



California Department of Fish & Wildlife

Upland Game Bird Account Project Proposal

(Tab or arrow key through form to fill it out)

Project Title: Grizzly Island Wildlife Area Field 14 Enhancement

This project proposal must clearly identify benefits to upland game birds, upland game bird hunting opportunities, or public hunting outreach (Fish and Wildlife Code Section 3684c).

CDFW or Non-Governmental Organization project contact:

Organization: California Waterfowl Association

Name: Robert Eddings

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Project start and completion dates by State Fiscal Year (July 1 – June 30): 7/1/2014 to 11/15/15

California Department of Fish and Wildlife Region and location of proposed project: Bay Delta Region 3 Grizzly Island Wildlife Area

Objectives: State how this proposed project will maintain or enhance existing upland game bird resources.

Example: an additional Special Hunt, increased upland habitat acreage, opening of public land areas for upland game bird hunting opportunities, access to private lands, or resource assessments that will ensure resource perpetuation.

Fields 13 and 14 of Grizzly Island Wildlife Area (GIWA) encompass approximately 1,500 acres of upland habitat that is divided into a series of sub-fields by a system of conveyance ditches. Field 14 is approximately 950 acres and Field 13 is approximately 550 acres. These fields support a large diversity of ground nesting birds, including pheasants and waterfowl. They are also very popular for public pheasant hunters.

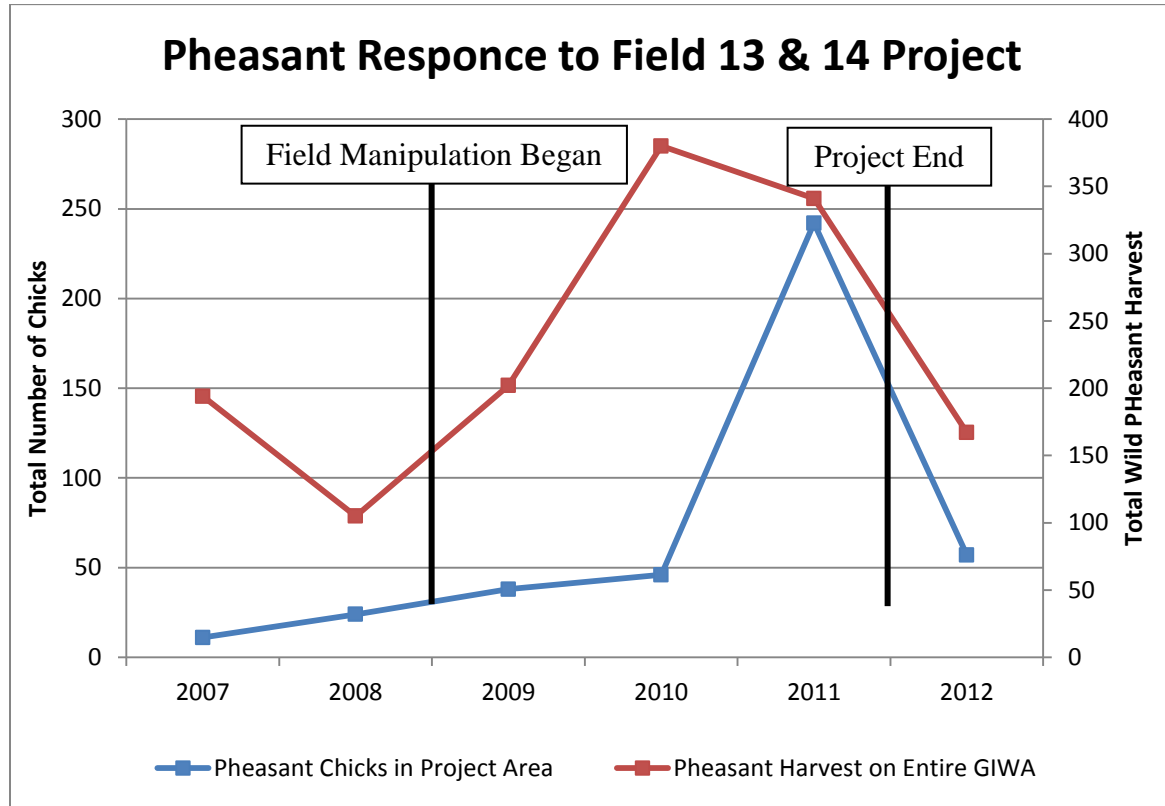
CWA has been collecting waterfowl and pheasant production data in Fields 13 and 14 since 1984 with the assistance of DFW, USGS and UC Davis. At the peak of production in the mid to late 1990's, these fields supported some of the highest waterfowl nest densities ever recorded in North America. During that time Grizzly Island WA also enjoyed the second highest pheasant harvest since 1970. Beginning in the early 2000's, waterfowl nesting began to plummet. The lowest waterfowl production recorded was in 2004. That same year, GIWA had the second lowest pheasant harvest since 1970. These correlations along with the fact that waterfowl and pheasants require very similar habitat for nesting, make it reasonable to assume that waterfowl production estimates can be used an indicator of pheasant production.

