

**Northwest California
Resource Conservation & Development Council, Inc.**

**Five Counties Salmonid
Conservation Program (5C)**

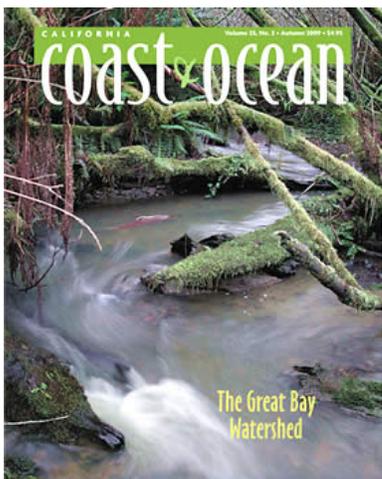
E- NEWSLETTER

Volume 5, June 2010

IN THE NEWS: **Coast And Oceans Magazine** features the Northern California counties fish passage and habitat restoration efforts, including the cover photograph of Morrison Gulch (Humboldt County – See Fisheries Monitoring below). The article can be viewed at:

http://www.coastandoccean.org/coast_v25_no2_2009/articles/Fish_Passage_01.htm.

Caspar Creek Dedication: On November 5, 2009, a dedication ceremony at the North Fork Caspar Creek gauging station (Jackson Demonstration State Forest, Mendocino County) celebrated the completion of two fish ladder replacement projects at the North Fork and South Fork gauging stations (refer to Enews Volume 4 for detailed project information).

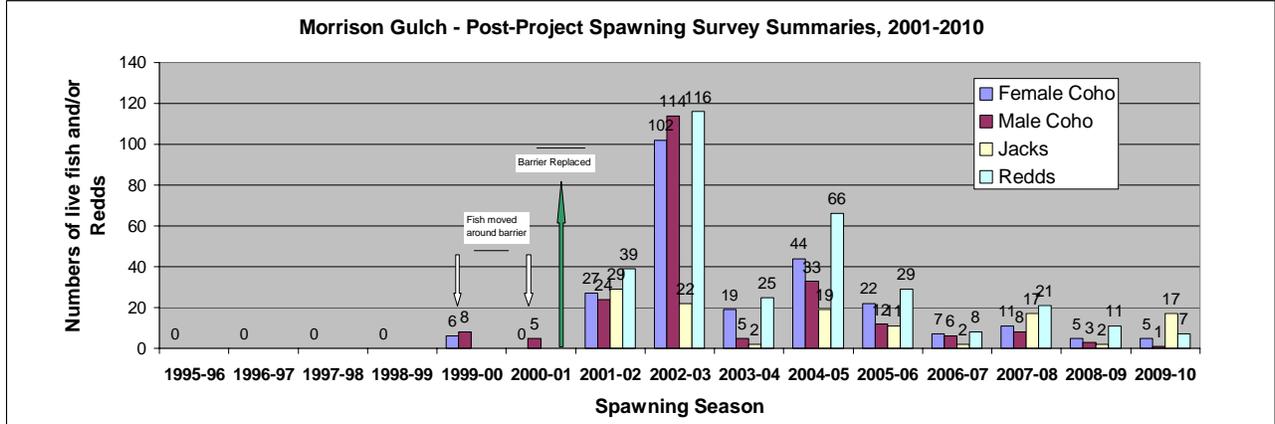


Above Left: The last issue of Coast and Oceans magazine features County fisheries restoration efforts. Above Right: The Caspar Creek Fish Ladder dedication plaque and below left: Christine and Mark at the North Fork station. Below right: Design team members examine the completed South Fork.



FISHERIES MONITORING: Long term redd and spawner monitoring in Morrison Gulch (Humboldt County) continues to show fish response to 2001 barrier removal. Note that WY 2003 was a “good” year and that the North Coast Region received 120% of their annual rainfall.

