



## California Department of Fish and Wildlife Upland Game Bird Account

- 1. Project Title:** Native Grass and Wildflower Restoration on the Sul Norte Unit SRNWR
- 2. Amount Requested:** \$21,897.40
- 3. Applicant Contact Information:** National Wild Turkey Federation, Tax ID# 57-0564993

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#### **4. Introduction:**

The Sacramento Valley has lost over 85% of its natural riparian ecosystem which provided habitat for a diverse number of plant and animal species along its reaches. In 1989 the Sacramento River National Wildlife Refuge (SRNWR) was formed by the authority provided under the Endangered Species Act, Emergency Wetlands Resources Act, and the Fish and Wildlife Act. Since SRNWR's creation, it has been creating and implementing restoration projects along its 10,000 acres with the great help and guidance of its many dedicated partners, including the California Department of Fish and Wildlife.

The proposed project will be a hunter opportunity project that consists of restoring 34 acres of invasive weed infested floodplain on the Sul Norte Unit of the Sacramento River NWR located along the Sacramento River in Glenn County. The SRNWR is very popular among outdoor recreational users, and hosted over 68,000 recorded visitors in 2014. The Sul Norte Unit is probably the most popular hunting unit by upland game bird hunters, and received over 6,000 visitors in 2014 alone. Yellow star-thistle (YST), black mustard, milk thistle, and annual rip-gut grasses currently occupy the site, and provide little to no benefit for upland game bird species and other associated wildlife. YST is very aggressive and out-competes native annuals with its extensive tap root reaching 3 feet in length. This effect is also compounded in times of drought, which California has fallen deeply into over the last 4 years.

The specific goals and objectives of this project is to convert current unproductive flood-prone agricultural lands to restored riparian habitats (including scrublands, forests, woodlands, savannas, herb lands, grasslands and marshes) along the Sacramento River for the benefit of upland game birds and upland game bird hunters. To date, working with our partners, the Refuge has successfully restored and maintained 5,300 acres along the Sacramento River, of which over 1,000 of those acres have been restored into native grasses. The Refuge manages these sites with a combination of seasonal prescribed grazing and prescribed fire to ensure long-term viability of the perennial grasses and wildflowers which are evaluated annually during the Annual Habitat Management planning process on all Units of the Refuge..

Between 2000 and 2003, 390 acres of this Unit were restored, converting prune orchards to a variety of riparian and floodplain plant communities and habitats. Since that time, working with the NWTF, TNC and CA Duck Stamp funds, the Refuge has successfully implemented and assisted in the establishment of over 135 acres of native grasslands on the Sul Norte Unit. This Unit currently provides habitat for both resident and migratory wildlife species including black-tailed deer, upland game birds (e.g., turkey, pheasant, quail, and dove),

waterfowl, songbirds, federal and State threatened species including Valley Elderberry Longhorn Beetle, Western Yellow-billed Cuckoo, Bank Swallow, and Swainson's hawk.

