



Jenner Headlands Stream and Creek Management

Fact Sheet: August 2017



Overview

California's streams and creeks once teemed with abundant fish and wildlife. For thousands of years, coho salmon and steelhead trout inhabited our cool, clear-running coastal streams and creeks. But today, due to poor watershed management practices, these fish are endangered and threatened with extinction. Past logging practices are often identified as the culprit. By removing streamside trees and creating a dense network of poorly built roads, shade no longer cools the streams and large amounts of fine sediment from dirt roads enters our creeks. Fine sediment reduces water quality and degrades salmon and steelhead habitat by filling in spawning gravel, smothering salmon and steelhead eggs and preventing oxygen filled water from reaching the incubating eggs.

Since these fish only thrive in cool, clean water, their scarcity can be seen as an indicator of poor water quality and watershed health, which can have detrimental impacts on other aquatic species, as well as for our human communities. Clean running water is vital to our health and the health of our community.

Riparian restoration and enhancement goal

Our overarching ecological goal is to protect and restore streamside (also known as riparian) plant and animal communities and protect water quality by:

- Increasing streamside vegetation and wildlife habitat for fish and other aquatic animals
- Removing obsolete roads that are no longer needed for property management
- "Storm-proofing" roads that are needed for property management, which will help prevent fine sediment from entering streams
- Fencing out livestock from streams

How we will restore our streams

• *Increase Riparian Wildlife Habitat*

Our restoration forestry methods (see Restoration Forestry Fact Sheet) will help increase the size of trees adjacent to streams, which will increase shade to aquatic habitats and increase wood that falls into the stream channel. Coarse wood, such as large trees and branches that fall into streams over time, greatly improves habitat for salmon and steelhead and other aquatic animals by creating a diversity of pools and other in-stream habitat.

• *Remove obsolete roads*

The Jenner Headlands' forests have been managed as commercial timberlands for more than 100 years and, as a consequence, there is a dense network of logging roads, some of which are no longer needed. Over the coming years, we will work to remove these roads and revegetate these areas, which will help stop sediment from entering the creeks and degrading vital spawning habitat for salmon and steelhead.

• *Upgrade needed roads*

We will "storm-proof" roads by reshaping them to better withstand erosion by rain storms, and at stream crossings, larger culverts will be installed along the natural gradient of the stream, replacing undersized and poorly installed culverts. This will help reduce erosion and sediment from entering the streams and allow future storm runoff to cleanse the streams of accumulated fine sediment.

• *Riparian fencing*

Livestock will be used as a way to manage our coastal prairie grassland (see Coastal Prairie Fact Sheet). To prevent livestock from using streams as a source of water, reducing streamside vegetation, and lowering overall water quality, livestock exclusion fencing will be placed along the streams.

Caretaking our streams

Clean, cool running water is vital for the health of our community and future generations. On a regular basis, we will collect water quality and other stream data, and continually revise and adapt our restoration and enhancement practices to ensure that we are creating the right conditions for clear, cool running streams and a healthy and vibrant riparian ecosystem.

For additional reading:

California Department of Fish and Game (CDFG). 2003. California Salmonid Stream Habitat Restoration Manual. California Department of Fish and Game, Sacramento, CA.

Kocher, Susan D., J.M. Gerstein, R.R. Harris. 2007. Rural Roads: A Construction and Maintenance Guide for California Landowners (Publication 8262). The Regents of the University of California, Division of Agriculture and Natural Resources, Oakland, CA.

Pacific Watershed Associates (PWA). 2015. Handbook for Forest and Ranch Roads: A Guide for Planning, Designing, Constructing, Reconstructing, Maintaining and Closing Wildland Roads. Mendocino County Resource Conservation District, Ukiah, CA.

Weaver, B., D. Hagans, and E. Weppner. 2006. Part X, Upslope Erosion Inventory and Sediment Control Guidance. In: Flosie, G., Downie, S., (editors), California Salmonid Stream Habitat Restoration Manual, 3rd. ed. California Department of Fish and Game, Sacramento, CA.