TABLE 1. Morrison Gulch spawner/redd Survey Results



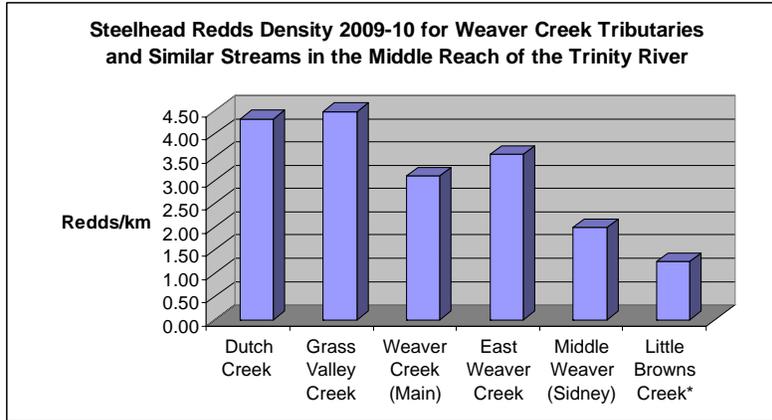
In addition to Morrison Gulch, redd surveys have been conducted in portions of Little Browns Creek (2008-2010) and Sidney Gulch (2009-2010). Both are tributaries to Weaver Creek in Trinity County. The lower mile of Sidney Gulch, which bisects the town of Weaverville, is highly urbanized and is currently being evaluated for instream, bank and floodplain restoration opportunities. Based on the results of the 2009-2010 CDFG, 5C and Forest Service surveys, Sidney Gulch supported 1.98 redds/km compared to an average density of 2.63 redds/km for sections of the major Weaver Creek tributaries that were surveyed this year (Table 2).



In February 2010, the 5C staff worked with Ross Taylor, fisheries biologist, to conduct a spawning survey of Little Browns Creek (above left). Above right: a coho salmon works its way up a concreted portion of Sidney Gulch in downtown Weaverville in 2001. Below left and right, steelhead and coho salmon are observed in small numbers in the creek year over year.

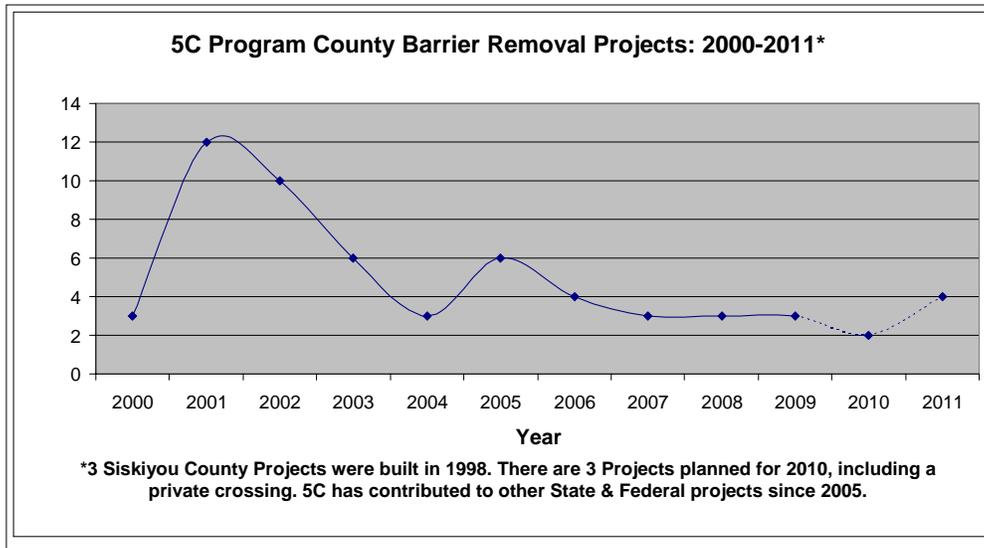


TABLE 2. CDFG Steelhead Survey Data for 2009-2010



*Little Browns Creek based on combined 2008-2010 survey data. West Weaver Creek data not available.

