



Cover Sheet

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Organization Name: T	Office Use Only					
Organization Type: 501(c)(3) EIN# 53-0242652				ernmental entity? No	Date received:	
351(3)(3) 1.1111 <u>33 31 12351</u>			_001		Project #	
Address: 1 E. First Stree	t, Suite 1007, I	Reno NV	8950:	1	Grant Amount:	
Conservancy's River Fork	k Ranch Preser	ve.		Community and Youth Outdoor Educ	ation at The Nature	2
		Emerger		Inding request? (Circle one) Yes / No		
Amount requested:	\$58,895		we	bsite: www.nature.org/Nevada		
Project start date: 09/20	020		Pro	jected completion date:12/2022		
Conservancy's River Fork healthy Mule Deer popu	Ranch Preserlations. FundiVranglers, to b	ve, by plang will also will also will award award families.	nting so sup renes	bitat restoration to improve riparian has Cottonwood trees, native shrubs, and oport the creation of educational program and understanding of ongoing habitanterim State Director)	d willow thickets to ramming by Sierra	support Nevada
Rey reopie.	Director.	IVIACE I I	וו) אטנ	iteriii State Directory		
	Board Chair:	Joel Lau	b			
	Project Contact:	Name	e:	Lori Leonard		
		Positi	on:	River Fork Ranch Preserve Manager		
		Phon	e:	(702) 533-3255		
Fax:						
		Email	:	lori.leonard@tnc.org		
Organization Mission: T depends.	he mission of	The Natu	re Co	onservancy is to conserve the lands ar	nd waters on which	all life
Project is on (check all the	hat apply)	P	ublic	<u>x</u> Private land.		
Are government permits	s or decision d	ocument	s nee	ded for the project?Yes <u>x</u>	No	

Has your organization	Date awarded:	03/2020	
received other grants	Project # & title:	DT #63 – New Science tools to inform Bonneville Cutthroat	
from the Dream Tags		Trout Habitat Restoration in Nevada	
Fund?	Amount of Award:	\$27,264.87	
Yes/No	Date awarded:	10/2017	
(use additional pages to	Project # & title:	DT#46 – Mapping Mule Deer Habitat Suitability for	
list ALL funded projects)		Restoration Planning	
	Amount of Award:	\$26,695.85	

DESCRIPTION OF PROJECT UNDER CONSIDERATION

Indicate the description that best fits the project you are proposing. Mark no more than three categories:

- x A. Projects that improve, protect, or restore habitat
- x B. Projects that embrace unique opportunities for advancing the mission of wildlife conservation in Nevada

NARRATIVE

1. Specific project goals and measurable outcomes. How do these tie to the project description?

The goal of this project is to implement on-the-ground riparian and floodplain habitat improvement through native shrub and tree plantings at The Nature Conservancy's River Fork Ranch Preserve. These plantings will be an addition to previous floodplain and wetland restoration projects, and will promote habitat resiliency, increase biodiversity, and to support healthy Mule Deer populations.

In addition, The Nature Conservancy (TNC) will work with partners Sierra Nevada Journeys and the River Wranglers to build awareness and understanding of ongoing restoration efforts with future generations in northwest Nevada and ensure that work done today is preserved in the future. River Wranglers will bring volunteers to River Fork Ranch to plant native vegetation. Volunteers will also participate in on-site educational activities that complement and relate to the habitat restoration effors.

Sierra Nevada Journeys' (SNJ) Family Science Nights provide an opportunity to present scientific data to citizens in a fun environment that will further the mission of the Dream Tags program by supporting the preservation, protection, management, and restoration of wildlife and its habitat.

Measurable Outcomes:

- Harvest up to 1000 Cottonwood Trees from Truckee River restoration areas at TNC's McCarran Ranch Preserve and transplant them to TNC's River Fork Ranch Preserve.
- Plant up to 1200 bareroot shrubs and up to 500 willow cuttings.
- Organize up to 5 community volunteer and youth events to plant trees and shrubs.
- Develop educational materials (fliers and interpretive signs).
- Educate up to 1,500 Nevadans through a Family Science Night "Restoration Station" connecting Mule Deer, migratory corridors and critical habitat, Nevada game animals, and outdoor education for the next generation.
- Sierra Nevada Journeys will acknowledge the gift from Dream Tags Fund in a number of ways that may include:
 - Listing Dream Tags Fund as a supporter on the Family Science Nights webpage o and the annual supporter page
 - Listing Dream Tags Fund in two issues of SNJ's quarterly e-newsletter
 - o Producing content for our social media platforms (Facebook, Instagram, Twitter) including information about the partnership and the generous gift

2. Project location.

Habitat restoration and improvements will be implemented at The Nature Conservancy's River Fork Ranch Preserve, located at 381 Genoa Lane, Minden, NV 89423. River Wranglers with assist with volunteer planting events, outdoor education, and sign design.

Sierra Nevada Journeys' Family Science Night events will take place at school sites in Carson City and in Douglas County, as well as at TNC's River Fork Ranch Preserve.

