

Nevada Department of Wildlife
Upland Game Bird Stamp Program

Fiscal Year 2011

June 2010



Photo by Roddy Shepard



Photo by Ed Partee



Photo by Pat Kelly



Photo by Jeremy Lutz

Upland Game Stamp Program

PROGRESS REPORT ON PROJECTS FUNDED IN FY 10

Southern Nevada Upland Game Water Development Maintenance – the southern Nevada water development crew performed major rebuilds on 22 upland bird units in the southern region. The type of work performed varied from unit to unit depending on the needs and may have included tank replacement, collection apron replacement, installation of new gutters and downspouts etc. The work was performed in the following areas:

- 1 unit in the Davis Dam area
- 4 units in the Gold Butte Mountains
- 6 units in the Mormon Mountains
- 6 units in the Nelson Area
- 5 units near Searchlight

Southern Nevada Upland Game Water Development – New Construction – due to a lack of staffing on the crew, only one new upland water development was completed and that was done in the Spring Mountains. A second crew member was hired in March, 2010

Upland Game Water Development Construction and Maintenance in the Western and Eastern Regions – the northern Nevada water development crew was able to complete the construction of four new upland bird units. Two of the units were constructed in the Jackson Mountains and two others were constructed in the Goshute Mountains. In addition to the new construction, the crew was able to perform rebuild or major maintenance work on fourteen other small game units at various locations in Northern Nevada.

Upland Game Trap, Transplant and Monitor projects – (please see detailed progress report below)*.

During fiscal year 2010, Upland Game Stamp funding was used within the Game Division to help conduct several projects for various upland game species including mountain quail, ruffed grouse and sage-grouse. Projects addressed several objectives including augmentation, establishment and monitoring of these upland game bird species. This progress report summarizes the activities and expenditures as of early June 2010.

Mountain Quail Release and Monitoring

The Nevada Department of Wildlife (NDOW) once again received 100 mountain quail from Oregon in 2010. This is the third year in a row that Nevada has received mountain quail from the southwestern portion of Oregon. These birds are captured during the winter from existing wild populations in the Coast Range. The total cost for capture of these quail through the use of a qualified vendor was \$6,000. Mountain quail were overwintered at the Mason Valley Wildlife Management area from January through early April. A total of 93 birds were then released (7 mortalities within the holding pen) into the Bilk Creek Range in Humboldt County. This release was considered an augmentation of an existing

population of mountain quail in the Bilk Creek, Montana and Trout Creek Mountains complex. Low population numbers and associated release work by the Oregon Department of Fish and Wildlife within the Trout Creek Mountains presented an opportunity to work collaboratively to re-establish a viable population of mountain quail within these ranges.

In addition to the release, 32 radio transmitters (necklace) were obtained from Holohil Systems and placed on the released quail. Transmitters are used to document movement, monitor nesting and determine survival. Upland game stamp funds were used to purchase the transmitters at a cost of \$5,920. The transmitters, largely because of their size (model#: PD-2C, 3.8 grams), only have a 6 month battery life, so routine follow-up is imperative. We are using the services of a seasonal employee dedicated to this project and following up on radio marked birds on a weekly basis.



To date, a total of 6 mortalities have been recorded (19%) and quail have distributed themselves across a very wide area including several drainages within the northern portion of the Bilk Creek Range.

Ruffed Grouse Trapping and Monitoring

Ruffed grouse are a species that NDOW feels has great potential in various areas throughout the state. A priority area for ruffed grouse population establishment is the Toiyabe Range located in Nye and Lander Counties (Nevada Upland Game and Waterfowl Release Plan). We initially hoped to use the same vendor currently being used for mountain quail capture in Oregon to also capture ruffed grouse as these areas also hold ample ruffed grouse populations.

However, logistics and difficulty with capture often preclude this work in Oregon.



In September of 2010, biologists within the Game Division made a concerted effort to capture ruffed grouse from an established population within the Bull Run Mountains of northern Elko County. Upland Game Stamp funding was used to help pay for some of the trapping materials used for

this project. Many trap days throughout the month of September netted 27 ruffed grouse and 8 releases were made into the northern Toiyabe Range. One mortality (juvenile) occurred during the transportation phase and a total of 26 ruffed grouse were released.

