

Quarterly Report

C Road Hazardous Fuels Reduction

Grantee: Plumas County Fire Safe Council

**Grant # 04-DG-11051150-003 (Secure Schools) and
04-DG-11051150-020 (Community Protection)
#08-DG-11051150-011 (Secure Schools)**

Final Report

Quarter Ending: 6/30/08

General

This project was initially approved by the Plumas County Resource Advisory Committee (RAC) in the third round of federal Secure Schools funding in 2003. The final application was submitted 9/29/03. It was intended to reduce fuels on approximately 110 acres of lands owned by a variety of private property owners near USFS lands. The project was brought to the Plumas County Fire Safe Council (PCFSC) by local property owners subsequent to the completion of a broader Homeowner "Consultation" outreach (voluntary fire safe inspection by PCFSC trained Volunteer Fire Department members) and Evacuation Plan publishing project by the Fire Safe Council conducted earlier.

Area Description

C Road area has been and is a high priority within the Plumas County Wildfire Protection Plan (see <http://www.plumasfiresafe.org/fire_plan.htm>). It has numerous smaller parcels and permanent residences on a hillslope north of State Highway 89, the Union Pacific Railroad and the (federal) Wild and Scenic Middle Fork of the Feather River. It contains 1,237 acres within its Community Services District- established for volunteer fire protection and road purposes only. It is heavily forested (second or third growth Eastside Pine and manzanita brush), with a southward aspect. This area of the forest generally has a 15 year natural fire 'return interval'. This area is a prime example of a Condition Class 3. There have been no fires in the area since 1900, so this area is overripe for wildfire. When developed in the 1970s, it had neither a community water supply or hydrant system, a water storage system, nor a paved road system (including no ongoing road assessment nor consolidated road easement legal description). The project area elevations range from 4900' to 4300' in the two mile long hill side, intersected by the unpaved "C" Road and latticed by unpaved, interior roads (see attached maps). The *Plumas County Hazardous Fuels Assessment and Strategy* (PCFSC-2005) describes the conditions on C Road as follows:

Poor clearance on many scattered individual structures, dangerous access, alignment of slope, fuels, wind, multiple ignition threats below. Very exposed to large-scale winds. Approximately 430 private parcels falling on both sides of Highway 70. This community has some serious problems which set the stage for a very devastating fire.

Fuels Comments/Recommendations:

High priority for reducing hazardous fuels which can include thinning of canopy and ladder fuels with follow up treatment of surface fuels . In addition to larger projects, emphasize clearance of fuels around individual structures and thinning understory fuels in forested vacant lots. Fuelbreak-style thinning along main road would act to increase firefighter and evacuee safety.

Fire Behavior

Extreme Fire Behavior with Active Crowning.

In 2003, a Rapid Assessment exercise was completed for the community by PCFSC, to asses the ability of firefighting resources to provide structure protection in the event of a average summer wildfire. The assessment considered a hypothetical fire threatening 20 of the 80 residences within the first hour. Of the residences assessed: 20% were considered defensible and safe for firefighters, 40% were considered indefensible, and 40% were defensible but, due to fuel conditions along roads and between properties, would pose to great a risk to firefighter safety for structure protection actions.

Plumas County Fire Safe Council (PCFSC) is the project sponsor. Volunteer Fire Department members and residents have continued to work with landowners on a variety of projects, including this thinning work. Additional Title II and III funds are being used (mid 2008) to plan for thinning of other parcels. The CSD is also using Title III funds with PCFSC to plan for thinning the actual C Road Right of Way to facilitate firefighter access and safety. Additional funds and projects will be developed in the future.

PCFSC entered into contract with USFS on 3/5/04 for Secure Schools Title II funds. The overall project is funded by \$ 15,000 in Title III funds allocated by the Plumas County Board of Supervisors, \$ 60,500 in Title II funds approved by the Plumas RAC, \$61,800 in USFS “Community Protection” funds approved on 3/14/04 by USFS Region 5 [the Community Protection funds contract was executed with Plumas National Forest on 7/2/04] and an additional \$44,497 in Title II Secure Schools funding, executed on 2/8/08. The local non-profit, Plumas Corporation contracted with PCFSC to administer this program. This Final Report covers all three grant agreements with USFS, which totaled \$166,797. Matching funds from sale of fiber material was predicted at \$12,700 but turned out to be \$ 78,011.

NEPA, CEQA, Design and Supervision

The Secure Schools Title III approval (for project planning) was finalized by the Board of Supervisors on 6/12/04. PCFSC successfully solicited for a California Registered Professional Forester (Wayland Resource Management-WRM) to design, bid and supervise the project as well as to accomplish the necessary environmental work towards

securing the appropriate CDF permit(s) and NEPA conversion. WRM was succeeded in this project by a new firm containing one of the WRM foresters: North Valley Resources, in 2007.

