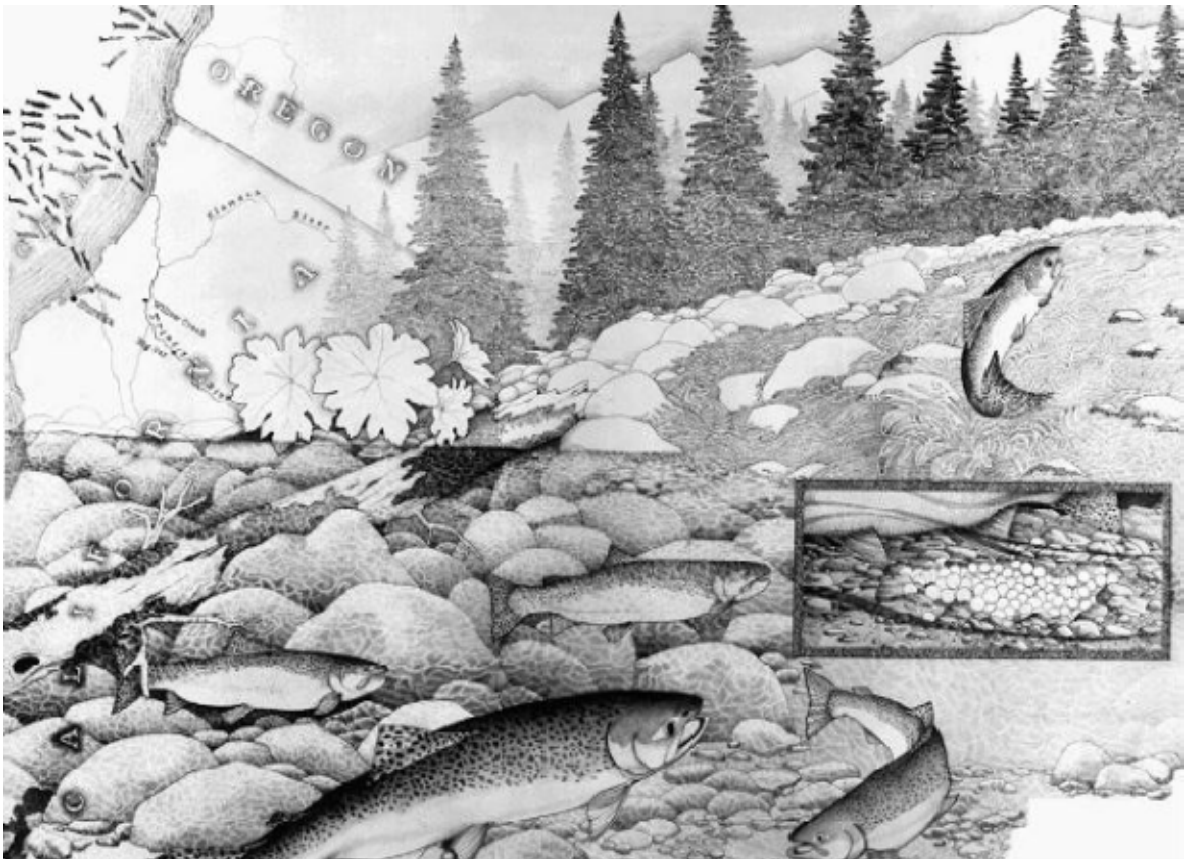
Five Counties Salmonid Conservation Program (5C)

Final Report

Contract P0910312

CA Department of Fish and Game (CDFG),
Fisheries Restoration Grant Program

August 2010 – March 2012



Northwest CA RC&D Council
Five Counties Salmonid Conservation Program
PO Box 2571, Weaverville, CA 96093
www.5counties.org

Prepared by Sandra Pérez

1. INTRODUCTION & BACKGROUND

Del Norte, Humboldt, Mendocino, Siskiyou, and Trinity Counties formed the Five Counties Salmonid Conservation Program (5C) in 1997 in response to the listing of the Coho salmon as a federally threatened species. Until January of 2009, the Program was housed in Trinity County as a special division of the Planning Department. The 5C Program then transitioned to the Northwest California Resource Conservation & Development Council, a 501 (c)3 non-profit group. The 5C Program goals and activities have remained consistent under the Council. The Program is still guided by the five counties' Boards of Supervisors but include the participation of the Council President. The Council is the grantee for this agreement.

The Program region encompasses the Coho ESU within the five counties, which includes the following major watersheds:

- Albion River
- Bear River
- Big River
- Black Butte River
- Eel River
- Elk River
- Garcia River
- Klamath River
- Knopki River
- Little River
- Mad River
- Mattole River
- Navarro River
- Noyo River
- New River
- Salmon River
- Salt River
- Scott River
- Shasta River
- Smith River
- Ten Mile River
- Trinity River
- Van Duzen River

The 5C region excludes the Russian and Gualala River systems. Refer to Figure 1 below for a map of the 5C region. The Program headquarters are located in Weaverville, Trinity County. The geospatial location is Lat/Long (Decimal Degrees): 40.73554014 N/122.9405464 W. The program's objectives are to restore habitat and improve water quality to help re-establish salmonid populations. Its efforts have been guided by an assessment of county policies and practices and their effect on salmonid populations that was completed by the University of California Cooperative Extension. The 1998 assessment report included recommendations on ways the counties could improve policies and practices to restore and enhance those populations. To date, the Program has largely focused on: working to improve policies and practices related to infrastructure, notably roads system maintenance and capital improvement; training various county roads staff, planners, and policymakers in salmonid and water quality related topics; identifying, prioritizing, and implementing physical projects to restore access to habitats and improve water quality; and working with other restoration groups on larger collaborative efforts. The 5C has relied on many funding sources including NOAA Fisheries and CA Department of Fish and Game Fisheries Restoration Grant Program funds to oversee and execute the larger program including trainings and development of improved policies as well as to coordinate the on-the-ground work. More detailed information on the Program can be accessed through the website: www.5counties.org.

