fail to comply with all requirements at §660.303 (d); including failure to submit information, submission of inaccurate information, or intentionally submitting false information on any report required at §660.303 (d) when participating in the Pacific whiting shoreside fishery.

\* \* \* \* \*

(f) \* \* \*

(6) *Pacific whiting shoreside first receivers.*

(i) [Reserved]

(ii) Fail to sort fish received from a Pacific whiting shoreside vessel prior to first weighing after offloading as specified at §660.370 (h)(6)(iii) for the Pacific whiting fishery.

(iii) Process, sell, or discard any groundfish received from a Pacific whiting shoreside vessel that has not been weighed on a scale that is in compliance with requirements at §660.373 (j)(1)(i) and accounted for on an electronic fish ticket with the identification number for the Pacific whiting shoreside vessel that delivered the fish.

(iv) Fail to weigh fish landed from a Pacific whiting shoreside vessel prior to transporting any fish from that landing away from the point of landing.

\* \* \* \* \*

**§ 660.312 Vessel Monitoring System (VMS) requirements.**

(a) *What is a VMS?* A VMS consists of a NMFS OLE type-approved mobile transceiver unit that automatically determines the vessel's position and transmits it to a NMFS OLE type-approved communications service provider. The communications service provider receives the transmission and relays it to NMFS OLE.

(b) *Who is required to have VMS?* A vessel registered for use with a Pacific Coast groundfish limited entry permit that fishes in state or Federal water seaward of the baseline from which the territorial sea is measured off the States of Washington, Oregon or California is required to install a NMFS OLE type-approved mobile transceiver

unit and to arrange for an NMFS OLE type-approved communications service provider to receive and relay transmissions to NMFS OLE, prior to fishing.

(c) *How are mobile transceiver units and communications service providers approved by NMFS OLE?* (1) NMFS OLE will publish type-approval specifications for VMS components in the FEDERAL REGISTER or notify the public through other appropriate media.

(2) Mobile transceiver unit manufacturers or communication service providers will submit products or services to NMFS OLE for evaluation based on the published specifications.

(3) NMFS OLE may publish a list of NMFS OLE type-approved mobile transceiver units and communication service providers for the Pacific Coast groundfish fishery in the FEDERAL REGISTER or notify the public through other appropriate media. As necessary, NMFS OLE may publish amendments to the list of type-approved mobile transceiver units and communication service providers in the FEDERAL REGISTER or through other appropriate media. A list of VMS transceivers that have been type-approved by NMFS OLE may be mailed to the permit owner's address of record. NMFS will bear no responsibility if a notification is sent to the address of record and is not received because the applicant's actual address has changed without notification to NMFS, as required at 660.335(a)(2).

(d) *What are the vessel owner's responsibilities?* If you are a vessel owner that must participate in the VMS program, you or the vessel operator must:

(1) Obtain a NMFS OLE type-approved mobile transceiver unit and have it installed on board your vessel in accordance with the instructions provided by NMFS OLE. You may get a copy of the VMS installation and operation instructions from the NMFS OLE Northwest, VMS Program Manager upon request at 7600 Sand Point Way NE., Seattle, WA 98115-6349, phone: (206) 526-6133.

(2) Activate the mobile transceiver unit, submit an activation report, and receive confirmation from NMFS OLE that the VMS transmissions are being

This project would produce "processor profiles", short narrative descriptions of all the onshore fish processing plants in the state of Alaska that will augment and update existing community profiles.

## II. Method of Collection

Phone surveys will be conducted with all shore-based fish processing plants in Alaska. Site visits will be conducted with shore-based fish processing plants in three communities in Alaska: Cordova, Kenai, and Petersburg (these communities have not previously received a site visit and have the largest number of fish processing facilities in their sub-regions).

## III. Data

*OMB Control Number:* None.

*Form Number:* None.

*Type of Review:* Regular submission.

*Affected Public:* Businesses or other for-profit organizations.

*Estimated Number of Respondents:* 163 phone survey respondents; 27 in-person survey respondents (one per each processing plant visited during site visits).

*Estimated Time Per Response:* 20 minutes for phone survey; 40–60 minutes for in-person survey.

*Estimated Total Annual Burden Hours:* 82.

*Estimated Total Annual Cost to Public:* \$0.

## IV. Request for Comments

*Comments are invited on:* (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden (including hours and cost) of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

Dated: April 15, 2010.

### Gwellnar Banks,

*Management Analyst, Office of the Chief Information Officer.*

[FR Doc. 2010-9114 Filed 4-20-10; 8:45 am]

BILLING CODE 3510-22-P

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### Proposed Information Collection; Comment Request; Northwest Region Pacific Whiting Shoreside Fishery Monitoring and Catch Accounting Program

**AGENCY:** National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice.

**SUMMARY:** The Department of Commerce, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995.

**DATES:** Written comments must be submitted on or before June 21, 2010.

**ADDRESSES:** Direct all written comments to Diana Hynek, Departmental Paperwork Clearance Officer, Department of Commerce, Room 6625, 14th and Constitution Avenue, NW., Washington, DC 20230 (or via the Internet at [dHynek@doc.gov](mailto:dHynek@doc.gov)).

**FOR FURTHER INFORMATION CONTACT:** Requests for additional information or copies of the information collection instrument and instructions should be directed to Becky Renko, (206) 526-6110 or [Becky.Renko@noaa.gov](mailto:Becky.Renko@noaa.gov).

#### SUPPLEMENTARY INFORMATION:

##### I. Abstract

As part of its fishery management responsibilities, NOAA's National Marine Fisheries Service collects information to determine the amount and type of groundfish caught by fishing vessels. This collection supports exempted fishing permit requirements for Pacific whiting shoreside vessels to have and use electronic monitoring to verify full retention of catch and for Pacific whiting shoreside processors to send electronic catch data used to manage the catch allocations and limits. The respondents are principally groundfish fishermen and shoreside processors which are companies/partnerships. Other respondents include State fisheries agencies who seek an exempted fishing permit.

##### II. Method of Collection

Information is sent through electronic programs and e-mail.

##### III. Data

*OMB Control Number:* 0648-0563.

*Form Number:* None.

*Type of Review:* Regular submission.

*Affected Public:* Business or other for-profit organizations; State, local, or Tribal government; individuals or households.

*Estimated Number of Respondents:* 53.

*Estimated Time per Response:* Initial application and summary report, 10 hours each; inseason data report, 1 hour; electronic fish tickets, 10 minutes in Washington and California, 2 minutes in Oregon; electronic monitoring systems (EMS); installation, 6 hours; data downloads, 4 hours and EMS removal, 2 hours.

*Estimated Total Annual Burden Hours:* 613.

*Estimated Total Annual Cost to Public:* \$240,000.

## IV. Request for Comments

*Comments are invited on:* (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden (including hours and cost) of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

Dated: April 15, 2010.

### Gwellnar Banks,

*Management Analyst, Office of the Chief Information Officer.*

[FR Doc. 2010-9113 Filed 4-20-10; 8:45 am]

BILLING CODE 3510-22-P

## DEPARTMENT OF COMMERCE

### International Trade Administration

[A-351-806]

#### Silicon Metal from Brazil: Amended Final Results of Administrative Review Pursuant to Court Decision

**AGENCY:** Import Administration, International Trade Administration, Department of Commerce.

**EFFECTIVE DATE:** April 21, 2010.

**FOR FURTHER INFORMATION CONTACT:** Thomas Martin, AD/CVD Operations,