Five ruffed grouse were fitted with transmitters and have been followed-up on a regular basis for the past nine months. A total of 2 mortalities have been documented since the release. Upland Game Stamp funding was used to help pay for follow-up telemetry flights using Owyhee Air Services.

Sage-grouse Monitoring

The Nevada Department of Wildlife continues to closely monitor sage-grouse populations across the state in various fashions. Radio-marking and aerial follow-up is one example of monitoring populations to delineate range and seasonal habitats. We currently have radio marked sage-grouse in the following areas: Simpson Park Range, Jarbidge Mountains, Tuscarora Range, Steptoe Valley, Wilson Creek Range/Table Mountain, and the Virginia Range. Radio-marked birds are tracked on a monthly basis using contract aircraft services (Owyhee Air) paid for with Upland Game Stamp funding. This funding is also used to match the Department's Sage-grouse Conservation Grant (W-64 Grant). To date, a total of \$10,483 has been spent on aerial telemetry survey for sage-grouse.

In addition to aerial telemetry surveys, NDOW is also involved in more intensive research projects involving sage-grouse. The Department has contracted with the U.S. Geological Survey (USGS) to conduct research on the Virginia Mountains sage-grouse population located in southern Washoe County*. This is a relatively small, but viable population of sage-grouse facing various threats from urbanization, dispersed recreation, energy development and has experienced habitat changes from wildfire. Upland Game Stamp funding was used to purchase 26 radio transmitters (\$4,858) for sage-grouse and was subsequently used as match for the contracted research work with USGS. This research is particularly important to estimate baseline demographic parameters (e.g., survival estimates, nest success, nest survival) for this population and to determine interactions with their current habitat. Some interesting findings have been documented during this research including documented use of habitats on Fort Sage Mountain which straddles the Nevada and California state line. Additionally, increased levels of nest predation have been documented during this research through the use of video cameras placed adjacent to nest sites. A combinations of utility infrastructure (recently constructed transmission lines) and lack of sagebrush cover for nesting is suspected to play a role in the increased level of observed nest predation.

* Additional information about the trap, transplant and monitor program can be found in NDOW's "UPLAND GAME TRAP, TRANSPLANT & MONITORING" federal aid report and NDOW's "GREATER SAGE-GROUSE in the VIRGINIA RANGE of NORTHWESTERN NEVADA".

Sportsman's Journal – NDOW combined \$3,500 in Duck Stamp funds with \$3,500 in Upland Game Stamp funds and \$1,300 in Federal Aid dollars, a \$300 Operation Game Thief donation, and \$1,000 in donated funds to print 20,000 copies of the *Nevada Hunter's Journal*. This document has been greatly modified from the initial booklet entitled *Nevada Sportsman's Journal*. In an attempt to ensure that the booklet reaches the hands of small game hunters, a copy was provided within the 2009-10 Small Game Questionnaire mail-out. We will do that again for the 2010-11 small game questionnaire process. After three years, we will decide whether to make this an operational element of Game Division's migratory and upland game bird programs.

Maintenance of Food Plots at the Mason Valley WMA - A total of 230 acres of food plots were planted with various seed mixtures to provide upland bird habitat at the Mason Valley WMA. Seed mixtures used include wild sunflower, various millets, amaranthus, cleome and others. The food plots benefit wild turkey, quail, pheasant, dove and a variety of non game species that inhabit the area.

Food Plots at the Key Pittman WMA - Approximately 100 acres of food plots were planted with various seed mixtures to provide upland bird and waterfowl habitat at the Key Pittman WMA. The food plots benefit dove, quail, pheasant, waterfowl and a variety of non-game species that inhabit the area.

Purchase of Pheasants for the Mason Valley WMA – a total of 300 day old pheasant chicks were purchased as part of the pheasant "Surrogator" project at the WMA. The day old chicks are placed in the "Surrogator" unit where they reside until they are about 5 weeks old at which time they are released into the surrounding habitat. The concept is to minimize the birds' exposure to humans with the hope that they will maintain some of the natural wariness and, thus, their ability to avoid predators. The results of the project are undetermined at this point; however, it appears that some recruitment has occurred. An intensive predator program was initiated at Mason Valley this spring and it is hoped that the control activity will improve the success of this program in future years.

