



The Merced River Ranch: Evaluating Year 1 of a 5-Year Floodplain Restoration Project

Does restoring floodplain and in-channel coarse sediment processes recover productive habitat for salmonid rearing? Cramer Fish Sciences is working with Philip Williams and Associates, USFWS Anadromous Fish Restoration Program, the California Department of Fish and Game, and Ford Construction to answer this question on a stretch of the Merced River near Snelling, California. Year 1 of the 5-year construction and monitoring project was completed in October 2010, and ongoing restoration work will be occurring each year during the time when salmon are not present in the spawning area. The 5-year phased construction plan is shown in the diagram to the right [[click the diagram](#) for a larger view]. A report documenting construction activities and the results of project monitoring for Year 1 (2010) was completed at the end of May and is available as a PDF download:



[Merced River Ranch Floodplain Restoration Project](#)

How Do Predator Densities, Flow, and Turbidity Influence Predation?

Predation is thought to have a significant effect on the survival of juvenile salmonids in the Sacramento-San Joaquin Delta, but factors which influence predation are poorly understood. CFS scientists recently studied the impact of predator removal on the survival of acoustically tagged juvenile Chinook salmon. Senior scientist Brad Cavallo presented a summary of the [Predation Effects Study](#) [PDF] results at the California-Nevada AFS meeting in April. A paper is currently in review with the journal *Environmental Biology of Fishes*.

Using Diatoms to Assess Water Quality Impairment in Streams

Cramer Fish Sciences recently worked with the Montana Department of Environmental Quality to develop diatom biocriteria for assessing water quality impairment in Montana streams. Senior scientist Mark Teply led this project out of our Lacey, Washington office. This project employed a novel approach based on Increaser Taxa - common diatom taxa with a demonstrated response to environmental stress. Mark reported on this approach in a recent issue of *Diatom Research*. A technical report ([Diatom Biocriteria for Montana Streams](#)) and a guidance document ([Interpretation of Periphyton Samples from Montana Streams](#)) are available for download. For more information, contact Mark at (360) 456-4621.