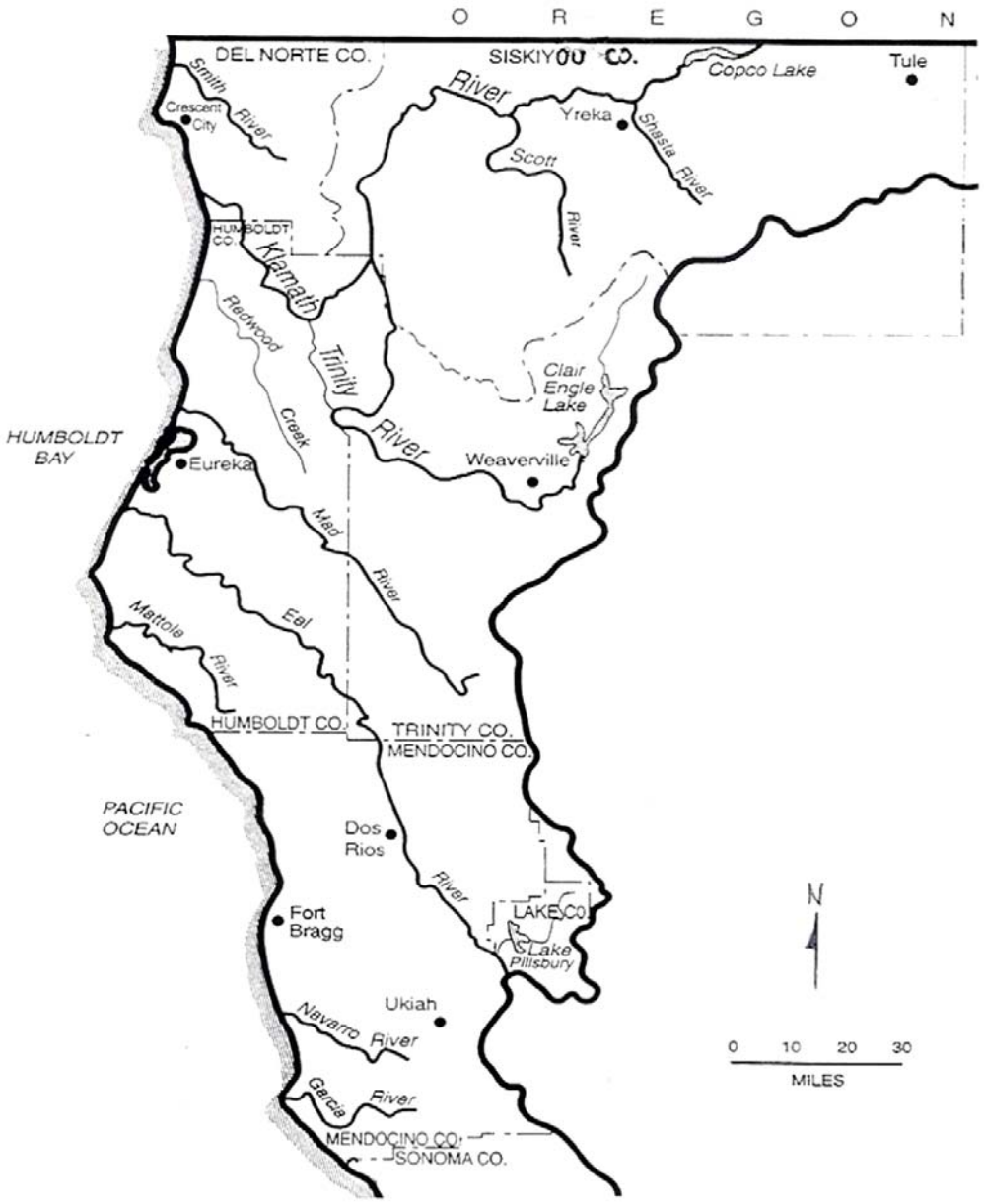


Figure 1: Five Counties Program Area

Under this contract, 5C staff mainly consisted of the Program Director Mark Lancaster, Manager Sandra Pérez, Project Manager David Colbeck (March 2011), Natural Resources Technician Carolyn Rourke, Accounts Clerk Susan Rhodes, and Council Office Manager Judy Carter.

Although the contract effective date is shown as June 1, 2010, minimal expenses were incurred in summer of 2010. The bulk of the 5C Program activities and expenses funded under this contract were for the time period of September 2010 to March 2012. The activities completed as part of this contract are described in this final report according to the tasks outlined in the scope of work. More detailed

information (e.g., work descriptions, meeting agenda and sign-in sheets, reports prepared) may be found in the Progress Reports submitted throughout the contract period. Asterisks * in the text below denote work completed with matching funds. A summary of the project and costs associated with this contract are found at the end of this report. An electronic copy of this report and all attachments are included on a CD accompanying this report as Attachment A.

2. 5C PROGRAM MEETINGS (TASK 2)

The 5C Executive Committee, comprised of 1 Supervisor from each County (and 1 alternate) and the 5C Council President, was formally convened at a sit-down meeting on July 21st, 2011 in Weaverville. An additional meeting was planned in January 2012, but was cancelled due to inclement weather. Six County Supervisors, the 5C staff, and the Council President attended. Discussions focused on the relationship of the Council to Counties, the role of the Executive Committee, and current 5C projects and efforts. However, 5C staff presented to each county Board of Supervisor on 5C activities via the Reassessment (refer to Task 6 below). In addition, 5C staff regularly communicated with Executive Committee members via phone and email.

5C staff participated in 7 Council meetings throughout the contract period. Most were sit-down meetings except for two, which were video conferences. Topics typically included an update of current and upcoming projects and grant agreements, review of consultant subcontracts, and the 5C Program's budget. Early in the period, the topic of RC&D Councils throughout the nation being separated from the Natural Resources Conservation Service (NRCS) and possible consolidation of both Council offices was also prominent. 5C staff held regular meetings with Council staff on fiscal, budgetary, and personnel aspects of the 5C Program and Council, policy matters, and 5C projects. To improve the efficiency of the Council and 5C operations and reduce expenses, a business consultant was hired to help identify non-traditional funding sources (see Task 10 below) and to better integrate Council and 5C Program financial data and streamline some financial tasks. Numerous informal meetings were conducted with Council members and staff as well as with County Supervisors and staff to coordinate all efforts.

One issue of the 5C Program e-newsletter, which summarizes current and recent projects, outreach, and other Program activities was distributed throughout the period. Typically, over 250 recipients include: 5C members; RCD&D Council members; state and federal partner agencies; watershed groups; restoration consultants; regional elected officials; cities and special districts within the 5C region; and local media. It is also posted on the 5C website.

3. FACILITATE 5C CONSERVATION STRATEGIES AND PROJECTS (TASK 3)

5C staff regularly coordinates with counties and partner agencies to develop and coordinate projects. The progress of the larger Program strategies and activities is

ongoing. Development of training and program outreach is coordinated closely with county staffs and restoration partners. 5C Program Director regularly met with Michael Bowen of the Coastal Conservancy (CC) as well as with member county staff on specific barrier priorities and several prospective projects in those regions in order to determine funding allocations under the 5C's CC migration barrier design grant*.

The 5C main products, tools, and information used to develop projects – such as the Direct Inventory of Roads and Treatments (DIRT) road inventory and migration barrier inventory – are continually refined over time. For example, the 5C Program Manager developed additional information and instructions to the DIRT methodology description based on a post-project inventory of sediment reduction project sites in the mainstem Trinity River watershed.* Twenty percent of the treated road segments were randomly selected and re-inventoried with DIRT early in this contract timeframe. Based upon the results obtained and the debriefing with the inventory staff, additional details and clarifications to the methodology and its application to post-project monitoring were identified. These will be incorporated into the DIRT methodology description prior to the next inventory.

During the reporting period, the Program Manager also worked with partners such as Pacific Watershed Associates, GeoScience Services, NRCS and the Watershed Research & Training Center (WRTC) to modify the DIRT approach for use on private lands. The 5C successfully applied for a grant to assess private roads within the Browns Creek watershed as a joint effort with the WRTC (see Task 10 below). After it was awarded, that new grant was used as in-kind to help develop and conduct initial beta tests for the "private" DIRT. It will be refined over time as it's applied. The USFS has expressed interest in possibly using DIRT in its road asessments. NetMap, which is a series of modeling tools that the USFS currently uses to conduct sediment assessments, was evaluated to better understand the differences and commonalities between DIRT and the USFS sediment approach.

5C staff discussed the DIRT inventory within Humboldt County and the need for an update of older data and new inventories of additional areas. They also agreed to coordinate to address the existence of multiple types of inventory data and future implementation strategies. It was agreed that GIS analysis of the existing Humboldt road system and DIRT data is needed to formulate a plan. DIRT data is often used to help road departments assess a site, locate culverts, and plan projects (e.g., Mendocino used DIRT data to update treatment information in the Fish Rock Road project's scope of work.

The 5C protocols for fish relocation were also revised in mid-2011. The 5C Program Director talked to consulting fisheries biologist Ross Taylor about deficiencies in the old protocols. The revised protocols were provided as a courtesy to CDFG, NOAA, USFS, and to solicit review and feedback. No comments have yet been received.

Project development is critical to the function of the 5C Program. During this contract timeframe, 5C staff and consultants worked on several project types in

coordination with local, state, and federal agencies, local restoration groups, and other partners:

- Fish passage improvement: 5C staff assisted counties and pursued several projects including: Elk Gulch and Griffin Creek #2 (Del Norte); Conner Creek (see *photo* below), Lower East Weaver Creek, and Sidney Gulch at Weaver Bally Loop Road and through the USF S compound (Trinity); Ryan Creek (4 sites) (Mendocino); McKinney Creek (Siskiyou); Cutoff Slough, Telegraph Creek, Francis Creek, Dinner Creek (2 sites), Fish Creek (Humboldt).

  5C staff was involved to varying degrees especially depending on the stage (development, construction, or design) of each project. However, work typically included coordinating on specific project structure design, permitting, pre and post project monitoring, timing of construction, surveys, and grant management. In the case of Cutoff Slough in particular, the 5C was asked to help facilitate discussions between stakeholders (private foundation landowner, multiple agency grantors, and Humboldt County) on restoration options. There are tide gates designed to maximize agricultural uses but inhibit salmonid access to estuary habitat. The area contains multiple habitat types and affords significant opportunities for restoration. But its many complexities (e.g., agricultural uses and protections, wetlands, lack of good public access) complicate discussions amongst stakeholders. Under this contract, Mad River biologists provided wetlands delineation work and wildlife surveys to help assess the area and assist in stakeholder discussions. Program grant support directly contributed to the completion of three barrier projects: Ryan Creek* and Conner Creek*.

