



# City of Yreka Post-Restoration Management Project: Final Programmatic Report (amended)

*Recipient: Shasta Valley Resource Conservation District*

*Project Period: May 1, 2014 – March 31, 2020*

*Award Amount: \$60,820*

*Matching Contributions: \$22,636.52*

*Project Number: #8006.14.042222*

## Summary of Accomplishments

This project provided salary support for a City of Yreka maintenance worker who performed maintenance tasks and supported restoration projects at three city owned project areas: North Yreka Creek, Yreka Creek at Oberlin Road (added after the grant period began), and Greenhorn Creek. Another component of this project was to maintain a native plant nursery to facilitate native plant propagation for these and other local restoration projects.

The Shasta Valley Resource Conservation District (SVRCD) also coordinated paid California Conservation Corps (CCC) and volunteer efforts to clean up these areas, remove invasive species, wrap native trees to prevent beaver damage and propagate native plants. Measurable outcomes included five and a half years of project administration, maintenance and propagation of more than 4,000 native plants, more than 900 volunteer work hours, more than 1300 work hours by CCC members, 11 acres of noxious weed control and more than 30 acres of combined riparian clean-up, weed control and native plant maintenance across all three project areas.

## Project Activities & Outcomes

**Task 1A and B:** Noxious weed removal at three sites and native plant onsite care.

Noxious weed removal and post restoration vegetation management were accomplished at the sites over the 5 ½ year grant period. A City of Yreka maintenance worker was hired and worked seasonally ½ time during the summers (2015-2019) at all sites as well as at the native plant nursery.

Nursery stock maintenance of over 4,000 native plants was continued for restoration projects and native gardens. Work included watering, weeding, sales and transplanting. In addition to the paid City of Yreka employee, eight volunteers worked on native plant propagation and maintenance. Native plants were planted at 2 sites: 1400 plants at North Yreka Creek and 700 at Oberlin Road for a total of 2100 trees and shrubs.

**Task 2:** Volunteer Work Day Support:

Volunteer workdays were conducted each April (on Earth Day) for the grant period of five years. This was designed to encourage citizen engagement and participation in invasive weed and blackberry removal, trash and litter clean-up, and wrapping trees for beaver protection. The SVRCD coordinated

a total of more than 250 volunteers for the five workday events as well as for individual volunteer efforts. Volunteers included local participants ages 8 to 80, a local environmental group - Siskiyou Gardens Parks and Greenways Association (SGPGA), a Girl Scout Troop, and California Conservation Corps members and alumni. Work day support provided by the SVRCD included purchase of tools, rented portable restrooms, lunch for volunteers and garbage removal services.

One of the long-term goals of the Yreka Greenway project is to encourage more people to use the greenway by increasing the aesthetics of the area.

- a. 2014: Hand watered over 4,000 native plants as part of a coordinated effort supported mostly by community volunteers. Coordinated one City of Yreka employee, a county crew of 6 workers, four SVRCD employees, one youth group of six teens and five additional volunteers to provide maintenance and plant support as needed to support revegetation efforts (watering, plant maintenance, applying fertilizers and soil additives, invasive weed control, transplanting, and other similar activities) at three project areas and the nursery.
- b. 2015: The Shasta Valley RCD supported the City of Yreka in the coordination of the Earth Day volunteer event held on April 18. The event included 45 volunteers including the local CCC crew. Together the volunteers removed 20 bags of trash, 3 shopping carts, and removed invasive weeds from large sections along Yreka Creek. This event was a full-day event that attracted over 45 volunteers.
- c. 2016: Two volunteer work days (April 23, and July 16) were conducted at project sites in partnership with SGPGA.
- d. 2017: One community volunteer work day was conducted at the floodplain at the Yreka Creek Oberlin Road site.
- e. 2018: City of Yreka hired two seasonal staff to assist with maintenance of Yreka Creek Greenway, split evenly between the Greenhorn site, Oberlin site and North Yreka Creek site. Work performed included staff and volunteers mowing trail edges, weed removal, tree limb trimming along trails, trash and homeless encampment cleanup, sprinkler maintenance, staking of planted trees, and watering planted vegetation.
- f. 2019: On April 20, two SVRCD staff along with 30 volunteers from the Siskiyou Gardens, Parks and Greenway Association, the California Conservation Corps (volunteers) and local citizens participated with the City of Yreka in an Earth Day Celebration at the Oberlin Road Greenway project Trailhead. The volunteers cleaned up trash, removed graffiti, planted native plants, removed invasive weeds and trimmed blackberry from trails and bridges and shared a picnic lunch. The SVRCD coordinated funding through this grant for tools, picnic supplies and the portable toilet.

