



COASTAL CONSERVANCY GRANT 08-090
Return on Investment Report for 2013

The Five Counties Salmonid Conservation Program (5C), a program of the Northwest California RC&D Council, and its project partners completed design, environmental review, permitting and construction funding for 72% of listed projects funded with Coastal Conservancy Grant #08-090. Eight of those project designs (53% of projects) have been implemented since 2011.



Photos 1-4: Conner Creek at Conner Creek Road (Trinity County) before (upper left) and after construction (upper right) in 2011. Conner Creek at Red Hill Road before (lower left) and after construction (lower right) in 2012. The Conner Creek Project was recognized by the National Fish Habitat Partnership as a top ten 2012 "Waters to Watch" and received an Honorable Mention as a "Distinguished Project in Fisheries Engineering and Ecohydrology" by the American Fisheries Society in 2013.



The eight projects completed used \$135,000 of Coastal Conservancy design funds (Figure 1) to leverage \$2,340,000 in implementation funding (Figure 2). The Conservancy funds represent 6% of the total implementation funding, a significant return on the original investment. The completed projects include five migration barrier removals (Conner Creek (2 sites), Ryan Creek (2 sites), and Griffin Creek, restoring 5 miles of Coho, steelhead, Chinook, coastal cutthroat

Exhibit 2: Council Progress Report and Project Priority List

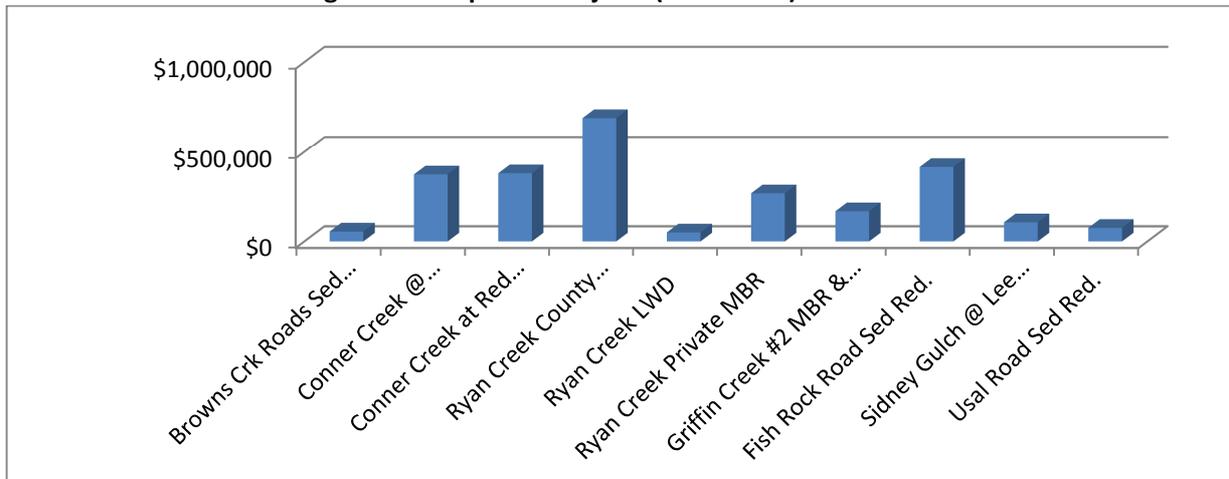
and lamprey habitat. In addition, those same projects prevented ~21,000 yd³ of road crossing and other road related sediment and erosion from reaching streams, including crossings in critical danger of failure.

Photos 5 & 6: Griffin Creek before (Left) and Private Ryan Creek before (Right). Both culverts were structurally unsound and undersized.



Two of the stream crossing projects completed in 2013 had high risk of plugging, road failure and were preventing fish passage. Griffin Creek (Del Norte County) was an undersized and rotted culvert (Photo 5) that plugged, even in small storms. The Private Ryan Creek crossing (Photo 6) also had a rotted bottom and portions of the pipe were disconnected. Both of the above crossings have large road fills (>3,500yd³) and critical fish habitat downstream.