- Urban Streams: Sidney Gulch from Lee Fong Park through the USFS compound up to Hwy 299 in Weaverville (Trinity). 5C staff has worked with the local park district and US Forest Service to explore ways to restore the overall watershed. A feasibility study of restoration options within the channelized USFS segment is in the process of being secured (see Task 10). NOAA concerns about potential construction impacts were discussed. Michael Love & Associates collected field data and performed geomorphic analysis, in coordination with Trinity County engineering, that is needed to begin developing design alternatives.* Graham Matthews and Associates (GMA) installed flow gauges in various places along Sidney Gulch in early December to help inform designs of current and future projects planned within the first few miles of the mouth. 5C staff constructed and installed several crest gauges* for use in Sidney Gulch through Lee Fong Park to better inform

project design. The Yreka Floodplain project (Siskiyou), which is a large restoration, stormwater retention, and bio swale project completed in 2008, was considered as a potential model for future 5C urban streams projects. A possible floodplain restoration concept to enhance the riparian area and upgrade the crossing at Highway 3 on Garden Gulch in Weaverville was discussed with road department staff.

- Weaver Basin Wetlands (WBW)*: The Program Manager continues to oversee restoration work at the WBW via the conservation easement that Trinity County granted to the NRCS. Work has primarily consisted of non-native invasive vegetation removal work, seeding, and mulching. The Project Manager also assisted in planning and overseeing removal of invasive species adjacent to the lowest pond utilizing free inmate labor.* WBW efforts have included many meetings and site visits with NRCS staff and program partner Trinity County Resource Conservation District (TCRCD). The group has pursued multiple funding sources and collaborators (e.g., CA Conservation Corps volunteer work, Shasta College foundation grants).
- Sediment Reduction: 5C staff coordinated with counties on timing and planning of several projects including: Fish Rock Road and Usal Road (Mendocino); Griffin and Patrick's Creeks Road (Del Norte); and various roads in southern Trinity. Geology expertise from Pacific Watershed Associates (PWA) was also provided to assist in developing treatments to safely discharge chronic erosion for the Fish Rock Road sediment reduction project. Several project segments are located on unstable terrain. 5C staff met with Humboldt Dept of Public Works and PWA staff to discuss coordinating roads drainage treatment training opportunities and private landowner outreach. The level of 5C staff involvement depended on the stage (development, design, or construction) of each project. However, work typically included coordinating treatments, permitting – particularly CEQA, pre and post project monitoring, timing of construction, and grant management. 5C Field Technician performed a specific review of southern Trinity county roads in the South Fork Trinity River to assess current conditions and report any significant differences in conditions as compared to the original DIRT inventory data. This information will be used to help identify possible sediment reduction projects and develop future grant proposals.
- Other conservation: Reclaimed water project in Trinity County with the Weaverville Sanitary District. Over this contract timeframe, 5C staff also engaged the Weaverville Community Service District in developing the project and potential end users. Supplemental funding to implement the project was pursued. The project's design funders (Humboldt County and State Water Board) and local government representatives also participated in these efforts. This contract also supported a portion of Humboldt County's sediment load multi-year monitoring on Francis Creek, which is part of the larger Salt River restoration project. The restoration effort aims to improve instream and riparian habitat, and floodplain capacity. Specifically, funds enabled monitoring to be performed at a baseline level in water year 2011-12, after the previous active water year consumed the County's monitoring

budget. Another restoration concept being developed is establishment of a community forest in Del Norte.

5C staff also helped partner agencies to survey local streams where possible. Because of the extensive restoration work planned within the Sidney Gulch watershed, salmonid activity within the targeted segments was regularly observed. Several redds and four adults were identified via USFS surveys within Sidney Gulch in the 2010-2011 season. Media outreach was conducted in some instances (see coho salmon *photo*). Unfortunately, most of the redds were washed out during subsequent storm events.

Adult Coho Salmon observed on December 6, 2010 in Sidney Gulch. Photo by Eric Wiseman and appeared on Dec 8, 2010 in Trinity Journal.

Fisheries biologist consultant Ross Taylor and Associates (RTA) performed fish relocation and survey work throughout the period. RTA conducted spawner survey work on: Sidney Gulch, Conner Creek, and Lower East Weaver Creek (Trinity). 5C staff assisted in some of the Trinity field work. RTA also conducted extensive project monitoring (see Task 5 below). 5C staff helps to provide counties with other the technical assistance needed to develop projects. For example, the Project Manager completed a Draftdesign tutorial, which will facilitate his involvement with AutoCAD project designs for multiple projects. The Program Manager took a NEPA course in anticipation of assisting Del Norte County with review of several projects in 2012. She also attended a law update on changes and recent legal decisions in water, CEQA, environmental regulation, and land use law. 5C staff has worked to improve and streamline permitting processes at a project level and at a larger scale.

Perhaps the most significant permitting endeavor within this contract timeframe was the pursuit and development of a waiver of waste discharge from the regional water board for 5C Program activities – notably those conducted according to the 5C Roads Manual (see Task 8 below). Since February of 2011, 3 sit-down meetings and 4 conference calls were held and numerous emails and individual phone calls exchanged between 5C and water board staff. This included a session held with member county staff at the roads workshop (see *photo* below). 5C staff also participated in a presentation to the regional water board on the

concept and status. Water board staff developed the initial draft, which was reviewed by 5C and member county staffs as well as water board legal counsel. Input and feedback from all parties was shared regularly. Based on this process and 5C Member county input, the concept evolved slowly from a waiver of waste discharge to a general certification of the 5C Program. This was largely based on the desire to make the programmatic permit coverage more comprehensive and worthwhile for limited staffs of member counties and the regional water board. Recent discussions focused on clarifying what aspects of county activities may be covered in the general certification and on how they would be tracked. A new draft is anticipated from the water board in the second quarter of 2012. The possibility of pursuing programmatic permitting for road maintenance with other agencies, such as Fish & Game, will be pursued as time and agency availability allow. 5C staff also discussed programmatic streambed alteration agreements with Sustainable Conservation (SC) staff. SC's current effort with CDFG for such agreements would tie in well with 5C's current programmatic permitting for Roads Manual activities.

5C staff also reviewed and participated in discussions on other proposed policies such as: the State Water Board's draft policy of minimum requirements on regulated dischargers for toxicity assessment and control to protect aquatic life beneficial uses; and the regional water board hearing on the proposed restoration exemption.

4. RESOURCE SHARING (TASK 4)

The Program Director assisted with the TCRCD's need for a temporary bridge in the Grass Valley Creek watershed by contacting Del Norte and Trinity road departments about bridges that could be available. The TCRCD was provided with structural analysis for Del Norte's bridge to facilitate the discussions.

The 5C coordinated with the NRCS District Conservationist to discuss the scheduling of a shared employee – the 5C Field Technician – to conduct inventory, other field, and office work for both entities.

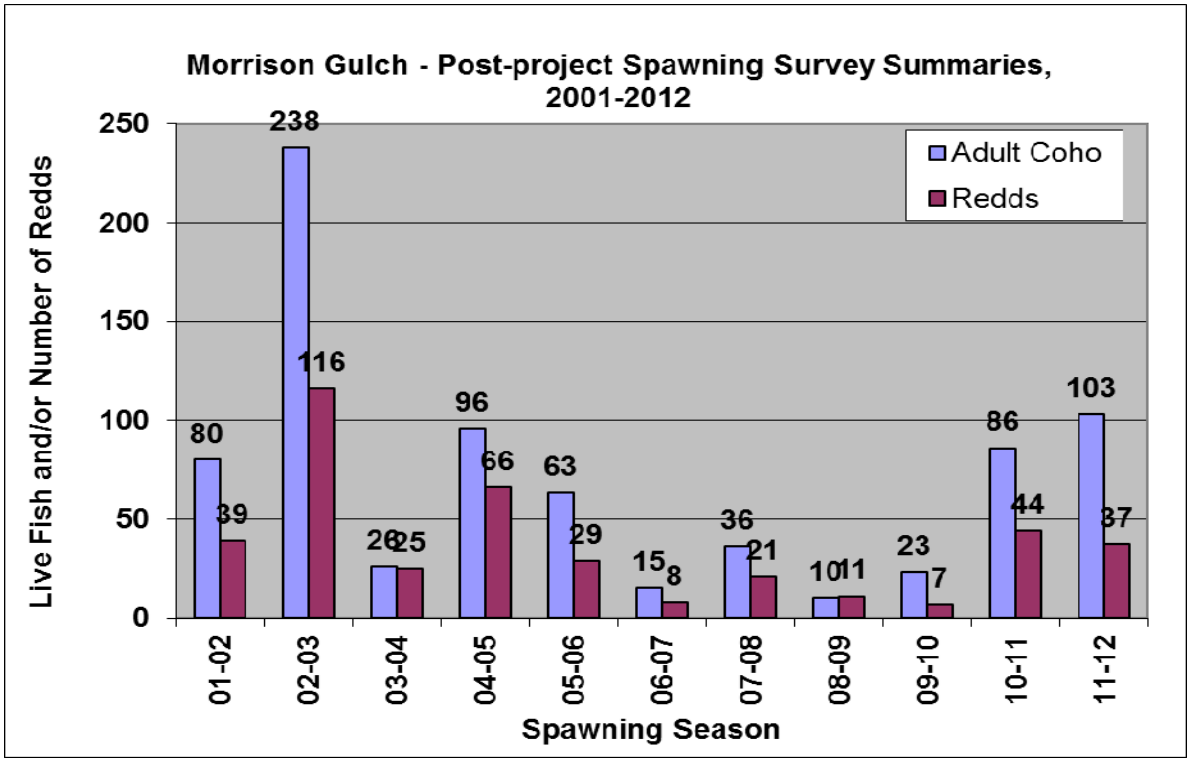
The Program Director also coordinated with USFS staff to discuss opportunities for cross training USFS and county crews on engineering and maintenance topics.