2009 & 2010 MIGRATION BARRIER REMOVAL PROJECTS: In 2009, three migration barrier removal projects were completed on County roads including: White's Gulch (White's Gulch Road, Siskiyou County); Ancestor Creek (Briceland Road, Mendocino County); and Finley Gulch (Roundy Road, Trinity County). Member counties have collectively averaged 5.3 barrier removal projects per year over the past decade. Two projects are planned for 2010 construction: Indian Creek (Humboldt County) and Ryan Creek (Mendocino County) with a potential third project on a private crossing of South Fork Ryan Creek. Planned projects for 2011 construction include Conner Creek (2 sites, Trinity County); McKinney Creek (Siskiyou County) and Griffin Creek #1 (Del Norte County).





Above Left: Finley Gulch was a 42" diameter culvert with a 2' jump at the outlet. It was replaced with an 84" embedded culvert (center and right photos) and designed with a 5" jump into the outlet.



The Ancestor Creek crossing consisted of a 7' and 3' diameter culvert (left). These pipes were replaced with a 16' wide, embedded multiplate arch culvert (above right and below). Installing culverts utilizing the active channel design can allow for natural stream function and large wood placement, as depicted below.



Below: The 16' wide culvert on White's Gulch with outlet jump compared with the new bridge in fall 2009.



2009-2010 ROAD DRAINAGE AND SEDIMENT REDUCTION IMPROVEMENT PROJECTS: In 2009, a Trinity River Restoration Program Watershed Restoration Grant was utilized to partially treat seven miles of Deerlick Springs Road (Trinity County). Project activities included sediment reduction and drainage improvements such as upgrading stream crossings, installing critical dips, installing ditch relief culverts and downspouts and outsloping sections of the road.

There are three projects planned for implementation in 2010 in Trinity County, including China Gulch Road, Dutch Creek Road and Browns Mountain Road. The Mendocino County Department of Transportation staff is currently analyzing a large project on Fish Rock Road with assistance from 5C staff. This \$1.3 million dollar project will begin construction in 2011 after completion of the environmental review and permitting.

Below Left: A misaligned and undersized stream crossing was replaced with a properly aligned, larger diameter culvert and critical dip on Deerlick Springs Road. Below right: A segment of outsloped road drains water during a storm event in April 2010.



DIRECT INVENTORY OF ROADS AND TREATMENTS (DIRT) WORKSHOP: On January 19th Sandra Pérez, Christine Jordan, Mark Lancaster and Tom Leroy of PWA conducted a public workshop on the DIRT software, methodology, and field protocols in Eureka (below). Forty-two participants, including 5C member County, State and Federal, and consulting firm staff attended the workshop, which included a field site tour.



Participants in the first public DIRT training workshop listen to Tom Leroy of Pacific Watershed Associates present information on road erosion processes.

2010 DESIGN PROJECTS: In 2010 and 2011, the California Coastal Conservancy, Trinity River Restoration Program, and Fish and Game grants will be used to complete designs for several major barrier, sediment and habitat projects. Projects include migration barrier removal at McKinney Creek (Siskiyou County) and Conner Creek (Trinity County); sediment reduction/drainage improvement on Fish Rock Road (Mendocino County) and Sidney Gulch habitat restoration (Trinity County). Several other potential projects are being considered including: Griffin Creek fish passage improvement/Oregon Mountain Road sediment reduction (Del Norte County); Shedd and Mill Creek migration barriers (Mendocino County); Capelle Road sediment/drainage improvement (Humboldt County); and Fish Creek barrier removal (Humboldt County-Caltrans). Several private road-related sediment projects in Trinity County are also being planned.

STREAM CLEAN UP AND HABITAT IMPROVEMENT PROJECTS FALL 2009 AND SPRING 2010:

Finley Gulch Stream Clean-Up (October 2009)



Upper Left: Danny McKnight (AmeriCorps Watershed Stewards) pulls an old engine transmission from Finley Gulch while Sandra Pérez (next page, right) removes chicken wire from the bank. The project removed ~1,000 pounds of barrels, wire rope, washing machines, tires, plastic pipe, toilets, car parts and other debris from ~500' of stream reach.



Blackberry Removal (Spring 2010)

Non-native Cutleaf blackberry patches were cut and roots grubbed at four locations in and near Weaverville; Finley Gulch, Little Browns Creek, Sidney Gulch in Lee Fong Park, and the Weaver Basin Wetlands. 5C staff, volunteers from the California Conservation Corps (Weaverville crew), Weaverville Fire Department members, Firestorm Inc., and CA Corrections and CalFire crews from the Trinity River Conservation Camp completed clearing and grubbing.



