



Dry Creek Habitat Enhancement Demonstration Project

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 (SCWA) in the summer for water supply.

The Problem

National Marine Fisheries Service (NMFS) biologists have determined that current flow levels in Dry Creek in the summer 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 SCWA'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. SCWA's consultants, Inter-Fluve, are completing a Phase One study of historical and current conditions in Dry Creek. In 2010, Inter-Fluve will conduct Phase Two, which will identify 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 to evaluate their 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.

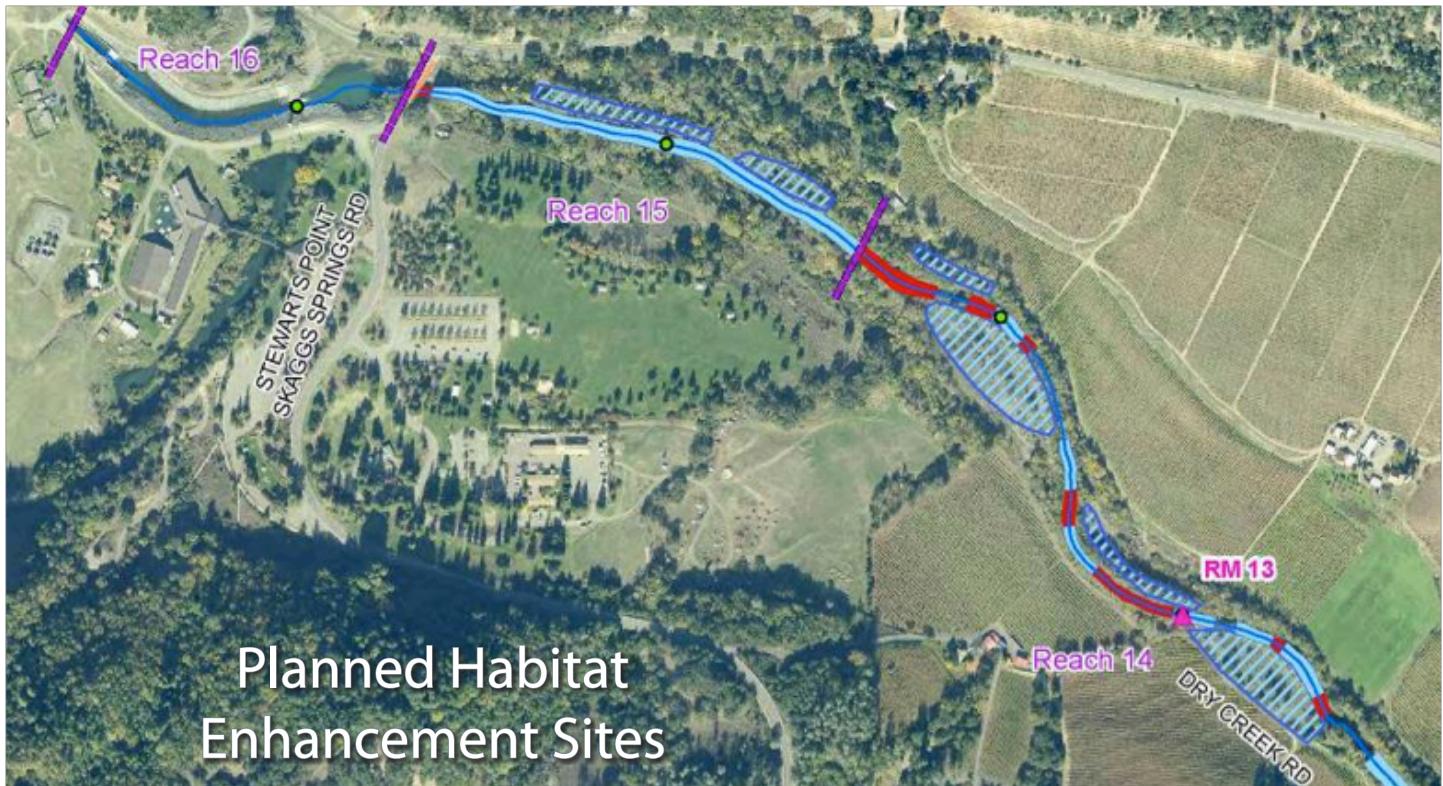
The demonstration project site is on several private properties near Lambert Bridge Road, in the middle reach of Dry Creek, where work can be easily viewed by the public. The type and extent of habitat enhancements are still being determined; however, the biological opinion stresses the availability of off-channel habitats in low velocity areas with substantial cover and the treatment of bank erosion. Enhancement techniques could include log or rock weirs, deflectors, log jams, constructed alcoves, side channels, backwaters, and dam pools. Inter-Fluve will be working this year to identify specific enhancement elements for the demonstration project.

For more information visit www.sonomacountywater.org/rrifr





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Planned Habitat
Enhancement Sites

Bank Stabilization



Before

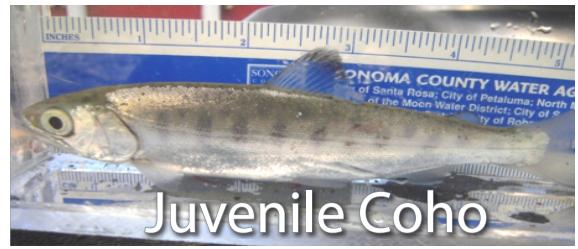


After



Dry Creek Riffles/Pools

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.



Juvenile Coho