Being housed at the Council affords the 5C more opportunities to share resources with other partners. For instance, 5C staff facilitated the sharing of Council office spaces in Weaverville with local non-profit the WRTC, based out of Hayfork (Trinity).

5. MONITOR AND TRACK PROJECT STATUS (TASK 5)

RTA performed multiple site visits to conduct spawning surveys on Morrison Gulch. A total of 40 redds and at least 41 coho and one cutthroat trout were observed.

Many of the redds were unnoticeable following high flows. The following graph shows results at Morrison Gulch:



RTA also observed fish presence and changes in the physical channel conditions at the Little Browns Creek (Trinity) fish passage project. Fish presence surveys were also conducted in Ancestor Creek (Mendocino). Although no adult salmonids have been detected above the project sites, some juvenile steelhead have been.
Claire Lindstrand began a part time volunteer internship with the 5C Program in late January 2011. Given her extensive fisheries field and data analysis experience, she assembled spawning and fish presence surveys collected by various entities for streams on which there are 5C migration barrier projects. The goals were to develop recommendations on how to post fish survey results for various projects in a reader friendly way on the 5C website as well as to identify data gaps or inconsistencies between data sources. This will assist 5C staff in coordinating with partner agencies (USFS, CDFG) on future data collection efforts.
Lancaster talked with the Trinity County Department of Transportation and Sierra Pacific Industries Tom Walz about the effects of recent SPi logging on a section of Lewiston Turnpike Road that was recently treated for sediment source reduction by the 5C Program. He had an on-site visit with County Department of Transportation Maintenance Foreman DJ Fullerton to discuss the issues on Nov 16th. SPi subsequently agreed to remove slash from the ditches and road surface.

AmeriCorps WSP members collected stream monitoring data for several Weaverville creeks in 2010. 5C staff reviewed and organized for later use and reference in project development and tracking. The Accounts Clerk and Program Manager compiled hard copy photo logs of various 5C projects that would facilitate 5C staff to conduct impromptu storm monitoring of county roads. The field Technician

trained the Project Manager on conducting photopoint monitoring. 5C staff conducted storm patrols of select project sites and creeks in after the first significant rains each winter. It should be noted that the winters within this contract period were relatively dry, though there were some intense storms in late 2010 that activated several landslides throughout the region. Observations of changes to instream conditions and large woody debris in particular at the West Weaver Creek fish passage project site was continued under this contract (see *photo* at left). Select photo monitoring results will be posted to the 5C website after the completion of each rainy season as time permits.

The 5C basemap data, including migration barrier completion, mainstem Trinity River basemap, was updated with new data as available. Although their appearance has not changed much, data is kept current, which is invaluable during project development and prioritization. A forthcoming ArcGIS Online subscription service may be pursued it if is deemed to be useful to the 5C in sharing real time data with all counties. The 5C migration barrier progress matrix was updated as needed to reflect completed and upcoming scheduled projects. An updated list is included as Attachment B.

6. UCCE Reassessment Phase II (Task 6)

The Reassessment field visits were executed in July and August 2011 in coordination with member county staff. The core team conducting the Reassessment consisted of: Richard Harris (lead), HSU graduate student Lori Biondini, Dennis Slota – hydrologist from the Mendocino County Water Agency (MCWA), and the 5C Program Manager. Staff from member counties participated in each site visit. The 5C Program Director participated in some of the site visits. Field work (see *photo*) was conducted on: July 26-27 (Siskiyou), Aug 2-3 (Del

Norte), Aug 8 (Trinity), Aug 16-17 (Mendocino), and Aug 23-24 (Humboldt). At each visit, a sit down meeting was held to outline the goals, context, and approach of the Reassessment, discuss the background of selected sites, and answer county staff questions. Several road department project and maintenance sites were visited in all counties. A limited number of completed land use development projects were visited in all but Trinity County. Sites were reviewed with a form developed in coordination with member counties that was based on reported county priorities and significant activity. The form consisted of several questions on the activity's impact to salmon and wildlife habitat and water quality. A draft report of the findings and recommendations was prepared and circulated for county review. County Board presentations on the 5C Reassessment and findings were conducted on: Dec 13th in Del Norte; Jan 4th in Trinity; Jan 10th in Humboldt; Jan 17th in Siskiyou; and Jan 23rd in Mendocino. There was media coverage of the presentations in Humboldt and Siskiyou Counties by radio and print. The 5C Program Director and Manager were interviewed on Jan 23rd by Jefferson Public Radio's live Jefferson Exchange program. Upon completion of all presentations, the Reassessment report was finalized and distributed to member 5C county staffs. It was submitted with Progress Report #7 and is also posted on the 5C website as a permanent document: http://www.5counties.org/docs/2011_reassessment.pdf.

7. 5C Framework 5C Conservation Strategy (Task 7)

The primary aspects of the 5C Conservation Strategy were incorporated into the memorandum of Agreements between the Counties and the Council. However, the Strategy was modified under this agreement. Member county review of the 5C Conservation Strategy began in the early part of this contract. Feedback was solicited in order to identify any revision needs prior to drafting implementation effectiveness measures. The Strategy was also reviewed and discussed at the 2011 5C Roads workshop. In the course of the review, Siskiyou County raised concerns about the inclusion of the Water Quantity Element. Because of this Element, the concerned Board member requested that Siskiyou County consider withdrawing from the 5C. After discussing the Program and nature of the Element at a Siskiyou County Board meeting on Oct 4th, it was understood that the 5C activities will focus on incentive based outreach and projects and would not involve agricultural water rights in Siskiyou County. The Board collectively expressed support for the 5C Program and continued interest in participating. Pérez modified some of the language in the strategy based on the Siskiyou meeting and other counties' feedback and redistributed the Strategy for 5C review. 5C staff developed concepts for implementation effectiveness measures. The final version and draft concept measures were submitted with Progress Report #7.

8. 5C Roads Manual Implementation, Update, and Monitoring (Task 8)

The 5C Roads Manual is implemented on an ongoing basis. Application of Manual best management practices (BMPs) is summarized in annual reports done to satisfy NMFS 4(d) coverage monitoring requirements. Reports under this contract were submitted in Progress Report #7.

The Roads Manual BMP training was conducted as a series of trainings in 2011 due to county staff travel and work restrictions. A hands-on demonstration project and educational event was held in Mendocino on Usal Rd between Sep 19th and 23rd. The target road segments had road drainage deficiencies that caused significant sediment delivery. The project demonstrated the use and installation of low impact to hydrology road drainage treatments and construction best management practices. See before and after *photos* at left. Ten road department crew members from both Trinity and Mendocino counties as well as nine other people – including 5C staff and consultants PWA – participated. Roads Manual BMP trainings were held for Humboldt County on Nov 16th in Eureka (39 participants) and for Del Norte County on Dec 13th in Crescent City (17 participants). Discussions in both sessions focused on erosion rates for cutbanks and ditches, maintenance of ditches and ditch relief culverts, and feedback for future trainings.

Some activities are not yet addressed in the Roads Manual and practices in general are adaptively managed based on site conditions. For example, as a result of a site visit and coordination with Del Norte County road staff, the County has undertaken a roadside fuels reduction program, which will be refined over time. It largely consists of leaving vegetation in stream areas and all riparian vegetation. Vegetation management BMPs have begun to be drafted by consultant Christine Jordan and will be reviewed by member counties for inclusion in the next update of the Roads Manual. Several revisions to the Roads Manual for clarity, typo corrections, and reference updates (e.g., websites, species status listings) have also been prepared and will be reviewed by counties prior to the next update.

