

CHAPTER 1

INTRODUCTION

WHAT IS FISHNET 4C?

In response to the Federal Endangered Species Act (ESA) listings of the coho salmon (1996) and steelhead trout (1997) on the Central California coast, County Supervisors from six counties took a proactive stand for fisheries protection, forming FishNet 4C – the Fishery Network of the Central California Coastal Counties. The FishNet 4C region is defined by the Central California Coast Evolutionarily Significant Unit (CCCESU) for coho salmon and steelhead trout, and runs along the coast from the Russian River Basin in Mendocino County south to the Big Sur Coast. It includes the counties of Mendocino (Russian River basin only), Sonoma, Marin, San Mateo, Santa Cruz and Monterey. Members of FishNet 4C include County Supervisors, County Planning, Public Works, Parks and Open Space staff, local, state and federal agencies, and other key partners within our counties, such as cities, Resource Conservation Districts (RCDs) and water agencies.

The goal of FishNet 4C is to facilitate effective local actions that will maintain and improve our region’s water quality and riparian habitat, provide increased assistance and education for local government and the private sector, and encourage cooperation and coordination between all levels of regulatory responsibility for fishery restoration.

One of FishNet’s first projects was to bring in UC Berkeley to evaluate whether county policies and programs were adequate to protect aquatic habitat and salmon fisheries. The study, or “environmental report card”- Effects of County Land Use Policies and Management Practices on Anadromous Salmonids and Their Habitats (Harris, 2001), highly recommended that our counties develop written guidelines for public works, parks and open space departments, on how to best protect the aquatic environment while conducting their daily work on our roads and drainage systems. FishNet members formed an Operations and Maintenance Sub-Committee, and through this committee, with much dedication and effort from our members, these guidelines were developed. The development of the manual is just the first step, to be followed with adoption of the guidelines by County Boards of Supervisors and then intensive trainings for County roads crews and managers, in partnership with the FishNet Program.

WHAT IS IN THE MANUAL?

The key focus of this manual is on implementing best management practices related to protecting water quality, aquatic habitat and salmonid fisheries. The guidelines outlined in the manual address most routine and emergency road related maintenance activities undertaken by County Departments of Public Works, Parks, and Open Space Districts, and they also address common facilities such as spoils storage sites and maintenance yards. The guidelines apply to in-house county activities related to county facilities, not to private development.

Overall, the manual addresses issues related to routine maintenance. There are, however, a limited number of instances where we have expanded the scope of the manual, based on agency comments, to include more project related activities. These include road redesign, culvert replacement, and streambank stabilization projects. We felt it was important to include these road related projects, because they are so important in protecting salmonid habitat.

In *Chapter 2, Regulations and Permits*, we'll introduce you to existing laws and regulations that protect our rivers and streams, to the agencies responsible for implementing these laws, and to agency permits needed for each type of activity. This manual does not supersede or replace any other agency's regulations or policies.

Chapter 3, Working in the Watershed, lays the groundwork for understanding the basic science of watershed protection and why this is so important to protecting aquatic habitat.

Chapter 4, Stream Habitat and Salmon Fisheries, outlines the basics of salmonid life cycles and their needs in the aquatic environment. This chapter is of particular importance in training staff on why Best Management Practices (BMPs) are needed and how they can be most effective in protecting our rivers and aquatic wildlife.

Chapters 5-10 make up the core of the manual, addressing specific activities that county departments routinely undertake. In these chapters, the manual summarizes areas of environmental concern for each activity and provides mitigations and recommended BMPs to address each concern.

Lastly, the Appendices serve as technical references:

- Appendix A- BMP specs and illustrations
- Appendix B- Glossary- Agency abbreviations and Definitions of Terms, and
- Appendix C- Technical papers including: Guidelines for Fish Passage (NOAA and DFG), Water Drafting Specifications (NOAA and DFG), and Dust Palliative Application.

THIS MANUAL DOES *NOT* APPLY TO:

- In-channel flood control activities
- Non-road-related stream bank stabilization
- Design or construction of new facilities, (except for culvert replacement)
- Major expansion of existing roads and facilities
- Private development

WHO IS THIS MANUAL FOR?

The guidelines are designed for Public Works, Parks, and Open Space Districts to implement when working on County road related projects and facilities. The materials in all chapters are aimed to assist managers and road supervisors to develop and implement trainings for field crews and engineers, in partnership with the FishNet 4C program. Most importantly, the manual is developed to assist in the recovery of salmonid species within the Central California Coast region. We at FishNet hope our counties will contribute to both State and Federal Salmonid Recovery Planning efforts by adopting and implementing the practices laid out in the manual.

