Table of Contents

Relevant Upland Game Bird Stamp Nevada Revised Statutes ........................................ 2

Progress Report on Upland Game Bird Stamp Projects Funded in FY 2013 ............... 3

Summary of Proposed FY 2014 Upland Game Bird Stamp Projects (table) ............ 18

Upland Game Bird Stamp Account Budget Status (table) ........................................... 19

Proposed FY 2014 Upland Game Bird Stamp Projects .................................................. 20
NRS 502.292 Fee to hunt certain upland game birds: Requirements regarding documentation of payment; amount.
   1. Except as otherwise provided in this section, it is unlawful for any person to hunt any upland game bird, except turkey and crow, unless at the time he is hunting he carries on his person such documentation as the Department provides as proof that he has paid to the Department, for the licensing period that includes the time he is hunting, the fee required pursuant to this section.
   2. The provisions of this section do not apply to a person who is under the age of 12 years.
   3. The documentation required pursuant to this section must be sold by the Department, and persons authorized by the Department to sell hunting licenses, for a fee of $10.
   4. The Department shall determine the form of the documentation.
   (Added to NRS by 2003, 2540)

NRS 502.294 Fee to hunt certain upland game birds: Deposit of proceeds; accounting records; reimbursement of administrative costs. All money received pursuant to NRS 502.292 must be deposited with the State Treasurer for credit to the Wildlife Obligated Reserve Account in the State General Fund. The Department shall maintain separate accounting records for the receipt and expenditure of that money. An amount not to exceed 10 percent of that money may be used to reimburse the Department for the cost of administering the program of documentation. This amount is in addition to compensation allowed persons authorized to issue and sell licenses.
   (Added to NRS by 2003, 2540)

NRS 502.296 Fee to hunt certain upland game birds: Use of proceeds.
   1. Before the Department may undertake any project using money received pursuant to NRS 502.292, it must analyze the project and provide the Commission with recommendations as to the need for the project and its feasibility.
   2. Money received pursuant to NRS 502.292 must be used for projects approved by the Commission for the protection and propagation of upland game birds and for the acquisition, development and preservation of the habitats of upland game birds in this State.
   (Added to NRS by 2003, 2540)

NRS 502.298 Fee to hunt certain upland game birds: Reports to Legislature regarding program. The Department shall, not later than the fifth calendar day of each regular session of the Legislature, submit to it a report summarizing any projects undertaken and the receipt and expenditure of money and public benefits achieved by the program for the sale of documentation to hunt any upland game bird, except turkey and crow.
   (Added to NRS by 2003, 2540)
Progress Report on Upland Game Bird Stamp Projects Funded in FY 2013

Columbian Sharp-tailed Grouse Re-Introduction

During the spring of 2013, after considerable preparation and coordination with state and federal agencies and private landowners, 50 Columbian sharp-tailed grouse consisting of 37 males and 13 females were captured from Arbon and Pocatello Valleys in southeastern Idaho and translocated to the Independence and Bull Run Mountains in Elko County. Over 30 of these birds received a radio transmitter to allow researchers to follow-up on locations and determine nest initiation rates, success and locations.

Much of the preparatory work involved a habitat suitability analysis that was performed during the summer of 2011. These analyses showed that several of the identified release sites within the Independence and Bull Run Mountains matched or exceeded habitat requirements for Columbian sharp-tailed grouse. Sharp-tailed grouse are typically associated with grassland habitats; however, the Columbian variety inhabits relatively drier, shrub and tree dominated habitats than other members of their genus.

First documented Columbian sharp-tailed grouse nest associated with the project

Columbian sharp-tailed grouse still require a grassland/forb dominated community during the nesting and brood-rearing period, but rely heavily on deciduous shrub and tree buds to forage on in the winter.

Approximately $20,000 of Upland Game Bird Stamp funds were expended on this project coupled with $5,000 made available through the Carson Valley Chukar Club. This funding was utilized as a 25% match for Pittman-Robertson Act federal aid grant funding for a total project cost of $100,000 for State Fiscal Year 2013. This funding was utilized to put a graduate student and field crew in place to monitor the ultimate results of this translocation effort. Field efforts to date in 2013 (as of May 31, 2013) have resulting in the following:

- Male sharp-tailed grouse observed displaying at a naturally formed lek;
- 11 total mortalities (7 avian, 4 unknown);
- Documentation of 83 telemetry locations from 30 birds in May and 128 locations obtained from 41 birds total (11 birds were lost);
- Documentation of some large-scale movement patterns;
- Documentation of 12 nests (3 failures and 9 currently in incubation, average clutch size in 7 of 12 nests is 11.4 eggs);
- 155 predator surveys (raven/raptor) in May, 245 in total; Anecdotally large number of raptors present in area

This project will continue for another four years with approximately 50 birds released each year in an attempt to re-establish this once popular upland game species.

Columbian sharp-tailed grouse

Sage Grouse Telemetry Project

This project was initiated to determine the potential effects of expected mine expansion projects on Greater Sage-grouse (sage-grouse) across several areas in central and northeastern Nevada. During State Fiscal Year 2013, 14 GPS/Satellite transmitters were purchased to place on birds at selected locations at a cost of $39,007. Only one of these transmitters was deployed during the spring of 2013 at a potential mine development in the Pancake Range located in western White Pine County. Other sites were identified for deployment; however, some mining companies were reluctant to move forward on marking birds in the vicinity of possible expansion areas.
In response to this, NDOW has coordinated with the USGS – Western Ecological Research Center to potentially utilize the remaining units and any new units to be purchased to develop a control group for the Tuscarora Geothermal Facility in Independence Valley. This would involve placing GPS/Satellite units on birds in the remote Desert PMU located in northwestern Elko County. This area is largely free from anthropogenic influences such as paved roads, transmission lines, mines and facilities. Not only would this provide a meaningful control for the Tuscarora Geothermal Project, but it would also enable us to learn a significant amount of information relative to seasonal use areas, distribution and use of previously burned areas.

**Ruffed Grouse and Mountain Quail Translocation**

Ruffed grouse trapping and translocation was considered a great success in 2012. A combination of factors contributed to the success of the project including above average precipitation in 2011 followed by the dry year of 2012 coupled with the Mustang Fire which led to the removal of cattle from the Merritt Creek drainage. Precipitation received during the winter and spring of 2011 allowed ruffed grouse to be in excellent body condition leading to high over winter survival. The body condition of hens likely led to the high production observed during the summer of 2012 and the dry conditions concentrated ruffed grouse on water. The 2012 Mustang Fire forced cattle to be removed from the Merritt Creek drainage, providing an opportunity to trap sites that would not be trappable with the presence of cattle. Cattle tend to trample lines, thus decreasing trap success. A combination of the above listed factors in conjunction with pre-scouting allowed NDOW to take full advantage of the unusual opportunity.
A grand total of 121 ruffed grouse were translocated during the late summer/early fall of 2012. Ruffed grouse were released in the northern portion of the Tuscarora Range, Toiyabe Range and Pine Forest Range during the late summer/early fall of 2012. The composition of birds released at each site is provided in the table below.

<table>
<thead>
<tr>
<th>Release Site</th>
<th>Adult Males</th>
<th>Adult Females</th>
<th>Juveniles</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Tuscarora Range</td>
<td>2</td>
<td>7</td>
<td>42</td>
<td>50</td>
</tr>
<tr>
<td>Toiyabe Range</td>
<td>-</td>
<td>2</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>Pine Forest Range (private)</td>
<td>7</td>
<td>3</td>
<td>35</td>
<td>45</td>
</tr>
<tr>
<td>Totals:</td>
<td>9</td>
<td>12</td>
<td>101</td>
<td>121</td>
</tr>
</tbody>
</table>

To provide some perspective regarding the success of this operation, 192 ruffed grouse had been successfully translocated to eight release sites in Nevada prior to 2012. A total of 1,089 trap days were expended during the operation averaging 9 trap days per grouse. As ruffed grouse expand throughout the North Tuscarora Range, Toiyabe
Range and Pine Forest Mountains they will provide a challenging sporting bird opportunity for upland game bird hunters and considerable non-consumptive benefits as well. A minimal amount (<$50.00) of Upland Game Stamp funding was utilized to purchase trapping supplies during State Fiscal Year 2013.

In December of 2012, a release of 97 Mountain quail was conducted in the southern extension of the Ruby Mountains. More specifically, the west side of Buck Mountain was chosen based on similarities of habitat features of successful and existing mountain quail populations in Nevada, particularly in the central portion of the state. Generally speaking, the site has relatively mild winters, a large pinyon and Utah juniper overstory with Wyoming and mountain big sagebrush in the understory with adjacent riparian areas and springs scattered throughout the uplands. A strong seed and berry component can be found in the riparian areas, with willow, woods rose, aspen, chokecherry, elderberry, currant, Great Basin wild rye, and various other grasses as the dominant vegetative components.

Mountain quail
Due to past efforts in Nevada for Mountain quail releases in the northern portion of the state, it was decided that birds from Oregon would be more adapted to the northern Nevada climates as compared to birds previously brought in from southern California, namely China Lake Naval Weapons Station. A capture contractor in Oregon was utilized to procure mountain quail from areas near Roseburg, Oregon. Upland Game Stamp funding was utilized to pay for the capture of Mountain quail. The total expenditure for the capture work was $5,820.

Greater Sage-Grouse Research and Monitoring

Virginia Mountains Sage-Grouse Habitat Utilization and Distribution Project
From 2008 – 2012, USGS research crews and NDOW personnel fit a total of 159 sage-grouse with VHF transmitters on sage-grouse within the Virginia Mountains located in southern Washoe County. The total number of males and females tracked by radio telemetry were 32 and 127, respectively. Most sage-grouse were relocated in the Spanish Flat area (Figure 1). From 2009 to 2012, the core area of sage-grouse activity (50% Utilization Distribution (UD)) was 1,900 ha according to pooled telemetry locations. The population level home range (95% UD) encompassed 11,350 ha. In each year, the core area was located at Spanish Flat. Following successful nesting, brood-rearing female and male sage-grouse from both lek sites used this area before moving to wintering areas. The core area of only brood-rearing sage-grouse, during the same time frame, was 2,300 ha with a home range of 10,740 ha. The majority of individual home ranges throughout spring and summer overlapped within the Spanish Flat area, resulting in relatively less use of the Sheep Springs area.

We have learned much regarding sage-grouse population distribution and seasonal habitat utilization in the Virginia Mountains over the last four years. Given low nest survival estimates (22.4%) relative to rangewide averages (>40%), poor quality nesting habitat and raven abundance during the nesting period, we decided that this project would provide a good opportunity to study the effects of raven control within the study area. 2013 was supposed to be the initial year of raven control; however, USDA Wildlife Services did not perform the requested raven control. It is not clear at this point, what the cause was for this failure. In the meantime, USGS crews continue to monitor radio-marked sage-grouse and conduct to determine survival, habitat selection and predator surveys. This project was funded by both Upland Game Stamp (25% @ $12,500) and U.S.
Fish & Wildlife Service Pittman-Robertson Act funding (75% @ $37,500). The following summaries are provided regarding the various aspects of the research which provide valuable information regarding the demographics associated with this population of sage-grouse.

**Mount Grant Habitat Delineation**
This project was initiated in the spring of 2012 with VHF radio-transmitters deployed on 5 sage-grouse within the Mount Grant PMU (Ninemile Lek) consisting of four hens and one juvenile male. In addition, two hens were captured near the Aurora lek that same spring. In the fall of 2012, 6 hens were captured near the Rosaschi Ranch along the East Fork of the Walker River and one additional hen was captured near the Aurora lek.

Also in 2013, 7 GPS satellite transmitters were deployed on 5 males and 2 female grouse. Data collected to date has shown a high degree of connectivity between Mount Grant proper in the Wassuk Range, the Bodie Hills and the south end of the Pine Grove Hills, which is actually in the Desert Creek/Fales PMU. No expenditures were charged to this Upland Game Stamp sub-project in Fiscal Year 2013.

![Greater sage-grouse](image)

**Forward Looking Infrared Lek Survey and Detection and Winter Surveys**

**Lek Detection and Survey**
The utilization of Forward Looking Infrared (FLIR) technology for sage-grouse survey can be characterized as being in its infancy and the full range of possibilities have yet to be fully realized. NDOW contracted with Owyhee Air Research to conduct flights within high priority habitats in northeastern Nevada (Elko County) using this technology during April of 2013. Three mornings of survey were conducted within
three different population management units. A total of 40 existing leks were surveyed and three previously unknown leks were discovered (see the table below).

<table>
<thead>
<tr>
<th>PMU Name</th>
<th>Leks Surveyed</th>
<th>Positive Detections*</th>
<th>New Leks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desert PMU</td>
<td>10</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>North Fork PMU</td>
<td>14</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>Gollaher PMU</td>
<td>18</td>
<td>13</td>
<td>2</td>
</tr>
</tbody>
</table>

Results of FLIR flights conducted northeastern Nevada during April 2013.
*Includes observations of 2 or more individuals detected at a lek or nearby.

Many of the leks specifically identified for these survey efforts are very difficult to access and some are only accessible by air considering the time it would take to access them on foot. This technology provides for an efficient means of data collection. A total of $6,080* was expended conducting these surveys during FY13.

**Winter Survey**
FLIR surveys to identify wintering areas for sage-grouse were conducted over a three day period in mid February 2013. These surveys were conducted in Game Management Area 6, largely in the Snowstorm Mountains, Rock Creek drainage and Tuscarora Mountains. A total of 11 hours were spent conducting the surveys over a three day period and $8,800* was expended. Wintering flock locations assists with the identification of important winter habitat designations.

A grand total of $14,880 was expended on FLIR surveys during Fiscal Year 2013. The original budget was estimated at $11,200 – a difference of $3,680. However, since little to no expenditure is expected for traditional aerial lek survey (see below) via helicopter, we utilized funding identified in that category for use in the FLIR survey. An estimated $11,550 was identified for traditional aerial (helicopter) lek survey.

**Sage-Grouse Aerial Lek Survey**
Aerial sage-grouse lek survey work was conducted in Fiscal Year 2013 using a helicopter; however, no funds were utilized for this particular task using Upland Game Stamp money.
Fixed Wing Telemetry Survey

NDOW continues to follow-up on radio-marked sage-grouse on a monthly basis. This work is contracted out to a private vendor, Owyhee Air Research, located in Murphy, Idaho. This progress report will reflect effort and expenditures at the date of this report (May 21, 2013). The areas that radio-marked sage-grouse monitoring work took place in Fiscal Year 2013 include the following:

- Overland Pass/Bald Mountain – Elko County
- Gollaher Mountain – Elko County
- Willow Creek/Tuscarora Range – Elko County
- Santa Rosa PMU – Humboldt County
- Pine Nut Mountains – Lyon County

This portion of the project has provided valuable information regarding distribution and seasonal habitat use in the areas identified above.

To date, 34 hours of flight time were devoted to conducting the follow-up monitoring of radio-marked individuals at a cost of $11,845. The expected budget for this project was estimated at $19,500.