Based on feedback solicited from member counties, future updates will likely consist of inclusion of:

- Information on maintenance of fishways. Caltrans and CDFG, whom are developing such BMPs, have been contacted with a request to receive the BMPs when ready.
- Low Impact to Hydrology Road standards, after a new review by member counties.

New management practices are explored regularly. For example, a preliminary design concept for a temporary sediment control sock or bag for use in county ditch maintenance was developed. The sock would be placed on ditch relief culvert outlets while counties are performing maintenance work so that sediment discharge from ditch cleaning is captured. The intent is to have a prototype eventually constructed and tested as a possible best management practice for the roads manual.

5C staff continued discussions with regional water board staff on a draft waiver of waste discharge, which transitioned to a pursuit of a general certification over the timeframe of this contract. It would primarily target activities performed in accordance with the Roads Manual (see Task 3 above).

9. LAND USE ELEMENT (TASK 9)

5C staff has collaborated with member county staff and program partners on various land use related issues throughout the period. In Trinity County, 5C staff met with decision makers, agency staff, and county staff to discuss water resources. An assessment of water resources within the mainstem Trinity River was presented in 2011 to the Board of Supervisors, County Planner, Planning Commission, and Weaverville Community Services District. It is the intent that planning staff and decision makers will be able to use the water resources assessment data in their course of work. After the water resources results and recommendations were presented, discussions focused on ways to address demand without adversely impacting natural resources. The possibility of conducting water conservation education outreach was also considered.

5C staff also provides comments on local plans and ordinances to support fish and water quality friendly measures. For example, comments were submitted for the Trinity County draft Regional Transportation Plan and Mendocino County draft Stormwater Ordinance.

A draft framework grading ordinance was also developed. It emphasizes an incentive based approach where activity proponents can get certified to perform certain types of grading activities. Uncertified graders are subject to more conventional permit and reporting procedures. A copy of the draft framework was included in Progress Report #7. It will be further developed in coordination with member county staffs.

During the 5C Reassessment field review and meetings (Task 6), planners provided feedback that with increasing agency focus on stormwater low impact development (LID) practices, it would be helpful to be able to provide landowners with easy to read and use guidelines. GreenGirl Land Development Solutions, Slota (MCWA), and 5C staff developed easy to use stormwater BMP guides for landowners within the 5C Program area. The content is geared more towards the variety of climactic conditions in the region. Draft documents were submitted with Progress Report #7. These drafts will be discussed with county planners and building departments for feedback before being finalized.

5C staff attended workshops and trainings on relevant land use planning such as the free land use and environmental law update held by Abbott & Kindermann where recent changes in natural resources, permitting, and other land use laws are presented.

5C staff also presented information on recent changes in local land use – particularly agricultural water use – poor private grading practices and the impacts to water quality to Trinity County decision makers and at a state legislative hearing. During the timeframe of this agreement, the observed and reported impacts of marijuana cultivation have been subjects of intense focus for County boards, regulatory agencies, and restorationists. 5C Program Director has recently begun coordinating with Friends of the Eel River and others on conducting outreach to agricultural users in anticipation of a dry year and heavy irrigation demand that has the potential to cause adverse impacts to salmonids. Planned outreach includes: a water users fair and a discussion about water diversion impacts and strategies on KMUD – a Humboldt County radio station.

10. Pursue Funding for 5C Projects & Restoration Efforts (Task 10)

5C staff regularly assists Counties in gathering information needed for project proposals. For example, staff assisted Del Norte County with a sediment reduction project proposal on Patrick's Creek Rd and Griffin Creek Rd and assisted Humboldt County with a fish passage proposal on Dinner Creek. They also prepare grant proposals for various sources. Under this contract, several grant proposals for discrete restoration projects as well as larger Program funding were submitted:

- Trinity River Restoration Grant Program (TRRP) watershed restoration grant program: road sediment inventory in Browns Creek watershed (mainly on private roads); habitat improvement efforts (including fish passage) on Lower East Weaver Creek; Conner Creek migration barrier removals; and feasibility study of restoration on Sidney Gulch through the USFS compound in downtown Weaverville.
- NOAA American Rivers: migration barrier removal project in upper Sidney Gulch (Trinity); East Weaver Creek dam removal feasibility (Trinity); and assisted with Humboldt's Dinner Creek fish passage design proposal.
- CDFG Fisheries Restoration Grant Program: 5C Program grant. 5C staff followed up with local FRGP contacts in regards to feedback on this proposal and the development of a new 5C Program proposal for the current funding

opportunity. Work has begun on fish passage proposals for McKinney Creek in Siskiyou and Griffin Creek in Del Norte.

- Weaverville reclaimed water implementation project was developed with the Weaverville Sanitary District and Weaverville Community Services District. Project proposals were submitted to: state water board's Small Community Wastewater Grant Program; and Bureau of Reclamation Watersmart program.
- Trinity County Resource Advisory Committee: landslide treatments on Dutch Creek Rd; migration barrier removal on Sidney Gulch at Weaver Bally Loop Rd; and sediment reduction on Ruth-Zenia Road.
- Regional water board Supplemental Environmental Projects: proposal submitted for enhanced and expanded road management training, monitoring resource management practices, and an online BMP resource center.

For local funding sources such as Resource Advisory Committees or the TRRP, 5C staff presents proposals at one or more meetings. A few state funding fairs and other meetings were attended. 5C staff discussed the 319h funding source and the decision to not allow sediment reduction on any road to qualify for funding with water board staff. 5C staff will submit comments during the preparation of the next 319(h) priorities. Other efforts with restoration partners were pursued such as pursuit of a Western Forest Competitive grant for enhancement of forestry habitat features in the Weaverville Community Forest with the Trinity RCD. Restoration funding opportunities are also pursued as part of larger collaborative efforts such as the Fish Passage Forum or the North Coast Integrated Regional Water Management Group (NCIRWMG) (see Task 11 below). Throughout the period staff and business consultant Kormeier researched potential private foundation funding sources. With the 5C housed within the Council, opportunities to expand the Program's restoration work beyond county entities is possible.

11. COLLABORATE WITH RESTORATION PARTNERS (TASK 11)

Among the more notable collaborative efforts is the 5C staff participation in regional groups such as the CA Fish Passage Forum (FPF), the North Coast Integrated Regional Water Management Group (NCIRWMG), state Coho Recovery Team (CRT), and Board of Forestry Anadromous Salmonid Protection Rule Section V Pilot Projects Technical Advisory Committee (VTAC).

FPF efforts have focused on barrier site ranking criteria, outreach development, permit streamlining, and NFHAP participation. Throughout the contract period the 5C Director has:

- Participated in one sit-down meeting and 5 conference calls;
- Assisted in the development of the barrier ranking criteria and matrix; and
- Participated in FPF subcommittees: Education and Outreach; Barrier Prioritization Group; and Governance.

5C Program Director and Manager are both on the NCIRWMG's Technical Peer Review Committee (TPRC). NCIRWMG discussions and work focus on bond funded projects; Prop 84 safe drinking water funding; inclusion of tribal representatives; NCIRWM protocols and Plan – particularly the project review and selection process; legislative and funding updates; and relevant current water quality and/or water plan documents. Work with the NCIRWMG has included:

- Participation in three sit-down meetings and two conference calls;
- Regular discussions with NCIRWMG staff regarding energy independence and local issues;
- Review and ranking of project proposals for Prop 84 implementation funds. Review results were provided to the Policy Review Panel for the development of funding recommendations;
- Review of the project selection process as part of a focused ad hoc committee formed to develop recommendations to improve the process based on feedback from NCIRWMP members and project proponents. As part of this effort, the 5C Manager helped to develop a feedback survey for project proponents and TPRC members and provided feedback from a TPRC member's perspective; and
- Work with the Weaverville Sanitary District on their Prop 50 NCIRWMP water reclamation design project. Specifically 5C staff pursued project implementation funding (see Task 10 above) and discussed the project with grantors (Humboldt County and state water board staff).

The CRT is periodically convened to discuss the status of coho populations, recovery implementation activities, and emergency recovery issues and future actions. The 5C Director has:

- Participated in one sit-down and two conference calls;
- Helped to draft a letter of recommendations for emergency recovery measures in coordination with NOAA Fisheries staff; and
- Reviewed the emergency recovery plan, monitoring reports, state-wide migration barrier matrix, and draft revised Caltrans design manual.

