

City of Corvallis Salmon Response Plan

Chapter 1. Introduction

Prepared for:

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DISCLAIMER

The authors have attempted to replace all references to Squaw Creek with the creek’s new name, Dunawi Creek. This includes replacing the creek’s full name as well as changing Squaw Creek Reach reference labels to indicate Dunawi Creek.

TABLE OF CONTENTS

CHAPTER 1. INTRODUCTION.....	1
Report Organization.....	1
<i>Brief Chapter Descriptions.....</i>	<i>1</i>
Project Purpose	2
<i>Project Rationale</i>	<i>4</i>
Endangered Species Act: The Section 4(d) Rule and Regulating Agency.....	4
Corvallis ESA Response Plan History	5
Key Project Tasks.....	6

LIST OF FIGURES

Figure 1. Chinook Salmon Evolutionarily Significant Unit (ESU) Map	3
Figure 2. Corvallis Salmon Response Plan Project Area	7

CHAPTER 1. INTRODUCTION

REPORT ORGANIZATION

This report outlines the regulatory compliance requirements, project history, and technical, policy, and public involvement work that the City of Corvallis, Oregon has undertaken to craft a response to the Endangered Species Act (ESA) listing of chinook salmon as threatened in the Upper Willamette River. Each chapter addresses a specific topic in the development of the City's ESA Salmon Listing Response Plan (Salmon Response Plan).

Brief Chapter Descriptions

Chapter I (Introduction) is a project overview. It briefly covers the project purpose, the ESA listed species, federal compliance requirements, the City's rationale for pursuing the ESA 4(d) Rule, project development history, and key tasks undertaken to develop the Salmon Response Plan.

Chapter II (ESA and Section 4(d) Rule Requirements) addresses the ESA. It provides a brief history of the ESA, the listing process, enforcement, and compliance options available to local agencies that have listed species within their jurisdiction. Chapter II also contains a detailed discussion of the 4(d) Rule and the guidance it provides for listed salmonids such as chinook salmon.

Chapter III (Project Structure) provides background information on the project. It outlines the City's demographics, project area, other related projects, and a brief history of the City's effort to prepare the Salmon Response Plan. Chapter III also describes the project structure used to prepare the Salmon Response Plan (e.g., two-phased approach, federal oversight, partnership with Benton County, the consultant team, local technical oversight and role of the public).

Chapter IV (Methodology) focuses on the methodology used to prepare the City's baseline salmon habitat conditions including the literature review, fieldwork and data collection process and analysis. It emphasizes the scientific rigor for determining existing conditions on which the Salmon Response Plan is based.

Chapter V (Baseline Conditions) addresses the baseline conditions and findings. It describes the development of the baseline conditions database that covers all streams and rivers in the project area. General descriptions of the existing conditions are provided for the reaches within the project area. The key findings focus on the historic and existing chinook salmon habitat in the project area.

Chapter VI (Pathways/Effects Analysis) focuses on the analysis of City activities and citizen behavior and how they influence chinook habitat. This chapter describes how existing City activities (planning, land development code, public infrastructure, transportation, parks and recreation, maintenance and operation, etc.) and citizen behavior (yard maintenance, recycling, etc.) impact the existing chinook salmon habitat conditions. This is the most

critical step in the project because it allows the City to identify activities that impact (positively and negatively) existing habitat as well as the degree and spatial distribution of the impact. The City has created a unique weighted pathways database to perform this work and analysis. The results of this analysis give the City the ability to rank activities according to their impact, setting the stage for developing solution options for those activities that have the greatest negative impact.

Chapter VII (Proposed Limit 12 Program Solutions) presents the proposed solution options based on the analysis in Chapter VI. Chapter VII contains extensive discussion on the development of the solution options as a product of the pathways/effects analysis and input from the Technical Advisory Committee (TAC), stakeholders, and general public (public meetings, surveys, comment forms). The solution options are identified and described.

Chapter VIII (Monitoring/Reporting) focuses on the proposed monitoring that will be performed to assess progress toward meeting the project goals of achieving properly functioning conditions (PFC). The monitoring will cover both the technical/scientific monitoring (field data collection, testing and analysis) and programmatic monitoring (how well the proposed options and programs are accomplishing the project goals).

Chapter IX (Public Involvement) describes the extensive public involvement used throughout the project. The project has relied on a multi-media approach including stakeholder and citizen meetings, news releases, e-mail announcements, fact-sheets, comment forms, and a special website devoted to the project.

Chapter X (Conclusion: Next Steps and Future Directions) contains a discussion of what the City will do to prepare a formal application for the ESA Section 4(d) Rule submission to the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries). This discussion includes a schedule of other City activities that must be accomplished before the NOAA Fisheries application can be submitted.