Southern Nevada Small Game Water Development

The majority of FY13 funding for southern Nevada’s small game water development program was allocated towards the inspection and maintenance of 343 existing upland water developments. Those water developments (hereafter, upland guzzlers) are cistern-based structures designed to capture precipitation in water-limited environments and target upland game bird species, primarily Gambel’s quail and chukar partridge. Guzzlers located in the uplands are often utilized by a variety of other aquatic, avian, and terrestrial wildlife.
From 1 July 2012 to 30 June 2013, water development staff conducted 254 inspections on existing upland guzzlers in Clark, Lincoln, Esmeralda, and Nye Counties and performed 65 maintenance procedures and repairs during or following those inspections. Most of the maintenance activity included repair or replacement of exclusionary fencing, storage tanks, frames, collection aprons, and plumbing. Staff also identified a need to improve performance of wildlife escape ramps in several units, of which 162 escape ramps were fitted with corrugated polypropylene mesh. The effort to modify escape ramps for all upland guzzlers in the Southern Region was completed in April 2013. FY13 budget expenditures for maintenance and upgrades to existing upland water developments in the Southern Region will total approximately $80,000.

Rainfall accumulations are generally sufficient to recharge water supplies at upland guzzlers in the Southern Region. Water hauls to those upland guzzlers, however, are infrequently required to augment water storage during notably dry years. During inspections in late-summer 2012, low water storage was detected at upland guzzlers in the Bullfrog Hills of Nye County. That low storage was determined to be insufficient to support wildlife for the remainder of the hot-dry season. Water development staff proceeded to deliver 725 gallons of water to 5 of the upland guzzlers in the Bullfrog Hills area on 25 September 2012.

Upland guzzlers are commonly constructed to improve densities and distribution of specific species inhabiting the surrounding landscape. However, several non-target species often utilize those sources but remain undocumented, especially in remote...
areas. A standardized approach for monitoring the use of upland guzzlers in southern Nevada using motion-activated cameras (or trail cameras) is currently underway. Our primary objective is to improve our understanding of species distribution in southern Nevada, especially in areas infrequently visited by the general population or NDOW biologists. We also hope to evaluate the effectiveness of the placement of existing upland guzzlers. Bushnell HD Trophy Cameras were deployed in the spring of 2013 at 10 upland guzzlers in the Mormon Mountains of Lincoln County.

Gold Butte guzzler repair

Escape ramp installed on Spring Mountain guzzler
Key Pittman Vegetation Control

A total of $1,300 was spent on herbicides to treat hoary cress, Russian olive, saltcedar, hard stem bulrush, cocklebur, puncture vine, phragmites, hard stem bulrush and other invasive weeds. Approximately 30 acres have been treated and an additional 60 acres will be treated in May and June of 2013. Herbicide applications were done by WMA staff.

Kirch WMA Pheasant Purchase

A total of $1,000 was expended on pheasant chicks, chick feed, and propane. A total of 300 pheasants were released in 2012, this project will lead to better distribution of upland game birds and increase hunting opportunities at this WMA.

Bruneau and Franklin Lake WMA Weed Control

Approximately $777 of FY13 Upland Game Bird Stamp funds were used for weed treatment efforts on the Bruneau and Franklin Lake WMAs. Canada thistle, musk thistle, bull thistle, whitetop, curly dock and leafy spurge were treated. Funds were also used in a cooperative effort with NDF and the Nevada Division of State Parks to clean up important habitat by treating noxious weeds around the north and south ends of South Fork Reservoir on state-owned land. This effort will reduce further weed encroachment at the sites and diminish transportation of noxious weed seeds downstream in the Humboldt River system.

Northern Nevada Small Game Water Development Projects

NDOW’s northern Nevada water development staff maintained or rebuilt 130 upland game guzzlers since July 1st, 2012 and a total of approximately $20,500 of Upland Game Bird Stamp is expected to be spent in FY13. The following table summarizes where these inspections and minor maintenance work was performed. More substantial work (rebuilds) were necessary at a guzzler in the Bilk Creek Range and at a unit in the Montana Mountains (see the photos below).
<table>
<thead>
<tr>
<th>Location</th>
<th>Number of Guzzlers Inspected During FY13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilk Creek Range</td>
<td>36</td>
</tr>
<tr>
<td>Candalaria Hills</td>
<td>5</td>
</tr>
<tr>
<td>Crittenden area</td>
<td>6</td>
</tr>
<tr>
<td>Dry Hills</td>
<td>13</td>
</tr>
<tr>
<td>Elko Mountain</td>
<td>4</td>
</tr>
<tr>
<td>Excelsior Range</td>
<td>8</td>
</tr>
<tr>
<td>Garfield Hills</td>
<td>5</td>
</tr>
<tr>
<td>Goshute Mountains</td>
<td>4</td>
</tr>
<tr>
<td>Hoppin Peaks</td>
<td>11</td>
</tr>
<tr>
<td>Leppy Hills</td>
<td>7</td>
</tr>
<tr>
<td>Lone Mountain</td>
<td>4</td>
</tr>
<tr>
<td>Montana Mountains</td>
<td>1</td>
</tr>
<tr>
<td>Monte Cristo Mountains</td>
<td>13</td>
</tr>
<tr>
<td>Pequop Mountains</td>
<td>2</td>
</tr>
<tr>
<td>Santa Renia Mountains</td>
<td>14</td>
</tr>
<tr>
<td>Scott Mountain</td>
<td>3</td>
</tr>
<tr>
<td>Stillwater Range</td>
<td>7</td>
</tr>
</tbody>
</table>

Design changes and improvements to facilitate construction and improve wildlife use are always an ongoing activity of the northern Nevada water development crew. Coordination with the BLM, Forest Service, USFWS and volunteer sportsmen organizations continues and also is an important part of the program. Coordination with the USFWS included meetings with the Sheldon Antelope Range Refuge staff on water development-related issues associated with their Comprehensive Conservation Plan update.
Montana #9 – Rebuilt after snow damage.

Bilk Creek #1 – Rebuilt after fire damage.

Overton WMA Food Plots

A total of $2,674 was spent on seed and fertilizer. Currently, three acres have been planted northwest of the residences in an area known as the Orchard with strawberry clover, alkali grass, millet, fowl mannagrass and alkali sacaton. Remaining food plots and moist soil units will be seeded during the summer months.
Key Pittman WMA Farming and Upland Food Plots

Approximately 60 acres were planted in October with wheat, oats, rye, barley, alfalfa, Austrian winter pea, hairy vetch, native sunflower and clover as a winter cover crop and to enhance hunter success while hunting the fields on the Key Pittman WMA. An additional 40 acres were planted in January with ryegrass, tall fescue and Indian rice grass to enhance desirable vegetation in areas where the removal of noxious weeds left areas that were lightly vegetated or bare ground. Selected areas along the shoreline of the upper ponds will be hand seeded in June, 2013 with millet (Japanese and browntop), rice (Bengal), buckwheat, sorghum, smartweed (pink), barnyard grass and native sunflower to increase forage production in feeding areas on the WMA and to enhance hunter opportunities. This project was completed by in-house personnel and a total of $3,200 was spent on seed.

Key Pittman WMA Surrogator

A total of $3,000 was spent on the purchase of a surrogator, chick starter feed, propane, and day-old quail and chukar chicks. The quail will enhance the existing quail population and the chukar should re-establish huntable numbers on the WMA and surrounding public lands. Each unit has the ability to rear up to 85 chukar chicks and 115 quail chicks. Chukar will be released after four and one-half weeks and quail after five weeks. The surrogators are capable of producing multiple broods during the year. These units will lead to better distribution of upland game birds and increase hunting opportunities on the WMA.
### Proposed FY 2014 Upland Game Bird Stamp Projects

<table>
<thead>
<tr>
<th>Title of Project</th>
<th>$ Requested from Upland Game Bird Stamp Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbian Sharp-tailed Grouse Re-introduction</td>
<td>$25,000</td>
</tr>
<tr>
<td>Columbian Sharp-tailed Grouse Technician Support</td>
<td>$10,000</td>
</tr>
<tr>
<td>Greater Sage-grouse Research and Monitoring</td>
<td>$76,450</td>
</tr>
<tr>
<td>Mountain Quail Translocation</td>
<td>$5,000</td>
</tr>
<tr>
<td>Sage and Columbian Sharp-tailed Grouse Workshop</td>
<td>$5,000</td>
</tr>
<tr>
<td>Key Pittman WMA Wildlife Food Plots and Habitat Enhancement</td>
<td>$6,200</td>
</tr>
<tr>
<td>Key Pittman WMA Quail Purchase</td>
<td>$1,000</td>
</tr>
<tr>
<td>Kirch WMA Wildlife Food Plots</td>
<td>$9,600</td>
</tr>
<tr>
<td>Kirch WMA Pheasant Purchase</td>
<td>$1,000</td>
</tr>
<tr>
<td>Mason Valley WMA Wildlife Food Plots</td>
<td>$2,500</td>
</tr>
<tr>
<td>Mason Valley WMA Pheasant Purchase</td>
<td>$1,000</td>
</tr>
<tr>
<td>Mason Valley WMA UTV</td>
<td>$6,750</td>
</tr>
<tr>
<td>Overton WMA Food Plots</td>
<td>$2,800</td>
</tr>
<tr>
<td>Northern Nevada Small Game Water Development</td>
<td>$35,000</td>
</tr>
<tr>
<td>Southern Nevada Small Game Water Development</td>
<td>$80,000</td>
</tr>
<tr>
<td>Eastern Region WMA Weed Control</td>
<td>$3,750</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$271,050</strong></td>
</tr>
</tbody>
</table>
### Upland Game Bird Stamp Account Budget Status

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance in the Account at Start of FY 2013</td>
<td>$ 510,338</td>
</tr>
<tr>
<td>Estimated Revenue Accrued During FY 2013</td>
<td>$ 270,752</td>
</tr>
<tr>
<td>Estimated Total FY 2013 Account Expenditures</td>
<td>$ 383,044</td>
</tr>
<tr>
<td>Estimated Balance at the Start of FY 2014</td>
<td>$ 398,046</td>
</tr>
<tr>
<td>Estimated Revenue to be Accrued During FY 2014</td>
<td>$ 287,310</td>
</tr>
<tr>
<td>Total FY 2013 Project Expenditures During FY 2014</td>
<td>$ 56,600</td>
</tr>
<tr>
<td>Proposed New Project FY 2014 Expenditures</td>
<td>$ 271,050</td>
</tr>
<tr>
<td>Estimated Balance at End of FY 2014</td>
<td>$ 357,706</td>
</tr>
</tbody>
</table>

The budget information in this table is preliminary and subject to change. These estimates were prepared in late May of 2013.
Fiscal Year 2014 Wildlife Reserve Account Project Proposal

Project Summary

Project Title: Columbian Sharp-tailed Grouse Re-introduction

Wildlife Reserve Account that Would Fund this Project: Upland Game Bird Stamp

NDOW Project Manager (PM): Shawn Espinosa

PM Phone Number and Email Address: (775) 688-1523; sespinosa@ndow.org

Total Funds Requested from the Wildlife Reserve Account: $25,000

Funds to be Used from Other Sources:
Anticipated Carson Valley Chukar Club donation: $2,500
Anticipated Nevada Chukar Foundation donation: $2,500
W-48 Wildlife and Sport Fish Restoration Grant: $75,000

Total Project Cost to be Funded by All Sources: $105,000

Would Funds from this Program Be Used for State Matching Purposes? Yes

If Yes, Which Federal Grant? W-48 (Game Restoration Grant)

Project Proposal

I. Brief Description of the Need for the Project:
This project is part of an ongoing effort to re-establish Columbian Sharp-tailed Grouse in northeastern Nevada. Columbian sharp-tailed grouse distribution has declined greatly over the last 50-75 years. However, improvements in historic habitats have resulted from improved grazing strategies and as more resilient areas recover from wildfire. This project is intended to provide a population “anchor point” from which to establish additional populations to connect with extant populations in southern Idaho. Requested funding would provide match for the Nevada Department of Wildlife’s W-48 grant to conduct research and monitoring of the translocation and ultimate outcome of the project. This work would be contracted through the USGS–Western Ecological Resource Center and Idaho State University.
II. Project Purpose and Objectives:
The goal of this project is to establish a self-sustaining population of Columbian Sharp-tailed Grouse (CSTG) in northeastern Nevada that exhibits long-term persistence. CSTG inhabited northern Nevada and were described as abundant in the intermountain west (Bendire 1892) and Elko County (Lindsale 1951).

Approval and implementation of this proposal would assist the Nevada Department of Wildlife’s Game Division in fulfilling objectives stated in the following documents:
- Nevada Upland Game Species Management Plan (2008);
- Upland Game Release Plan for FY2013-14;
- NDOW’s W-48 Federal Assistance Grant (Pittman-Robertson).

The major objective of this project is to place 250 CSTG within an identified project area (Bull Run/Independence Mountains) located in Elko County over a five year period with the hopes of establishing self-sustaining populations of CSTG that offers the potential for future connectivity with populations in southern Idaho. The short-term objective of this project is to capture 30-35 female and 15-20 male CSTG in Idaho and Utah in the spring of 2014 and translocate the birds to the identified release sites in the Independence and Bull Run Mountains. This effort follows-up on the translocation of 37 females and 13 males CSTG conducted in 2013.

III. Project Location:
- Columbia Basin Release Site: Located between the Bull Run and Independence Mountains, this release site is characterized by rolling hills with considerable forb cover. A mixture of shrub-steppe and mountain-shrub communities are interspersed throughout the area. This release site is approximately 67 km² or 6700 hectares.
- Bull Run Release Site: Located on the east side of the Bull Run Mountains at mid-elevation above the Owyhee River. A mixture of mountain shrub communities interspersed with riparian corridors dominated by willow, aspen and alder with moderately sized aspen stands in the mid- to upper-elevations of drainages exist in this area. This release site is approximately 53 km² or 5300 hectares.

IV. Describe the Specific Benefits of this Project:
If successful in accomplishing our long-term goal, this project would help expand Columbia Sharp-tailed grouse into the historic range of the species. Also, this project could eventually increase sportsmen opportunities in northeastern Nevada.

V. Project Approach:
Our translocations efforts would follow the tasks outlined below and the recommendations established within the Guidelines for the Management of Columbian Sharp-tailed Grouse Population and Their Habitats (Hoffman 2012, In Prep.). The majority of these tasks would be implemented by a graduate student with Idaho State University and USGS staff, who also would be responsible for documenting project results. Assistance with capturing birds for translocation would be made available by Nevada Department of Wildlife personnel.
- Capture approximately 250 Columbian sharp-tailed grouse over a five-year period (in total) consisting of approximately 60% females and 40% males from areas located in Idaho and Utah;
Capture approximately 30-40 females and 10-20 males for releases in each year beginning in 2013 (year 1) through 2016 (year 4). Attempt to release an additional 15-20 females and 5-10 males in year 5 of the project;

Captured grouse should be transported in specially-built boxes with individual compartments designed to house the birds separately and constrain their movements. Line the bottom of each compartment with clay cat litter to reduce contact between feces and the bird’s feet. The box should be designed so that it can be opened remotely from a distance allowing the birds to walk or fly away without being frightened.