The VTAC committee was formed in late 2010 and focuses on 1) multiple pilot projects to protect and restore the riparian zone in watersheds with listed anadromous salmonids, (2) recommendations regarding implementation guidelines for riparian projects, and (3) recommendations on guidance document development for riparian management. The 5C Director has participated in the following:

- 6 sit-down meetings; and
- Development of: VTAC guiding principles and document; and interim guidelines for pilot projects.

Participation in other regional groups included:

- CA RC&D Council 2010 fall conference: Presentation on the 5C Program – its history, transition to the Northwest CA RC&D Council, and current focus/work.
- Presentation on 5C DIRT database and data management approach at a statewide NRCS employee training in 2010. Subsequently, 5C staff participated in the development of Trinity County NRCS sediment inventory

protocols. 5C DIRT and the development of a modified DIRT approach for use on private land (see Task 3 above) was also provided to NRCS staff in Siskiyou County.
- Mid-Klamath River Barrier Prioritization conference call in 2010.
- An interview in 2010 with University of Oregon staff on a study of Dry Forest Effects – particularly in regards to restoration projects and forest health.
- Review of the NMFS coho recovery plan. 5C staff also outreached to regulatory agencies on the strategy and began drafting comments.
- A central valley effort between regulatory agencies, counties, and the University of CA Cooperative Extension (UCCE) to address road maintenance and water quality. The group has interest in pursuing many of the trainings and activities done by the 5C. A series of webinars are being planned. The 5C's "Addressing Roads Related Sedimentation" (completed via previous FRGP funding) was distributed to the group as a potential way to introduce the topic in the webinar.

5C staff regularly collaborates with watershed coordinators, groups, and the public on conservation and restoration. Some of these interactions are ongoing and/or regular such as participation in the Trinity River Watershed Council (TRWC) while others are more specific or unique. These interactions have included coordination with:

- TRWC: 4 sit-down meetings. Discussions focused on: development, review, and ranking of restoration project proposals; changes in TRRP Watershed program direction; new watershed coordination efforts in the South Fork Trinity River; and a proposal to conduct a watershed assessment within the mainstem Trinity River. NetMap is being considered to help provide basemap data and analysis for TRWC assessment efforts. 5C Staff also participate in Trinity Management Council when TRWC relevant items are discussed.
- NRCS and local stakeholders on restoration efforts, discussion of funding year priorities, and having the 5C become a local NRCS service provider;
- WRTC on wetlands restoration project;
- USFS staff to break up logs at a local bridge in Trinity County to migration downstream and reduce jam potential;
- TRWC members on tracking and assessing a landslide on East Branch of East Weaver Creek (Trinity County) that resulted in significant sedimentation in Weaver Creek. See *photo* at right, which shows the confluence of East (turbid) and West Weaver Creeks;

- NRCS and local restorationists for sediment reduction efforts in the Van Duzen and Dobbyn Creek watersheds (Humboldt/Trinity);
- Trinity and Siskiyou County road departments and DWR consultants on floodplain management and relevant issues. 5C DIRT sediment inventory and culvert capacity data as well as culvert and bridge project information was provided.
- WRTC on local climate change issues, challenges, and needs. Information on the 5C water resources assessment within the mainstem Trinity River watershed was provided; and
- Several outreach efforts with local agencies translated to the development of restoration project concepts (see Task 3 above).

General inquiries and specific project development with private landowners are also addressed on a regular basis. Some of the revisions to the 5C website have included changes designed to make salmon and watershed information more user friendly and accessible. Outreach is also an important aspect of the 5C Program. Staff coordinated with local and regional groups on educational and training events including:

- Articles in the Trinity Journal on coho runs in Weaver basin creeks, the water quality and habitat impacts of trash and debris; local landslide impacts to water quality; and local restoration project features;
- The Salmonid Restoration Federation (SRF) on: the Humboldt Bay National Wildlife Refuge Symposium and upcoming Coho Confab and Chinook Symposium in the Trinity River watershed. 5C staff helped developed potential project sites. 5C staff also presented on 5C migration barrier projects at the SRF Passage Design Workshop;
- A 5C interpretive display at the 2010 Weaverville Salmon Festival; and providing information on local urban stream restoration efforts for the 2011 Festival;
- The TCRCD at the annual fifth grade environmental camps in Hyampom. 5C staff assisted by presenting sessions at the water quality stations;
- Presentations on the impacts of illegal water withdrawals on restoration projects at: the 2011 'Coho Salmon on the Brink' state legislative hearing; and
- A live interview on JPR's Jefferson Exchange on the 5C Program in early 2012 in response to the 5C Reassessment (Task 6).

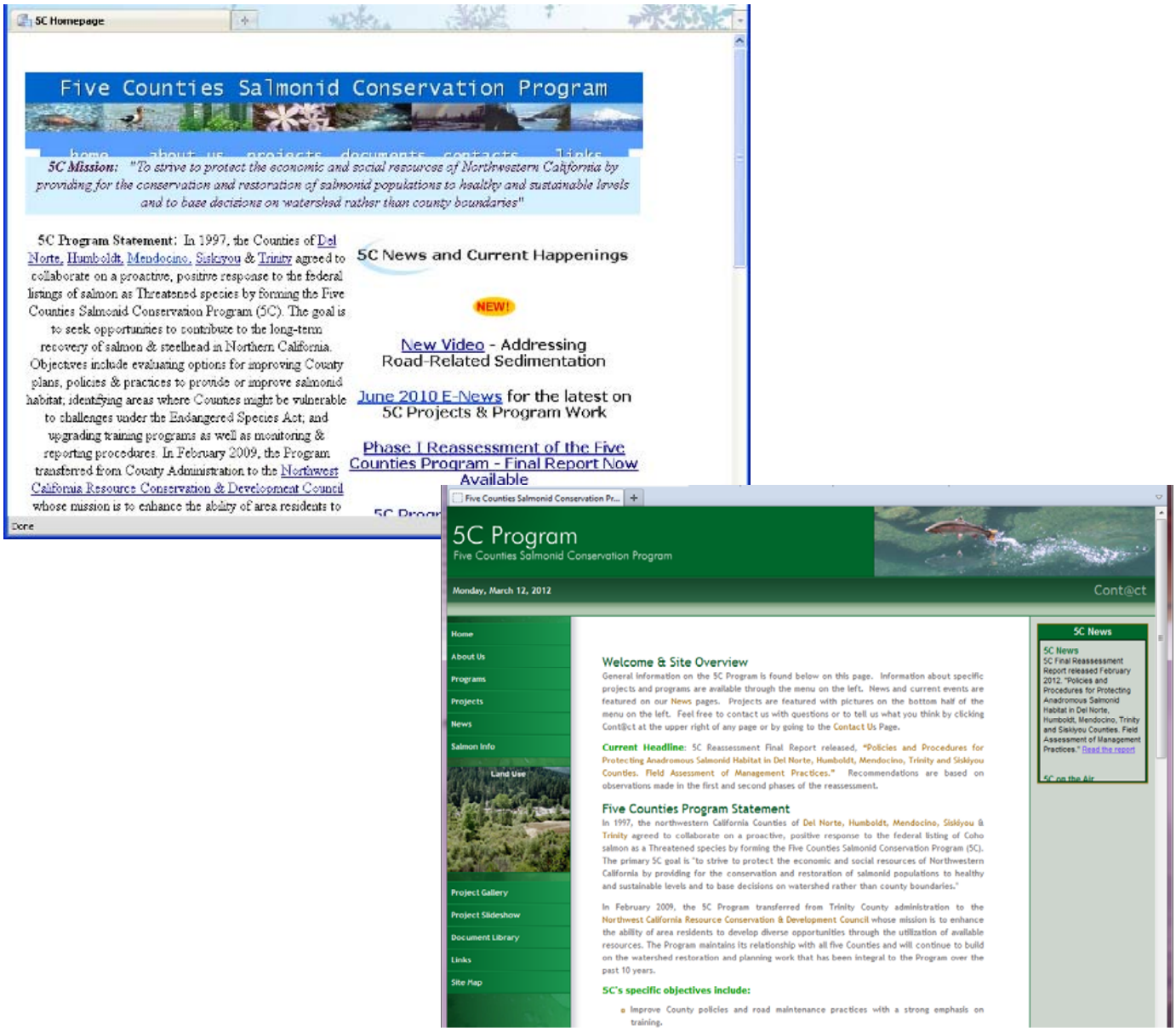
12. SALMONID, WATER QUALITY, & ROADS WORKSHOP (TASK 12)

The 2011 5C Roads Workshop was held at Trinity Lake Resort between May 2nd and 5th. 5C staff conducted planning, which involved coordinating with each 5C member county road department on projected attendees and agenda development.