In response to the documented decline in waterfowl nests, pheasant harvest and the visual decline in habitat quality on Grizzly Island Wildlife Area, California Waterfowl began an upland restoration and enhancement project in 2008 with funding from the Wildlife Conservation Board,

Solano County and DFW. The purpose of the project was to evaluate waterfowl nesting response to various planting treatments. The project included planting 220 acres of native perennial grasses, 220 acres of a non-native upland mix (grain, forbs, annual and perennial grasses) and 150 acres of cereal grain. We have not completed a full analysis of all the data, but certain responses are extremely clear. Once the project began in 2009 waterfowl production (and assumingly pheasant production) increased immediately.

In addition to the data that CWA collected, GIWA staff also conducted regular pheasant brood count surveys in the immediate project area. This information along with the overall pheasant harvest for the entire wildlife area is presented in the graph below. From 2009-2011 pheasant numbers increased dramatically. Following waterfowl production, pheasant production fell off in 2012. We believe this is a result in a relatively dry spring, which resulted in marginal habitat quality in many areas.

After seeing the results of the project completed in 2011, GIWA and CWA staff have agreed that pursuing funding to continue to systematically enhance the upland habitat in Fields 13 and 14 would be extremely beneficial to pheasants, waterfowl and other wildlife that depend on the upland habitat found in these fields. This proposal, along with the proposal submitted last for funding to the Upland Game Bird Account last year, will help us do just that. It is our intent to attempt to enhance approximately 200 acres of upland habitat in Fields 13 and 14 each year.



Benefits: Describe benefits to upland game bird species, upland game bird public hunting opportunities, or public outreach and education relating to upland game bird hunting.

In preparation for this application, GIWA and CWA staff toured Fields 13 and 14 to evaluate habitat quality, and compared that against CWA's nesting data to identify approximately 200 acres of poor quality habitat on which we believe we can improve using the techniques and seed mixes developed during the previous project in an economically efficient manner. The primary cause of poor habitat quality is the dominance of noxious weeds (lepidium and phragmites) and invasive annual grasses (bromus sp and hordium sp). Herbicides will be used to control all non-desirable plants before the ground is disturbed. DFW and CWA staff will

provide equipment and labor to apply the herbicide. After the herbicide application has taken effect, the area will be mowed, plowed and/or disced. Observations of planting efforts in adjacent fields suggest there may be significant local variability in soil fertility. Soil samples will be collected, analyzed and used to determine if any fertilization is needed. Once the fields are clean, a seed mix designed to provide quality spring nesting cover and fall forage (grains, annual grasses, perennial grasses and forbs) will be planted. If needed, fertilizer will be applied as recommended by a local agricultural advisor. The enhanced upland habitat should support a higher density of nesting pheasants, provide better brood rearing conditions which will increase natural pheasant recruitment. The increase in pheasant recruitment should subsequently improve hunting success in the project area and nearby fields.

