



Upland Game Bird Account Project Proposal

1. **Project Title:** Gray Lodge Fields 78, 79, and 80 Enhancement

2. **Organization:** California Waterfowl Association
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3. **Issue/Problem Statement:**

The proposed 109 acre project is comprised of field 78's seasonal wetland and the infrequently dry land farmed fields 79 and 80. The 76 acres which makes up fields 79 and 80 have no ability to receive delivered water due to a lack of infrastructure. Because of this, the vast majority of the area is dominated by annual weeds and short stature grasses, which provide limited cover and food for upland bird species.

4. **Project Description:**

This project will develop 34 acres of irrigatable uplands, enhance 30 acres of dry land farmable food plots, restore 10 acres of perennial nesting cover, create 2 acres of irrigatable riparian habitat and enhance 33 acres of seasonal wetland habitat. In total 109 acres will provide upland nesting and foraging habitat for pheasants, turkeys, doves, quail, and other wildlife on the Gray Lodge Wildlife Area.

The individual units identified on the map will provide flexibility for management from year to year based upon supporting wildlife needs and management desires. The identified "Leveled Food Plot" units (see map) will allow for quick and easy irrigations at any time of the year. The ability to provide irrigations at desired times allows for the planting of grain crops such as milo, corn, sudan grass or millet for example which will increase resource values significantly for all bird species. Included in these designs is a swale system and water control structures that allows California Department of Fish and Wildlife (CDFW) staff to retain water within the swales to provide a moist soil vegetative complex. Dense vegetation of broadleaf plants helps to elevate invertebrate populations, which aid in supporting the nutrient requirements of upland game birds during critical stages of their development. These units can also be planted in the late fall (winter wheat) or early spring (safflower) with crops that can be farmed without irrigations and the swales can still provide the same benefits in regards to invertebrate production throughout the year.

The areas identified as "Dry Land Food Plot" will have limited grading that includes removing old remnant ridges and borrow sites from within the fields. Crops planted in these areas such as winter wheat can have two beneficial results; they can provide improved nesting cover throughout the spring and early summer and in the fall and winter they provide much needed carbohydrates for a multitude of species. In addition, safflower or sunflower can be planted in the spring and annual rains can bring them up providing another fall seed source for birds.

The "Perennial Grass Planting" field will be prepared and a desired perennial grass mix (approved by CDFW) will be planted. The ability to irrigate this unit will be established with a new water control structure and a perimeter ridge and drain structure. The ability to irrigate the field will insure successful establishment of the perennial grasses. The grasses will provide a dependable tall stature cover complex with year round benefits.

The “Riparian Planting” habitat will be a curvilinear feature associated with a natural swale that travels through the field and transports water to the main drain from the Buttes during heavy rainfall events. The projects will establish the capability to provide summer water through the swale along its length while allowing for the establishment of a riparian tree corridor. Various native tree species will be planted from cuttings. The enhanced swale with irrigation capabilities and the development of a tree canopy will help to provide additional food, water, and cover resources for birds.

The “Seasonal Wetland Enhancement” will help in the development/improvement of the highline delivery ditch which will enable the delivery of water to the entire project. The development of the swales system within the 33 acre seasonal wetland will provide much of the material need for the ditch system. The swales will also help to improve water management within the seasonal wetland unit, thus improving production of desired moist soil plants and increase invertebrate numbers and foraging opportunities for upland game birds. By developing the delivery ditch system all of the units will have the capability to receive delivered water for management purposes.

5. Expected Benefits:

This project will allow CDFW staff the ability to intensely manage the uplands and associated wetlands as a, “Diversified Upland Habitat Unit” complex which has proven to be very beneficial for recruitment and survival of wildlife that are dependent on these habitats. Research has shown that when areas are specifically managed with moist soil conditions, intended to increase invertebrate population’s, upland game bird and a host of avian species respond positively with increase use and production as a result (Allen 2003, Hart et al. 2009).

