

OK BQ 4/2/12

**Sierra Nevada Conservancy-Progress Report**

**Sierra Nevada Conservancy Grant Program  
Safe Drinking Water, Water Quality and Supply, Flood Control  
River and Coastal Protection Act of 2008 (Proposition 84)**

**Grantee Name: Placer Land Trust**

**Project title: Canyon Watershed and Habitat Restoration Project**

**SNC Reference Number: SNC 070222**

**Submittal Date: 3/30/12**

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**Check one:**

**6-Month Progress Report**

**Final Report**

**6-Month Progress Reports** should reflect the previous six months. **Final Reports** should reflect the entire grant period.

**A. Final Report Summary:** (Please provide a general description of work completed during this reporting period.)

Placer Land Trust was awarded grant funds for the Canyon View Watershed and Habitat Restoration Project in May 2008. In December 2008, we were notified of the Proposition 84 bond freeze and we were asked to stop work on the project until further notice. During the funding freeze, PLT worked with volunteers to continue managing invasive plants and reducing fuels in the project area. In September 2009, we received notice that we could re-start work on the project. Communications between PLT and contractors was re-established. PLT worked to finalize the permit process for the project including; conducting a wetland delineation, habitat surveys and other required reports. The majority of the construction work was implemented during 2010.

**Streambed Enhancement and Riparian Restoration**

In May 2008, Placer Land Trust (PLT) conducted initial meetings with all contractors on the project to discuss the overall scope of the project and to develop the working team. Philip Williams & Associates (PWA), the Hydrologic contractors, also surveyed the site to plan the design of the stream bed enhancement and stabilization. Placer Land Trust worked with contractors to produce a species list for re-vegetation of the masticated riparian corridor. We received the final permits from regulatory agencies allowing for the stream bed enhancement and alteration to start. In April 2010, Hanford ARC created 13 step-pools along the stream channel and an 8 step outfall in a particularly prone area to erosion to reduce erosion and sedimentation throughout the North Fork American River watershed. Approximately 200 native plants were planted and protective cages were installed along the riparian restoration area in December 2010. We installed an irrigation

system to water the plants from June to October. We continue to monitor the success of the stream structures and plantings.

### **Fuel Load Reduction and Invasive Plant Management**

In May 2008, over one mile of Himalayan blackberry was mechanically masticated by Hanford ARC, the restoration contractor on the project. Placer Land Trust also met with a representative of the California Conservation Corps in 2008 to discuss fuel load reduction and construction of the shaded fuel breaks on the Preserve. In the fall of the same year herbicide was applied to one area of Himalayan blackberry that had re-sprouted in the previously masticated areas. We applied a native grass seed mix to this area to restore it to a natural state. PLT worked with contractor Flying Mule Farms to graze yellow starthistle in the grassland area with goats and sheep during the summer 2009.

We began working with the California Conservation Corps (CCC) to construct the shaded fuel breaks on the Preserve in March 2010. The CCC thinned approximately 10 acres of the woodland areas to create a shaded fuel break. Approximately half of the chipping of brush piles was finished at this time. During the summer of 2010, 210 sheep were brought on to the Preserve for three weeks to graze yellow starthistle in the grassland area and Himalayan blackberry in the riparian areas. The CCC completed thinning vegetation and chipping brush piles in the shaded fuel break area during February 2011. Sheep were used to graze yellow starthistle in the grassland area again during the summer of 2011.

As part of our adaptive management approach, Placer Land Trust assessed the effectiveness of multiple treatment methods for Himalayan blackberry during this project. In 2011, we determined that a combination of mechanical removal and herbicide application was the most efficient method to remove Himalayan blackberry. In the spring and summer, we used hedge trimmers and weed eaters to cut the Himalayan blackberry to the ground. When the blackberry re-sprouted in the fall we applied herbicide. We will continue with this method to manage Himalayan blackberry on the Preserve.

Throughout the entire project period, PLT has organized volunteer work days to remove French broom from the Preserve to reduce fuels and restore species diversity. Placer Land Trust also held several volunteer days pulling broom to reduce fuel load and enhance wildlife habitat.

**B. Deliverables or Outcomes completed during this Reporting Period or Milestones Achieved:** (Include specific information, such as public meetings held, agency participation, partnerships developed, or acres mapped, treated or restored.)