- Outfit approximately 50% of translocated males released with radio transmitters and monitor movements throughout the winter and into the spring breeding period. Areas selected by males during the spring breeding period would be considered as focal areas for release of females;
- Outfit approximately 50-75% of translocated females released in the spring with radio transmitters;
- Each translocated bird would have a leg band attached;
- Upon release, the box should be positioned in such a way so as to provide a clear path to escape cover without any obstacles such as fences. Scan the area for raptors prior to release;
- Females would be tracked 2-3 times per week during the nesting period;
- Determine nest initiation dates of each female grouse;
- Identify predators of nests using continuous digital video recording systems from a subset of nests;
- Calculate the kernel home-ranges of male and female grouse during the nesting season;
- Identify movement patterns during the nesting season;
- Within 48 hours of nest fate, measure multiple microhabitat characteristics at each nest site, including total shrub cover, sagebrush cover, perennial and annual grasses, perennial and annual forbs, vertical cover, and horizontal cover (measured at 5, 10, 25, 50, 100 m from nest site);
  - Place four perpendicular transects centered at the nest and record the percent shrub cover for each meter along the transect at scales of 5, 10, 25, 50, 100 m;
  - In addition place two 20 X 50 cm Daubenmire plots along each transect and one at the nest center where percent cover is estimated and all plants are measured and keyed as annual or perennial;
  - Use three methods (Jones cover board, Robel pole, and a cover ball photography) to estimate vertical and horizontal cover at each point of subplots and at the nest bowl;
- Measure the habitat characteristics (field and GIS) at random points that are spatially dependent and independent from the nest site;
- Conduct multi-scale habitat selection analysis using random and used points;
- Conduct surveys of badgers, ravens and raptors at nesting and random areas throughout the study site;
- Determine nest fate of each female grouse and estimate daily nest survival probabilities;
- Estimate the effects of habitat characteristics and predator abundance on nest survival rates;
- Estimate the effects of grouse age and body condition on nest survival rates;
- Track individual birds by ground or aircraft 2-3 time per week during the brooding period;
- Conduct habitat measurements (field and GIS) at a subsample of brood locations during day and night and dependent random locations for each 10-day interval;
• Calculate 10-day interval brood survival rate;
• Develop and compare brood survival models that include vegetation characteristics as covariates to identify the effects of vegetation factors;
• Use aircraft to identify wintering grounds by locating radio-marked grouse at least once per month;
• Determine monthly survival of radio-marked grouse to determine whether or not grouse experience elevated mortality rates during specific time periods;
• Determine whether or not there are differences between sexes for monthly and annual survival.

VI. Project Schedule:
Spring 2014: Capture 30-40 CSTG females and 10-20 males from established leks in Idaho and/or Utah in the spring breeding season and translocate to Nevada. Conduct follow-up monitoring of approximately 25-30 radio marked females throughout their life cycle.

VII. Relationship to NDOW Plans, Policies and Programs:
The following documents were used while developing this proposal:
• Nevada Upland Game Species Management Plan (2008);
• Upland Game Release Plan for FY2012-13;
• NDOW’s W-48 Federal Assistance Grants (Pittman-Robertson);
• Data Summary of a Columbian Sharp-tailed Grouse Habitat Suitability Examination between Idaho and Nevada (Coates et al. 2011).
• Guidelines for the Management of Columbian Sharp-tailed Grouse Populations and Their Habitats (Hoffman 2013).

VIII. Other Projects or Activities that Need to Be Accomplished Before this Project Can Be Completed:
The initial release of CSTG would occur on private lands. Permission has been obtained with the existing landowner.

IX. Describe How the Effects of the Project will be Measured and Monitored:
Post release monitoring of demographics and habitat usage is an extremely important element of this project. Similar translocations and habitat use research is being conducted in Idaho by a PhD student. This study is focusing on the use of Conservation Reserve Program (CRP) habitats by sharp-tailed grouse. We feel that this translocation effort and research on habitat usage within native habitats in Nevada would provide important information aiding the long-term conservation of the species. Follow-up monitoring of approximately 40-50 individuals each year over a 5-year period would provide us with a great deal of information regarding the success, or failure of the project and whether or not future efforts to restore the species within its original historic range is feasible.
Project Costs and Funding

X. Cost Summary
All of the funds from the Upland Game Bird Stamp account would be used to help pay the labor costs of USGS and Idaho State University staff as they perform various capture, release and monitoring tasks.

XI. Would Funds from this Program Be Used for State Matching Purposes? Yes ___ No ___

XII. Which Federal Grant Would the Matching Funds be Used For? W-48 Game Restoration Grant

XIII. Is this Project Going to Continue After FY14? Yes ___ No ___
If yes, is this going to be an annual, recurring project? Yes ___ No ___
If it is not going to be an annual project, what fiscal year is it expected to end? FY 2017

XIV. Annual Costs (if this is a Recurring Project) or Total Project Costs Beyond FY14: The annual costs beyond FY14 are expected to be about the same as FY14 for two more fiscal years, with a total project cost of about $300,000 (75% federal match = $225,000, 25% state match = $75,000).
Fiscal Year 2014 Wildlife Reserve Account Project Proposal

Project Summary

Project Title: Columbian Sharp-tailed Grouse Technician Support

Wildlife Reserve Account that Would Fund this Project: Upland Game Bird Stamp

NDOW Project Manager (PM): Shawn Espinosa
PM Phone Number and Email Address: (775) 688-1523; sespinosa@ndow.org

Total Funds Requested from the Wildlife Reserve Account: $10,000

Funds to be Used from Other Sources: This seasonal technician would be cost shared with the Idaho Department of Fish and Game (which is contributing $30,000)

Total Project Cost to be Funded by All Sources: $40,000

Would Funds from this Program Be Used for State Matching Purposes? Yes

If Yes, Which Federal Grant? W-48 (Game Restoration Grant)

Project Proposal

I. Brief Description of the Need for the Project:
Relatively little is known regarding the distribution and habitat utilized by Columbian Sharp-tailed Grouse (CSTG) with respect to a population occupying an area along the border with Idaho in Management Areas 7 and 8. This project would support a seasonal technician to specifically survey this area for occupation and to identify important habitats.

II. Project Purpose and Objectives:
Provide partial funding for a seasonal technician, hired through the Idaho Department of Fish and Game, to conduct surveys along the Idaho/Nevada border in Management Area 7 and 8 to document the presence of Columbian Sharp-tailed Grouse leks and locate areas utilized as brood rearing habitat.

III. Project Location:
This project would take place in Management Areas 7 and 8 in Nevada and within portions of Idaho deemed appropriate by the Idaho Department of Fish and Game (IDFG). See the attached maps (Figures 1 and 2) for more specific locations of potential survey areas.
IV. Describe the Specific Benefits of this Project:
CSTG have been identified in the Nevada Upland Game Species Management Plan as a priority species. No remnant populations of CSTG exist in Nevada. To date, two translocation efforts of CSTG have occurred in Nevada, one in the Snake Mountains north of Wells, Nevada and another recent translocation effort was initiated in 2013 with the release of 37 females and 13 males in the Independence/Bull Run Mountains. The Snake Mountains translocation effort was likely not successful.

However, efforts by IDFG to re-establish CSTG within the Shoshone Basin and areas affected by the Murphy Fire have likely trickled over into Nevada. Several observations of CSTG have been made in Nevada along the border and radio telemetry information has identified winter use in the vicinity of Elk Mountain in hunt unit 072. Gaining a better understanding of habitat use and determining whether or not any leks have been established in Nevada or areas that birds are using for brood rearing habitat could help guide additional re-establishment efforts in the future as we attempt to link the Independence/Bull Run translocated population with the extant population in the Shoshone Basin in Idaho.

This project also helps strengthen existing good relationships with IDFG relative to CSTG. This is critical to future translocation efforts and achieving our ultimate goal of linking populations of CSTG between Idaho and Nevada.

V. Project Approach:
A seasonal technician would be dedicated to surveying for active CSTG leks during the spring breeding season using binoculars, spotting scope and possibly audio enhancement equipment during the early morning hours within suitable habitats. Additionally, potential brood rearing habitat would also be surveyed during the summer months to document use areas and brood size. A pointing dog may be utilized to improve the effectiveness of survey efforts.

VI. Project Schedule:
This work would be conducted during the spring and summer months of 2014. Survey results would be provided by December of 2014. Project funding would provide for approximately 300 hours of survey effort and report writing.

VII. Relationship to NDOW Plans, Policies and Programs:
The following documents were used while developing this proposal:
- Nevada Upland Game Species Management Plan (2008);
- NDOW’s W-48 Federal Assistance Grants (Pittman-Robertson);

VIII. Other Projects or Activities that Need to Be Accomplished Before this Project Can Be Completed: N/A

IX. Describe How the Effects of the Project will be Measured and Monitored:
Please see the project approach section above.
Project Costs and Funding

X. Cost Summary
All project funds would be used to pay a seasonal technician and related costs; these costs would be shared with IDFG and NDOW would pay for approximately 25% of the project’s costs.

XII. Would Funds from this Program Be Used for State Matching Purposes? Yes X  No _____

XIII. Which Federal Grant Would the Matching Funds be Used For? W-48

XIV. Is this Project Going to Continue After FY14?  Yes X  No _____
If yes, is this going to be an annual, recurring project? Yes X  No _____
If it is not going to be an annual project, what fiscal year is it expected to end? FY 15
The continuation of this project depends on the success of survey efforts during the initial year. If there is moderate to high success, this project would likely be recommended for another year at least.

XIII. Annual Costs (if this is a Recurring Project) or Total Project Costs Beyond FY14: If this project continues, FY15 costs would be similar to the FY14 costs summarized in this proposal.
Figure 1. Shoshone Basin and Goose Creek potential survey areas along the border with Idaho and Utah.
Figure 2. Elk Mountain potential survey area west of Jackpot, Nevada. Areas are subject to modification based on potential suitable habitat modeling exercises and available time.
Fiscal Year 2014 Wildlife Reserve Account Project Proposal

Project Summary

Project Title: Greater Sage-grouse Research and Monitoring

Wildlife Reserve Account that Would Fund this Project: Upland Game Stamp

NDOW Project Manager (PM): Shawn Espinosa

PM Phone Number and Email Address: (775) 688-1523; sespinosa@ndow.org

Total Funds Requested from the Wildlife Reserve Account: $76,450

Funds to be Used from Other Sources:
Anticipated Nevada Chukar Foundation donation: $5,000
Anticipated Carson Valley Chukar Club donation: $5,000
Anticipated Nevada Bighorns Unlimited-Midas Chapter donation: $5,000
Nevada Sage-grouse Conservation Grant (W-64)–Federal Match (75% of the total project costs): $229,350

Total Project Cost to be Funded by All Sources: $305,800

Would Funds from this Program Be Used for State Matching Purposes? Yes, these funds would be utilized to match Pittman-Robertson Act Funding (W-64 Grant).

If Yes, Which Federal Grant? Nevada Sage-grouse Conservation Program Grant (W-64)

Project Proposal

I. Brief Description of the Need for the Project:
This project supports various research and monitoring efforts throughout the range of Greater Sage-grouse in Nevada. Research efforts include the Virginia Mountains Sage-grouse/Raven Interaction Study and the Desatoya Sage-grouse Habitat Use Study. Monitoring efforts include aerial lek surveys (helicopter), fixed wing lek and wintering ground surveys using Forward looking Infrared (FLIR) technology and fixed wing telemetry (VHF) follow-up. There are 1,840 known lek locations logged in the Nevada Statewide Sage-grouse Database (Nevada portion only), of which 569 are considered active (defined as 2 or more males observed during 2 years in a 5 year period) and 313 are considered “pending active” meaning that an additional year of observing 2 or more
males is necessary to be considered an active lek. This number of leks requires that some aerial resources are dedicated to support on-the-ground efforts.

II. Project Purpose and Objectives:
The goal of this project is to assist with a number of ongoing monitoring efforts statewide. Some of these projects are portions of research efforts while others are pre-project (land use development) monitoring to determine seasonal use patterns and habitat selection. Additionally, telemetry information obtained from sage-grouse throughout Nevada would eventually be utilized to inform a statewide resource selection function model (RSF) for the species. This product is expected to be completed by the USGS–Western Ecological Resource Center during FY2014. Objectives of this project vary; however, for the purposes of this project, we anticipate capturing approximately 50 sage-grouse and placing radio transmitters or GPS Satellite tracking devices on these birds during the fall of 2013 and spring of 2014. These efforts would support ongoing research work in the Virginia Mountains located in southern Washoe County and a new project beginning in 2013 & 2014 to determine habitat use in the Desatoya Range in central Nevada.

In addition to this work, we are also interested in the use of forward looking infrared (FLIR) remote sensing technology to remotely count and document activity at sage-grouse leks. The objective is to conduct approximately 3-4 flights to record activity at “pending active” status leks. This technology would also be utilized to survey areas for wintering sage-grouse. Very little comprehensive work has been conducted to document winter use areas and delineate this important seasonal habitat. Funding is also requested to assist with aerial lek survey using a helicopter. A number of leks are inaccessible by vehicle during the spring months at upper elevations and helicopter surveys allow for efficient surveys and search abilities.

III. Project Location:

Virginia Mountains Research Site:
This site is located in the Virginia Mountains in southern Washoe County just west of Pyramid Lake. We have supported research efforts being conducted by USGS at this site for the last three years. This area includes the Virginia portion of the Virginia/Pah Rah Population Management Unit.

Desatoya Range Monitoring Site:
The Desatoya Range is located on the border of Churchill and Lander County in central Nevada. The preponderance of the project area would be located on the eastern slope of the range (Lander County). Much of the radio-marking work would take place within the vicinity of Smith Creek Ranch.

FLIR Lek Monitoring and Wintering Ground Survey:
Forward Looking Infrared (FLIR) technology has proven to be effective in determining lek activity (presence/absence) and to determine winter utilization areas. This tool may be employed in PMUs where we currently have limited knowledge of lek locations, but suspect there to be several more leks than now known, and to survey “pending active” status leks. A good example of this is the Desert PMU located in northwestern Elko County (remote and difficult to access) near the Idaho border. This survey would build upon initial FLIR surveys initiated during the 2012 spring breeding period and recent efforts conducted during the winter of 2013 in the Tuscarora PMU. The first flight would be conducted to survey known active lek locations and a second flight would be
conducted within a previously identified polygon where sage-grouse breeding activity is suspected, but is currently unknown.

**Aerial Lek Survey:**
Each year, the Nevada Department of Wildlife conducts aerial lek surveys across the range of the species in Nevada to document activity and lek size for those leks that are located at high elevation, or very remote, and difficult to access from the ground.

