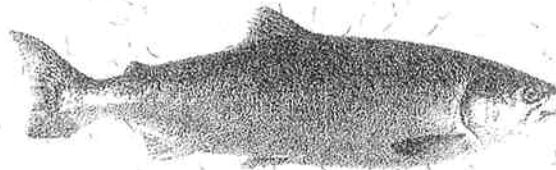
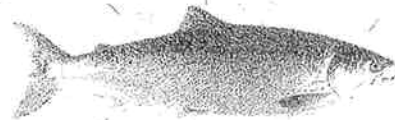
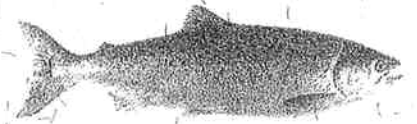




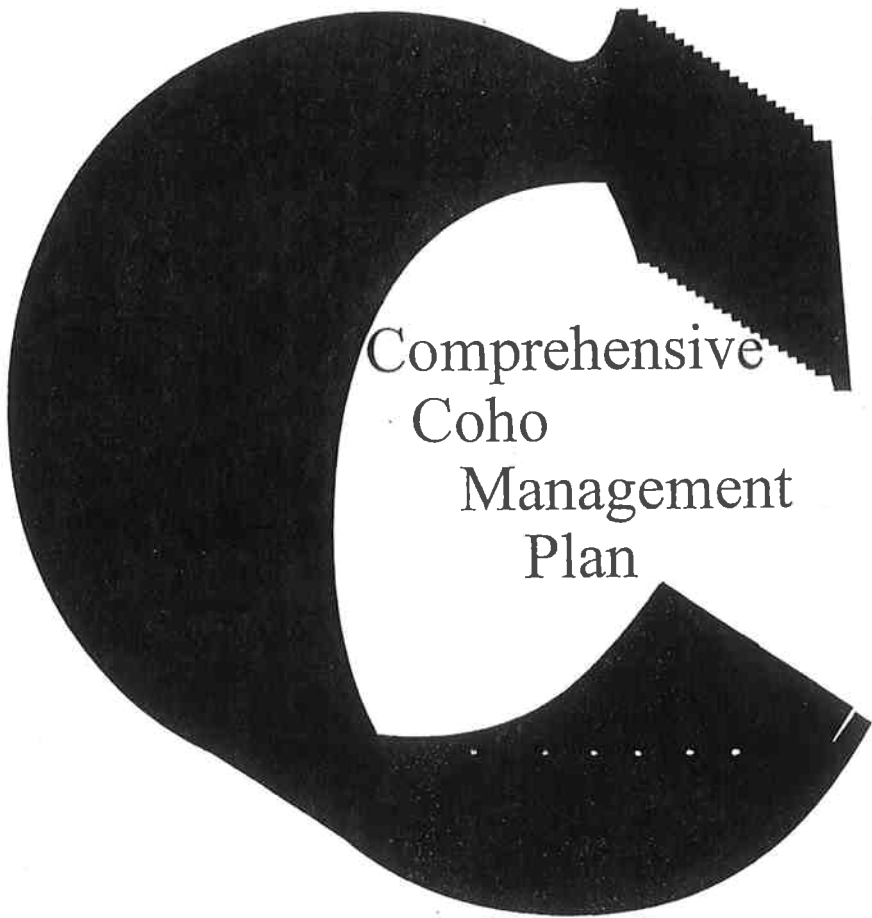
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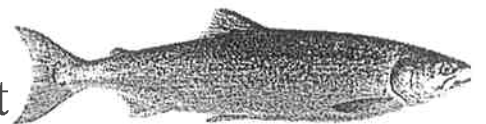
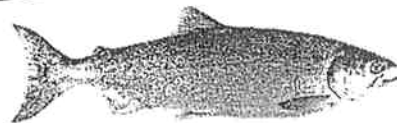
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May 5, 1998

Comprehensive Coho Workgroup

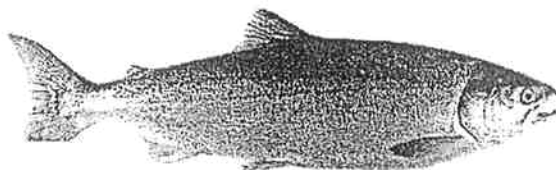




Comprehensive  
Coho  
Management  
Plan



Second Interim Report  
May 5, 1998



Prepared by:  
Puget Sound Treaty Tribes  
Washington Department of Fish and Wildlife