The Decision Notice was approved for the NEPA package by the US Forest Service, Beckwourth District Ranger on 11/29/05. A number of separate permits were applied for and received from California Department of Forestry to respond to permit requirements, seasonal closures (due to snow and soil moisture in winter and wildfire danger in summer) and the different phases of the project.

Type of CDF Permit	# of permits issued and used	Permit Issues
Emergency Fuel Hazard Reduction	1	Only useable for 120 days from issuance
LaMalfa Forest Fire Prevention Exemptions	7	Tree size limitation

The foresters supervised field work with input from PCFSC, CA Forestry, USFS and the property owners.

Contracting

The project was put to bid through a *Prospectus* on 8/7/05, which was both mailed and put on the Fire Safe Council website. A pre-bid tour was held on 8/22/05. Bids were received on 9/5/05. A successful bid was received for the “embedded” mastication (meaning the acres masticated at one point in time were contained or ‘embedded’ within acres that had subsequent commercial thinning with resultant chips and log products) portion of the project and was completed (Firestorm-contractor). No bids were received for the logging portion of the project. Negotiations for the logging portion were completed by the end of 2005 and the project logger chosen was Treetoppers, on a time and materials basis. A total of 129 acres were approved for thinning under the contract and also received NEPA review and approval. Revenues from sale of chips and smaller logs were expected to help offset the significant and gradually increasing logging costs. These increasing costs, the topography, as well as a change in one landowner’s plans to not build a planned road to necessary specifications and turn radii for chip and logging trucks, led to a change in approach to the project as well as a change in contractors, equipment and thinning techniques. The project moved in mid-2007 from one primarily removing ladder and smaller canopy trees offsite for revenue producing logs and chips (as well as other ‘surface’ fuels treatments) to a project treating all fuels on site via chipping or masticating on site or hand thinning, piling and burning on site. The remaining lands allowed such a mid- project change in approach, in terms of their topography and fuels loading.

79.6 acres were completed by 5/31/07 (72 % of the project goals). While there were some remaining grant and project revenue funds available to continue work, PCFSC determined that there were not adequate remaining funds to do the entire 110 acre project. PCFSC requested additional funds from the Plumas RAC in August 2007 and this was approved by the RAC in September. This additional contract for \$44,497 was executed on 2/8/08. The project *Prospectus* was immediately issued and the thinning contract (Pearson Logging) was executed on 3/27/08. All work was completed by 6/18/08, with the exception of one acre to be burned in the fall of 2008, when weather permits.

The additional funds (Contract # 08-011) were used for hand thinning and mastication of additional properties, resulting in a total of 122.2 acres of fuels reduction for this project (111 % of project goals).

Revenues from Sale of Material

All revenues from sales were received on the project between 2/15/06-5/15/07, in a dozen increments over that period. There was a total of \$ 78,011 received. Logs went to Sierra Pacific Industries (SPI) mills in Quincy and Oroville (cedar logs only) and the stand-alone SPI biomass electric generator in Loyalton. There was a total of 122.09 MBF (thousand board feet) of sawlogs generated. This was slightly less than 1 MBF per total project acres (122.2). There was 805.14 BDT (Bone Dry Tons, one BDT is equal to ~ two green tons) of chips taken to Loyalton or approximately 6.59 BDTs per total project acre. Revenues were received, however, on only 79.6 of the 122.2 treatment acres. Revenues (on revenue producing acres) were \$ 980 per acre (versus approximately \$ 100 per acre predicted in the original 2003 proposal). The remainder fuels, not taken to the plants, were chipped or masticated on site or had material piled and burned on site.

The initial project proposal to the Plumas RAC in 2003 proposed a match of \$12,700 in revenues based upon an expected harvest of 1000 green ton of biomass and 100 MBF of sawlogs. All figures were significantly exceeded. Revenues were approximately six (6) times that predicted. The amount of material (in BDTs and MBFs) was approximately 122 % to 160 % of predicted levels, respectively.

Property Coverage in area.

A total of 12 property owners participated in the project. Their properties ranged from 2.5 to 40 acres. The 122 acres thinned represents 10 % of the acreage within the CSD (1,237 acres) so future thinning work is scheduled. Some is already funded. Approximately 10 % of the entire area is now thinned, albeit not in a contiguous way (see maps). Recent fire science suggests that, in addition to thinning around roads, approximately half the area needs treatment to survive a fire without suppression forces.