**Fixed Wing Telemetry Surveys:**
These surveys take place on a monthly basis across the range of the species in Nevada depending on where radio-marked birds are located. Technician availability during the late fall and winter months is limited to follow-up on radio-marked individuals, making fixed wing follow-up surveys critical during this period. These surveys not only provide locations of birds, but are also able to document mortality which is important for estimating seasonal mortality.

**IV. Describe the Specific Benefits of this Project:**

**Virginia Range Research Project:**
This project has provided the Nevada Department of Wildlife with a substantial amount of data relative to sage-grouse habitat selection, adult survival rates, nest initiation rates and success, and nest predator identification. A journal publication entitled “Nest Site Selection and Reproductive Success of Greater Sage-grouse in Northwestern Nevada” (Lockyer et al. In Review) is in review and would likely be published. This area provides a good opportunity to monitor the ultimate outcome of proposed raven control work. We are proposing to conduct intensive raven control work in the Virginia Mountains over the next three year period and monitor population response. Additionally, some habitat enhancement work is expected to occur over the next couple of years within the Virginia Mountains including sagebrush planting in areas affected by wildfire within the Spanish Flat/Vinegar Peak area. Continued monitoring of this population would help determine the effects of specific habitat enhancement efforts.

**Desatoya Range Habitat Utilization and Effectiveness Monitoring:**
This project would help understand sage-grouse habitat utilization prior to a landscape scale project that the Bureau of Land Management is proposing in the Desatoya Range. The BLM project area is approximately 230,000 acres within the Porter Canyon and Edwards Creek grazing allotments. There are 192,700 acres in the Desatoya sage-grouse population management unit and 34,195 acres of the Desatoya Wilderness Study Area within the project area.
Approximately 30,000 acres of various treatments are proposed within the project area. While the project’s primary focus is to enhance sage-grouse habitat, multiple wildlife species dependent upon healthy forests and sagebrush communities would benefit. Treatments would include piñon/juniper removal and thinning, wet meadow and spring rehabilitation/protection, potential rabbit brush control using herbicide treatment and seeding, and the removal of excess wild horses. It would be important to monitor sage-grouse movement and demographic parameters before, during and after project
implementation. This restoration and habitat enhancement project is intended to improve habitat conditions for sage-grouse and other species such as mule deer.

**FLIR Lek Detection and Wintering Ground Survey:**
Forward Looking Infrared technology is utilized on a fixed wing aircraft and has the ability to detect the presence or absence of sage-grouse at leks without much disturbance. Accurate counts of numbers of birds at a lek can also be determined; however, gender of birds is not considered reliable information at this point in time. This tool allows for efficient survey of multiple leks or suspected wintering grounds each morning. The methodology is very new and cost/benefit ratios are still being analyzed.

**Fixed Wing Telemetry Surveys:**
These surveys greatly increase the strength of our dataset and can assist with the development of a resource selection function model being developed by the USGS. Additionally, beyond locating radio-marked sage-grouse, these surveys allow us to determine monthly survival and periods of elevated mortality which could help influence management decisions.

V. Project Approach:

**Lek Survey and Wintering Ground Identification:**
NDOW would conduct aerial lek surveys during late March and throughout April to determine lek status and lek size in areas where vehicle access is limited during the spring. We are proposing to design a stratified random sampling scheme using helicopter surveys to better determine population size. In addition, fixed wing aircraft outfitted with Forward Looking Infrared technology would be utilized to determine presence or absence of birds at “unknown” or “pending active” status leks. This would allow for applied statistical analysis and the determination of a more objective rate of change or annual population growth rate.

**Desatoya Range Habitat Utilization and Effectiveness Monitoring:**
Sage grouse movement, survivorship, and reproduction would be monitored following release. Portable receivers (Communication Specialist Inc., Orange, CA; Advanced Telemetry Systems Inc., Isanti, MN) are used along with 3-element Yagi antennas to monitor radio-marked grouse. Relocation error is minimized by circling around each grouse 30–50 m. Using the approximated distance and a compass bearing, the location coordinates (Universal Transverse Mercator) are obtained using GPS. Throughout the nesting and brood-rearing period, researchers would attempt to locate female grouse ≥2 times per week.

Relocation coordinates are transferred into a GIS (ArcMap 9.2, ESRI Products, Redlands, CA) for space-use analysis. Kernel density (50, 90, and 95%) is calculated for all radio locations and for each grouse separately (95%). The purpose of using all locations is to estimate area used at the population level. Kernel density is also calculated for brood-rearing females. Kernel calculations are carried out in multiple steps. First, relocation points are weighted to account for biases associated with non-equivalent relocation intervals. Second, robust estimates of smoothing parameters (h) are generated using Animal Space Use 1.3 (Horne and Garton 2009). Last, those parameters are used in Hawth’s Tools (ArcMap 9.2) to calculate fixed kernel densities. Kernel density maps are generated based on the estimated densities for 2009 and 2010.

If a grouse is found at the same location during the nesting period, researchers visually determined
if a grouse is nesting. Nests are monitored ≥3 times per week until fate is determined. Successful nests are classified as ≥1 chick hatched. Nests are also scored as depredated, partially depredated, or abandoned.

Following the definition of nest fates, understory cover is recorded at the nest bowl using a coverboard (Jones 1968), Robel pole (Robel 1970), and digital photography method. Vegetation composition cover is measured at multiple subplots (20 X 50 cm) located ≤25 m of each nests using Daubenmire method (Daubenmire 1959). Canopy cover is measured along two 25-m transects, one 50-m transect, and one 100-m transect extending from the nest bowl every 90°. The orientation of the quadrants is randomized. Shrub species are recorded and measured. Width (cm) and heights (cm) of a random sample of individual shrubs along the line are recorded. These shrub widths are measured within 5, 10, and 25 m from the nest for all four transect lines, within 50 m for two transect lines, and 100 m for one transect line. The purpose of the different transect lengths is to identify the scale of use for shrub cover within 100 m radius of a nest site.

To identify vegetation factors selected by grouse, defined as the disproportionate use to availability, measurements of vegetation characteristics are compared at nests to those at random points. Thus, the same habitat measurements are conducted at random points to represent available habitat. Evidence for multi-scale selection generating two random points for each nest is evaluated. One point is within 200 m of the nest (dependent) and the other is within the study area (independent). The preliminary results are reported as means (±SE) of vegetation characteristics for random points and nests. However, multiple a priori generalized mixed effects models with a binomial error distribution at multiple spatial scales would be compared for strength of evidence. Researchers would use an information-theoretic approach, including ΔAIC, Akaike’s weights, evidence ratios, likelihood-based R2, and likelihood ratio tests to evaluate models. Model-averaged parameter estimates would be used to develop resource selection functions.

Following the completion of a successful nest, female grouse with broods are monitored closely by obtaining >2 locations per week. Spotlights are used every 10 days following nest hatch during night hours to count the number of chicks in the brood. Broods are considered unsuccessful if no chicks are found during spotlight surveys. To confirm unsuccessful broods (prevent false negative), females are rechecked within 48 hours. A similar habitat measurement protocol is conducted at brood sites as that at nest sites. However, transect maximum extent is 25 m for brood sites. Canopy cover is measured along three 25 m transects, which extended from the brood location every 120° with random orientation. The width (cm) of each shrub species is measured along the three transect lines within 5, 10, and 25 m from the brood location. Because habitat changes through time and broods are mobile, measurements are collected at each 10-day interval. Differences in vegetation use between night (roosting) and day (foraging) hours are also investigated. These surveys included one day and one night observation of habitat used by broods (within a 24 hour period), as well as, one observation of a random location within 200 m of the brood (dependent) to estimate disproportionate use to availability.

Raven and Raptor Surveys: Surveys would be conducted for Common Ravens (Corvus corax; hereafter ravens) and raptors during nesting and following nest fate. Surveys would be conducted using binoculars at each nest for 15 minutes searching all four quadrants around the nest equally. Time of sighting, bearing, distance (using a rangefinder) of each raptor and corvid is tallied and birds are identified to species when possible.

Additional surveys are used to estimate raven and raptor densities using Program Distance (Thomas et al. 2009) across the landscape and relate it to nest survival parameters. Survey points
are randomly generated within the study area. Points are generated on and off roads. No points are assigned to paved roads. Surveys are completed between mid-May and late-July. The time of survey is randomized between one half hour our before sunrise to one half hour following sunset. The same protocol for nest surveys is carried out at points. These data would provide valuable information on factors that influence raven and raptor numbers before and after energy development throughout the study area.

*Raven videography:* Because ravens are known to be an effective sage grouse nest predator, additional observational data is collected on raven nests using videography within the study area. Objectives for using videography included: (1) investigate links between raven foraging activities with sage-grouse incubation patterns, (2) estimate feeding frequencies, and (3) identify components of nestling diet. Researchers plan to investigate differences between nests in anthropogenic and natural nesting substrates. Information might lead to management implications in the future on how to properly manage raven and sage-grouse interactions, especially in areas with increasing energy development.

**Badger Surveys:** Following the definition of nest fates, American badger (*Taxidea taxus; hereafter,* badgers) surveys would be conducted by walking in a bowtie pattern with the nest bowl at the center for a total length of 680 m. An area 4 m on each side of the survey line is actively searched for badger sign. Specifically, fresh intact holes, collapsed holes, small digs or scrapes, and scat or tracks encountered along the survey line are recorded. Surveys are conducted at random points generated for each nest.

*Predator Control:* Raven control work would be conducted by USD–Wildlife Services located in Reno, NV. Raven control work would take place from March through May within the study area through the use of chicken egg baits treated with DRC-1339, a corvicide used to control avian species (Spencer 2002). USDA-WS would place 2 egg baits every 250 m along identified raven removal routes every 7 days. Egg bait fate would be recorded within 72 hours of placement, and non-depredated eggs would be disposed. During the spring, nearby transmission lines would be surveyed for active raven nests. If located, nests would either be removed or eggs would be oiled to decrease viability while still maintaining the territorial pair at the site.

**VI. Project Schedule:**
Aerial survey work (helicopter lek counts) would be conducted during the spring breeding season of 2014. Fixed wing telemetry surveys would be conducted throughout the fiscal year, with emphasis on locating radio-marked birds during late fall, winter and early spring periods. Capture efforts would be conducted in early fall of 2013 and during the spring months of 2014. Follow-up of radio marked individuals would take place monthly throughout the fiscal year. Intensive monitoring would take place during the spring breeding period through late brood rearing (August/September). Follow-up monitoring would be fulfilled utilizing fixed-wing follow-up of radio-marked individuals. FLIR work would be conducted during the winter of 2013/2014 and spring breeding season of 2014.
VII. Relationship to NDOW Plans, Policies and Programs:

VIII. Other Projects or Activities that Need to Be Accomplished Before this Project Can Be Completed:
None

IX. Describe How the Effects of the Project would be Measured and Monitored:
N/A

Project Costs and Funding

X. Cost Summary
Approximately $4,000 of the funds to be spent by this project would be used to purchase VHF Radio Transmitters for Greater Sage-grouse in the Desatoya Range. About $27,500 of the project’s Upland Game Bird Stamp funds would be used for USGS and Idaho State University labor costs. It is estimated that $43,950 would be needed for helicopter and fixed wing aircraft contractors to conduct aerial surveys, and the remaining funds would be needed for miscellaneous capture costs.

XI. Would Funds from this Program Be Used for State Matching Purposes? Yes __X__ No ___

XII. Which Federal Grant Would the Matching Funds be Used For? Nevada Sage-grouse Conservation Program (W-64)

XIII. Is this Project Going to Continue After FY14? Yes __X__ No ___
If yes, is this going to be an annual, recurring project? Yes __X__ No ___
If it is not going to be an annual project, what fiscal year is it expected to end? FY ______

XIV. Annual Costs (if this is a Recurring Project) or Total Project Costs Beyond FY14:
It is anticipated that approximately $75,000 from the Upland Game Bird account would be needed annually to help support this work into the foreseeable future.
Fiscal Year 2014 Wildlife Reserve Account Project Proposal

Project Summary

Project Title: Mountain Quail Translocation

Wildlife Reserve Account that Would Fund this Project: Upland Game Bird Stamp

NDOW Project Manager (PM): Shawn Espinosa

PM Phone Number and Email Address: (775) 688-1523; sespinosa@ndow.org

Total Funds Requested from the Wildlife Reserve Account: $5,000

Funds to be Used from Other Sources: Anticipated donation of $2,000 from CVCC and/or NCF

Total Project Cost to be Funded by All Sources: $7,000

Would Funds from this Program Be Used for State Matching Purposes? Yes

If Yes, Which Federal Grant? W-48 (Game Restoration Grant)

Project Proposal

I. Brief Description of the Need for the Project:
There is a need to expand mountain quail populations and distribution within Nevada. Expansion into suitable habitats would increase population redundancy and resiliency, and eventually, may lead to new opportunities for sportsmen.

II. Project Purpose and Objective:
The goal of this project is to maintain and expand healthy, self-sustaining populations of mountain quail throughout the range of appropriate key habitats identified in Nevada. The objective of this project is to establish mountain quail in at least 25% of identified suitable unoccupied habitat in Nevada by 2017 (Nevada Upland Game Species Management Plan).

III. Project Location:
There are six release sites identified within the Upland Game Release Plan for FY2012-13 for mountain quail including four release sites in Lincoln County, one in western White Pine County and an augmentation site in Storey County (Virginia Range). Birds obtained from Oregon for this
particular project would be released in the vicinity of Buck Mountain in western White Pine County.

IV. Describe the Specific Benefits of this Project:
Expanding mountain quail populations would help address ongoing concerns over population decline and loss of redundancy (numbers of populations) across the range of the species. Successful reintroductions would provide assurances that populations would persist over the long-term and enable resiliency in case of stochastic events. Sufficient population expansions may also result in new hunting opportunities for Nevada sportsmen.

V. Project Approach:
We propose to obtain approximately 100 mountain quail from Oregon through the use of a contract with a capture vendor. Mountain quail would be held over at the Mason Valley WMA during the winter and early spring for release in late March or early April when habitat conditions in terms of forage availability are optimal.

VI. Project Schedule:
Capture work would be conducted by a contracted vendor (Relocator LLC) near Roseburg, Oregon. Birds are expected to be captured during November and December of 2013, held in Roseburg at the Oregon Department of Fish and Wildlife office and then transported by NDOW personnel to either a holding facility at Mason Valley WMA, or to the release sight if conditions are deemed appropriate (adequate forbs, moderate weather conditions).

VII. Relationship to NDOW Plans, Policies and Programs:
The following documents were used while developing this proposal:
- Nevada Upland Game Species Management Plan (2008);
- Upland Game Release Plan for FY2012-13;
- NDOW’s W-48 and W-64 Federal Assistance Grants (Pittman-Robertson);

VIII. Other Projects or Activities that Need to Be Accomplished Before this Project Can Be Completed:
A BLM Categorical Exclusion was obtained for this project prior to the initial release of birds in December of 2013 and would apply to future related efforts.