**Task 3:** (Optional) Noxious Weed Removal by the CCC -Blackberry Removal at North Yreka Creek site. This project is vegetation maintenance and safely enhancement along the stream channels of Yreka Creek. The project involved multiple segments of Yreka Creek. The CCC Crew performed routine maintenance of vegetation, including non-native and invasive plant species along the stream channels. Vegetation was be thinned, pruned and/or removed to provide sunlight and clearance to the riparian understory thereby allowing native plant species to propagate along the stream corridor. This work visually opened the stream corridor to promote public safety and enhanced law enforcement operations along the project areas. The optional deliverable for this task was stated as 10 acres of blackberries removed. The SVRCD hired and coordinated with the Californian Conservation Corps work for this project. During this project period, removed blackberries and performed other “heavy lifting” tasks in and around the new floodplain restoration areas. Some of the funding was matched through the City of Yreka and others.

**Task 4:** Project Administration and Coordination.

The project was signed in May 2014 for a total of 5.5 calendar years. SVRCD staff completed tasks such as grant invoicing and quarterly reporting, Annual Reporting, contract coordination with CCC and volunteer work day organization and logistical support. Several different staff members lead and worked on this project including Karen Mallory, Brandy Caporaso, Ed Stanton, Mike Riney and others. Pre- and Post-Photo documentation of each site was conducted by various staff assigned to this project over the grant period. Close-out reporting is being completed by Ayn Perry, Mike Riney and Brandy Caporaso, with assistance from the City of Yreka staff and Jerry Mosier from SGPGA.

## Outcomes

### **Task 1:** Noxious Weed Removal at three sites and native plant onsite care.

The City of Yreka hired a series of full-time maintenance workers for all the years of the grant. They worked part of the time on noxious weed removal and native plant care at the new project areas. The partnership funding allowed them to hire, train and retain Tammy Sullivan as a full-time employee. Tammy is a knowledgeable local native plant enthusiast with several years of experience in the field. Employee hours per season can be found in the financial report.

The maintenance work at the native plant nursery was an important part of promoting the long-term success of the restoration projects. Using native plants was cost effective and the plants are highly adapted to our seasonally dry climate. Also, working in partnership with the City of Yreka allowed the SVRCD to hire and train local staff and volunteers who were eager, knowledgeable and dedicated. After planting, even native plants required skilled maintenance to prevent damage or reduced survivorship due to weeds, vandalism or severe drought.

Total area restored for all three project areas was 30 acres. This included maintenance of plants at all three sites. Plant survivorship averaged 69% across all sites (Table 1).

Table 1. Percent plant survival at all project sites. Oberlin Site was evaluated for survivorship at two locations.

Site	Approx. Plant Survival (%)	Notes
N. Yreka Creek	75	Temporary drip irrigation installed to establish plantings
Greenhorn Creek	55	Survivors were mostly drought tolerant species. US Fish & Wildlife may install more drought tolerant spp. Here in 2020
Oberlin (Trail)	55	Large planting (scale) with less consistent watering schedule
Oberlin (Basin)	90	Smaller planting with more consistent watering schedule

### **Task 2:** Volunteer Work Day Support

Coordination took many forms. SVRCD coordinated over **270 volunteers** who contributed **4,050 hours during five workday events** as well as for individual volunteer efforts. Volunteers included local participants from age 8 to 80, a local environmental group (SGPGA), a Girl Scout Troop, and California Conservation Corps members and alumni. A volunteer work day for Earth Day celebration each April for the grant period for five years was held. This was designed to encourage citizen engagement and participation in creek invasive weed and blackberry removal, trash and litter clean-

up, and wrapping trees for beaver protection. One of the long-term goals of the Yreka Greenway project is to encourage more people to use the greenway, to reduce crime and littering.