Supporting materials are included. A Glossary and Bibliography are provided to define terms and identify source materials used throughout the project. An appendix of key reports, technical memoranda, and public education documents also is included. Finally, an electronic copy (compact disk) of the pathways database is provided. The database contains the weighting scores used to determine the relative impact City activities have on chinook salmon habitat in Corvallis.

PROJECT PURPOSE

The City initiated the Salmon Response Plan project during the summer of 2000. The plan was to comply with protection regulations surrounding the listing of chinook salmon as a threatened species under the ESA (March 1999). At that time, the range for the Upper Willamette River Spring Chinook Salmon evolutionary significant unit (ESU) was identified by NOAA Fisheries. The City is located within the range of the ESU (Figure 1). From that date forward local jurisdictions were held responsible for preventing further degradation of chinook salmon habitat.

Figure 1. Chinook Salmon Evolutionarily Significant Unit (ESU) Map

See separate file

The purpose of the project is to identify activities (both City and citizen) that have negative impacts on chinook salmon habitat and develop a plan to, at a minimum, prevent further degradation. The long-term goal of the project is to implement activities that put fish habitat in city creeks and rivers on a trajectory toward PFC.

Project Rationale

The City has embarked upon this effort for two reasons. First, the City administration (elected officials) and its residents believe they have a responsibility to help maintain the natural environmental processes critical to the environmental health and quality of life in the Willamette River Valley and state of Oregon. This responsibility is reflected in many of the City's previous and ongoing activities; from the preservation of open space and natural resources, reduction of stormwater run-off and contamination of local streams, preservation of the Willamette River waterfront, participation in other environmental planning efforts (e.g., State-wide Goal 5 Significant and Natural Features Inventory projects), to the high degree of citizen participation in the city's recycling programs. Participation in the preservation of chinook salmon habitat is consistent with the City's position to take actions that contribute to overall environmental and community health.

Second, the City administration has a fiduciary responsibility to its residents to protect their interests through responsible decision-making and actions. Such decisions apply to the ESA listing of chinook salmon where the City has compared the costs and benefits of complying with federal rules and the protections that compliance offers to the potential risks, liabilities and costs of non-compliance. The City has determined that compliance with the federal rules governing chinook salmon habitat, specifically the ESA Section 4(d) Rules, to be more beneficial than potentially costly third-party law suits challenging the City to demonstrate compliance with these federal rules.

ENDANGERED SPECIES ACT: THE SECTION 4(D) RULE AND REGULATING AGENCY

The controlling federal legislation is the ESA, which was passed in 1973 (see Chapter II). Species listed under the ESA are subject to special regulations designed to protect them from extinction. A jurisdiction that fails to provide adequate protection may be subject to federal intervention or third-party legal challenge to demonstrate that the jurisdiction is providing sufficient protections to meet the requirements of the ESA. Should a jurisdiction fail to demonstrate that it is protecting the listed species, that jurisdiction could be subject to civil and criminal penalties (ESA Section 9).

There are specific ESA sections that provide guidance for complying with the ESA (i.e., Sections 10, 7, and 4). Concerning listed salmonids in streams and rivers in the northwestern United States, the federal government has developed a set of guidelines under ESA Section 4(d), which jurisdictions can follow to ensure compliance.

In July 2000, NOAA Fisheries, the federal agency with regulatory authority for marine species including anadromous fish, published the final ESA Section 4(d) Rules for protection of listed salmonids in the northwestern United States (including Upper Willamette Spring Chinook Salmon). Importantly, the ESA Section 4(d) Rules allow incidental take as long as the local jurisdiction can ensure that, overall, it will not create any “jeopardy” to a listed species of becoming either endangered or extinct. These rules, developed specifically for listed northwestern salmonids, provide options for jurisdictions to obtain an incidental take permit from NOAA Fisheries for its activities. This permit ensures compliance with the ESA and provides protection in the event of legal challenges by the federal government and/or other parties.

CORVALLIS ESA RESPONSE PLAN HISTORY

The City initiated a formal response to the listing of chinook salmon in the Summer of 2000 when it began the project to identify chinook habitat, City and citizen activities that could degrade habitat, and solution options to protect chinook habitat from further degradation. In the years leading up to the project, the City had become aware of the potential for chinook to be listed as threatened under the ESA and the requirements to comply with ESA.

