



From its outlet in Warm Springs Dam, Dry Creek meanders 14 miles to the Russian River. The creek is home to endangered coho salmon, threatened Chinook salmon, and threatened steelhead (including steelhead raised at the Don Clausen Fish Hatchery). The creek also serves as a conduit for water that is released from Lake Sonoma by the U.S. Army Corps of Engineers (Corps) in the winter for flood control purposes and by the Sonoma County Water Agency (Water Agency) in the summer for water supply.

The Problem

National Marine Fisheries Service (NMFS) biologists have determined that summer flow levels in Dry Creek are too high for young coho and steelhead. The volume of water currently running through the creek ranges from 110 to 175 cubic feet per second (cfs), which creates high water velocity and makes it difficult for the juvenile fish to thrive. High winter flow releases and disturbance to the stream channel, exacerbated by Warm Springs Dam, have caused widespread streambank erosion – further degrading habitat and threatening valuable agriculture land.

The Solution

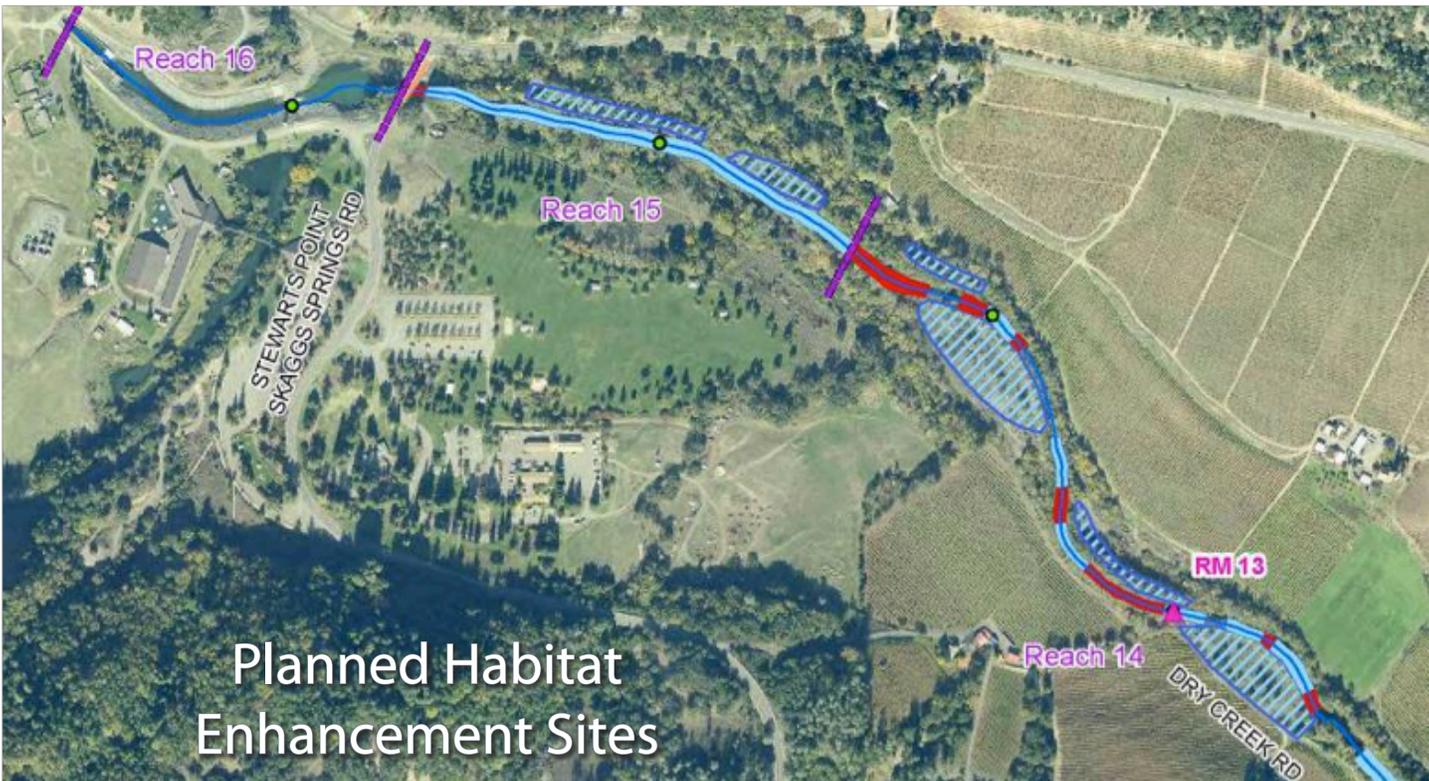
The NMFS's biological opinion recognizes that drastically reducing the summertime flows in Dry Creek would severely impair the Water Agency's ability to deliver water to its 600,000 customers, so the biological opinion proposes "reasonable and prudent alternatives," which include enhancing six miles of habitat along Dry Creek over a 12-year period to create low velocity areas for juvenile coho and steelhead. If the habitat enhancement works as intended, the current water levels could continue to be released from Warm Springs Dam during the summer. Water Agency consultants, Inter-Fluve, have completed a Phase One study of historical and current conditions in Dry Creek, and have released a draft feasibility study which identifies specific project sites amenable to habitat enhancement. The biological opinion requires the first mile of enhancements to be constructed in 2014.

The Demonstration Project

The Dry Creek Habitat Enhancement Demonstration Project is a proposal to step-up the schedule by implementing one mile of habitat enhancement projects on property owned by willing landowners. The project will demonstrate to regulators, other landowners, and local decision makers how habitat enhancements would be constructed, what they would ultimately look like, and evaluate project effectiveness on a smaller scale prior to implementing the full six miles of habitat enhancements. Based on Inter-Fluve's experience in other areas, an initial demonstration project budget has been established at \$7 million.

The demonstration project site is on several private properties near Lambert Bridge Road, in the middle reach of Dry Creek, where work can be easily viewed by the public. Inter-Fluve has identified habitat enhancements that will help prevent erosion and provide low-velocity refuge and shade cover. Techniques include creating side channels, log jams and backwaters. The 60% design document is currently underway and an environmental document known as an "Initial Study" will be released in late May 2011.





Bank Stabilization



Enhancement techniques used in the Habitat Enhancement Demonstration Project could include log or rock weirs, deflectors, log jams, constructed alcoves, side channels, backwaters, and dam pools.