UPLAND GAME STAMP PROGRAM FY 11

SALARIES

***Salaries listed in the first publication of this booklet (\$160,000) have been incorporated into the first three project proposals listed below. Salaries on these projects could apply to a Habitat Staff specialist, two Biologist IIIs, two Wildlife Area Technician IIIs and two Wildlife Area Technician IIs.**

PROJECTS

Southern Nevada Upland Game Water Development Maintenance (Approximately 20 units to be maintained)	\$169,628.00
Southern Nevada Upland new Game Water Developments (Approximately 10 units to be built)	\$34,198.00
Upland Game Water Development Maintenance Western and Eastern Regions	\$33,921.00
Upland Game Trap, Transplant and Monitor	\$60,550.00
Battle Mtn. Meadow Restoration	\$6,000.00
Sportsman's Journal	\$3,500.00
Santa Rosa Project	\$3,800.00
Maintenance of Food Plots at Mason Valley WMA	\$3,405.00
Purchase of Pheasants for Mason Valley WMA	\$500.00
Food Plots at Mason Valley WMA (seed mix)	\$2,350.00
Gambel's Quail Monitoring	\$12,000.00
Mountain Quail Study	\$29,500.00
	<hr/>
TOTAL	\$359,352.00

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](#))

**Nevada Department of Wildlife
Level A Project Request**

Fiscal Year : 2011 **Budget Acct: 4458**
Division : Habitat **Category : 72**
Submitted By : Roddy Shepard
Project Title : Southern Region Upland Guzzler Maintenance

Description: To continue regularly scheduled maintenance and upkeep on over three hundred upland water developments, hereafter referred to as “guzzlers” in Clark, Lincoln, Esmeralda, and Nye counties. Required work includes inventories, repair and replacement of barbed wire fencing, leaking or dilapidated tanks, antiquated wooden frames and damaged apron panels, and gutter and plumbing. This project requires extensive travel and per diem, resulting in high vehicle mileage, frequent oil changes and tire replacement. Additional duties include database management, photo-documentation, the use of mapping software, and maintenance on a camp trailer and all-terrain vehicles plus periodic replacement and maintenance of gas-powered and electric tools such as drills, saws, generators, water pumps, and a heavy duty pavement breaker. Maintenance of class “A” driver’s licenses including biennial physical examinations has been a necessity but may be eliminated with the addition of a compact loader/backhoe to the program.

Project Fit with Other Department Programs and Strategic Planning:

The Southern Region Guzzler Maintenance crew was created to address concerns about neglected artificial waters, some of which were over fifty years old, mainly in Clark and Lincoln Counties, and declining upland game populations in Southern Nevada. This is directly in line with the Department’s goal of conserving, maintaining and enhancing wildlife habitat by providing alternate water sources in harsh desert climates and perpetuating wildlife species for the enjoyment of future generations of sportsmen and wildlife enthusiasts. Other programs include Southern Region Big Game Water Development Maintenance, Wildfire rehabilitation, Riparian restoration and fencing of natural water sources, Winnemucca Guzzler Crew.

Project Costs:

	Salary	Travel	Operating	Mileage@ \$.50/mile	Totals
FY11	\$132,528	\$1600	\$20,000	\$15,500	\$169,628

Funding Source: Upland game stamp funds

**Nevada Department of Wildlife
Level B Project Request**

Fiscal Year : 2011 **Budget Acct: 4458**
Division : Habitat **Category : 72**
Submitted By : Roddy Shepard
Project Title : Lincoln County Water Development Construction

Description: With clearances in hand for archaeology, we now have the green light to begin sighting in and constructing 50 new units in various locations in Lincoln County, ten per year for five years. We will commence with six in the Tule Springs Hills then move north into the Burnt Springs Range in Dry Lake Valley. Units consist of one tank, 350 or 900 gallon capacity, two large cross beams, four upright posts, eleven corrugated apron panels, gutter and downspout, and a fence.

Project Fit with Other Department Programs and Strategic Planning:

The Southern Region Guzzler Maintenance crew was created to address concerns about neglected artificial waters, some of which were over fifty years old, mainly in Clark and Lincoln Counties, and declining upland game populations in Southern Nevada. This project is directly in line with the Department’s goal of conserving, maintaining and enhancing wildlife habitat by providing alternate water sources in harsh desert climates and perpetuating wildlife species for the enjoyment of future generations of sportsmen and wildlife enthusiasts. Other programs include Southern Region Big Game Water Development Maintenance, Wildfire rehabilitation, Riparian restoration and fencing of natural water sources, Winnemucca Guzzler Crew.