**5. Project Description:**

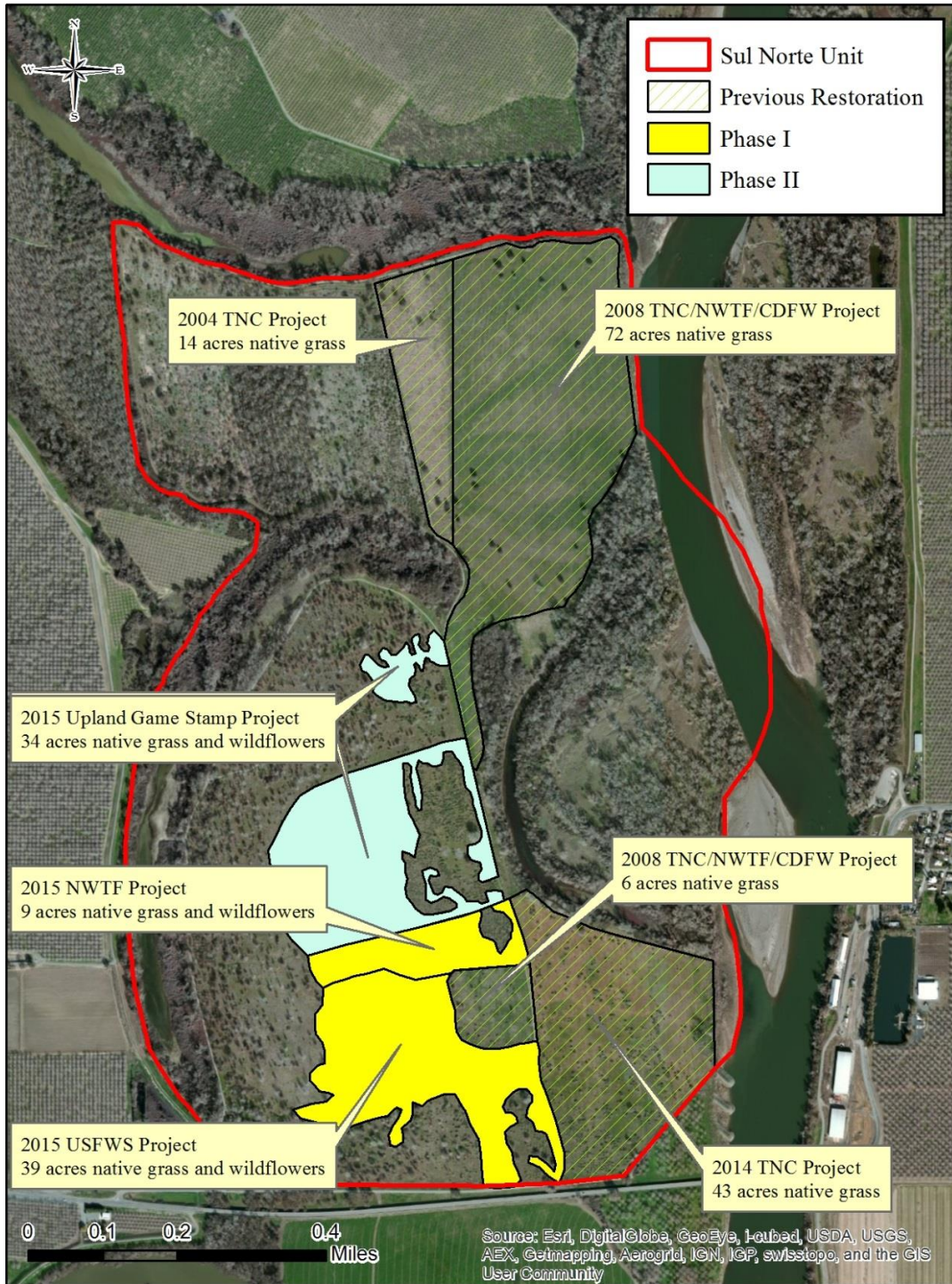
Requested Upland Game Bird Stamp Funds will be used to purchase the native grass and wildflower seed to directly impact 34 acres of the 82 acre project (Phase II on included map). The proposed project utilizes a combination of integrated pest management techniques including grazing, mechanical treatments, approved herbicides and no-till native grass drilling to control non-native weeds (e.g., yellow star-thistle, black mustard, milk-thistle, and annual ripgut grass) and establish healthy stands of native grasses and wildflowers to improve habitat conditions and upland game bird habitat and increased hunting opportunities. The re-vegetation component includes no-till drilling native grass species of blue wildrye (*Elymus glaucus*), purple needlegrass (*Nassella pulchra*), and creeping wildrye (*Leymus triticoides*). In addition, native wildflowers including Great Valley gumplant (*Grindelia camporum*), succulent lupine (*Lupinus succulentus*), Spanish clover (*Acmispon americanus*), Tidy Tips (*Layia Platygossa*), and California poppy (*Eschscholzia californica*), our State wildflower, will be drilled in specific locations where the native grass success is less than ideal. **This is why we are requesting 40 acres worth of seed to impact 34 acres, because there will be overlap involved in planting the wildflowers.** The wildflowers will help to provide improved ground cover diversity and habitat for pollinators and other insects that support early nutritional protein needs for young developing upland game birds. Wildflowers are also selected to provide flowers (nectar sources) and seeds from spring through early fall, attracting insects and providing seed forage over a six-month period. Legume (lupines and clovers) and gumplant seeds are an especially important food source for upland game birds. The native grassland and wildflower restoration will also improve breeding, foraging, and escape cover habitat for resident and migratory ground nesting birds.

The NWTF Regional Biologist will be responsible for coordinating the seed purchase with the vendor (Hedgerow Farms), proper timing of native seed delivery to the project site, and continually checking in on the progress of the project to make sure that the Upland Game Bird Stamp funds are being used in accordance with the proposal.

Due to the requirement that the funding is needed to be spent within the contract year (7/1/15-6/30/16), and native seed cannot be purchased early and stored (will lose significant viability), the seed will need to be purchased in advance for the project. Hedgerow Farms has given consent for this agreement. Due to the integrated process of a native grassland restoration, seed funding needs to be secured prior to spending a significant amount of time and money on site prep in regard to herbicide and earthwork, which is why it is necessary to apply for it in this grant cycle for planting in November of 2016.

SRNWR completed their NEPA and environmental compliance requirements for this project in 2005.

Tasks	Start Date	Finish Date
1) Noxious weed control on 82 acres (herbicide applications 6 X)	15-Feb	Spring 2017
2) No-till drill native grasses and wildflowers on 82 acres (34 acres of which requested from upland game stamp funds)	16-Nov	16-Nov
3) Spray broadleaves 58 acres for weed control (excluding wildflowers) (1X)	17-Mar	17-Mar