IX. Describe How the Effects of the Project will be Measured and Monitored:
Infrequent monitoring of the release area would occur. Documentation would be made of calls heard and tracks observed as well as numbers of birds observed during the late spring months. A report documenting the results of this project would be prepared.
Project Costs and Funding

X. Cost Summary
All of the project’s Upland Game Bird account funds ($5,000) would be used to pay the contractor that would capture the birds in Oregon and transport them to Nevada.

XI. Would Funds from this Program Be Used for State Matching Purposes? Yes X No _____

XII. Which Federal Grant Would the Matching Funds be Used For? W-48 (Game Restoration Grant)

XIII. Is this Project Going to Continue After FY14? Yes X No _____
If yes, is this going to be an annual, recurring project? Yes X (but for a limited number of years) No _____
If it is not going to be an annual project, what fiscal year is it expected to end? FY 18? (Depends on bird availability, conditions of the source population and the success of reintroduction efforts in the initial years).

XIV. Annual Costs (if this is a Recurring Project) or Total Project Costs Beyond FY14:
If all goes well, this project would last up to five years with an annual cost of approximately $7,000.
Fiscal Year 2014 Wildlife Reserve Account Project Proposal

Project Summary

Project Title: Sage and Columbian Sharp-tailed Grouse Workshop

Wildlife Reserve Account that Would Fund this Project: Upland Game Bird Stamp

NDOW Project Manager (PM): Shawn Espinosa

PM Phone Number and Email Address: (775) 688-1523; sespinosa@ndow.org

Total Funds Requested from the Wildlife Reserve Account: $5,000

Funds to be Used from Other Sources:
Donations are anticipated from the following entities:
Newmont Mining Corporation: $5,000
Nevada Bighorns Unlimited: $2,000
Nevada Bighorns Unlimited–Midas Chapter: $500
Carson Valley Chukar Club: $500
Nevada Chukar Foundation: $500
Safari Club International: $500

Total Project Cost to be Funded by All Sources: $14,000

Would Funds from this Program Be Used for State Matching Purposes? Yes

If Yes, Which Federal Grant? Nevada Sage-grouse Conservation Program (W-64)

Project Proposal

I. Brief Description of the Need for the Project:
The Western Association of Fish and Wildlife Agencies (WAFWA) began sanctioning workshops in the mid-1970s. There currently are 10 sanctioned workshops recognized by WAFWA’s Directors. These workshops include ones that are species-specific and others that are tailored to certain disciplines within the wildlife profession. These workshops are established to provide a forum for wildlife professionals to interact with each other on new research, management, enforcement and administrative practices, and to use this new information to promote better management of species or administration of member agencies. The Directors annually review applications for workshops and the schedules of those already sanctioned, and also hear from workshop hosts about significant
findings, developments, accomplishments and concerns emanating from the workshops, including the policy ramifications of any recommended actions. Simply put, the Directors see this “sanctioning” process as an ongoing means to keep abreast of important issues. As such, these workshops generally receive the highest priority for attendance by agency personnel. Once “sanctioned”, these workshops are authorized to use the name and logo of WAFWA on printed materials related to the workshop, and hosts are encouraged to acknowledge the Association’s participation. This participation, however, does not extend to direct financial assistance. The financial activities of the sanctioned workshops shall be conducted through a bank account established by, and under the general direction of, the WAFWA Treasurer. The contribution made possible by this project would help support the 29th biennial Western Agencies Sage and Columbian Sharp-tailed Grouse Workshop to be held in Elko, Nevada in June of 2014. This workshop is sanctioned by WAFWA. Nevada is responsible for hosting this workshop. This is a four day workshop that includes three days of symposia and a field day to highlight local projects and habitat conditions.

II. Project Purpose and Objectives:
The purpose of the workshop is to deliver the most current science and research relative to both Greater Sage-grouse, Gunnison Sage-grouse and Columbian Sharp-tailed grouse. Topics include impacts to habitat and grouse themselves, survival, habitat restoration, genetics, population estimation and conservation planning. This workshop provides the most comprehensive and scientifically robust workshop on Sage and Columbian Sharp-tailed Grouse in the world.

III. Project Location:
This workshop will take place at the Convention Center in Elko, Nevada.

IV. Describe the Specific Benefits of this Project:
This workshop provides an excellent educational opportunity for resource managers, biologists, landowners and the general public regarding currently completed and ongoing research and monitoring work relative to Greater Sage-grouse, Gunnison Sage-grouse and Columbian Sharp-tailed grouse. The workshop also provides a venue for participants to exchange ideas and learn from their counterparts across the range. Over 200 participants attended the 2012 workshop.

V. Project Approach:
1. Secure a host facility (i.e. hotel, motel or resort) where the workshop will be held.
   • Sufficient rooms to accommodate at least the average number of attendees from the last two workshops.
   • Have a meeting room sufficient in size to accommodate at least the average number of attendees from the last two workshops in a setting suitable for this meeting.
   • Have room rates within government per diem rates.
   • Be located where access is reasonable.
2. Coordinate access to the workshop’s bank account with the WAFWA Treasurer to establish signature authority, debit cards and confirm account balances.
3. Develop and distribute a copy of the workshop announcement to:
   - The registrants from the previous workshop (list provided by previous chair).
   - All Directors of WAFWA state/province wildlife management agencies, and to the Directors of any state/province wildlife management agencies that have populations of the species addressed at the workshop.
   - The WAFWA Secretary and Treasurer.
     a) This mailing should be completed no later than 10 months before the workshop. The announcement should include the dates and location of the workshop, the host resort with information on making reservations, and any other pertinent information available at the time of this mailing.
4. Send out a call for papers at least six months before the meeting.
5. Send out a second call for papers at least three months before the meeting.
6. Send a request for state/province status reports two months before the meeting. It is preferred that this request be sent in electronic format so the respondents fill in blanks for consistent reporting from all agencies.
7. Finalize the agenda at least one month before the meeting and submit the agenda to:
   - All registered attendees
   - Agency Directors in those states/provinces with the species targeted for this workshop
   - The Secretary and Treasurer of WAFWA
8. Maintain adequate financial records to allow audit of the records.

VI. **Project Schedule:**
The 29th Biennial Sage and Columbian Sharp-tailed Grouse Workshop will be held in Elko, NV during June of 2014.

VII. **Relationship to NDOW Plans, Policies and Programs:**
This workshop will help NDOW indirectly implement and/or comply with the following:
   - Nevada Upland Game Species Management Plan (2008);
   - Upland Game Release Plan for FY2012-13;
   - NDOW’s W-48 and W-64 Federal Assistance Grants (Pittman-Robertson);

VIII. **Other Projects or Activities that Need to Be Accomplished Before this Project Can Be Completed:** N/A

IX. **Describe How the Effects of the Project will be Measured and Monitored:**
1. A copy of the minutes and/or proceedings will be provided to all Directors, the Secretary and the Treasurer of WAFWA as soon as they are printed. The proceedings will also be available to participants and general public.
2. A written and oral report will be provided at the subsequent WAFWA summer meeting which includes, the following:
   - Number of registered participants.
• Copy of the agenda from the meeting.
• Financial report.
• Summary of key issues reviewed in the workshop, including policy ramifications of recommended actions.
• When available, a copy of the workshop proceedings if one is completed.
• Time, place host agency and contact person for the next workshop. Any additional items that would be of interest to the WAFWA leadership.

**Project Costs and Funding**

X. **Cost Summary**
   All of the funds from the Upland Game Bird Account ($5,000) will be used to help pay for the costs associated with Nevada hosting the workshop in Elko, including facility rental charges.

XI. **Would Funds from this Program Be Used for State Matching Purposes?**  Yes _X_ No ___

XII. **Which Federal Grant Would the Matching Funds be Used For?**  Nevada Sage-grouse Conservation Program (W-64)

XIII. **Is this Project Going to Continue After FY14?**  Yes _____ No _X_
   If yes, is this going to be an annual, recurring project?  Yes _____ No _____
   If it is not going to be an annual project, what fiscal year is it expected to end?  FY 2014

XIV. **Annual Costs (if this is a Recurring Project) or Total Project Costs Beyond FY14:**
   Responsibilities for the workshop are rotated between western state fish and wildlife agencies and there are no plans for Nevada to host another workshop in the foreseeable future.
Fiscal Year 2014 Wildlife Reserve Account Project Proposal

Project Summary

Project Title:  Key Pittman WMA Wildlife Food Plots and Habitat Enhancement

Wildlife Reserve Account that Would Fund this Project:  Upland Game Bird Stamp

NDOW Project Manager (PM):  Ron Mills

PM Phone Number and Email Address:  (775)725-3521; rmills@ndow.org

Total Funds Requested from the Wildlife Reserve Account:  $6,200

Funds to be Used from Other Sources:  $0

Total Project Cost to be Funded by All Sources:  $6,200

Would Funds from this Program Be Used for State Matching Purposes?  Yes

If Yes, Which Federal Grant?  Wildlife Management Area System Federal Grant

Project Proposal

I.  Brief Description of the Need for the Project:
   The goal at Key Pittman is to maintain existing habitats and enhance habitat when and where possible for the benefit of wetland-dependent species as well as all other wildlife species.  To accomplish this, we manipulate water, use mechanical means such as farming, seeding and mowing, apply herbicides and administer a grazing program.  The emphasis is to provide for waterfowl species but other species such a dove, quail, cottontail rabbit, deer, shore birds, wading birds, raptors and a multitude of song birds and other mammals benefit from the project as well.  Currently 60 acres are farmed, an additional 10 acres are seeded with sunflower and millet along the pond edges, 120 acres are put through wet and dry cycles and the native vegetation mowed annually, and grass seed is applied to areas where noxious weed control has decimated the vegetation.  Sandhill cranes are the most notable success of the current food plot program.  Five years ago, when the current program was initiated, numbers peaked at 20 during the spring and fall migration with an estimated 400 use days noted.  Currently this spring the numbers peaked at 150 Sandhill cranes with
estimated 3,000 use days noted. More are coming every year and staying longer. Annual Canada goose use on the food plots exceed 10,000 use days per year.

II. Project Purpose and Objectives:
To complete annual plantings and vegetation manipulation, and to enhance existing habitat on the management area for the benefit of wildlife. A measurable increase of wildlife use with increased public use and hunter success.

III. Project Location:
Key Pittman WMA is located in the northern end of Pahranagat Valley of Lincoln County, Nevada.

IV. Describe the Specific Benefits of this Project:
Benefits: The food plot program incorporates cover crops, nitrogen fixing plants and cereal grains to provide forage to wildlife and maintain and/or improve the soil for better production, reduce noxious and invasive weeds and eliminate the need for commercial fertilizer. Results: Increased documented use of waterfowl, quail, dove, cottontail rabbit and deer, improved harvest of game species and a reduced need for noxious and invasive weed control. Benefits to non game species such as small mammals, raptors, song birds, reptiles and many others is another bonus of this project.

V. Project Approach:
The food plot cycle begins October 1st following the dove season. Fields are mowed, disked and seed drilled and irrigated. At the same time, the NW corner of the Frenchy Unit is mowed. In December and January, the grass seed is broadcast in deficient habitats mostly created by noxious weed control. In February or March, the food plots are over seeded with additional cereal grains and sunflower. At this time, the northern impoundments are drained. In June, millet and sunflower is broadcast along portions of the pond edges. In mid July, grazing begins. During the last week of July, the food plots are strip mowed for the dove season. In mid August, the desirable vegetation (goose foot and alkali bulrush) has matured and the northern impoundments are mowed and filled with water. At the end of September, the dove season ends and the grazing lease ends and the cycle starts again.

VI. Project Schedule:
See section V. above.

VII. Relationship to NDOM Plans, Policies and Programs:
Annual Habitat maintenance and enhancement is identified in all of the current WMA Conceptual Management Plans. Desired Outcome: Wildlife habitats that are in good ecological condition, capable of supporting a diverse array of wildlife species. Goal: Habitat is the key to the success of all wildlife populations. Effective habitat is an integral function of the Department of Wildlife. NDOM will preserve and protect quality habitat and enhance deficient habitats. Objective: Maintain, protect and enhance wildlife habitats on wildlife
management areas (WMA’s) by applying good science and best management practices through implementation of Comprehensive Management Plans on all WMA’s (Comprehensive Strategic Plan). Achieve an overall goal of no net loss of wetland area or function and the long-term goal to enhance and increase wetland quantity and quality within the WMA (Wetland Conservation Plan).

VIII. Other Projects or Activities that Need to Be Accomplished Before this Project Can Be Completed:
None

IX. Describe How the Effects of the Project will be Measured and Monitored:
The KPWMA Food Plot program is an ongoing, yearly habitat management activity. The results of food plots in FY13 will be evaluated for their effectiveness and benefit to wildlife and sportsmen. The results of this evaluation will determine what species will be planted in subsequent years

Project Costs and Funding

X. Cost Summary
All of the project’s funds will be used to purchase seed.

XI. Would Funds from this Program Be Used for State Matching Purposes? Yes ___ No ___

XII. Which Federal Grant Would the Matching Funds be used for? WMA System Federal Grant

XIII. Is this Project Going to Continue After FY14? Yes ___ No ___
If yes, is this going to be an annual, recurring project? Yes ___ No ___
If it is not going to be an annual project, what fiscal year is it expected to end? FY ___

XIV. Annual Costs (if this is a Recurring Project) or Total Project Costs Beyond FY14: $6,200
Fiscal Year 2014 Wildlife Reserve Account Project Proposal

**Project Summary**

**Project Title:** Key Pittman Wildlife Management Area Quail Purchase

**Wildlife Reserve Account that Would Fund this Project:** Upland Game Bird Stamp

**NDOW Project Manager (PM):** Ron Mills

**PM Phone Number and Email Address:** (775) 725-3521; rmills@ndow.org

**Total Funds Requested from the Wildlife Reserve Account:** $1,000

**Funds to be Used from Other Sources:** $0

**Total Project Cost to be Funded by All Sources:** $1000

**Would Funds from this Program Be Used for State Matching Purposes?** Yes

**If Yes, Which Federal Grant?** Wildlife Management Area System Federal Grant

---

**Project Proposal**

I. **Brief Description of the Need for the Project:**
This project would fund the purchase of quail chicks to be raised in surrogators on Key Pittman WMA. This project’s purpose is to enhance upland game populations and hunting conditions.

II. **Project Purpose and Objectives:**
The goal of this project is to enhance upland game populations on the Key Pittman WMA. This project is also aimed at attracting more upland hunters to the sport and onto the WMA as well as trying to garner interest from youth hunters.

III. **Project Location:**
Key Pittman WMA is located in the northern end of Pahranagat Valley in Lincoln County, Nevada.

IV. **Describe the Specific Benefits of this Project:**
The project would supplement wild quail populations on the WMA and provide more hunting opportunities to our constituents with a minimal investment.
V. Project Approach:
This project involves the purchase of quail chicks for the Key Pittman WMA quail program. In 2013, a surrogator incubator box was purchased for the purpose of wild quail population enhancement on the area. A surrogator would be used to incubate up to 3 batches of quail chicks annually and it is expected that each year would consistently see better returns on surveys as well as hunter success on the area.