## Table of Contents

|  |             |
|--|-------------|
| <b>1.0 Introduction</b> .....  | <b>1-1</b>  |
| 1.1 Historical Development .....                                       | 1-2         |
| 1.2 Characteristics.....   | 1-3         |
| 1.3 Current Status.....  | 1-3         |
| <b>2.0 Technical Basis</b> .....                                       | <b>2-1</b>  |
| 2.1 Habitat and Natural Production .....                               | 2-1         |
| 2.2 Artificial Production .....  | 2-2         |
| 2.3 Fishery Management.....  | 2-3         |
| 2.4 Plan Characteristics.....  | 2-5         |
| <b>3.0 Plan Components</b> .....                                       | <b>3-1</b>  |
| <b>4.0 Management Units</b> .....                                      | <b>4-1</b>  |
| <b>5.0 Abundance Breakpoints</b> .....                                 | <b>5-1</b>  |
| 5.1 Key Wild Management Units .....                                    | 5-1         |
| 5.2 Auxiliary Management Units.....                                    | 5-3         |
| 5.3 Secondary Management Units (Wild and Hatchery).....                | 5-3         |
| <b>6.0 Habitat Management</b> .....                                    | <b>6-1</b>  |
| 6.1 Habitat Policies, Performance Measures, and Action Strategies..... | 6-2         |
| 6.2 Watershed Inventory and Assessment .....                           | 6-18        |
| 6.3 Watershed, Landscape, Recovery, and Conservation Plans .....       | 6-19        |
| 6.4 Coho Salmon Habitat and Production Model .....                     | 6-20        |
| <b>7.0 Artificial Production</b> .....                                 | <b>7-1</b>  |
| 7.1 Definitions.....   | 7-1         |
| 7.2 Categories of Artificial Production.....                           | 7-2         |
| 7.3 Relationship to Other Components of CCMP .....                     | 7-2         |
| 7.2 Equilibrium Production Levels.....                                 | 7-3         |
| <b>8.0 Exploitation Rates</b> .....                                    | <b>8-1</b>  |
| 8.1 Key Wild Management Units .....                                    | 8-1         |
| 8.2 Auxiliary Management Units.....                                    | 8-3         |
| 8.3 Secondary Management Units .....                                   | 8-3         |
| <b>9.0 Fishery Regimes</b> .....                                       | <b>9-1</b>  |
| 9.1 Switching Rules and Active Management.....                         | 9-1         |
| 9.2 Base Fishing Regimes.....  | 9-1         |
| 9.3 Annual Application of Fishing Regimes.....                         | 9-2         |
| 9.4 Inseason Adjustment.....   | 9-3         |
| <b>10.0 Monitoring and Research</b> .....                              | <b>10-1</b> |
| 10.1 Monitoring Programs .....   | 10-1        |
| 10.2 Research and Data Needs.....                                      | 10-1        |
| <b>11.0 Implementation</b> .....                                       | <b>11-1</b> |
| 11.1 Annual Stock Status Review.....                                   | 11-1        |
| 11.2 Annual Plan Review .....  | 11-2        |
| 11.3 Six Year Plan Review .....  | 11-3        |
| <b>12.0 References</b> .....   | <b>12-1</b> |

## List of Tables

|  |      |
|--|------|
| Table 1. Classification of Puget Sound management units.....   | 4-3  |
| Table 2. Provisional escapement breakpoints, target exploitation rates, and tolerance ranges for the key wild management units.....  | 5-4  |
| Table 3 . Four major categories of artificial production programs. Shaded category indicates primary benefit of program is supplementation. ....   | 7-2  |
| Table 4. Escapements and exploitation rates for the key wild stocks that trigger a stock status review. Criterion 3 is not included because the trigger values will depend upon the target exploitation rates in each of the nine years comprising the review period. .... | 11-2 |

## List of Figures

- Figure 1. Influence diagram for coho salmon production..... 7-3
- Figure 2. Example of target exploitation rates, tolerance range (shaded area), and the resulting range in escapement and catch for the Skagit key wild management unit. .... 8-4

## List of Appendices

- Appendix 1. Methods for computing abundance breakpoints and target exploitation rates
- Appendix 2. Ongoing Fishery Research and Resource Monitoring
- Appendix 3. Research and Data Needs
- Appendix 4. Equilibrium Brood Production Levels