- Worked with California Conservation Corps, Flying Mule Farms, Hanford ARC, Phillip Williams Associates, Forest Slopes Management, Sierra Native Alliance, and Green Jobs to implement the project.
- Performed stream stabilization and enhancement technical analysis
- Created 13 in stream structures to slow water velocity reducing erosion and sedimentation into the North Fork of the American River.

- Planted 200 native riparian plants and protective cages to restore 5 acres of riparian habitat
- Installed irrigation system to maintain native plantings
- Created 17 acres of shaded fuel break
- Removed ~10 acres of French broom from the oak woodland understory
- 10 acres of surface fuels and invasive weeds were grazed by sheep.

**C. Challenges or Opportunities Encountered:** (Please describe what has worked and what hasn't; include any solutions you initiated to resolve problems. If your project is not on schedule, please explain why here.)

We found that grazing yellow starthistle with goats and sheep as a treatment method is very challenging. It is very difficult to time the grazing with the appropriate time to reduce seed production. Therefore, the infestation of yellow starthistle on the Preserve has been only slightly reduced. We are currently exploring other treatment methods to reduce infestation by yellow starthistle on the Preserve.

At the start of the project we chose to manage Himalayan blackberry through mechanical removal using a masticator and then grazing re-sprouts later with goats and sheep. This has proven to be slightly successful. We noted some reduction in Himalayan blackberry cover in the infested areas, but without the funds to implement long term grazing, the blackberry would eventually grow back. We experimented with using herbicide on the re-sprouts in a couple of areas. This was very effective and in these areas Himalayan blackberry cover was greatly reduced. In one area, it is almost completely eradicated. We seeded this area with native grasses and now we use this as our invasive plant management success story.

**D. Unanticipated Successes Achieved:** (Please describe any additional successes beyond completing scheduled tasks or meeting scheduled milestones.)

The CCC donated extra labor free of charge to clear a larger area, faster than we would have without their donated time. We also had some native plants donated to PLT for the riparian restoration project which helped us to apply the funds that we would have used for these plants to other restoration efforts.

The areas of Himalayan blackberry that received the mechanical removal and herbicide application have been a huge success.

**E. Compare Actual Costs to Budgeted Costs:** (Please refer to your grant agreement to list your deliverables/budget categories and budgeted costs compared to actual costs incurred during this reporting period in the table below.)

<b>PROJECT BUDGET CATEGORIES</b>	<b>Budgeted SNC Dollars</b>	<b>Actual Dollars</b>
<b>Fuel Load Reduction</b>	\$20,000	<b>\$ 30,000.00</b>
<b>Restoration Work</b>	\$90,663.08	<b>\$ 90,662.13</b>
<b>Habitat Protection Fencing</b>	\$29,886.92	<b>\$ 29,886.92</b>
<b>Structural Stream Restoration</b>	\$130,000	<b>\$ 129,998.09</b>
<b>Project Management</b>	\$28,000	<b>\$ 27,999.75</b>
<b>GRAND TOTAL</b>	<b>\$298,550</b>	<b>\$ 308,546.89</b>

**Explanation:** (if needed)

We moved \$5,113.08 to the Restoration Work line item, since we did not make the interpretive signs. Placer Land Trust paid an additional \$10,000 to complete the shaded fuel breaks on the Preserve.

**F. Were there any other relevant materials produced under the terms of this Agreement that are not a part of the budgeted deliverables? If so, please attach copies.** (Include digital photos, maps, media coverage of project, or other work products.)

Digital photos were taken of each activity listed above. Select pictures are included in the document.

**G. Next Steps:** (Work anticipated in the next 6 months, including location and timing of any scheduled events related to the project.)

Placer Land Trust was awarded Proposition 84 grant funds in August 2010 from the California Resources Agency to continue riparian restoration on the upper section of Sierra Canyon Creek and to construct a 1.5 mile interpretive trail. We will begin construction on the riparian restoration and the trail in April 2012. We are also continuing management of invasive plants on the Preserve by organizing volunteer workdays.



Figure 1. Sheep Grazing



Figure 3. Building Step-pool



Figure 2. Completed Step-pool



Figure 4. Creating Shaded Fuel Break