INTENTION OF THE GUIDELINES

The primary responsibility of our county transportation departments and road crews is to keep the roads open and safe for the traveling public. Providing all of the services the public requests and ensuring public safety requires sound judgment on the part of road engineers, managers, and crews in the field. It is the intention that these guidelines be adopted and implemented in all situations where feasible, allowing for both good judgment and discretion on the part of roads superintendents and field crews.

In addition, our counties' Departments of Transportation need to operate within the realities of annual budgets and long term capital improvement budgets. Working with the FishNet Operations and Maintenance Committee, we have committed our crews to protecting the environment and implementing the guidelines to the highest degree possible, given the reality of each county's situation. In fact, many of our counties were already implementing many of the best management practices outlined in the manual prior to its publication. The Roads Manual training program that Fishnet implements helps insure that what is learned from the manual is applied to situations on the ground. All these efforts combined help the FishNet 4C counties to protect our streams and anadromous salmon populations.

HOW CAN YOU USE THESE GUIDELINES?

The work of county road maintenance departments routinely affects the environment, and in particular, can affect waterways that cross or run close to county roads. This manual provides a basic framework of guidelines to maintain and repair roads while also preserving and restoring crucial natural waterways and fish habitats. By adopting and using this manual, you can substantially reduce the impacts that county road maintenance activities have on the environment. In particular, you will help protect salmon fisheries and water quality and meet current and future Total Maximum Daily Load (TMDL) goals for rivers and their drainage basins. As well, the manual assists county roads maintenance departments meet requirements to protect salmonid habitat, as outlined in state and federal recovery plans, and the Federal ESA 4(d) Rule, to protect coho and chinook salmon and steelhead trout in the Central California Coast ESU (Evolutionary Significant Unit).

The core principles to remember during road maintenance are:

- ✓ Minimize overall impact on the environment.
- ✓ Avoid discharging sediment or other pollutants into waterways such as creeks, wetlands and storm drains.
- ✓ Maintain natural drainage patterns and provide for fish passage.
- ✓ Retain vegetation (or replace invasive plants with native vegetation).

GOALS AND OBJECTIVES OF THE MANUAL

Meeting Federal and State Endangered Species Act Requirements

The FishNet 4C Counties within the CCCESU are under Federal and State ESA requirements to protect salmonid species, both as land use permitters and land and facilities managers. Under the Federal ESA, coho salmon are listed as *endangered* (August 2005). Steelhead trout are federally listed as *threatened*, and are protected by specifics outlined in Section 4(d) of the Federal ESA, more commonly known as the 4(d) Rule. Under the California State Endangered Species Act (CESA), coho salmon are listed as *endangered* (February 2004), from Punta Gorda south to the San Francisco Bay. From San Francisco south to Aptos Creek in Santa Cruz, coho salmon have been listed as *endangered* since 1995. From Punta Gorda north to the Oregon border, coho salmon are listed as *threatened* under CESA (August 2002).

County Contribution to Recovery Planning for Salmonid Species

The California State Department of Fish and Game has prepared a Recovery Strategy for California Coho Salmon, completed and adopted in June 2004. NOAA is in the process (as of January 2007) of preparing a Federal Recovery Plan for all species of listed salmonids (chinook, coho and steelhead). Beyond complying with the rules, implementation of the principles laid out in these guidelines will assist our counties in contributing to both State and Federal Recovery Planning efforts and will assist in the recovery of these salmonid species within our region.

Meeting Clean Water Act and NPDES Phase II Requirements

One of the principle goals of the FishNet 4C program is to integrate Clean Water Act and Endangered Species Act programs where possible. The FishNet Program has developed these guidelines to minimize impacts to aquatic habitat and water quality. These procedures are intended to contribute to each county's efforts to meet regulations under Phase II of the National Pollutant Discharge Elimination System (NPDES), promulgated by the Regional Water Quality Control Boards in the FishNet 4C region. NPDES Phase II provides for permits for discharges of storm water from: (a) construction activity >1 acre of soil disturbance; (b) certain industrial activities including mining and vehicle maintenance (such as County Road Maintenance Yards); and c) municipal facilities, including roads. The Phase II Stormwater permit requirements apply to water quality issues in areas of the watershed that are served by a municipal storm sewer system. NPDES Phase II compliance includes implementation of best management practices, such as those published in these guidelines, as well as the achievement of measurable goals in the following areas: 1) public education, 2) public participation/involvement, 3) illicit discharge detection and elimination, 4) construction site runoff control, 5) post-construction runoff control, and 6) pollution prevention/good housekeeping.