VI. Project Schedule:
The surrogators would be cycled 3 times annually beginning in April and ending in July, with approximately 450 total quail chicks to be incubated in that time.

VII. Relationship to NDOW Plans, Policies and Programs:
“NDOW will maintain healthy, diverse wildlife communities that satisfy mankind’s desires for diversity, knowledge and enjoyment and meet our responsibility to maintain species diversity at the local, regional and global scale” (NDOW Strategic Plan). Promoting hunting opportunities is an objective of the Key Pittman WMA Conceptual Management Plan.

VIII. Other Projects or Activities that Need to Be Accomplished Before this Project Can Be Completed:
None

IX. Describe How the Effects of the Project will be Measured and Monitored:
This program would be evaluated on an annual basis by the number of survived birds on the area as well as any natural reproduction documented. Evaluation would also be done by surveys documenting hunter use days on the area and the number of bagged birds.

Project Costs and Funding

X. Cost Summary
Approximately $800 of the project funds will be used to purchase day-old chicks and around $200 will be used for propane needed to heat the surrogators and starter feed.

XI. Would Funds from this Program Be Used for State Matching Purposes?  Yes  X  No ____

XII. Which Federal Grant Would the Matching Funds be Used For?  WMA System Federal Grant

XIII. Is this Project Going to Continue After FY14?  Yes  X  No ____
If yes, is this going to be an annual, recurring project?  Yes  X  No ____
If it is not going to be an annual project, what fiscal year is it expected to end?  FY ______

XIV. Annual Costs (if this is a Recurring Project) or Total Project Costs Beyond FY14:  $1,000
Fiscal Year 2014 Wildlife Reserve Account Project Proposal

Project Summary

Project Title: Kirch Wildlife Management Area Wildlife Food Plots

Wildlife Reserve Account that Would Fund this Project: Upland Game Bird Stamp

NDOW Project Manager (PM): Marcus Jones

PM Phone Number and Email Address: (775)238-0240; mzjones@ndow.org

Total Funds Requested from the Wildlife Reserve Account: $9,600

Funds to be Used from Other Sources: None

Total Project Cost to be Funded by All Sources: $9,600

Would Funds from this Program Be Used for State Matching Purposes? Yes

If Yes, Which Federal Grant? Wildlife Management Area System Federal Grant

Project Proposal

I. Brief Description of the Need for the Project:
The KWMA wildlife Food plot program is a yearly habitat management activity that increases sportsman use and satisfaction by maximizing wildlife populations on the WMA.

II. Project Purpose and Objectives:
This project request is for the purchase of seed used in the planting of 170 acres of wildlife food plots at the Kirch Wildlife Management Area. The purpose of this project is to enhance habitat for upland game birds, mourning dove, mule deer, and waterfowl. The upper 37 acres of the Dove field will be planted in the spring with a mix of cereal grains and sunflower intended to attract mourning dove, and upland game birds, the lower 33 acres of the Dove Field will be planted in the fall to winter wheat and Austrian winter peas and is intended to enhance feeding and nesting cover for upland game and provide forage for mule deer. Two 20 acre wetlands on the Old Place and Adams McGill Units will be planted in the summer with a mix of Japanese Millet and cereal grains. Crested wheatgrass, Siberian wheatgrass, and rocky mountain bee plant will be planted in 60 acres of the fallow agriculture fields west of the Dove Field in the fall. Agricultural production of
farmland crops is beneficial to a wide variety of wildlife, particularly upland and migratory birds. Maximizing wildlife populations on the WMA increases sportsmen use and satisfaction.

III. Project Location:
This project is located at the Wayne E. Kirch Wildlife Management Area located in the White River Valley in northeastern Nye County. The Kirch WMA has four food plots that are planted annually; the upper and lower Dove Fields are located near the KWMA headquarters, the Old Place Unit is north of Adams-McGill Reservoir, and the Adams Field is east of Adams-McGill Reservoir.

IV. Describe the Specific Benefits of this Project:
This project helps create 110 acres of irrigated crops that will provide feeding, resting, and nesting cover to a variety of upland, migratory game and non-game species. This project will also plant desirable vegetation on 60 acres that currently contains monotypic stands of noxious/invasive weeds.

V. Project Approach:
1. The lower 33 acres of the Dove Field will be planted with a mixture of winter wheat and Austrian winter peas in the fall of 2013.
2. The remaining 60 acres of fallow agricultural fields west of the Dove Field will be planted with a mixture of crested wheatgrass, Siberian wheatgrass, and Rocky Mountain beeplant in the fall of 2013.
3. The upper 37 acre section of the Dove Field will be planted in the spring of 2014 with a mixture of browntop millet, bird magnet sorghum, foxtail millet, sesame, and hybrid oil sunflowers.
4. Twenty acres of the Old Place unit will be planted in June of 2014 with a mixture of Japanese millet, browntop millet, Bengal rice, buckwheat, sorghum, smartweed, and barnyard grass.
5. The 20 acre Adams-McGill field will be planted in June 2014 with a mixture of Japanese millet, browntop millet, Bengal rice, buckwheat, sorghum, smartweed, and barnyard grass.

VI. Project Schedule:
The KWMA food plots on the Dove Field, Old Place Unit, and Adams-McGill Field are an ongoing, yearly habitat management activity. Seeding of the fallow agricultural field is a perennial dry land food plot and, upon establishment of desired plant species, will not require reseeding in subsequent years. Please see the project approach section above for the project schedule and species being planted.

VII. Relationship to NDOW Plans, Policies and Programs:
The objective of this project is defined in the Kirch WMA Conceptual Management Plan’s goal to maintain adequate habitat for migrating and local waterfowl, doves and sandhill cranes. Strategy: evaluate the potential for creating several food plots to attract and benefit migrating sandhill cranes and provide watchable wildlife opportunities. This project is in accordance to NDOW’s mission statement and commission Policy 66. Farming may be initiated on some areas to meet site-specific management area needs.

VIII. Other Projects or Activities that Need to Be Accomplished Before this Project Can Be Completed:
None
IX. **Describe How the Effects of the Project will be Measured and Monitored:**

The KWMA Food Plot program is an ongoing, yearly habitat management activity. The results of food plots in FY13 will be evaluated for their effectiveness and benefit to wildlife and sportsmen. The results of this evaluation will determine what species will be planted in subsequent years. After seeding and irrigation is done, WMA employees evaluate what vegetation worked with what amount of water, and in doing so we will be able to tell what works the best for the next water year in each food plot. If a food plot is unproductive, it will be taken out of rotation and fertilized to get more nutrients in the ground. The seeds that we have found to get the best yields are: Golden German millet, common sunflower, milo, spring wheat, Japanese millet and Peredovik sunflower. Public use and comments are closely monitored and documented; as well as the use by deer, dove, quail, pheasant and turkey. If there is not enough beneficial use of wildlife, the WMA will take the unproductive food plot out of the rotation.

**Project Costs and Funding**

X. **Cost Summary**

All of the project funds will be used to purchase seed.

XI. **Would Funds from this Program Be Used for State Matching Purposes?** Yes _X_ No ___

XII. **Which Federal Grant Would the Matching Funds be Used For?** WMA System Federal Grant

XIII. **Is this Project Going to Continue After FY14?** Yes _X_ No _____

If yes, is this going to be an annual, recurring project? Yes _X_ No _____

If it is not going to be an annual project, what fiscal year is it expected to end? FY _______

XIV. **Annual Costs (if this is a Recurring Project) or Total Project Costs Beyond FY14:** $9,600
Fiscal Year 2014 Wildlife Reserve Account Project Proposal
(formerly referred to as a Level B project proposal)

Project Summary

Project Title: Kirch Wildlife Management Area Pheasant Purchase

Wildlife Reserve Account that Would Fund this Project: Upland Game Bird Stamp

NDOW Project Manager (PM): Marcus Jones

PM Phone Number and Email Address: (775)238-0240; mzjones@ndow.org

Total Funds Requested from the Wildlife Reserve Account: $1,000

Funds to be Used from Other Sources: $0.00

Total Project Cost to be Funded by All Sources: $1,000

Would Funds from this Program Be Used for State Matching Purposes? Yes

If Yes, Which Federal Grant? Wildlife Management Area System Federal Grant

Project Proposal

I. Brief Description of the Need for the Project:
This project would fund the purchase of pheasant chicks to be raised in surrogators at Kirch WMA. This project’s purpose is to enhance upland game populations.

II. Project Purpose and Objectives:
The goal of this project is to enhance upland game populations on the Kirch WMA. His project is also aimed at attracting more upland hunters to the sport and onto the WMA as well as trying to garner interest from youth hunters.

III. Project Location:
This project is located at the Wayne E. Kirch Wildlife Management Area located in the White River Valley in northeastern Nye County.
IV. Please Describe the Specific Benefits of this Project:
The project would supplement wild pheasant populations on the WMA and provide more hunting opportunities to our constituents with a minimal investment.

V. Project Approach:
This project involves the purchase of pheasant chicks for the Kirch WMA pheasant program. In 2012, two surrogator incubator boxes were purchased for the purpose of wild pheasant population enhancement on the area. A surrogator would be used to incubate up to 3 batches of pheasant chicks annually and it is expected that each year would consistently see better returns from crow counts as well as hunter success on the area.

VI. Project Schedule:
The surrogators would be cycled 3 times annually beginning in April and ending in July. With the 2 surrogators in production, approximately 450 total pheasant chicks can be incubated in that time.

VII. Relationship to NDOW Plans, Policies and Programs:
“NDOW will maintain healthy, diverse wildlife communities that satisfy mankind’s desires for diversity, knowledge and enjoyment and meet our responsibility to maintain species diversity at the local, regional and global scale” (NDOW Strategic Plan). Promoting hunting opportunities is an objective of the Kirch WMA Conceptual Management Plan.

VIII. Other Projects or Activities that Need to Be Accomplished Before this Project Can Be Completed:
None

IX. Describe How the Effects of the Project will be Measured and Monitored:
This program would be evaluated on an annual basis by the number of survived birds on the area as well as any natural reproduction documented. Evaluation would also be done by surveys documenting hunter use days on the area and the number of bagged birds.

Project Costs and Funding

X. Cost Summary
Approximately $800 of the project funds will be used to purchase day-old chicks and around $200 will be used for propane needed to heat the surrogators and starter feed.

XI. Would Funds from this Program Be Used for State Matching Purposes? Yes X No ___

XII. Which Federal Grant Would the Matching Funds be Used For? WMA System Federal Grant

XIII. Is this Project Going to Continue After FY14? Yes X No ___
If yes, is this going to be an annual, recurring project? Yes X No ___
If it is not going to be an annual project, what fiscal year is it expected to end? FY ____

XIV. Annual Costs (if this is a Recurring Project) or Total Project Costs Beyond FY14: $1,000
Fiscal Year 2014 Wildlife Reserve Account Project Proposal

Project Summary

Project Title: Mason Valley WMA Food Plots

Wildlife Reserve Account that Would Fund this Project: Upland Game Bird Stamp

NDOW Project Manager (PM): Russelle Smith

PM Phone Number and Email Address: (775)463-2741; rsmith@ndow.org

Total Funds Requested from the Wildlife Reserve Account: $2,500

Funds to be Used from Other Sources: $0

Total Project Cost to be Funded by All Sources: $2,500

Would Funds from this Program Be Used for State Matching Purposes? Yes

If Yes, Which Federal Grant? WMA System Grant

Project Proposal

I. Brief Description of the Need for the Project:
These food plots provide valuable feed and escape cover for a wide variety of upland birds and other wildlife. These food plots also improve hunting conditions for our constituents.

II. Project Purpose and Objectives:
The goals of this project are to provide habitat for small, upland and big game and to provide a place for recreational hunting while promoting youth hunting. The food plots will provide adequate cover and feed for many different species of wildlife. It also assists with the pheasant program that was started in 2009 on the MVWMA.

III. Project Location:
MVWMA is located approximately seven miles north of Yerington, NV. Currently there is 17,426 acres of property associated with the WMA.
IV. Describe the Specific Benefits of this Project:
Providing quality feed and escape cover in these fields will benefit dove, turkey and quail on a yearly basis. These food plots also attract ducks and shore birds throughout the winter migration and nesting season.

V. Project Approach:
A variety of seed is drilled annually into the 80 acres designated to food plot areas on MVWMA. They will be planted in April-May and flood irrigated as an agricultural crop. When the crop reaches maturity, around the end of August, they then will be stripped mowed or lightly disked; leaving standing vegetation for cover for upland game and other wildlife species. In September, these food plots are very popular with the sportsman trying bag a dove or two. While in the winter months providing feed and cover for quail, turkeys, pheasant, rabbits, deer and other non game species. In October-November, a select few will then be flood irrigated once again to provide feed for migrating waterfowl.

VI. Project Schedule:
MVWMA food plots are an ongoing, yearly habitat management activity. Most seeding is done in April-May and strip mowed or disked in late summer.

VII. Relationship to NDOW Plans, Policies and Programs:
Annual vegetation enhancement and maintenance is identified in the MVWMA Conceptual Management Plan. Desired Outcome: Wildlife habitats that are in good ecological condition, capable of supporting a diverse array of wildlife species. Goal: Habitat is the key to the success of all wildlife populations. Effective Habitat is an integral function of the Department of Wildlife. NDOW will preserve and protect quality habitats and enhance deficient habitats. Objective: Maintain, protect and enhance wildlife habitats on wildlife management areas by applying good science and best management practices through implementation of Comprehensive Management Plans on all WMA’s (NDOW Strategic Plan 2006).

VIII. Other Projects or Activities that Need to Be Accomplished Before this Project Can Be Completed:
None

IX. Describe How the Effects of the Project will be Measured and Monitored:
After seeding and irrigation is done, WMA employees evaluate what vegetation worked with what amount of water, and in doing so we will be able to tell what works the best for the next water year in each food plot. If a food plot is unproductive, it will be taken out of rotation and fertilized to get more nutrients in the ground. The seeds that we have found to get the best yields are: Golden German millet, common sunflower, milo, spring wheat, Japanese millet and Peredovik sunflower. Public use and comments are closely monitored and documented; as well as the use by deer, dove, quail, pheasant and turkey. If there is not enough beneficial use of wildlife, the WMA will take the unproductive food plot out of the rotation.
Project Costs and Funding

X. Cost Summary
All of the project’s funds will be used to purchase seed.

XI. Would Funds from this Program Be Used for State Matching Purposes? Yes ___ No ___

XII. Which Federal Grant Would the Matching Funds be Used For? WMA System Grant

XIII. Is this Project Going to Continue After FY14? Yes ___ No ___
   If yes, is this going to be an annual, recurring project? Yes ___ No ___
   If it is not going to be an annual project, what fiscal year is it expected to end? FY ___

XIV. Annual Costs (if this is a Recurring Project) or Total Project Costs Beyond FY14: $2,500
Fiscal Year 2014 Wildlife Reserve Account Project Proposal

Project Summary

Project Title: Mason Valley Wildlife Management Area Pheasant Purchase

Wildlife Reserve Account that Would Fund this Project: Upland Game Bird Stamp

NDOW Project Manager (PM): Russ Smith

PM Phone Number and Email Address: (775)463-2741; rsmith@ndow.org

Total Funds Requested from the Wildlife Reserve Account: $1,000

Funds to be Used from Other Sources: $0.00

Total Project Cost to be Funded by All Sources: $1,000

Would Funds from this Program Be Used for State Matching Purposes? Yes

If Yes, Which Federal Grant? Wildlife Management Area System Federal Grant

Project Proposal

I. Brief Description of the Need for the Project:
This project would fund the purchase of pheasant chicks to be raised in surrogators at Mason Valley WMA. This project’s purpose is to enhance upland game populations.