Project Costs:

	Salary	Travel	Operating	Mileage@ \$.55/mile	Totals
FY11	\$12,048	\$5000	\$10,000	\$7,150	\$34,198

Funding Source: Upland game stamp funds

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Fiscal Year:	<u>2011</u>	Budget Account:	<u>4452</u>
Division:	<u>Habitat</u>	Category:	<u>72</u>
Submitted by:	<u>Clint Garrett</u>		
Project Title:	<u>Small Game Water Development</u>		

Project Description: (Objectives, Approach, Benefits, Evaluation)

Small game guzzlers will be maintained in varying locations within the western region of the state. These water developments will allow for the expansion of a myriad of species, but will focus on target species such as Chukar and Hungarian Partridge. When rebuilt, these guzzlers will increase numbers and expand bird populations into previously unused or low use areas. The increase or expansion in the populations should correlate to additional bird hunting opportunities for sportsmen. By not completing this project, NDOW will not allow chukar and hungarian partridge to expand or increase in these areas, nor will it provide more opportunities for sportsmen. The guzzlers will be rebuilt in a prioritized order as conditions and clearances allow.

Project Fit with other Department Programs and Strategic Planning:

Habitat Program Emphasis (FY 2008 - FY 2009)

Goal: Enhance water deficient habitat for wildlife through the effective development and maintenance of water sources.

Objective: Develop 150 small-volume water developments (averaging 30-40 per year) statewide by 2009.

Comprehensive Strategic Plan (2004-2009)

1. *NDOW Charter - The Resource*

2. *Habitat Management and Enhancement*

Objective: Improve 180,000 acres of habitat for upland game species and 700,000 acres of habitat for big game species through enhancement of natural water sources, and improvement and creation of constructed water developments by 2009.

Objective: Inventory, evaluate and apply maintenance where required to all constructed wildlife water developments in the state by 2009.

3. *Wildlife Management and Conservation*

Objective: Establish or enhance at least four upland game bird populations per year pending the availability of donor stock, through 2009, with priority and emphasis on native upland game bird species (sage grouse, sharptail grouse, and mountain quail), ruffed grouse and turkey.

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Project Costs:

	Division	Salary	Travel	Operating & Helicopter	Mileage @ .50¢/mile	Other (Specify) Guzzler Materials
Small Game Western Region	Habitat	\$15,421	\$10,000.00	\$500.00	\$2,000.00	\$33,921
Total:		\$15,421	\$10,000.00	\$500.00	\$2,000.00	\$33,921

Project Funding: (conceptual-needs investigation)

	Funding Source	Amount
Total:		\$33,921.00

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Fiscal Year:	<u>2011</u>	Budget Account:	<u>4458</u>
Division:	<u>Game</u>	Category:	<u>13</u>
Submitted by:	<u>Shawn Espinosa</u>		
Project Title:	<u>Upland Game Trap, Transplant & Monitoring</u>		

Project Description: (Objectives, Approach, Benefits, Evaluation)

Trapping and transplant of certain upland game birds to re-establish or augment populations is an important aspect of the overall mission of the Nevada Department of Wildlife. Priorities and opportunities for releases that augment or establish populations of upland game species are contained in the Nevada Upland Game Species Management Plan. There are several elements to this particular project including:

- 1) Mountain quail capture and monitoring
- 2) Ruffed grouse capture and monitoring
- 3) Columbian Sharp-tailed grouse Restoration; and
- 4) Greater sage-grouse monitoring and habitat assessment

Mountain Quail

The mountain quail capture work involves the use of contract services in southwestern Oregon to capture 100 mountain quail per year for a 5-year period for future release in Nevada. Approximately 200 mountain quail were released into the Stillwater Range of Churchill County. Telemetry observations showed that nesting activity and reproduction was occurring. Also, a hunter reported harvesting one banded and one non-banded bird, again indicating reproduction.

We have used the services of the Relocator LLC in Roseburg, OR to conduct mountain quail capture with great success for the past three years. This vendor is also utilized by the Oregon Department of Fish and Wildlife.

A separate proposal is being submitted for the monitoring portion of this work. We are working with UNR and Dr. Jim Sedinger to develop a Master of Science program for a graduate student.

