

Title: Photomonitoring of Trinity River Restoration

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Monitoring changes of river morphology may be accomplished in various ways. The Trinity River is changing rapidly due to implementation of a large scale restoration program. The restoration actions are rapidly changing the morphology of the Trinity River in many ways. Changes in the Trinity River are being documented by a variety of multidisciplinary assessments that focus on fish, wildlife geomorphology and vegetation. Images from ground-based photographic monitoring are worth a thousand words making it an inexpensive technique to qualitatively document changes in the Trinity River and supplement the results of other monitoring efforts. The objectives of this photographic monitoring project are to document changes related to bank rehabilitation site construction and evolution from restoration actions. Photomonitoring establishes photo-points at strategically placed and geo-referenced points of bank rehabilitation sites. Photo-point locations are selected to display broad affects as well as specific features. Photographs are usually taken over time to document conditions during pre-construction, post-construction, after flow events and at winter base flow. When appropriate, photographs are taken at multiple river discharges. Photomonitoring data is stored in a Microsoft Access database that facilitates archiving, easy access to photographs and links data to georeferenced locations. The USFWS photomonitoring project was initiated in 2007 and to date has collected over 1,300 photographs at 159 photo-point locations. Photo-points are located at the following bank rehabilitation sites; Bucktail, Cableway, Dark Gulch- Upper, Dark Gulch-Lower, Deadwood Creek, Hoadley Gulch, Hocker Flat, Indian Creek, Reading Creek, Rush Creek, Sven Olbertson and Vitzhum Gulch. This photomonitoring project will aide other more quantitative projects in the description of changes occurring on the Trinity River and may be used to support the adaptive management framework of the Trinity River Restoration Program. In the future, the Trinity River Restoration Program may consider expanding this project to include areas outside of bank rehabilitation sites as well as possible quantitative components in the data collection such as classification schemes, presence/ absence, increase/ decrease, volume estimates and more.