Treatment Methods

A variety of treatment methods were used, depending upon landowner preferences, the forester's project design, road access and topography. Methods included:

- “commercial thinning”, where intermediate and suppressed trees were ‘whole tree yarded’ to the landing. Merchantable logs were then taken to the sawmill, while remaining tree tops, branches, and smaller submerchantable trees were chipped for transport to the biomass electric power plant.
- Hand thinned, piled and burned- where smaller trees were cut, piled and then control burned when the weather (wet) permitted, or
- Embedded Masticated (mechanically chewed up) or chipped either before or after other treatments, or
- Mastication as the only treatment.

The following chart shows the treatment areas, abbreviated landowner names, types of treatments and their finish dates.

Unit	Land-owner	Commercial Thinning Acres	Hand Thin Acres	Embedded Mechanical Mastication/ Chipping Acres	Non-Embedded Mechanical Mastication Acres	Total Treatment Acres	Status Of Operations
1	Cr	10.0	-	-	-	10.0	CT Complete 1/12/06
2	Yo	38.4	-	-	2.0	40.0	CT Complete 1/12/06 MM Complete 6/18/08
3	St	-	-	-	9.0	9.0	MM Complete 6/18/08
4	Ba	2.5	-	-	-	2.5	CT Completed 5/31/07
5	Ar	1.2	1.0	-	3.1	5.3	MM Complete 6/18/08 Hand Pile Complete 6/18/08 Piles to be burned winter 08
6	Gi	1.1	-	-	2.3	3.4	CT Complete 1/12/06 MM Complete 6/18/08
7	Ch/ Gr	2.6	-	-	6.0	8.6	CT Complete 1/12/06 MM Complete 6/18/08
8	Fa	2.9	-	2.9	7.2	13.0	CT Completed 5/31/07 MM Complete 6/18/08
9	Bo/Co	-	-	3.5	8.0	8.0	MM Complete 6/18/08
10	Zu	7.0	-	1.5	4.0	11.0	CT/MM Completed 5/31/07
11	Pr	6.4	-	-	-	6.4	CT Complete 1/12/06
12	Ha	7.5	-	7.5	-	7.5	CT/MM Complete 1/12/06
TOTAL		79.6	1.0	15.4	41.6	122.2	

Overall Financial

The entire \$ 60,500.00 of original Title II (# 003) funds were expensed and drawn down. The entire \$ \$61,800.00 in available Community Protection funds (# 020) has been

expensed and drawn down. An additional \$ 15,000 in matching funds (Title III) has been expended. \$50, 564.1 has been spent attributable to the new grant (# 08-011). Additionally, \$ 78,011 has been received in revenues from sale of material (logs and chips). Total expenditures to 6/30/08 for all purposes and from all sources have been \$ 257,370. Revenues are ~ \$259,808 through 6/30/08 from all sources. The remainder funds (~ \$1,400) are awaiting payment to the contractor for pile burning in fall of 2008. No returned funds to the USFS are expected.

Expenses Per Project code at Plumas Corporation were as follows

Plumas Corp Name, and Plumas Corporation Code #	FS Contract #	FS Contract Amount	Total Expenses 6/30/08	Expenses per acre
C Road RAC-195	# 04-DG-11051150-003 (Secure Schools)	60,500	129,740.38	
C Road Planning Title III (NA)	NA	NA	15,000.00	
C Road Community Protection-205	# 04-DG-11051150-020 (Community Protection)	61,800	61,835.42	
C Road HFR #2-236	#08-DG-11051150-011 (Secure Schools)	44,497.	50,564.10	
Total		166,797	257,370.20	\$2,042.6/acre

Cost Areas

Plumas Corporation, on behalf of the Fire Safe Council, initiated all contracts with vendors and incurred all expenses. There were five primary cost areas: Logging costs, Forester planning/permitting/supervision costs, staffing, professional liability and General Administration.

The breakout of these costs through 6/30/08 are as follows:

“C” Road Cost Detail

Plumas Corp Name, and Plumas Corporation Code #	FS Contract #	Logging/Fuels Reduction Contractor Costs	Forester: Planning, Permitting and Supervision Costs	Attributable Plumas Corporation Staffing	Plumas Corporation Professional Liability Insurance premiums	Attributable Plumas Corporation General Administration	Total
C Road RAC-195	# 04-DG-11051150-003 (Secure Schools)	126,561.13		2,642.81	91.94	444.50	129,740.38
C Road Planning Title III (NA)-196	NA		15,000				15,000.00
C Road Community Protection-205	# 04-DG-11051150-020 (Community Protection)	60,778.92		909.88	15.54	131.08	61,835.42
C Road HFR #2-236	#08-DG-11051150-011 (Secure Schools)	47,137.50	1,681.20	1,647.76	88.93	239.01	50,794.40
Total		234,477.55	16,681.20	5,082.61	167.54	730.86	257,370.2
% of all costs		91 %	6.5 %	2 %	< 1 %	<1 %	

C-Road Proposed Project Area