II. Project Purpose and Objectives:
The goal of this project is to enhance upland game populations on the Mason Valley WMA. This project is also aimed at attracting more upland hunters to the sport and onto the WMA as well as trying to garner interest from youth hunters.

III. Project Location:
This project will be located on the MVWMA, which is approximately 7 miles North of Yerington, NV.

IV. Describe the Specific Benefits of this Project:
The project would supplement wild pheasant populations on the WMA and provide more hunting opportunities to our constituents with a minimal investment.
V. Project Approach:
This project involves the purchase of pheasant chicks for the Mason Valley WMA pheasant program. In 2009, two surrogator incubator boxes were purchased for the purpose of wild pheasant population enhancement on the area. A surrogator would be used to incubate up to 3 batches of pheasant chicks annually and it is expected that each year would consistently see better returns from crow counts as well as hunter success on the area.

VI. Project Schedule:
The surrogators would be cycled 3 times annually beginning in April and ending in July. With the 2 surrogators in production, approximately 450 total pheasant chicks can be incubated in that time.

VII. Relationship to NDOW Plans, Policies and Programs:
“NDOW will maintain healthy, diverse wildlife communities that satisfy mankind’s desires for diversity, knowledge and enjoyment and meet our responsibility to maintain species diversity at the local, regional and global scale” (NDOW Strategic Plan). Promoting hunting opportunities is an objective of the Mason Valley WMA Conceptual Management Plan.

VIII. Other Projects or Activities that Need to Be Accomplished Before this Project Can Be Completed:
None

IX. Describe How the Effects of the Project will be Measured and Monitored:
This program would be evaluated on an annual basis by the number of survived birds on the area as well as any natural reproduction documented. Evaluation would also be done by surveys documenting hunter use days on the area and the number of bagged birds.

Project Costs and Funding

X. Cost Summary
Approximately $800 of the project funds will be used to purchase day-old chicks and around $200 will be used for propane needed to heat the surrogators and starter feed.

XI. Would Funds from this Program Be Used for State Matching Purposes? Yes __ No ___

XII. Which Federal Grant Would the Matching Funds be Used For? WMA System Federal Grant

XIII. Is this Project Going to Continue After FY14? Yes ___ No ___
   If yes, is this going to be an annual, recurring project? Yes ___ No ___
   If it is not going to be an annual project, what fiscal year is it expected to end? FY ______

XIV. Annual Costs (if this is a Recurring Project) or Total Project Costs Beyond FY14: $1,000
Fiscal Year 2014 Wildlife Reserve Account Project Proposal

Project Summary

Project Title:  Mason Valley WMA UTV

Wildlife Reserve Account that Would Fund this Project:  Duck Stamp and Upland Game Bird Stamp

NDOW Project Manager (PM):  Dave Zuch

PM Phone Number and Email Address:  775-463-2741; dzuch@ndow.org

Total Funds Requested from the Wildlife Reserve Account:  $6,750

Funds to be Used from Other Sources:  $6,750 from Upland Game Bird Stamp account

Total Project Cost to be Funded by All Sources:  $13,500

Would Funds from this Program Be Used for State Matching Purposes?  Yes

If Yes, Which Federal Grant?  Wildlife Management Area System Federal Grant

Project Proposal

I.  Brief Description of the Need for the Project:
Due to the large size and recent property additions to the Mason Valley WMA, there is a need for this equipment to spray herbicides, maintain fences, and assist with irrigation duties. This equipment will also be valuable for similar uses on other properties in the Western Complex. This equipment would fit in well with the development of the NFWF and Cable properties that have recently been annexed to the Mason Valley WMA.

II.  Project Purpose and Objectives:
The overall desired outcome of this project is to use a UTV to spray herbicides for noxious weeds in areas not accessible by larger vehicles. Using the UTV will also avert additional miles being placed on work trucks. This will improve habitat conditions for numerous wildlife species that frequent the areas. This equipment will assist with irrigation duties, fence maintenance and replacing and adding signage to our properties.
III. Project Location:
Mason Valley WMA is located north of Yerington in Lyon County, NV.

IV. Describe the Specific Benefits of this Project:
Post project conditions will consist of less noxious weeds thus impeding their ability to spread. This project will also help maintain healthy habitat conditions for wildlife. Maintained fences around these MWA’s assist in keeping trespass cattle from entering our properties.

V. Project Approach:
This UTV would be used to transport herbicides, signs and fencing supplies. Herbicides will be housed in a spray tank mounted on the back of the UTV.

VI. Project Schedule:
Fencing and sign repairs are done throughout the year on these WMA’s. Herbicide application typically starts in the spring when weeds are actively growing.

VII. Relationship to NDOW Plans, Policies and Programs:
The addition, this UTV would allow NDOW employees to adhere to the Nevada Department of Wildlife’s Conceptual Management Plan. This UTV will also decrease the amount of miles put on work trucks.

VIII. Other Projects or Activities that Need to Be Accomplished Before this Project Can Be Completed:
None

IX. Describe How the Effects of the Project will be Measured and Monitored:
The effects of using the UTV will be measured by the increase in production of WMA staff and by the time savings on individual projects.

Project Costs and Funding

X. Cost Summary
All of the project’s funds would be used to help cover the costs of the UTV.

XI. Would Funds from this Program Be Used for State Matching Purposes?  Yes _X___ No ___

XII. Which Federal Grant Would the Matching Funds be used for?  Wildlife Management Area System Federal Grant

XIII. Is this Project Going to Continue After FY14?  Yes _____ No ___X___
   If yes, is this going to be an annual, recurring project?  Yes _____ No ___
   If it is not going to be an annual project, what fiscal year is it expected to end?  FY _______

XIV. Annual Costs (if this is a Recurring Project) or Total Project Costs Beyond FY14:
Fiscal Year 2014 Wildlife Reserve Account Project Proposal

Project Summary

Project Title:  *Overton Wildlife Management Area Food Plots.*

Wildlife Reserve Account that Would Fund this Project:  Upland Game Bird

NDOW Project Manager (PM):  Tim Wood

PM Phone Number and Email Address:  (702)397-2142; tlwood@ndow.org

Total Funds Requested from the Wildlife Reserve Account:  $2,800

Funds to be used from Other Sources:  $0

Total Project Cost to be funded by All Sources:  $2,800

Would Funds from this Program Be Used for State Matching Purposes?  Yes

If Yes, Which Federal Grant?  WMA System Grant

Project Proposal

I.  Brief Description of the Need for the Project:
These resources would provide seed, fertilizer and various soil amendments to be used in food plots around fields and wetland areas at the Overton WMA. The number of food plots would vary depending on how many areas are not being farmed under the sharecrop lease program during that year, i.e. if the sharecrop lessee elects to leave portions of certain fields fallow, area staff will plant upland bird seed mix in those areas.

II.  Project Purpose and Objectives:
The funding provided would be used to purchase seed, fertilizer and various soil amendments to be used in producing small food plots on the Overton Wildlife Management Area. This funding, combined with implementation of other cultural practices, would help restore the productivity of the fields. When the fields are in good condition and producing quality wildlife forage, they are used heavily by resident and migrating waterfowl, wild turkeys, dove, quail and a host of non-game wildlife species.
III. **Project Location:**
This project is located at the north end of Lake Mead in Clark County, NV off Hwy. 169 near Overton.

IV. **Describe the Specific Benefits of this Project:**
Providing quality feed and escape cover in these fields will benefit dove, turkey and quail on a yearly basis. These food plots also attract ducks and shore birds throughout the winter migration and nesting season.

V. **Project Approach:**
The funding provided would be used to purchase seed, fertilizer and various soil amendments that would be used in the establishment and maintenance of small food plots on the Overton WMA. This funding, combined with implementation of other cultural practices, would provide quality upland game bird habitat that would benefit wild turkeys, dove, quail and a host of non-game wildlife species. The described food plots are separate from the farmed fields which tend to provide more benefit for ducks and geese while the small food plots will benefit upland game species as well as dove and non-game species.

VI. **Project Schedule:**
Overton WMA food plots is an ongoing, yearly habitat management activity.

VII. **Relationship to NDOW Plans, Policies and Programs:**
The farming of the area fields is identified as a goal in the Overton Conceptual Management Plan. In addition, Nevada Board of Wildlife Commission Policy 66, states that primary management emphasis at the Overton WMA will be placed on the production of quality waterfowl habitat and the provision of hunting opportunity. Improved implementation of the farming program will greatly enhance the chances of accomplishing that mission.

VIII. **Other Projects or Activities that Need to Be Accomplished Before this Project Can Be Completed:** None

IX. **Describe How the Effects of the Project will be Measured and Monitored:**
The effectiveness of strategies employed would be easily measured by the productivity of the food plots, the subsequent usage by wildlife species and improved hunting opportunities for area users.
Project Costs and Funding

X. Cost Summary
   All of the project’s funds will be used to purchase seed, fertilizer and various soil amendments.

XI. Would Funds from this Program Be Used for State Matching Purposes?  Yes ___X__ No _____

XII. Which Federal Grant Would the Matching Funds be Used For?  WMA System Grant

XIII. Is this Project Going to Continue After FY14?  Yes ___X__ No _____
      If yes, is this going to be an annual, recurring project?  Yes ___X__ No _____
      If it is not going to be an annual project, what fiscal year is it expected to end?

XIV. Annual Costs (if this is a Recurring Project) or Total Project Costs Beyond FY14:  $2,800.00
Fiscal Year 2014 Wildlife Reserve Account Project Proposal

Project Summary

Project Title: Northern Nevada Small Game Water Development Projects

Wildlife Reserve Account that Would Fund this Project: Upland Game Bird Stamp

NDOW Project Manager (PM): Clint Garrett
PM Phone Number and Email Address: 775-625-4561; ctgarrett@ndow.org

Total Funds Requested from the Wildlife Reserve Account: $35,000

Funds to be Used from Other Sources: $10,000 from the Nevada Chukar Foundation (NCF) and $5,000 from Pershing County Chukars Unlimited (PCCU) will be available in FY14 to help pay for helicopter flight time needed to inspect and repair small game guzzlers in the northern portion of the state. About 15 percent, or around $56,000, of FY14’s Water Development Grant is expected to be used for the small game water development program in northern Nevada. Additionally, an undefined amount of in-kind services (primarily volunteer labor and equipment use) are provided by volunteer sportsman groups.

Total Project Cost to be Funded by All Sources: $106,000

Would Funds from this Program Be Used for State Matching Purposes? Yes

If Yes, Which Federal Grant? W-58 (Water Development and Maintenance Grant)

Project Proposal

I. Brief Description of the Need for the Project:
Small volume water developments or guzzlers play an important role in expanding the populations of both small game and non-game species in areas of the state where water is the limiting factor to such expansions. The funds associated with this project are also needed to help with ongoing maintenance and repair of small game guzzler components and to replace poorly-designed wire fencing with higher quality pipe rail fencing.

The funds used for this project also are an important source of matching dollars for the Federal Water Development and Maintenance Grant.
II. Project Purpose and Objectives:
The primary purpose of small game water development (or guzzler) projects is to expand small game populations into suitable habitat where a lack of water is the limiting factor. These types of projects benefit a number of small game species, including: chukar, sage grouse, quail and rabbits. In addition to these target species, guzzlers are used by a variety of non-game species, including golden eagles, jays and other birds, bats, rabbits, foxes, coyotes, bobcats and toads. Water development projects also help mitigate for lost and/or fragmented game and non-game habitat resulting from human disturbances such as urban and agricultural development, highway/freeway construction, power plant and transmission line development, mining, livestock grazing, wild horse and burro use, etc. Another project purpose is to inspect, maintain and repair as many existing small game guzzlers as possible each fiscal year. In FY14, the northern Nevada water development program has an objective of inspecting around 100 individual small game units; minor repairs are typically required on around 25% of these. Based on our experience in previous years, around 5 to 10 of these units will require major repairs and/or fence replacements.

III. Project Location:
The project area encompasses 13 counties within northern Nevada: White Pine, Elko, Lander, Eureka, Pershing, Humboldt, Churchill, Washoe, Storey, Carson City, Lyon, Douglas, and Mineral. There are approximately 944 small game guzzlers within these counties, with 737 in NDOW’s Western Region and 207 in the Eastern Region.

IV. Describe the Specific Benefits of this Project:
The benefits of this project are listed below.

- Existing wildlife populations will continue to have a dependable source of water as existing water developments are repaired and maintained. This will prevent wildlife from having to search for new water sources, especially during periods of drought. This will allow wildlife to stay in preferred habitat and increase their survival rates.
- In areas where new water developments are installed, wildlife populations will be allowed to expand into areas of usable habitat where water was not previously available thus relieving stress on habitat and wildlife elsewhere.
- By providing wildlife with a dependable water source away from human disturbances, water developments help lessen conflicts between wildlife and urban and agricultural development, highway construction, off-highway vehicle use, power development, mining activities, livestock grazing, etc.
- This program will increase both game and non-game wildlife viewing and hunting opportunities in Nevada.
- Expenditures by NDOW’s water development programs financially benefit the private companies and employees that supply NDOW with guzzler equipment and supplies, helicopter services and vehicle maintenance services.
V. Project Approach:

Inspections and Maintenance
Existing small game guzzlers in northern Nevada will be evaluated by air using a helicopter and on the ground using trucks and ATVs to facilitate access. Water levels will be inspected along with wildlife use and structural damage, if any. Minor repairs and maintenance will be conducted on the spot while more complex work will be scheduled for repair depending on guzzler wildlife use and workload.

Maintenance activities to be performed include: removing brush and debris, taking pictures, documenting local habitat conditions and evidence of wildlife use, installing trail cameras if available, confirming UTM’s with GPS units, tightening fences, rebuilding fences, adding fence stays-clips, fixing gutters, downspouts, end caps, pipe, patching tank, replacing lids/ramps, cleaning tanks/drinkers, checking water levels, patching/rebuilding apron and painting burned aprons.

Documenting Wildlife Usage
NDOW is purchasing and installing trail cameras more frequently to better document wildlife usage at small game water developments. Related data and local habitat conditions will be documented and entered into NDOW’s water development database.

Major Repairs
Based upon inspection results, or if a hunter or volunteer contacts NDOW regarding damage to an existing guzzler, NDOW typically needs to conduct a number of major repairs each year. This work typically consists of replacing wire fencing with pipe rail fencing, replacing cross beams, aprons, storage tanks or other major components that have suffered storm damage, unusually heavy snow loads, or have reached the end of their useful lives. This work is sometimes performed with just NDOW employees and at other times with the assistance of volunteers.