City officials supported state and region-wide efforts to protect salmon. They participated in the “Oregon Plan for Salmon and Watersheds”, which was a state-lead effort to address declining populations of salmon with a pro-active, coordinated effort for restoration of the state’s salmon habitat that included federal and state agencies, local jurisdictions, and community-based groups in the process. The City became a member of the Willamette Restoration Initiative (WRI), whose goal was to coordinate efforts to protect and restore the health of the Willamette River watershed.

Locally, the City had initiated several efforts that both highlighted potential fish habitat problems and proposed a number of rehabilitation measures. The City’s comprehensive stormwater management planning effort identified potential water quality problems from untreated stormwater run-off to streams. While the City funded an extensive combined sewer overflow (CSO) project to capture and treat wastewater and stormwater run-off from the older areas of the community that previously discharged untreated stormwater to the Willamette River, it also recognized that other unprotected streams would continue to be contaminated without additional policy and development changes. In addition, the City was beginning to prepare for the periodic review of the its Comprehensive Plan, which required extensive inventories of its environmental resources, including fish habitat in city streams.

City residents were also aware of the declines of salmonid populations in the northwest and generally were supportive of efforts to seek solutions to restore fish habitat. Among the evidence of such support was an annual random survey of residents that the City conducted to measure service effectiveness. While residents traditionally favored the City’s environmental programs, in 1999 specific questions were included in the survey regarding

the recently ESA-listed chinook salmon. Though no specific actions were identified, residents responded overwhelmingly positively to the need to support City activities that address chinook salmon habitat, even if it required modification of city services (wastewater treatment, water supply, stormwater management, etc.) and land development regulations.

The City budgeted for a multi-year project to develop an Salmon Response Plan. The Plan would assess chinook salmon habitat in streams within the its urban growth boundary (UGB), and develop a response plan based on sound science that would 1) prevent further chinook salmon habitat degradation and 2) eventually put the habitat on a trajectory toward PFC. The City hired a team of consultants with expertise in the ESA, chinook salmon biology and ecology, and the recently implemented ESA Section 4(d) Rules. The project was initiated in the Fall of 2000 (see project area map in Figure 2).

KEY PROJECT TASKS

The project's scope of work outlined a two-phased approach that coordinated the efforts of the City's TAC, the public (both stakeholders and general public), and the consulting team. The City recognized that project success hinged on significant communication between the City and NOAA Fisheries. Communication began in the project's early stages to ensure that the City received the benefit of guidance from the agency which would receive the City's report and provide the incidental take permit under ESA Section 4 (d). Frequent communication continued throughout the entire project.

Phase One of the project developed a comprehensive environmental baseline documenting the existing conditions of city streams for chinook salmon habitat. A pathways/effects analysis assessed the impact of City activities and citizen behavior on chinook salmon habitat.

Phase Two used the pathways/effects analysis to determine the degree and geographic distribution of City activities and citizen behavior that negatively impacted habitat. Activities were weighted and ranked according to their impact in order to identify solution options to prevent further habitat degradation and eventually restore PFC.

The combined effort of the two-phased approach would be the preparation and submission of an ESA Section 4(d) Rule Limit 12 (Municipal, Residential, Commercial, and Industrial Development Program) application to NOAA Fisheries. The application would document the City's understanding of chinook salmon habitat, City activity and citizen behavior impacts, and solutions that would be implemented to meet ESA requirements.

Figure 2. Corvallis Salmon Response Plan Project Area

See separate file

To accomplish this project the following key tasks were completed:

- Development of an existing conditions database (existing sources and field data collection).
- Production of a geographic information systems (GIS) map of city streams with a 400-foot riparian corridor evaluation area (200 feet on each side of the top of bank).
- Creation of a pathways/effects evaluation of City activities (e.g., public infrastructure and services, transportation, operations and maintenance activities, parks and recreation, land use planning etc.) and citizen behavior (e.g., household activities, yard maintenance, home auto repairs, etc.).
- Preparation and submittal of the Phase One report “Baseline Habitat Evaluation and Evaluation of Impacts of City Activities” to NOAA Fisheries (approved by NOAA Fisheries in January 2002).
- Development of a database of weighted data that compared the pathways/effects analysis of City activities and citizen behavior against the baseline conditions database to determine the degree of chinook salmon habitat impact and its distribution.
- Development of solution options to prevent further degradation of chinook salmon habitat.
- Development of solution options to put the City on a trajectory toward achieving PFC in its streams.
- Development of a monitoring program.
- Preparation of a final report combining both phases of the project into a single report for submission to NOAA Fisheries.
- Provide extensive public involvement activities throughout the project (stakeholder and open house meetings, press releases, comment forms, project website, etc.) to ensure public understanding of the project and to provide the general public with an opportunity for input.