3. Project description. Include site map and aerial photos if applicable/possible. Maps and photos must fit on 8-1/2" x 11" paper and may be attached at the end of your proposal after the budget.

Improving floodplain hydrological connectivity to waterways and re-establishing native plant communities can improve habitat resiliency in the face of climate change and future drought. As DNOW's *Nevada's Mule Deer Bulletin* notes, "no cyclic phenomenon exerts a greater influence on mule deer populations than weather. Droughts are especially difficult on mule deer and their associated habitats" (2004.) The mule deer population in the Carson Valley is a significant part of the eco-science and preserving water quality is critical for them. The requested funding will expand restoration efforts started in 2008 by re-establishing native cottonwood trees, willows and shrubs.

We will deploy cost-effective streambank stabilization options using native willows, cottonwood trees, and native shrubs along river and irrigation ditch banks. Planting cottonwood trees and riparian shrubs will increase habitat diversity in the areas by adding to the existing mosaic of open water wetlands, hot springs, wet meadows, pastures, Creeping and Great Basin Wild Rye grasslands, and upland Great Basin shrub communities.

The Carson River Watershed Adaptive Stewardship Plan mentions that "palustrine emergent wetlands and riparian cottonwood forests used to be extensive in the Carson Valley." With few cottonwood galleries remaining in the Carson Valley, planting cottonwood trees provides more favorable microclimates for Mule Deer and other species to seek shelter from the elements, to thermoregulate, and provide fawn hiding coverage. Planting native willows and shrubs also provides desirable forage for Mule Deer, nesting habitat for waterfowl, and an important riparian corridor for migratory birds.

To help families understand the importance of Mule Deer and their habitat on the environment, Sierra Nevada Journeys will engage up to 1,500 community members through a science station provided at the Family Science Nights at the River Fork Ranch preserve.

River Wranglers will also provide conservation education and work on the restoration projects, as coupling work projects in this effort with educational activities cements the conservation message while letting students participate in the stewardship of their own watershed.

- 4. Permitting. N/A
- 5. If future phases of the project will be needed, identify anticipated sources of funding. N/A
- 6. **Principals involved** in leading or coordinating the project or activity.
 - Lori Leonard, TNC River Fork Ranch Preserve Manager and Chris Sega, TNC Restoration Projects Manager.
 - Credentialed science educators from Sierra Nevada Journeys will be directly responsible for coordination and delivery of the Family Science Night program led by Sean Hill, Sierra Nevada Journeys' Vice President of Education. Alyssa Wagner, Program Director for Sierra Nevada Journeys, manages the Family Science Night program and work with educators to create the "Restoration Station."
 - Darcy Phillips, Executive Director of the River Wranglers, will oversee on-site volunteer planting days with elementary and high school students from Douglas County.
- 7. Number of staff positions involved in project: 3 part-time TNC, 3 part-time SNJ, 1 part-time RW
- 8. Number of volunteers involved in project and an estimated number of volunteer hours.

TNC: 150 volunteer hours for outdoor tree/shrub planting. SNJ: 5 volunteers per event/100 hours.

RW: 50 volunteer hours

9. Timeline of Project.

Habitat Improvement Timeline:

- Oct 2021 May 2022: Collect and plant native willows in late fall and early spring
- November 2021: Order bareroot plants.
- Dec 2021-Feb 2022: Harvest up to 1000 cottonwood trees from TNC Truckee River Restorations.
- Jan March 2022: Transplant cottonwood trees at TNC River Fork Ranch Preserve.
- Jan May 2022: Plant bareroot material with volunteer groups
- May Sept 2022: Irrigate plantings
- Oct 2022– Dec 2022: Collect and plant native willows in late fall with volunteers.

Education & Outreach Timeline:

- September December 2020: Development of the Restoration Station
- September 2020 September 2022: Outreach and scheduling of Family STEM Nights in Carson/Douglas Counties
- January 2021 December 2022: Family Science Night delivery

Factors that may cause delay in implementing and/or completing the project:

- Unpredictable snow melt and flooding cycles could impact cottonwood tree harvesting and project implementation times.
- Continued COVID-19 precautions could impact the feasibility of including volunteers for planting and for Science Night events.

10. Success. Tell the committee how we will know you succeeded in what you proposed to do.

- o TNC: Streambank stabilization with native vegetation along up to 500 linear feet of the East Brockliss Slough and tree planting on the West Fork of the Carson River; up to 5 volunteer events planting shrubs/trees
- o SNJ: Completion of "Restoration Station" and delivery of 10 Family STEM Nights in Carson and Douglas Counties
- o RW: Completion of education materials, youth outdoor education events for tree and shrub plantings

11. **Grant match** (secured)

Match amount	\$36,140
to be	• \$10,000 cash – secured
provided:	 \$26,140 in kind – volunteers (\$27.20/hr)
Description	 Cash: \$8,000 (Patagonia Grant), \$2,000 (Ozmen Foundation at CFWN)
of matching funds/in- kind donations:	 In-kind: 200 Volunteer Hours (\$27.20/hr per Independent Sector value of volunteer time), \$3,000 Backhoe Rental, \$17,700 plant materials Match is 45% of the project total Cash dollars have been secured