VI. Project Schedule:
The small game water development work described in this document will take place between July 1, 2013 to June 30, 2014. The aerial evaluation project duration will be 1 week and will take place in the spring, usually April. A Federal Aid Report (FAR) is produced in August describing all of the yearly activities within the water development program. There will be a write up of the small game evaluation flights within the yearly FAR.

VII. Relationship to NDOW Plans, Policies and Programs:
The installation and maintenance of water developments is covered by related Habitat Management and Enhancement Objectives included in NDOW’s Comprehensive Strategic Plan (2004-2009). This type of work also is compatible with the different, BLM district-specific Resource Management Plans (RMPs) that cover the Western and Eastern Regions. NDOW staff works closely with BLM staff on water development-related activities and also must comply with its guzzler maintenance responsibilities defined in the MOU’s/cooperative agreements that are in place within multiple BLM districts.
VIII. Other Projects or Activities that Need to Be Accomplished Before this Project Can Be Completed:
NDOW works closely with the staff of federal land management agencies, usually the BLM, to comply with NEPA, the National Historic Preservation Act and any other federal laws that apply to the ground disturbance activities associated with new water development installations or major repair work. Any activities that would take place within designated wilderness must be defined in advance and approved by the related federal land management agency.

IX. Describe How the Effects of the Project will be Measured and Monitored:
The wildlife population effects of the project are nearly impossible to measure and would be dynamic from year to year; thus, success will be measured in terms of the total number of guzzlers inspected, maintained, repaired and functioning properly. Success can be seen in both bringing damaged guzzlers back “on-line” and confirming that they are in proper functioning condition. The photographs and related information gained from trail cameras at selected units will also help define how successful related guzzler units are from both a game and non-game species standpoint, and will influence the design of guzzler components in the future.

Project Costs and Funding

X. Cost Summary
About 60% of the Upland Game Bird account funding (or $21,000) will be needed for NDOW labor costs as staff inspects and repairs existing units. The remainder of the funding, around $14,000 will be needed for travel costs, equipment, materials and miscellaneous supplies.

Would Funds from this Program Be Used for State Matching Purposes? Yes _X_ No _____

XI. Which Federal Grant Would the Matching Funds be Used For? W-58 (Water Development and Maintenance Grant)

XII. Is this Project Going to Continue After FY14? Yes _X_ No _____
If yes, is this going to be an annual, recurring project? Yes _X_ No _____
If it is not going to be an annual project, what fiscal year is it expected to end? FY ______

XIII. Annual Costs (if this is a Recurring Project) or Total Project Costs Beyond FY14:
The total annual cost of this project, and the annual contribution from the Upland Game Bird Stamp account ($35,000), are expected to be the same each year into the foreseeable future.
Fiscal Year 2014 Wildlife Reserve Account Project Proposal

Project Summary

Project Title: Southern Nevada Small Game Water Development Projects

Wildlife Reserve Account that Would Fund this Project: Upland Game Bird Stamp

NDOW Project Manager (PM): Cody McKee
PM Phone Number and Email Address: 702-486-5127 x3614; cmckee@ndow.org

Total Funds Requested from the Wildlife Reserve Account: $80,000

Funds to be Used from Other Sources: About 25 percent, or around $98,000, of FY14’s Water Development Grant is expected to be used for the small game water development program in southern Nevada. Additionally, an undefined amount of in-kind services (primarily volunteer labor and equipment use) are provided by volunteer sportsman groups.

Total Project Cost to be Funded by All Sources: $178,000

Would Funds from this Program Be Used for State Matching Purposes? Yes

If Yes, Which Federal Grant? W-58 (Water Development and Maintenance Grant)

Project Proposal

I. Brief Description of the Need for the Project:
Small volume water developments or guzzlers play an important role in expanding the populations of both small game and non-game species in areas of the state where water is the limiting factor to such expansions. The funds associated with this project are also needed to help with ongoing maintenance and repair of small game guzzler components and to replace poorly-designed wire fencing with higher quality pipe rail fencing. The funds used for this project also are an important source of matching dollars for the Federal Water Development and Maintenance Grant.
II. **Project Purpose and Objectives:**

The primary purpose of small game water development (or guzzler) projects is to expand small game populations into suitable habitat where a lack of water is the limiting factor. These types of projects benefit a number of small game species in the southern part of the state, including chukar, Gambel’s quail, California Valley quail and rabbits. A major focus of the southern Nevada water development program is to expand the population of Mountain quail in the state. In addition to these target species, guzzlers are used by a variety of non-game species, including golden eagles, jays and other birds, bats, rabbits, foxes, coyotes, bobcats and toads. Water development projects also help mitigate for lost and/or fragmented game and non-game habitat resulting from human disturbances such as urban and agricultural development, highway/freeway construction, power plant and transmission line development, mining, livestock grazing, wild horse and burro use, etc. Another project purpose is to inspect, maintain and repair as many existing small game guzzlers as possible each fiscal year.

In FY14, the southern Nevada water development program has an objective of inspecting around 100 individual small game units; minor repairs are typically required on around 25% of these. Based on our experience in previous years, around 5 to 10 of these units will require major repairs and/or fence replacements. New small volume water developments will be installed in northern Lincoln County (6 units during the summer of 2013) and Esmeralda County (7 units during the spring of 2014) with the intent of expanding Mountain quail populations into these areas.

III. **Project Location:**

The project area encompasses 4 counties within southern Nevada: Esmeralda, Nye, Lincoln and Clark Counties.

IV. **Describe the Specific Benefits of this Project:**

The benefits of this project are listed below.

- **Existing wildlife populations will continue to have a dependable source of water as existing water developments are repaired and maintained. This will prevent wildlife from having to search for new water sources, especially during periods of drought. This will allow wildlife to stay in preferred habitat and increase their survival rates.**
- **In areas where new water developments are installed, wildlife populations (including Mountain quail) will be allowed to expand into areas of usable habitat where water was not previously available thus relieving stress on habitat and wildlife elsewhere.**
- **By providing wildlife with a dependable water source away from human disturbances, water developments help lessen conflicts between wildlife and urban and agricultural development, highway construction, off-highway vehicle use, power development, mining activities, livestock grazing, etc.**
- **This program will increase both game and non-game wildlife viewing and hunting opportunities in Nevada.**
- **Expenditures by NDOW’s water development programs financially benefit the private companies and employees that supply NDOW with guzzler equipment and supplies, helicopter services and vehicle maintenance services.**
V. Project Approach:

Inspections and Maintenance
Existing small game guzzlers in southern Nevada will be evaluated by air using a helicopter and on the ground using trucks and ATVs to facilitate access. Water levels will be inspected along with wildlife use and structural damage, if any. Minor repairs and maintenance will be conducted on the spot while more complex work will be scheduled for repair depending on guzzler wildlife use and workload.

Maintenance activities to be performed include: removing brush and debris, taking pictures, documenting local habitat conditions and evidence of wildlife use, installing trail cameras if available, confirming UTM’s with GPS units, tightening fences, rebuilding fences, adding fence stays-clips, fixing gutters, downspouts, end caps, pipe, patching tank, replacing lids/ramps, cleaning tanks/drinkers, checking water levels, patching/rebuilding apron and painting burned aprons.

Documenting Wildlife Usage
NDOW is purchasing and installing trail cameras more frequently to better document wildlife usage at small game water developments. Related data and local habitat conditions will be documented and entered into NDOW’s water development database.

Major Repairs
Based upon inspection results, or if a hunter or volunteer contacts NDOW regarding damage to an existing guzzler, NDOW typically needs to conduct a number of major repairs each year. This work typically consists of replacing wire fencing with pipe rail fencing, replacing cross beams, aprons, storage tanks or other major components that have suffered storm damage, unusually heavy snow loads, or have reached the end of their useful lives. This work is sometimes performed with just NDOW employees and at other times with the assistance of volunteers.

New Construction
NDOW’s southern water development staff, in conjunction with our Game Division and the BLM, have planned and sited 13 new small game units in areas where additional water is needed to expand an existing, nearby Mountain quail population (in Esmeralda County) and introduce a new Mountain quail population (in northern Lincoln County). We have received the NEPA and other clearances for the Lincoln County units in April, 2013 and their installation will take place this summer. The clearances needed to install the Esmeralda County units are expected this summer or fall, with new construction taking place in the spring of 2014.

VI. Project Schedule:
The small game water development work described in this document will take place between July 1, 2013 and June 30, 2014. The aerial evaluation project duration will be 1 week and takes place in the spring, usually March or early April. A Federal Aid Report (FAR) is produced in
August describing all of the yearly activities within the water development program. There will be a write up of the small game evaluation flights within the yearly FAR.

VII. Relationship to NDOw Plans, Policies and Programs:
The installation and maintenance of water developments is covered by related Habitat Management and Enhancement Objectives included in NDOw’s Comprehensive Strategic Plan (2004-2009). This type of work also is compatible with the different, BLM district-specific Resource Management Plans (RMPs) that cover the Western and Eastern Regions. NDOw staff works closely with BLM staff on water development-related activities and also must comply with its guzzler maintenance responsibilities defined in the MOU’s/cooperative agreements that are in place within multiple BLM districts. The expansion of the state’s Mountain quail population is identified as a future management strategy to be implemented in NDOw’s Wildlife Action Plan and in NDOw’s Upland Game Species Management Plan.

VIII. Other Projects or Activities that Need to Be Accomplished Before this Project Can Be Completed:
NDOw works closely with the staff of federal land management agencies, usually the BLM, to comply with NEPA, the National Historic Preservation Act and any other federal laws that apply to the ground disturbance activities associated with new water development installations or major repair work. Any activities that would take place within designated wilderness must be defined in advance and approved by the related federal land management agency.

IX. Describe How the Effects of the Project will be Measured and Monitored:
With the exception of the new Mountain quail small game units, the wildlife population effects of the project are nearly impossible to measure and would be dynamic from year to year; thus, in most cases success will be measured in terms of the total number of guzzlers inspected, maintained, repaired and functioning properly. Success can be seen in both bringing damaged guzzlers back “on-line” and confirming that they are in proper functioning condition. Mountain quail will eventually be trans-located to northern Lincoln County where the new units are installed and their population trends over time will be monitored and documented. Trans-location efforts may not be needed in Esmeralda County since the new units are being installed in a mountain range close to a range that has an existing population. The new units will be monitored to see if the quail expand into the currently unoccupied habitat, and if they do not, a trans-location project may be needed.

The photographs and related information gained from trail cameras at selected units will also help define how successful related guzzler units are from both a game and non-game species standpoint, and will influence the design of guzzler components in the future.
Project Costs and Funding

X. Cost Summary
About 80% of the Upland Game Bird account funding (or $64,000) will be needed for NDOW labor costs as new units are installed and existing units are inspected and maintained. The remainder of the funding, around $16,000 will be needed for travel costs, equipment, materials and miscellaneous supplies.

XI. Would Funds from this Program Be Used for State Matching Purposes? Yes X No ______

XII. Which Federal Grant Would the Matching Funds be Used For? W-58 (Water Development and Maintenance Grant)

XIII. Is this Project Going to Continue After FY14? Yes X No ______
If yes, is this going to be an annual, recurring project? Yes X No ______
If it is not going to be an annual project, what fiscal year is it expected to end? FY ______

XIV. Annual Costs (if this is a Recurring Project) or Total Project Costs Beyond FY14:
The total annual cost of this project, and the annual contribution from the Upland Game Bird Stamp account ($80,000), are expected to be the same each year into the foreseeable future.
Fiscal Year 2014 Wildlife Reserve Account Project Proposal

Project Summary

Project Title: Eastern Region WMA Weed Control

Wildlife Reserve Account that Would Fund this Project: Duck Stamp and Upland Game Bird Stamp

NDOW Project Manager (PM): Alan Jenne

PM Phone Number and Email Address: 775-777-2306; ajenne@ndow.org

Total Funds Requested from the Wildlife Reserve Account: $3,750 from each of the two accounts

Funds to be Used from Other Sources: $0

Total Project Cost to be Funded by All Sources: $7,500

Would Funds from this Program Be Used for State Matching Purposes?  Yes

If Yes, Which Federal Grant? Wildlife Management Area System Federal Grant

Project Proposal

I. Brief Description of the Need for the Project:
The herbicide proposed in this proposal would be used to control noxious weed invasion on the unmanned Eastern Region wildlife management areas. It is our hope to control the spread of weeds to maintain and enhance waterfowl values on wetland and riparian associated with the WMAs.

II. Project Purpose and Objectives:
The objective of purchasing the herbicide will be to treat invasive species across our unmanned WMA’s. Treatment areas will be mapped for future reference and monitoring purposes.

III. Project Location:
Treatment locations will be spread across the Eastern Region unmanned NDOW properties including the Bruneau WMA, Franklin WMA, Birch Creek NDOW property, and South Fork Little Humboldt NDOW properties.
IV. Describe the Specific Benefits of this Project:
Herbicide will help control invasive weed infestations so that the WMA habitat values can be maintained. This chemical is to control spot infestations but will assist in identification of large treatment needs and project proposals should they be necessary.

V. Project Approach:
This proposal is merely for the purchase of the needed herbicides and surfactants to treat the state properties. Salaries for treatment will be covered in existing work programs or if a large enough need is identified, a future proposal for other funds could be submitted for contracted assistance.

VI. Project Schedule:
The herbicides purchased by this proposal during FY 14 will continue the Eastern Region weed treatment maintenance regime. In the past, we have used the herbicides purchased with these funds to treat Canada and Bull thistle on the Bruneau WMA, hoary cress on Franklin WMA and Canada thistle on the Birch Creek property.

VII. Relationship to NDOW Plans, Policies and Programs:
Weed management is covered within the draft Franklin Lake and Bruneau WMA management plans.

VIII. Other Projects or Activities that Need to Be Accomplished Before this Project Can Be Completed:
No permits are necessary to treat on NDOW lands as we are using chemicals that do not require a certified applicator license. Should such chemicals be necessary for a given species, NDOW will either have an employee obtain certification or a contracted certified applicator will be hired.

IX. Describe How the Effects of the Project will be Measured and Monitored:
Monitoring will be conducted by GPS mapping treatment areas to evaluate treatment effectiveness and in some cases photo points could be established.

Project Costs and Funding

X. Cost Summary
All of the project’s budget will be used to purchase herbicide.

XI. Would Funds from this Program Be Used for State Matching Purposes? Yes ___ No ___

XII. Which Federal Grant Would the Matching Funds be Used For? Wildlife Management Area System Federal Grant

XIII. Is this Project Going to Continue After FY14? Yes ___ No ___
If yes, is this going to be an annual, recurring project? Yes ___ No ___
If it is not going to be an annual project, what fiscal year is it expected to end? FY ___

XIV. Annual Costs (if this is a Recurring Project) or Total Project Costs Beyond FY14:
Given current herbicide costs and need we expect the $7,500 per year will be sufficient until a major change is observed.