The following is an itemization of costs for this element:

- 1) ***100 mountain quail @ \$60.00/bird = \$6,000.00***

Ruffed Grouse

Ruffed grouse have been a tremendous success for the Nevada Department of Wildlife since first released in Soldier Creek in the Ruby Mountains in 1963. Since that time, only 171 ruffed grouse have been released in Nevada; however, populations are now firmly established in the Santa Rosa Range of Humboldt County and the Independence Range, Bull Run Range, Merritt Mountain, Copper Mountains, and Ruby Mountains of Elko County.

Ruffed grouse capture work may involve the use of the Relocator LLC or Nevada Department of Wildlife personnel working within Nevada. Attempts have been made by this vendor in the past to capture Ruffed Grouse in southwestern Oregon; however, certain circumstances such as unusual snowfall and poor access have limited the ability of the

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

vendor to capture this species. We feel that, because of the source stock population, and some new methodologies that the vendor can capture a complement of birds necessary for a release.

In addition to the potential capture of birds from Oregon, we have also had success recently with trapping ruffed grouse in-state with 26 birds being translocated to the Toiyabe Range in central Nevada. Some trapping materials are being requested through Upland Game Stamp funding. The following is a cost breakdown of conducting the ruffed grouse capture:

- 1) **20 ruffed grouse @ \$120.00/bird = \$2,400.00**
- 2) **Trapping supplies (wire mesh, stakes, small kennels, tools, etc.) = \$1,000.00**

Columbian Sharp-tailed grouse

In FY2011, we anticipate translocating Columbian sharp-tailed grouse from Idaho and Utah into the Columbia Basin located in Elko County. This species has been petitioned for listing in the past and it is important that western states in the historic range of this species continue to demonstrate conservation efforts for the species to preclude listing. Population numbers across the west are dwindling with the exception of a few areas where habitat quality is in good condition and in some Conservation Reserve Program areas.

As mentioned during the June 26, 2010 Wildlife Commission meeting in Ely, Nevada, it is extremely important that post release monitoring of demographics and habitat usage be conducted to determine success of projects such as these. The most appropriate way to do this is to utilize one or more graduate students to conduct this work. Funds are being requested in 2011 to help fund a graduate student for this work. Additional funds will be made available through the W-48 Grant as well as other NGO sources.

A total of **\$25,000** is being requested as match for W-48 Grant funding for a total year 1 project cost of \$100,000.00 **to fund a Master of Science graduate student**. Subsequent year's project costs will be at a reduced rate.

Sage-grouse

Greater sage-grouse monitoring will consist of additional monitoring needs in the Virginia Mountains, Bates Mountain in central Nevada, and in eastern Elko County. Funds will be utilized to purchase VHF telemetry collars and additional flight time for follow-up monitoring using Owyhee Air Services. A contract is currently in place with Owyhee Air to conduct aerial telemetry surveys. The following is an itemized cost breakdown:

- 1) **30 ATS VHF Transmitters @ \$200.00 ea. = \$6,000.00**
- 2) **65 hours of flight time through Owyhee Air @ \$310.00/hr = \$20,150.00**

Project Fit with other Department Programs and Strategic Planning:

These projects are part of on-going efforts as part of several plans including, but not limited to:

- 1) Nevada and Eastern California Sage-grouse Conservation Plan
- 2) Nevada Upland Game Species Management Plan

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Project Costs:

	Division	Days	Travel	Operating	Mileage @ .50¢/mile	Other (specify)
Total						

Project Funding: *(conceptual – needs investigation)*

	Funding Source	Amount
	Upland Game Stamp (Match for below Grants)	\$60,550.00
	W-48 Grant	\$75,000.00
	W-64 Grant	\$24,000.00
Total		\$159,550.00

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Fiscal Year:	<u>2011</u>	Budget Account:	<u>4458</u>
Division:	<u>Wildlife</u>	Category:	<u>Cat 71 & 72</u>
Submitted by:	<u>Jeremy Lutz</u>		
Project Title:	<u>Battle Mountain Meadow Restoration Project</u>		

Project Description: (Objectives, Approach, Benefits, Evaluation)

During 2003 the BM BLM and NDOW worked together to collar 9 sage grouse in the Battle Mountains. These birds were tracked throughout the year to gather as much data possible about sage grouse utilization on the Battle Mountains. The collaring information showed that sage grouse spend their entire life on the Battle Mountains and in particular in the upper elevations. Important nesting and brood rearing habitat was documented and limiting factors to sage grouse were identified. Of the limiting factors riparian and wet meadows were among the highest limiting factor. Excessive overutilization by livestock during the hot season has substantially altered brood rearing habitat for sage grouse in the Battle Mountains. In 2003 the NDOW closed the sage grouse season on the Battle Mountains and Fish Creeks in unit 151. The Battle Mountain sage grouse population did not meet WAWFA guidelines as having 300 or more birds in the population to have a controlled hunt.