Figure 1- Completed Projects (2011-2013) Total Costs

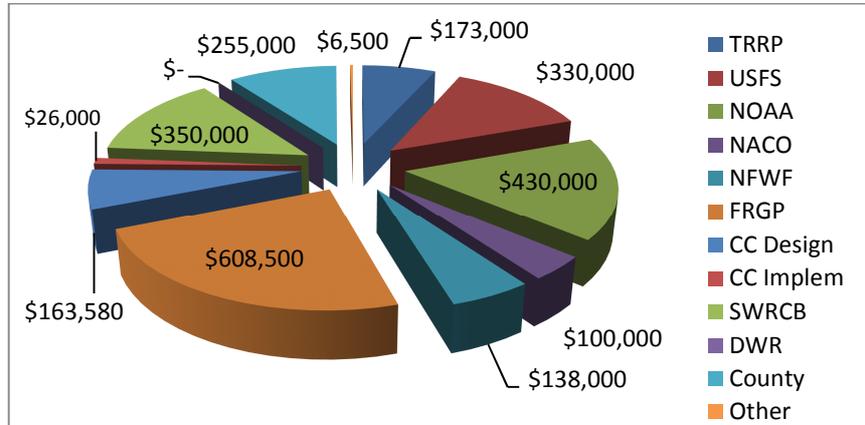


Photos 7-9: Private Ryan Creek culvert replacement involved removing 4,000 yd³ of fill, removing a 5' diameter pipe and replacing it with a 14' x 12' arch plate pipe and rebuilding a simulated stream bed. Ryan Creek crossing before (left), during construction (center) and after completion (right)



Exhibit 2: Council Progress Report and Project Priority List

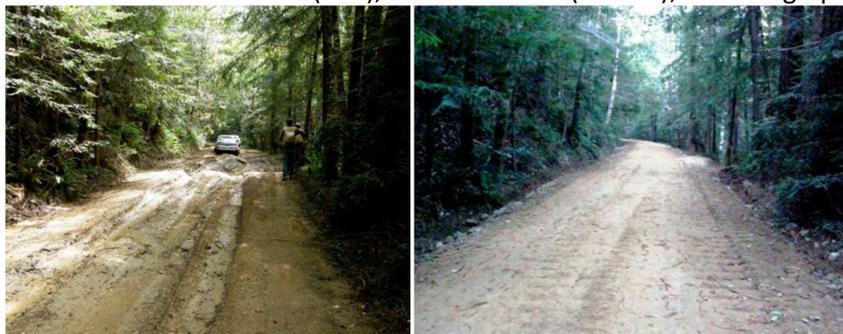
Figure 2 - Funding Sources for Projects Constructed in 2011-2013



In addition to the projects completed between 2011 and 2013, an additional \$2,519,500 has been awarded from 5 funding organizations. This funding will be used to: construct two additional barrier replacement projects (Telegraph Creek- Humboldt County) and Sidney Gulch (Trinity County); implement Phase 2 of two sediment projects (Fish Rock Road- Mendocino County and Browns Creek Watershed-Trinity County); build two fish passage/habitat projects (Lower East Weaver & Sidney Gulch-Trinity County); and complete designs to remove East Weaver Creek Dam and develop an alternative water intake.



Photos 10-12: East Weaver Creek Dam (Left); Fish Rock Road (Middle); and Telegraph Creek (Right)



Photos 13-14: Usal Road (Mendocino County) before (Above Left) and after (Above Right). This sediment-control demonstration project was completed in 2011.

Exhibit 2: Council Progress Report and Project Priority List



Ryan Creek migration barrier removal on Ryan Creek Road (a Mendocino County maintained Road) was completed in 2011. The 10' box culvert prior to removal (upper left) and after removal (upper right) was replaced with a 20' arch structure.



Photo 17: Spawned out Chinook salmon upstream of the County Ryan Creek Project in December 2012 (above).



The 5C Program is highly effective in promoting and sustaining collaborative efforts that capitalize on technical assets of participants and in leveraging financial support from numerous sources. 5C recognizes that taking on these challenges will lead to a healthier environment, sustainable fisheries, and better County facilities, all of which contribute to a more robust economy. The 5C has completed dozens of restoration projects to restore fish passage, protect water quality, and improve salmon habitat. We invite you to visit our website at www.5counties.org to learn more about our projects and impact.