Schedule of project tasks: A brief project summary is required annually for multi-year projects and a final project report by August 1st following the fiscal year of project completion. Please summarize your projected tasks by date:

| Tasks | Start Date | Finish Date |
|--|------------|-------------|
| Chemical application to control weeds | 7/1/2014 | 6/31/2015 |
| Prep fields for planting (mow, disc, plow, etc.) | 8/1/2015 | 9/31/2015 |
| Plant and fertilize fields | 10/1/2015 | 11/30-2015 |

The following pages include tables that you may use to fill in your budget breakdown. Please feel free to generate your own tables, but all information must be included. Additional information such as area maps should also be included.

SEE ATTACHED BUDGET TABLE

List any CDFW personnel participation by name and classification:

| | |
|---------------------------|---|
| Name: <u>Pat Graham</u> | Classification: <u>Wildlife Habitat Supervisor II</u> |
| Name: <u>Erin Hanahoe</u> | Classification: <u>Environmental Scientist</u> |
| Name: <u>Scott Miller</u> | Classification: <u>Tractor Operator/Laborer</u> |

Upland Game Bird Proposal FY2014-2015

| Project Title: | Grizzly Island WA Field 14 Enhancement | Location | | Field#s | Acres |
|---|--|-------------------|---------|-----------|--------------------|
| | | Grizzly Island WA | | 14 | 200 |
| Budget Line Item # | Work/Item Description | Count | Units | Cost/Unit | |
| PERSONAL SERVICES: | | | | | |
| 1 | Director | 4 | hours | @ \$48.00 | \$192.00 |
| 2 | Senior Biologist | 60 | hours | @ \$31.00 | \$1,860.00 |
| 3 | Associate Biologist | 0 | hours | @ \$25.00 | \$0.00 |
| 4 | Biologist II | 0 | hours | @ \$20.00 | |
| 5 | Biologist | 80 | hours | @ \$17.00 | \$1,360.00 |
| 6 | Benefits Salaried Staff | | | @ 33% | \$1,125.96 |
| 7 | Technician | 0 | hours | @ \$14.00 | \$0.00 |
| 8 | Benefits Temporary Staff | | | @ 16% | \$0.00 |
| | Personnel Subtotal | | | | \$4,537.96 |
| OPERATING EXPENSES: | | | | | |
| MATERIALS | | | | | |
| 9 | Telar XP - lepidium control | 32 | ounces | @ \$25.00 | \$800.00 |
| 10 | Glystar - phragmites control | 30 | gallons | @ \$25.00 | \$750.00 |
| 11 | Seed Mix | 10,000 | pounds | @ \$1.50 | \$15,000.00 |
| 12 | Soil Samples & Analysis | 10 | samples | @ \$45.00 | \$450.00 |
| 13 | Fertilizer | 40,000 | pounds | @ \$0.33 | \$13,200.00 |
| | Materials Subtotal | | | | \$16,550.00 |
| CONSTRUCTION | | | | | |
| 14 | Field Preparation | 200 | acres | @ \$75.00 | \$15,000.00 |
| 15 | Field Planting | 200 | acres | @ \$25.00 | \$5,000.00 |
| | Construction Subtotal | | | | \$20,000.00 |
| Travel | | | | | |
| 17 | Mileage | 750 | miles | @ \$0.555 | \$416.25 |
| 18 | Meals & Lodging | | | | \$0.00 |
| | Travel Subtotal | | | | \$416.25 |
| OVERHEAD | | | | | |
| 19 | DFW Paid Overhead (6%) | | | | \$2,490.25 |
| 20 | CWA Paid Overhead (8%) | | | | \$3,320.34 |
| | Overhead Subtotal | | | | \$5,810.59 |
| | Total Personal and Operating Expenses | | | | \$47,314.80 |
| Partnership Contribution: | | | | | |
| 22 | CWA Contribution | | | | (\$3,320.34) |
| UPLAND GAME BIRD FUNDING REQUEST | | | | | \$43,994.46 |