### **Task 3: (Optional) Noxious Weed Removal by the CCC**

CCC crews were coordinated and supervised by the SVRCD to treat Himalayan Blackberry and Marlahan Mustard at two project locations: N. Yreka Creek and Oberlin. CCC crews worked a total of **1300 person hours** over **six days** during the grant cycle. Crew sizes varied from day to day. CCC crews worked one day in 2015, three days in 2016, and two days in 2018. Blackberry treatment (pruning) was accomplished on **approximately 11 acres**.

Himalayan blackberry is a very difficult invasive plant to eradicate. Herbicidal treatment was not an option in these community park areas or near public waterways, and complete root removal is often ineffective or impossible due to the rhizominous nature of the species. Moreover, blackberry is so dominant in the project area that the risk of bank destabilization and increased sediment into the waterway makes this option prohibitive as well. Without root ball removal and/or the use of herbicides it is considered impractical to do more than prune down to the ground. However, the method of pruning used by the CCC crews has proven effective in providing riparian access and visual safety for volunteers, city staff (including utilities and police) and the general public.

Blackberry regrowth was difficult to quantify as most blackberry was actually pruned and not eradicated due to reasons explained previously.

### **Task 4: Project Administration and Coordination**

The project itself was a great benefit to our role in the community, as well as development of more robust partnerships with the SGPGA and the City of Yreka. A Memorandum of Understanding (MOU) was signed between SVRCD and the City of Yreka in 2014 to establish the partnership needed for this work. Additionally, the SVRCD was able to strengthen its existing partnership agreement with SGPGA by collaborating on another successful project. Hours needed for administration of this grant and specific task coordination are listed in the Financial Report.

### **Lessons Learned**

The SVRCD has had significant staff turnover since this grant was initiated, which contributed to some difficulty in project tracking and documentation. For example, many pictures were taken of work being done at all three work sites but strict photo-point protocol was never adopted. Therefore, before and after pictures are available for some work locations, whereas other sites may only have a before or an after picture. That being said, we feel that we have over-exceeded expectations with respect to accomplishment of tasks per the initial grant proposal, and each staff member working on this project through the years has taken it upon themselves to learn what those expectations were to ensure that the tasks were being completed to the best of their ability.

In recent years, certain areas along Yreka Creek have become illegal camping spots inhabited by transient or homeless individuals. In many cases these camp sites created a large amount of litter within the riparian areas, as well as safety issues for both the homeless/transient individuals and the users of the park in general. One unexpected outcome of the work performed through this project is that it has brought a visitor and stewardship presence into these areas. Visibility and access to the creekside areas have been improved, enhancing safety as well public pride and appreciation of this valuable resource.

As for plant maintenance methods: 1) we have learned that hand-watering of plants can be successful only if a dedicated hand watering team and watering schedule is established, and that irrigation systems are necessary for large plantings, especially during drought years, and 2) the

selection of drought tolerant plants is essential with minor exceptions for riparian planting locations.

Overall, this project was successful in drawing the public's attention to the work of the City of Yreka, SGPGA, the CCC and the SVRCD in rehabilitation and maintenance of Yreka Creek and the new restoration work being implemented. Match requirements were met with the contributions of the USFWS, City of Yreka and volunteer hours by local citizens. While maintenance is ongoing, direct benefits to the riparian area are noticeable and will benefit the urban/natural interface for years to come.

## Dissemination

An SVRCD newsletter was produced featuring the Earth Day Celebration Event for 2019. News of additional maintenance was included in other past SVRCD newsletters, and flyers were created to advertise volunteer day events (included as attachments in grant portal system).

## Project Documents

Selected photos are included below. Additional maps, photos, and newsletters can be provided upon request.

**POSTING OF FINAL REPORT:** *This report and attached project documents may be shared by the Foundation and any Funding Source for the Project via their respective websites. In the event that the Recipient intends to claim that its final report or project documents contains material that does not have to be posted on such websites because it is protected from disclosure by statutory or regulatory provisions, the Recipient shall clearly mark all such potentially protected materials as "PROTECTED" and provide an explanation and complete citation to the statutory or regulatory source for such protection.*



*Image 1: Oberlin Trailhead Site - Trailhead location before construction looking north from the parking lot*



*Image 2: Oberlin Trailhead Site - After construction, looking north from the parking lot*





*Image 3: California Conservation Corps (CCC) performing weed management activities.*



*Image 4: Upper Greenhorn Park - new sediment capture pond above the Greenhorn Reservoir*