## List of Acronyms

|        |   |
|--------|---|
| CCMP   | Comprehensive Coho Management Plan                            |
| CCW    | Comprehensive Coho Workgroup                                  |
| CWT    | Coded-wire-tag  |
| ESU    | Evolutionary Significant Unit                                 |
| MSH    | Maximum Sustainable Harvest                                   |
| NMFS   | National Marine Fisheries Service                             |
| PSSMP  | Puget Sound Salmon Management Plan                            |
| PSSSRG | Puget Sound Salmon Stock Review Group                         |
| SASSI  | Salmon and Steelhead Stock Inventory                          |
| SSHIAP | Salmon and Steelhead Habitat Inventory and Assessment Project |
| WDFW   | Washington Department of Fish and Wildlife                    |
| WRIP   | Watershed Restoration Diversity Report                        |



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# 1.0 Introduction

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At the Cooperative Management meeting in April of 1993, an outline of a proposed process for developing a Comprehensive Coho Management Plan (CCMP) was presented for consideration by the State and Tribes (Cooney et al. 1993). The outline was presented in response to a perceived need to: 1) improve the management of coho salmon in the face of decreased abundance and habitat loss (PSSSRG 1992); 2) address intertribal and treaty/nontreaty allocation disputes; 3) complement watershed and Pacific Salmon Commission planning activities; and 4) prevent the depletion of wild stocks and the potential for the subsequent listing of evolutionary significant units (ESUs) as threatened or endangered (58 FR 57770). By directly addressing the needs of wild stocks, the CCMP provides a management framework for the Wild Stock Restoration Initiative for coho salmon, an initiative of the co-managers to "Maintain and restore healthy wild salmon and steelhead stocks and their habitats in order to support the region's fisheries, economies, and other societal values" (WDF et al. 1993).

The identified goal of the Comprehensive Coho process is to:

## Goal of Comprehensive Coho Management Plan

*Develop and implement improved coho management approaches that support the maintenance and restoration of wild stocks in a manner that reflects the region's fisheries objectives (resource protection, allocation, and harvest stabilization), production constraints, and production opportunities.*

Specific objectives identified were as follows.

**Resource Protection.** The approach must protect the production base and provide incentives for increased production.

**Allocation.** The approach must meet legal obligations, including the preservation of Treaty Indian fishing rights and sharing of the resource among the tribes.

**Harvest Stabilization.** Year-to-year stability is an important objective in many fisheries. Stability should be achieved in a manner consistent with allocation and resource protection objectives.

**Management Process.** The approach should be consistent with technical capabilities, promote management efficiency by establishing pre-determined management actions for specific resource conditions, and reduce annual management conflicts. Implementation of the plan should result in a shift in emphasis from pre-season fishery planning to inseason and post-season stock assessment, management system evaluation, and stock restoration.

**Evaluation Incentives.** Development and implementation of the approach should help identify and assign information and research needs. The approach should readily incorporate new information.

Consistent with the Puget Sound Salmon Management Plan (PSSMP), the resource use policy of maximum sustainable harvest (MSH) has guided the development of the CCMP.

## **1.1 Historical Development**

Acting upon the 1993 proposal to develop the CCMP, the State and Tribes established a Comprehensive Coho Workgroup (CCW) comprised of technical staff representing the State and western Washington tribes to prepare a 'strawhorse' coho management plan. The CCW was given the task (May 21, 1993 letter of Gary Graves to Case Area Fisheries Managers) of developing a plan for review and elaboration by state and tribal policy representatives with: 1) predetermined management actions for specified fisheries under specific stock conditions; 2) a multi-year approach to allocation; and 3) specification of which stocks drive which fisheries under which conditions, taking into account proper application of harvest management, and the need to react to extreme conditions.

Initial efforts of the CCW were focused upon reviewing the range of alternatives that might be implemented. This review, completed in September of 1993, resulted in a recommendation that base fishery levels be set to achieve target exploitation rates that are specific to a management unit. Policy approval to pursue appropriate alternatives was provided at the Mid-Term Cooperative Management meeting in October of 1993. Subsequent progress on the framework for the CCMP was presented in an interim report in June of 1994 (CCW 1994).

Two reports of the Puget Sound Salmon Stock Review Group (PSSSRG) provided similar recommendations for an escapement policy for several wild stocks in Puget Sound. In 1992 (for the Hood Canal and Skagit wild management units) and in 1997 (for the Strait of Juan de Fuca Tributaries management units) the PSSSRG's review of factors leading to escapement failures recommended a management approach that reduced dependence on preseason forecasts and fixed escapement goals and established stock-specific target exploitation rates (PSSSRG 1992; PSSSRG 1997). The 1997 report also noted that these recommendations had not yet been implemented.