## Sul Norte Native Grass and Wildflower Restoration

Sac River National Wildlife Refuge





## 6. Expected Benefits:

The proposed project will directly impact 34 acres of the current 82 acre project, while also adding onto the 135 acres of previously restored native grasses on the Sul Norte Unit. The project area is currently fallow and has been infested with the above targeted non-native invasive weeds. This restoration would result in the establishment of high quality nesting habitat (adjacent to the Sacramento River and ox-bow lakes on three sides) escape cover, and brood rearing habitat for a number of wildlife species including upland game birds and waterfowl. This grassland restoration also contributes to the over 135 acres of previously restored grassland and understory at the Sul Norte Unit. Implementation of this restoration project would further enhance the entire 590-acre Sul Norte Unit, replacing weedy openings with native grasslands and thereby increasing both quantity and quality of floodplain wildlife habitats. This improved habitat quality will add to both aesthetics and game bird productivity resulting in improved hunting experience. The Sul Norte Unit was opened to public use (including hunting) in 2005 and is one of the most popular Units (6,000 visits, primarily hunters in 2014) on the SRNWR receiving regular visits from the community for turkey, deer, quail, pheasant, and waterfowl hunting opportunities. A partner recognition poster will be added to the visitor parking and information kiosk that was recently improved with new restrooms, expanded parking, entrance sign, and new kiosk to provide public outreach in regards to the restoration of habitats and how these actions improve wildlife productivity.

This project and public access improvements compliment the recent 350 acre restoration on the adjacent Codora Unit opened to a junior hunt only in 2014. The visitor service facilities are shared for these Units, providing an opportunity to reach not only the general hunting public, but also target new hunters. NWTF is working with SRNWR to conduct a Special Event/Educational Barbeque for the inaugural Junior Spring Turkey hunt at the new Sul Norte and Codora Units visitor facilities in March of 2015. This event will include an educational presentation on the importance of wildlife habitat, public access, partnerships between NGO's and public agencies, wild turkey hunting strategies, turkey hunting equipment giveaway, and a BBQ lunch.

Partnership Contributions to the Project							
Project Title:	Sul Norte Native Grass and Wildflower Restoration	Location			Field #(s)		
		Sac River NWR					
	Work/Item Description	Count	Units		Cost/Unit	# of Applications	
<b>USFWS</b>							
1	Herbicide, equipment, and applications	82	acres	@	\$40.00	6	\$ 19,680.00
2	Drilling native grasses and wildflowers (equipment, labor and fuel)	82	acres	@	\$ 15	1	\$ 1,230.00
3	Junior Hunter Special Event staff time and materials	1			\$1,000	1	\$ 1,000.00
<b>NWTF</b>							
1	Native grass and wild flower seed	9	acres	@	\$ 700	1	\$ 6,300.00
2	Special Event staff time and materials for junior hunters	1			\$1,500	1	\$ 1,500.00
<b>THE NATURE CONSERVANCY</b>							
1	Native grass and wild flower seed	39	acres	@	\$ 625	1	\$ 24,375.00
<b>TOTAL PARTNERSHIP CONTRIBUTIONS</b>							<b>\$ 54,085.00</b>

**7. Itemized Budget:**

UPLAND GAME STAMP PROPOSAL						
		Location			Project Costs	
LINE ITEM BUDGET FOR:	Sul Norte Native Grass and Wildflower Restoration	Sac River NWR				
<b>PERSONNEL (GRANTEE STAFF):</b>						
	Staff Title	Rate *			Unit	
	Regional Biologist	\$50.00	per hour	@	20	\$1,000.00
	Mileage	\$0.575	per mile	@	800	\$460.00
TOTAL PERSONNEL EXPENSES:						<b><u>\$1,460.00</u></b>
<b>OPERATING EXPENSE:</b>						
SEED:	Botanical Name	Common Name	Ecotype/Origin	lb/acre	cost/lb	cost/acre
GRASSES:						
	<i>Elymus glaucus</i>	Blue wildrye	Butte County	6.75	\$14.00	\$94.50
	<i>Hordeum brachyantherum</i>	Meadow barley	Yolo County	0.75	\$18.00	\$13.50
	<i>Elymus triticoides</i>	Creeping wildrye	Yolo County	2.5	\$80.00	\$200.00
	<i>Stipa pulchera</i>	purple needlegrass	Butte County	5	\$48.00	\$240.00
					Total cost/acre	\$548.00
					25 acres	<b><u>\$13,700.00</u></b>
FORBS:						
	<i>Grindella camporum</i>	Gum Plant	Tehama County	2.1	\$25.00	\$52.50
	<i>Lupinus succulentus</i>	Arroyo Lupine	Butte County	2.1	\$15.00	\$31.50
	<i>Lotus purshianus</i>	Spanish Clover	Yolo County	0.7	\$65.00	\$45.50
	<i>Eschscholzia californica</i>	California Poppy	Colusa County	2.1	\$24.00	\$50.40
	<i>Layia Platyglossa</i>	Tidy Tips	Colusa County	1.5	\$60.00	\$90.00
					Total cost/acre	\$269.90
					15 acres	<b><u>\$4,048.50</u></b>
TOTAL OPERATING EXPENSES:						<b><u>\$17,748.50</u></b>
PROJECT COST:						<b><u>\$19,208.50</u></b>
<b>SUBTOTAL PERSONNEL OPERATING EXPENSES:</b>						
Indirect costs for seed purchase only					15.15%	<b><u>\$2,688.90</u></b>
<b>TOTAL UPLAND STAMP GRANT REQUEST</b>						<b><u>\$21,897.40</u></b>

\* Benefits included in rate