BUDGET

The Nature Conservancy

Salaries and Labor	\$/Hour	# of Hours	Total	Dream Tags	In Kind	Cash
TNC RFR Preserve Manager	\$31	140	\$4,372	\$4,372		
TNC Restoration Projects Manager	\$40	100	\$4,000	\$4,000		
Benefits	42% of Salary	240	\$3,516	\$3,516		
Independent Contractor/Consultant	\$50	160	\$8,000	\$5,000		\$3,000
Volunteer Hours (In Kind)	\$27.20	100	\$2,720		\$2,720	
Plant Materials	Cost per item	Total items	Total			
Cottonwood trees (Washoe State	cost per item	Total Itellis	Total			
Tree Nursery: 5-gal tree price)	\$19	800	\$15,200		\$15,200	
Willow cuttings	\$5	500	\$2,500		\$2,500	
Bareroot plants &/or native seed	\$3	1200	\$3,000	\$1,600		\$1,400
	460					
Equipment	\$/Hour	# of Hours	Total			
Backchoe rental (Tree harvesting & planting - McCarran & River Fork						
Ranch Preserves)	\$75	80	\$6,000	\$3,000	\$3,000	
Irrigation and fencing materials	7.0		\$5,600	\$2,000	, 3,000	\$3,600
				\$23,489	\$23,420	\$8,000

Sierra Nevada Journeys	Cost	-	Total tasks/ events	Total			SNJ Match:
Development of the Restoration							
Station: Station design, station							
production, station materials, and							
delivery training to education staff.	\$	5,000	1	\$5,000	\$5,000		
Event Deliver: \$1,000 per event for							
delivery for school outreach and							
coordination, event supplies,							
volunteer outreach and							
coordination, staff time at events,							
and follow up and marketing, overall	\$	1,000	12	\$12,000	\$10,000		\$2,000
Volunteer Hours (In Kind) *	\$	27.20	100	\$2,720		\$2,720	
Administrative costs (10%)	Administrative costs (10%)				\$1,500		
					\$16,500	\$2,720	\$2,000

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\$1,750.00	3	\$5,250	\$5,250		
\$750.00	1	\$750	\$750		
\$1,000.00	1	\$1,000	\$1,000		
\$27.20	50	\$1,360		\$1,360	
Administrative Costs (10%)					
	\$750.00 \$1,000.00	\$750.00 1 \$1,000.00 1	\$750.00 1 \$750 \$1,000.00 1 \$1,000	\$750.00 1 \$750 \$750 \$1,000.00 1 \$1,000	\$750.00 1 \$750 \$750 \$1,000.00 1 \$1,000 \$27.20 50 \$1,360 \$1,360

*updated independent sector value of volunteer time: \$27.20/hr

	Direct Costs	\$47,689	\$27,500	\$10,000
NICRA 2020	Indirect			
Rate 23.5%	Costs	\$11,207	\$6,463	\$2,350
	Total	\$58,895	\$33,963	\$12,350
	% of Project			
	Project	0.55	0.33	0.12

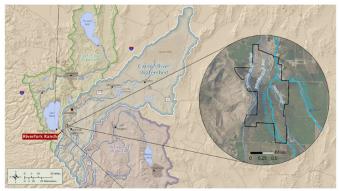
Project Total: \$105,208

References:

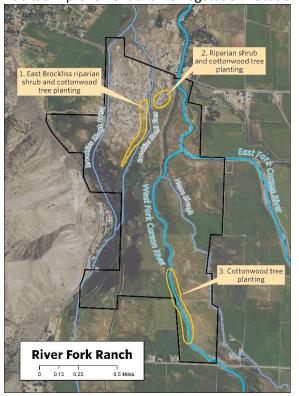
Carson Water Subconservancy District (CWSD), (2007). Carson Watershed Adaptive Stewardship Plan. Retrieved from http://www.cwsd.org/wp-content/uploads/2014/07/StewardshipPlan Part1.pdf

Wasley, T. (2004). Nevada's Mule Deer: Population Dynamics: Issues and Influences. *Nevada Department of Wildlife (NDOW)*. Retrieved from http://www.ndow.org/uploadedFiles/ndoworg/Content/public documents/Wildlife Education/Publications/muledeer.pdf

Project Location Maps: TNC River Fork Ranch Preserve



TNC RFR: Habitat Improvement and Re-vegetation Locations



- 1. East Brockliss Slough cottonwood tree, willow, and native shrub plantings (~6 acres and 500 linear feet).
 - Earthwork completed in 2011, which included the removal the berm along the E. Brockliss slough to reconnect the waterway to the adjacent floodplain.)
- 2. Cottonwood and native riparian shrub planting in constructed wetland and enhanced swale (~ 1 acre of plantings).
 - Earth work completed in 2011 including removal of berm along .7 miles of West Fork of the Carson River and ~1 acre constructed wetland and swale)
- 3. Cottonwoods to be planted along the West Fork of the Carson River (~200 cottonwood trees).