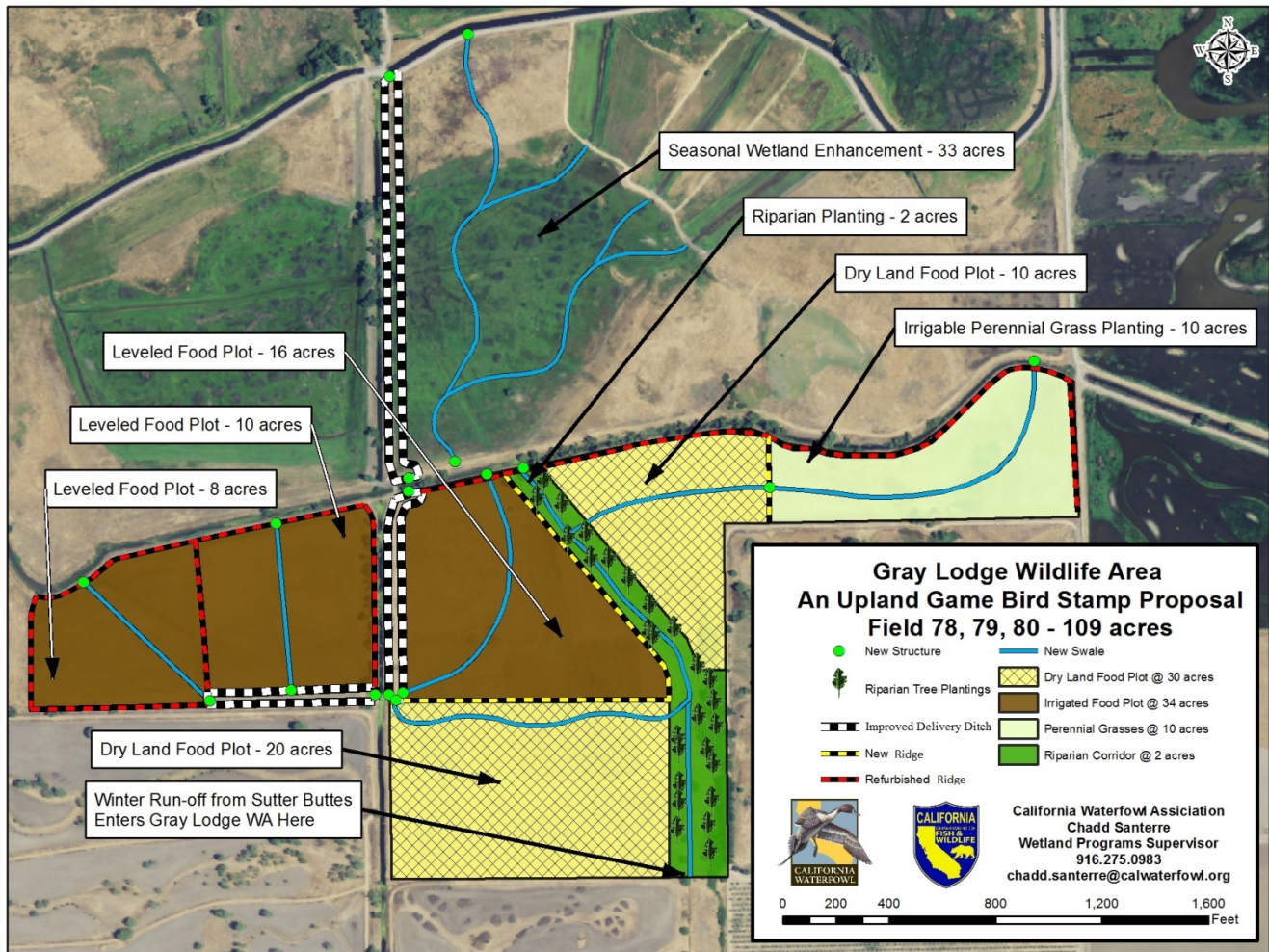
Expected benefits will include an increase in yields of planted food plots, developed by DFW staff, throughout the year which will enhance foraging resources for all bird species. Water management improvements will allow water supplies to be used more efficiently and help to enhance the results of irrigations undertaken. In addition, dominating weed species will be replaced by plants that are managed to maximize upland game bird benefits creating a habitat complex geared towards recruitment. Project results will ultimately improve nesting, foraging, rearing and over wintering habitat, which should result in higher pheasant, turkey, dove, and quail populations and ultimately more hunter opportunities. All of the fields are located in the hunt area and therefore will provide hunter enhanced opportunity.