Approximately 69 people participated, over 80% of which were staff from county road departments. Other attendees included speakers from state, federal, and local agencies, the Yurok tribe, AmeriCorps Watershed Stewards Project, and 5C staff. Among featured topics were erosion repair and control BMPs, field preparation, photo documentation, and case studies of various restoration implementation projects. Field sites were visited to evaluate completed and future restoration work and to demonstrate the application of BMPs (see *photo* at left).

13. 5C WEBSITE (TASK 13)

The 5C website underwent a major update and overhaul. The Accounts Clerk translated the old content into a format that is easier to navigate. The information is now more readily available. 5C staff assisted with adding and updating content and reviewing the new site. New website features include: a newsbox on the homepage; the 5C sediment video; project photo galleries; 5C enews features; and more 5C partner links. Accounts Clerk Sue Rhodes completed draft revisions to the 5C website, tested and debugged the pages, and updated links. The new 5C website was posted in Dec 2011. Edits and refinements were subsequently made throughout the period such as fixing glitches in the user interface for contacting program staff and adding more content and graphics. The old site is shown in the photo below at left and the new at right.



14. Program Costs & Matching Funding

The total expenditures for the project from all sources totaled $865,657. Of that total, 54.58% ($474,364) came from matching sources as shown in Table 1[sp1] below. A total of 5,852 personnel hours were expended under this contract. Matching sources primarily consisted of engineering or design work for sediment reduction and fish passage projects.

TABLE 1: PROJECT COSTS			Matching Source Breakdown											
GRANT LINE ITEMS	GRANT FUNDS	TOTAL MATCH	CA Coastal Conservancy	NOAA Community-based Restoration	NOAA Open Rivers Initiative	USFS RAC	Trinity River Watershed Restoration	SWRCB Prop 40 funds	NRCS Wetlands Reserve Program	Roads workshop participants non-5C	5C member Counties cash	5C member Counties time & in-kind	State agency in-kind	Applicant
PERSONAL SERVICES														
Program Director	$ 39,592	$31,573	$27,497	$1,386	$99	$611	$132	$215	$0	$0	$1,056	$0	$0	$0
Benefits @	$ 20,465	$16,450	$14,298	$722	$51	$324	$72	$117	$0	$0	$574	$0	$0	$0
Program Manager	$ 78,824	$6,024	$2,766	$121	$0	$0	$515	$970	$780	$0	$152	$0	$0	$76
Benefits @	$ 45,948	$3,831	$1,598	$70	$0	$0	$300	$588	$748	$0	$89	$0	$0	$44
Assistant Program Manager	$ 10,246	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Benefits @	$ 5,472	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Natural Resources Technician	$ 1,882	$875	$554	$0	$0	$0	$0	$322	$0	$0	$0	$0	$0	$0
Benefits @	$ 218	$101	$64	$0	$0	$0	$0	$37	$0	$0	$0	$0	$0	$0
Project Manager	$ 7,547	$6,796	$5,236	$980	$0	$0	$10	$0	$570	$0	$0	$0	$0	$0
Benefits @	$ 4,528	$4,120	$3,175	$594	$0	$0	$6	$0	$345	$0	$0	$0	$0	$0
Office Manager	$ 13,800	$8,716	$1,573	$2,909	$328	$0	$1,382	$0	$0	$0	$2,524	$0	$0	$0
Benefits @	$ 5,284	$5,847	$1,052	$1,974	$220	$0	$924	$0	$0	$0	$1,678	$0	$0	$0
Accounts Clerk	$ 6,827	$4,986	$2,714	$1,114	$126	$520	$338	$0	$0	$0	$176	$0	$0	$0
Benefits @	$ 717	$546	$298	$120	$13	$56	$36	$0	$0	$0	$22	$0	$0	$0
Program Partners		$119,224	$0	$0	$0	$0	$0	$0	$0	$0	$0	$109,337	$0	$9,888
SUBTOTAL		$209,089	$60,825	$9,989	$837	$1,511	$3,714	$2,248	$2,444	$0	$6,269	$109,337	$0	$10,007

OPERATING EXPENSES	GRANT FUNDS	TOTAL MATCH	CA Coastal Conservancy	NOAA Community-based Restoration	NOAA Open Rivers Initiative	USFS RAC	Trinity River Watershed Restoration	SWRCB Prop 40 funds	NRCS Wetlands Reserve Program	Roads workshop participants non-5C	5C member Counties cash	5C member Counties time & in-kind	State agency in-kind	Applicant
Subcontractors														
UCCE Consultants	$ 22,208	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
UCCE other specialists	$ 7,010	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Road Manual Consultant	$ -	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fisheries Biologist	$ 6,363	$5,533	$1,266	$4,267	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Prof Services	$ 51,650	$237,252	$155,666	$5,618	$13,581	$22,522	$13,008	$0	$0	$22,735	$60	$0	$4,062	$0
Workshop Consultants	$ 1,350	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Workshop Fees	$ 18,972	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Workshop supplies	$ 678	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Transportation for Workshop Speakers	$ -	$107	$0	$0	$0	$0	$0	$0	$0	$0	$107	$0	$0	$0
Lodging	$ 1,243	$400	$400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Per diem	$ 822	$381	$161	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$220
Mileage	$ 5,313	$7,569	$2,010	$0	$0	$0	$0	$33	$0	$0	$0	$4,152	$0	$1,375
SUBTOTAL	$115,609	$251,242	$159,503	$9,885	$13,581	$22,522	$13,008	$33	$0	$22,735	$167	$4,152	$4,062	$1,595
SUBTOTAL	$356,956	$460,331	$220,328	$19,874	$14,418	$24,033	$16,722	$2,281	$2,444	$22,735	$6,436	$113,488	$4,062	$11,602
Administrative Overhead	$ 36,245	$14,033	$6,631	$0	$1,164	$136	$6,060	$0	$0	$0	$42	$0	$0	$0
TOTAL	$393,201	$474,364	$226,959	$19,874	$15,581	$24,169	$22,782	$2,281	$2,444	$22,735	$6,478	$113,488	$4,062	$11,602

Match Source List:

- CA Coastal Conservancy grant: Project planning, engineering, and design work for various restoration projects – primarily fish passage with some habitat improvement and sediment reduction. (Contract 08090 & 05114)
- NOAA Community-based Restoration Program: Long term monitoring work in the Little Browns Creek watershed. (Contract 30162)
- NOAA Open Rivers Initiative: Planning, design, and monitoring for the Ryan Creek fish passage project. (Contract 30221)
- USFS Resources Advisory Committee funding for sediment reduction and fish passage project design, permitting, and planning. (Contracts 00077, & 000049)
- Trinity River Restoration Program Watershed Restoration: Planning for road inventories on private land, Urban Stream Restoration Project planning, design, and monitoring, and sediment reduction project planning and oversight. (Contracts BRN77, SIDG1, & 20077)
- Prop 40 Integrated Water Management: Monitoring work for the Trinity Drinking Water Source Sediment Reduction Project. (Contract 08176: 25510)
- NRCS Wetlands Reserve Program: Planning, oversight, and monitoring of vegetation management work at the Weaver Basin Wetlands (Contract 08176: 47373)
- Member Counties: Mendocino & Trinity cash agreements for planning, design, and CEQA analysis for various road projects. (Contracts FRRM & 10039) Also, a small portion of money collectively contributed by member counties to help support 5C Program daily activities.
- 5C member County: Time, travel, and other in-kind services provided during participation in 5C Program steering committee meetings, Program prioritizations, project development and engineering meetings, 5C Reassessment, and 5C workshops (Roads, Road Manual BMP). (in-kind)
- Applicant: RC&D Council members' time spent meeting on 5C specific work and Program activities as well as staff hours worked without reimbursement. (in-kind)
- Non-5C Program in-kind from Partners: Time and travel for workshops and meetings. Also includes engineering in-kind for the Ryan Creek Caltrans projects that 5C helped to coordinate and provided data for. (in-kind)

15. SUMMARY

Activities and efforts conducted under this contract represent some of the most vital work the 5C Program conducts despite the fact that direct on the ground restoration is not included. This work allows the 5C Program to remain vibrant and dynamic through the examination of Program goals and objectives and continued development of Program work elements. Additionally, new opportunities for restoration often arise out of work and outreach done under the tasks described above. What distinguishes the 5C Program from a consultant simply doing on the ground restoration is that it actively engages member county staff, agencies, and other partner organizations on a consistent basis beyond very specific projects.