Above Left Photos: Dense blackberries along Sidney Gulch compared with post-grubbing/removal.

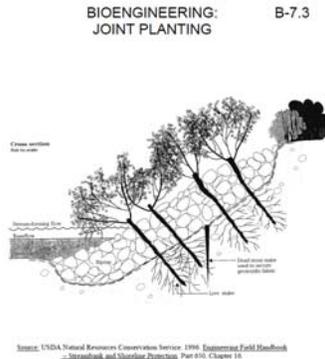
Riparian Planting (Spring 2010)

The California Conservation Corps (Weaverville crew) removes non-native blackberry and replants native white alders, cottonwoods and Douglas-fir along Little Browns Creek and Finley Gulch (above). Blackberry removal was completed along Sidney Gulch (below) and the Weaver Basin Wetlands as well.



FEATURED BEST MANAGEMENT PRACTICES: Beginning with this newsletter we will be highlighting the Roads Manual BMP's: <http://www.5counties.org/Projects/FinalGeneralProjectPages/RoadsManual800.htm>.

Chapter 8. Working With An Emergency, BMP 8-A-4: *“Provide adequate erosion control or bank stabilization necessary to keep material from entering watercourses. Include bioengineering and fish friendly designs in such emergency remedial actions, where practicable for road or bridge stability and public safety.”*



Above: Bar Road Storm Repair (Siskiyou County) repairs made in 2008 (after the 2006 storm damage) included implementing joint planting within rock slope protection. Photos taken January 2010.

Chapter 5. Spoil Disposal, BMP-5-B-1.4 Stockpile Maintenance
“Reuse and recycle concrete, asphalt, and other construction waste when possible.”



All five counties use asphalt grindings to surface unpaved roads or resurface chip-sealed roads. The photos above demonstrate placement of grindings on York Road (Siskiyou County).

Chapter 3. Maintaining the Roads, BMP 3-A-1-5: *“5. On roads that are unsurfaced with low volume traffic (usually < 100 vehicles per day) and low speeds (usually < 25 MPH), determine if outsloping the surface during grading in order to improve drainage pattern is feasible. Check with*

County Engineer for the design criteria for the degree of outsloping needed to drain road surfaces on differing grades and to protect public safety. Make sure that stormwater from outsloped road surface runs off onto a protected shoulder and slope.”



Outsloped road segments: Sugar Creek Road in Siskiyou County (left).
Albion River Road (Mendocino County) right.

WATER, ENERGY, FISH, AND CARBON: The 5C completed an energy assessment report and summary of northwest California sustainable energy sources as well as identified several small scale demonstrations projects that include implementation of a project with Trinity County that reduces greenhouse gases, creates local jobs and improves air quality. The assessment and report can be viewed at the 5C website (www.5counties.org).

Trinity County announced in June that is has entered into an agreement with McKnight Construction of Burnt Ranch (Trinity County) to divert approximately 500 tons of woody waste from the County Solid Waste Transfer Stations to McKnight’s composting business. The transfer is the result, in part, of 5C energy and water conservation work done in cooperation with Trinity County and the North Coast Integrated Regional Water Management Program effort:

(http://www.northcoastirwmp.net/Content/10349/North_Coast_Strategies_for_Energy_Independence_Emissions_Reduction.html). In past years, the accumulated woody waste was burned in place at a cost to the County. The project, in which the contractor grinds and hauls the materials to his facilities to be composted and sold locally in Humboldt and Trinity Counties, will prevent several tons of minute particulates, carbon dioxide, and other green house gases from being annually released in several Trinity County communities. The project is making it possible for the County to hold free biomass waste days in which tipping fees are waived and people are encouraged to bring their clippings, leaves, needles and trimming materials for composting. This will reduce not only County debris burning but private residential burning as well.

Below Left: Weaverville Fire Department crews burn woody debris at the Weaverville Landfill in 2008.
Below Right: A woody debris pile and old burn pile scars at the Weaverville Landfill.



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