Upland Game Bird Stamp Proposal 2014

Project Title:	Location		Field #(s)		
	Gray Lodge WA Field 78-80 Restoration	Gray Lodge WA	78-80		
Budget Line Item #	Work/Item Description	Count	Units	Cost/Unit	
MATERIALS:					
1	30" HDPE Pipe	40	feet	@ \$28.00	\$1,120.00
2	18" HDPE Pipe	30	feet	@ \$11.00	\$330.00
3	3x4 Structures for Water Control	13	each	@ \$350.00	\$4,550.00
4	30" Screwgate	1	each	@ \$2,400.00	\$2,400.00
5	24" HDPE Pipe	330	feet	@ \$20.00	\$6,600.00
6	24" Screwgate	5	each	@ \$1,600.00	\$8,000.00
7	Concrete Pour	1	load	@ \$1,500.00	\$1,500.00
<u>Materials Subtotal</u>					<u>\$24,500.00</u>
CONSTRUCTION:					
8	Concrete Headwall Form	1	lump sum	@ \$6,500.00	\$6,500.00
9	Earthwork.	9,500	cyds	@ \$1.95	\$18,525.00
10	Leveling of Fields/Swales	15,500	cyds	@ \$1.50	\$23,250.00
11	Pipe and Weir Installation	13	each	@ \$600.00	\$7,800.00
12	Weir and Pipe Delivery	1	L/S		\$1,000.00
13	Tree Plantings	2,000	each	@ \$1.50	\$3,000.00
14	Mow Uplands (1 Time)	10	ac	@ \$25.00	\$250.00
15	Disk Upland/Role (2 Times)	10	ac	@ \$25.00	\$250.00
16	No Till Drill - Seeding	10	ac	@ \$40.00	\$400.00
17	Perennial Grass Mix - 20 lbs/ac	200	lbs	@ \$3.75	\$750.00
<u>Construction Subtotal</u>					<u>\$61,725.00</u>
PERSONNEL SERVICES:					
18	Director	5	hours	@ \$48.00	\$240.00
19	Senior Biologist	32	hours	@ \$31.00	\$992.00
20	Associate Biologist	80	hours	@ \$25.00	\$2,000.00
21	Benefits Salaried Staff			@ 33%	\$1,066.56
22	Technician	8	hours	@ \$14.00	\$112.00
23	Benefits Temporary Staff			@ 16%	\$17.92
<u>Personnel Subtotal</u>					<u>\$4,428.48</u>
OPERATING EXPENSES:					
24	Mileage	600	miles	@ \$0.565	\$339.00
25	Meals & Lodging				\$0.00
26	Miscellaneous (materials, supplies, bait, etc.)				\$125.00
<u>Operating Subtotal</u>					<u>\$464.00</u>
OVERHEAD:					
27	DFG Paid Overhead (6%)				\$5,467.05
28	CWA Paid Overhead (8%)				\$7,289.40
<u>Overhead Subtotal</u>					<u>\$12,756.45</u>
PROJECT COST:					<u>\$103,873.93</u>
PARTNERSHIP CONTRIBUTIONS:					
29	CWA Paid Overhead (8%)				\$7,289.40

TOTAL UPLAND GAME BIRD STAMP GRANT

REQUEST \$96,584.53



References

- Allen, R. W. 2003. The effect of gamebird management on nongame bird species richness, density, and nesting success in the San Joaquin Valley. Master's thesis, Humboldt State College, Arcata, California, U. S.A.
- Hart, C. M., S. Brueggemann, and C. A. Fien. 2009. A new perspective and method for pheasant management. *California Fish and Game* 95(1):1-37.