

Cache Creek Conservancy: Invasive Weed Removal and Management at Huff's Corner

Final Grant Report

August 8, 2017

The CCC received a \$15,500 grant from the Water Resources Association of Yolo County (WRA) to oversee vegetation management for erosion control within a 2,500 foot section of the Cache Creek south bank known as Huff's Corner. Necessary erosion control at this site cannot begin until noxious vegetation is removed from the levee banks, excepting native Elderberry trees that meet the criteria for Valley Elderberry Longhorn Beetle (VELB) habitat. This was the first of an anticipated 3-year project with the first year focuses on invasive weed removal and the remaining two years will be maintenance. However, the 2017 winter storms precluded anticipated work and changing priorities for both the County and the WRA necessitated ending the project on June 30, 2017.

Description of Services

Task 1: Site Assessment and Monitoring

- The Conservancy met with County Natural Resources division staff in fall 2016 to conduct a site assessment to determine best management practices. The County has met with the state flood control agencies to confirm they needed a direct line of sight from the levee crown to the base. The Conservancy, in consultation with the County, determined that the initial work would consist of mechanical removal of vegetation from the levee crown. The County also provided the Conservancy with the California Department of Water Resources specifications, which indicated not to create holes in the levees; given those specifications, the Conservancy decided not to remove large root balls of invasive plants, but instead to pursue a "cut stump" process of cutting the weeds level to the ground and then applying herbicide.
- In spring 2017, as part of the site assessment prior invasive weed spraying, the Conservancy used the Elderberry mapping from the County to clearly mark and tag Elderberry trees to create buffer space for these plants.
- During the project time period, the Conservancy team would monitor the site to see what, if any, new invasive growth occurred in treated areas. As the storms persisted, the Conservancy would periodically look at the site to determine when it might be safe to continue its work. The Conservancy will continue to monitor the site for the next 12 months in order to advise the County as they prepare for next steps at the location.

Task 2: Vegetation Management Activities

- The Conservancy determined that the best management practices to initially remove all vegetation, with the exception of VELB habitat, along the designated levee bank. Because of the steep terrain, mowing and manual removal were limited to those areas deemed safe to use those practices. Some locations within the site it was only appropriate and safe to use chemical treatment. Chemical treatment was used in fall 2016 and spring 2017. All work was performed

in accordance with existing State permits, which included conducting bird nest survey's before any work began.

- High flows during winter 2017 eroded the south bank of Cache Creek at Huff's Corner, in part because the north bank channel filled in with silt. As a result, the eroded area presented a safety concern and the Conservancy made sure create any additional soil disturbance around those areas. The amount of precipitation also increased the amount of vegetation on the levee.
- Huff's Corner has an interesting mosaic of native and non-native plant species which could have served as reference site for restoration practioners, and the Conservancy conducted a serve of desirable and undesirable vegetation. Elderberry and other desirable vegetation was designated with florescent tape and flags to outline protective buffer zones.
- In spring 2017, the Conservancy concentrated on weed-whacking and spraying perennial pepperweed and completed three herbicide applications by June 30, 2017. These applications were informed by the Conservancy's Pest Control Advisor and approved by the California Department of Fish and Wildlife, as required by the Routine Maintenance Permit. The chemicals used were water safe roundup (glyphosate—a non-selective herbicide), water safe garlon (tricolpyr—broadleaf selective herbicide), and transline (clopypalid—broadleave selective herbicide) at different points throughout the grant. As indicated earlier, the Conservancy determined that disturbing root balls would be counterproductive to the goals of the project.
- The County instructed the Conservancy to not remove or spray patches of sod-forming native perennial grass Blue Wildrye and Creeping Wildrye.

Task 3. Project Management and Report Preparation

- Many of the species at the site are woody perennials that will need multiple years of follow-up treatment. Of particular concern is the perennial pepperweed.
- Because of the erosion Conservancy coordinated with the Yolo County regarding next steps for the project. The County decided to pursue federal emergency grant money to address the erosion, and part of that grant request will include additional vegetation removal at the site.
- The Conservancy coordinated and oversaw work conducted by subcontractors for physical removal of vegetation at Huff's Corner. Subcontractors included Yolo County Resource Conservation District, Muller Ranch, and University of California, Davis interns.
- In July 2017, the Conservancy closed out the grant with a presentation to the WRA Technical Committee regarding Huff's Corner. Because of the shortened time frame and shift in County priorities, approximately \$5,000 of the grant was not used by the Conservancy.

End of Grant Budget Summary

Cache Creek Conservancy: Invasive Weed Removal and Management at Huff's Corner							
Vegetation Management (Labor)							
	Unit (hours)	Unit Cost	Proposed Grant Funds	Actual Grant Funds	In-Kind Contributions	Actual In-Kind	Actual Total Cost Tasks 1-3
Task 1: Site Visit and Assessment							
Subcontractor Manager	21	\$75.00	\$1,575.00	\$200.00	-		\$200
CCC Habitat Manager	21	\$75.00	-		\$1,575.00	\$750.00	\$750.00
Yolo County TAC Biologist	21	\$67.00	-		\$1,407.00	\$750.00	\$750.00
Task 2: Vegetation Management							
General Labor	160	\$28.00	\$4,480.00	\$5,561.69	-		\$5,561.69
General Labor, Overtime	20	\$40.00	\$800.00	\$0.00	-		
Subcontractor Manager	20	\$75.00	\$1,500.00	\$150.00	-		\$ 150.00
CCC Habitat Manager	20	\$75.00	-				
Contingency	28	\$28.00	\$784.00	\$679.00	-		\$679
Task 3. Project Management and Report Preparation							
CCC Habitat Manager	80	\$75.00	-		\$ 6,000.00	\$ 900.00	\$900
Yolo County TAC Biologist	8	\$67.00	-		\$536.00	\$536.00	\$536.00
CCC Office Manager	12	\$60	-		\$250	\$250	\$250
CCC Executive Director	20	\$85	-		\$1,700.00	\$1,700.00	\$1,700.00
Mileage	112	\$0.06	-		\$63.84	\$63.84	\$63.84
Subtotal			\$9,139.00	\$6,590.69	\$11,531.84	\$4,949.84	\$11,540.53
Equipment and Supplies							
	Unit Amount	Unit Price	Unit	Proposed Grant Funds	Actual Equipment and Supplies Cost	Actual Equipment and Supplies Cost	
Weedeater, Blower, etc.	6	\$75.00	Day	\$450.00	\$136.80	\$136.80	
Chainsaw	8	\$100.00	Day	\$800.00			
Pickup	20	\$35.00	Hour	\$700.00			\$0
Chemicals		\$200.00		\$200.00	\$232.31	\$232.31	
Evacuator	20	\$210	Hour	\$4,200.00	\$2,670.03	\$2,670.03	
Subtotal				\$6,350.00	\$3,039.14	\$3,039.14	
Total Grant Funds Used:					\$9,629.83		
Total Project Cost:					\$14,579.67		