This facilitates the refinement and/or development of local and regional restoration priorities, pooling of resources, and identification of new restoration opportunities. This contract has allowed 5C staff to:

- provide member counties with the expertise and resources needed to progress on migration barrier and sediment project designs without which construction would be delayed or not pursued (see Task 3);
- continue education and training for: a) member county staff on road maintenance and restoration issues (see Tasks 8 & 12); and b) member county staff, restorationists, and other interested parties on road related sedimentation (see Task 11);
- pursue programmatic regulatory coverage of 5C products (see Task 3);
- monitor 5C Program projects, practices, and activities to ensure work remains consistent with goals and objectives (see Tasks 5 & 8);
- engage decision makers and county planners in current land use issues, water resources, and other topics of local concern. 5C staff also helped to develop tools to facilitate better land use planning (see Task 9);
- evaluate and develop the next high priority sediment source and migration barrier sites and pursue funding to ensure ongoing restoration projects and efforts may be completed (see Task 10); and
- sustain relationships with Program member counties, partner agencies, restorationists and others to facilitate numerous collaborative efforts including local watershed council prioritization, Fish Passage Forum efforts, and data sharing (see Tasks 2, 3, and 11).

These activities have addressed multiple priorities within and beyond the 5C Program to the benefit of anadromous salmonids, water quality, and stream habitat.

Habitat Projects (all) metrics
The 5C and member county efforts have been recognized in the *Recovery Strategy for California Coho Salmon*.

The following tasks within the *Recovery Strategy for California Coho Salmon* have been addressed via work in this contract:

- *RW-XXX-E-01 - Continue to implement FishNet 4C and Five County Salmon Restoration goals, including adopting and implementing written Operations and Maintenance Guidelines, training staff on guidelines, addressing fish passage and road sedimentation issues, developing riparian protections, promoting alternatives to conventional bank stabilization, and developing land use policies favorable for coho salmon.*
- *RW-III-A-01 - Continue and complete assessments and prioritizations for correction of fish passage barriers.*
- *RW-III-C-01 - Encourage funding authorities to allocate adequate resources to construct new crossings and upgrade existing crossings (bridges, culvert and fills, other crossings) within the range of coho salmon to accommodate 100-year flows and associated bedload and debris. Priority for upgrading should be based upon the potential impact to coho salmon habitat.*

- *RW-III-C-06 - Encourage funding authorities to allocate adequate budgets to Federal, State, and local agencies for fish passage projects. This includes, but is not limited to, funding for road maintenance programs and capital project activities.*
- *RW-XXV-B-07 - Develop and implement county, city, and landowner initiatives to expand inadequate stream buffers and protect riparian and wetland habitat for coho salmon recovery.*
- *RW-XXVIII-B-01 - Support local governments, interested parties, and property owners in the development of incentives for landowners who participate in activities that exceed legal requirements or timelines to protect and/or restore coho salmon habitat and watershed processes. RW-I-D-03 Provide conservation incentives to minimize negative effects of water drafting for roads and fire suppression.*
- *RW-VI-A-02 Identify and prioritize specific sediment source locations for treatment that may deliver sediment to coho salmon streams. Encourage the use of protocols, such as the California Stream Habitat Restoration Manual Guidelines. Work with others to educate and provide technical assistance to landowners to implement upgrades.*

Many high priority tasks in relevant watersheds outlined in the Recovery Strategy are also addressed. The project has also conducted fish presence absence and spawning surveys in several streams. Refer to Tasks 3 & 5 above for details. It is estimated that dozens of stream miles within the project region were affected by this project. Because of the nature of the project (e.g., capacity building, roads maintenance practice training, monitoring), it is hard to estimate a precise number. Any stream in which road departments have applied Roads Manual BMPs or techniques demonstrated at the roads workshop were affected by the project.

The following is a more quantitative summary of results according to CDFG FRGP metrics for Watershed & Regional Organization (OR, PI):

- Number of public meetings and the description of meeting format:

  22 meetings geared toward or open to the public. Typical formats included sit-down meetings and conference calls for regional restoration groups, committees and non-profits; state and local government meetings/hearings; and natural resource based festivals.
- Number of public meeting attendees and their relationship to the watershed (e.g. landowners, local agencies, etc.):

  Approximately 635 attendees including: local watershed residents and landowners; school children; restorationists; state, local, and tribal government representatives and staff; consultants; and regulators.
- Number of landowners reached by project and a description of how landowners will/are contacted:

  Due to the nature of some of the outreach events, it is difficult to assess whether attendees are landowners or residents. However, conservative estimates of these events indicate that approximately 100 or more landowners

were reached. Event contact methods included public advertising (flyers, newspaper and government meeting notices), web postings, email, local media, and word of mouth.

- Need for organization and how it will enhance other efforts within the local and regional area:

  Limited staff inhibits counties' ability to respond to landowner inquiries and requests for help on natural resource related efforts. The 5C has been able to fill some of that need by providing information and resources to interested landowners. The 5C is able to provide funding for design or monitoring for efforts that have scarce funding but yield benefits to high priority projects (e.g., sediment load monitoring at Francis Ck, spawning surveys on restored creek segments). Staff is also able to provide valuable information and data on salmon, watersheds, water quality, and wildlife habitat to decision makers at public hearings for various local and regional issues.

  There have been new efforts within the region in many areas such as private road sediment inventories and FPF project ranking criteria and approach where 5C products and staff experience have proved to be invaluable, time saving contributions. The 5C also provides the perspective of counties in critical recovery efforts (e.g. CRS). Some of the 5C mainstay efforts such as Roads Workshops and Roads Manual BMP trainings provide critical education and training to road department staff specific to salmon and water quality that they would not otherwise receive. This translates to improved resource management.

  There have been several projects where 5C staff have been asked to participate in order to bring landowners and stakeholders with differing priorities together in order to progress restoration efforts. Examples under this contract include involvement in planning and design for the: Usal Rd sediment reduction project where adjacent landowners did not have a good working relationship; and the Coutoff Slough habitat improvement project and Fish Creek fish passage project where landowners, regulatory agencies, and stakeholders had differing goals and standards for restoration. In many cases, 5C mediation and participation have enabled projects that were stalled to advance.

- Description of education/outreach about the watershed and salmonid issues:

  10 publications or media were completed and distributed on a large scale to hundreds of people: 1 5C enewsletter was sent to hundreds of recipients; a summary of 5C Road Manual BMP implementation in each county; 7 articles published on 5C activities; and one interview given by the 5C staff on a live radio segment. However, over 600 people participated in 5C educational outreach through 5C and third party sponsored events (e.g., trainings, salmon festivals, elementary school events, public hearings on natural resources issues) where dozens of media and handouts were distributed.

- Number and description of any planning or implementation projects that will be developed and a description of how they will be accomplished under the project or promoted by the project:

Seven restoration projects (HU, PL, FP, HB, & MO project types). Under this contract, a private road inventory, two sediment reduction implementation, one instream barrier modification, one feasibility study, one restoration project design, and one monitoring project were developed. One of the sediment reduction projects on Usal Rd and the instream barrier modification were completed within the timeframe of this contract. Part of one year of the multiple water year monitoring on Francis Ck was conducted. Project proposals were developed for the rest of the projects, only one of which has not been funded.

- Number of plans/designs for restoration/conservation actions developed as a result of this project:

  A minimum of 4. Additional projects may result from these efforts.
- Acres of land affected by landowner plans/designs for restoration/conservation actions:

  A minimum of an acre. Additional downstream areas would also benefit.
- Dollar amount of donations made to restoration/conservation activities as a result of this project: none. The 5C does not solicit donations.
- Number of volunteers committed to restoration/conservation activities as a result of this project: 2 volunteers for the 5C Program arose out of this project.
- If the project results in habitat protection or restoration actions:
  - Number of restoration projects proposed: Two completed
  - Type(s) of treatments applied, using the list of FRGP Proposal Project Types in the Solicitation: HU & HB
  - Acres of salmonid habitat protected/restored: 1.7
  - Number of watersheds protected/restored: 2; and
  - Dollar value of habitat treatments applied: $56,700.

Many activities described above are new and unique to this contract. These include:

- Drafting a monitoring approach for the 5C framework Conservation Strategy;
- Providing DIRT and road related sediment training to non-county entities. Developing a modified DIRT for use on private roads; and
- Broadening the scope of the 5C Program by exploring work with non-county entities. One example is the coordination with WRTC for a road sediment inventory on private land.

ATTACHMENTS

A Electronic copy of final report (CD format)

B Updated 5C Migration Barrier Project Progress Matrix