The commitment to develop the CCMP was reinforced by the April 1997 stipulation regarding Mass Marking and Selective Fisheries (the Stipulation). The parties recommitted to completing a comprehensive plan that would include, among other things, consideration of selective fisheries for mass-marked coho salmon. The Stipulation included a work plan with a defined schedule of tasks leading to full implementation of all elements of the CCMP with the planning of the 1999 season.

## 1.2 Characteristics

The inextricable links between coho salmon habitat, natural and artificial production, and harvest have been the driving forces in the development of the CCMP. Recognition of these links, and the development of integrated management strategies, is a critical step toward maintaining and restoring the productivity, diversity, and capacity of the resource. Only through the integrated management of the resource can the objectives of this plan be achieved.

*The inextricable links between coho salmon habitat, production, and harvest are the driving forces in the development of the CCMP.*

The CCW believes that an integrated management plan entails more than simply recognition of the primary factors affecting coho salmon production. The plan must also identify complementary habitat, artificial production, and harvest management actions appropriate for the status of the resource. In the CCMP, integration of these management actions is achieved by keying all management actions to the same measures of productivity and production capacity of the resource.

Maintenance and restoration of coho salmon habitat is a critically important objective of the CCMP. Viable, sustainable fishing opportunities cannot be provided in the absence of viable habitat; preservation of relicts of disjointed habitat remnants will inevitably result in the preservation of mere remnants of natural production. The harvest management actions provided in this plan will provide short-term protection for wild stocks when survival rates decline temporarily due to non-anthropogenic sources. However, only a comprehensive approach that also includes protecting productive habitat and restoring degraded habitat will result in the long-term health of wild stocks and sustainable fisheries.

*Maintenance and restoration of coho salmon habitat is a critically important objective of the CCMP. Viable, sustainable fishing opportunities cannot be provided in the absence of viable habitat...*

## 1.3 Current Status

During the last year, the CCW has made substantial progress on the development of the CCMP, particularly the tasks identified by the Stipulation for discussion in 1997. This report provides a summary of progress on those tasks, including recommended exploitation rates for some wild stocks, escapement thresholds that trigger management actions, and monitoring requirements. Components of the plan that will be developed in 1998 are also noted in the report.

The strawhorse plan described in this report is applicable to Puget Sound stocks. Coastal stocks of coho salmon, which are not included in this plan, are the subject of the *Hoh v. Baldrige* Framework Management Plan. Following completion of the preliminary framework for Puget Sound stocks, the Washington Department of Fish and Wildlife (WDFW) is interested in applying the concepts

of the plan to coho salmon of the lower Columbia River, Willapa Bay and, through the *Hoh v. Baldrige* process, evaluating management options for coho salmon stocks in the North Washington Coast. Integration of these plans would be required for coastwide implementation of the CCMP.

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## 2.0 Technical Basis

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One objective of the CCMP is to provide a management framework that is consistent with our technical capabilities. Given this objective, the CCW sought to identify the technical information that is available and the constraints that this information might place upon the plan. These constraints are discussed below for each of the primary components of the CCMP.

### 2.1 Habitat and Natural Production

Harvest management and habitat management are closely linked. In order to provide a quantity of production sufficient for both spawning escapement and harvest, habitat must be protected to a greater extent than would be necessary to simply maintain a minimal level of production.

A review of the information available on the relation between fish habitat and production indicated that:

- 1) Under constant habitat and survival conditions, the exploitation rate associated with the maximum sustainable harvest (MSH exploitation rate) would be the same in each year. However, the quality and quantity of fish habitat in western Washington is dynamic and variable. Long-term trends, and annual variation, affect the MSH exploitation rate and harvest levels.

The inextricable links between coho salmon habitat, production, and harvest are the driving forces in the development of the CCMP. Throughout this management plan, the CCW has sought to identify management actions that complement, rather than subordinate, these links.

- 2) Research has identified the habitat factors that typically affect the production of coho salmon.

Exhaustive reviews of the habitat factors affecting the production of coho salmon have been provided by the NRC (1996), Spence et al. (1996) and, for western Washington, by Lestelle et al. (1993) and the PSSSRG (1997). These reviews can be used to define prescriptive standards, or habitat conditions, required to maintain the production of coho salmon. These reviews and other literature were used to define policy goals, performance measures, and actions strategies in the Joint Tribal-State Wild Salmonid Policy (WSP). The WSP was adopted by the Washington State Fish and Wildlife Commission on December 5, 1997. This Policy is being reviewed by tribal governments and may be amended as necessary on a government-to-government basis between the Tribes and Commission.