The Battle Mountain BLM and NDOW are proposing to construct two 20 acre exclosures in the Battle Mountains. One on the North Fork of Trout creek and the other in Wild Horse Basin. Both exclosures would allow for improved livestock management and rest from hot season grazing. Both riparian's have been identified as critical brood rearing habitat for sage grouse.

These exclosures would be built on a temporary basis in cooperation with the BM BLM. Currently the Battle Mountain BLM is reviewing a permit renewal for the two allotment complexes. These allotments make up the entire Battle Mountains. The BM BLM is recommending having all permitted livestock off of the upper elevations during the hot season. These exclosures will help facilitate the recovery of meadows and riparian areas in the Battle Mountains. Once recovery criteria on meadows and riparian areas are met the fence could be taken down and used on other important areas in Lander County.

The BM BLM sent out the proposed decision on Feb 2 2010. The exclosures would be built under a categorical exclusion (CX) and the Badger Ranch would assume all maintenance responsibility from any livestock damage.

Construction would take place in the summer of 2010 by BLM and NDOW employees. The bootstraps program could also be used depending upon availability.

Both 20 acre exclosures are going to use ~9,000' of Liberty pipe. NDOW proposes to contribute 2,000' of pipe with the BLM picking up the remaining 7,000'.

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Project Fit with other Department Programs and Strategic Planning:

This project fits with Strategic Plan objectives in enhancing key riparian habitats. Specifically, enhancement of identified meadow complexes will benefit sage grouse resources and habitats.

Project Costs:

	Division	Days	Travel	Operating	Mileage @ .50¢/mile	Other (specify)
	02642102	1	0		25.00	
	Habitat			\$12,000		
Total				\$12,000		

Project Funding: (*conceptual – needs investigation*)

	Funding Source	Amount
	Liberty Pipe fence: \$6/ft @2,000 feet	
	Conservation Fee Cat 71	\$6,000
	Upland Game Stamp	\$6,000
	Game	\$25.00
Total		\$12,025

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Fiscal Year:	<u>FY2011</u>	Budget Account:	<u>4458</u>
Division:	<u>Game,</u>	Category:	<u>13 & 72</u>
Submitted by:	<u>Craig Mortimore, Shawn Espinosa</u>		
Project Title:	<u>Nevada Hunter's Journal</u>		

Project Description: (Objectives, Approach, Benefits, Evaluation)

The *Nevada Hunter's Journal* is a publication developed by the Game Division in 2009 to replace a one-year run of the *Nevada Sportsman's Journal*. The booklet measures 3½" x 8" and is provided to each person selected to receive the Division's post-season Small Game Harvest Questionnaire.

Background:

- 1.) NDOW has been sending out post-season questionnaires to small game hunters for decades. Data gleaned from this process are used to compute harvest estimates, which in turn are used to make management decisions, such as season & bag recommendations and game bird translocations. Because the established questionnaire was deficient in representing harvest of lightly hunted species, the Game Division revised its questionnaire in each of the past three years to seek better data. Game Division also is working with the License Office to create a distribution strategy that closely approximates a census of all small game hunters. Presently the questionnaire does not reach the totality of small game hunters, thus the information from the sample needs to be as accurate and thorough as possible. The *Nevada Hunter's Journal* is designed to encourage the recipient to accurately record hunter and harvest data for each species hunted.
- 2.) This project was launched in FY2008 as the *Nevada Sportsman's Journal* with an initial order of 32,430 units which were delivered in October 2007. Costs for this project amounted to approximately \$18,000, with contributions from Carson Valley Chukar Club (\$5,000) and Nevada Chukar Foundation (\$2,500) included in that total.
- 3.) A second print run was implemented last year with funding allocations amounting to \$2,500 each from Nevada Duck Stamp and Nevada Upland Game Stamp funds contributing toward the \$8,605 bid proffered by the Nevada State Printer to produce 20,000 copies of the revised booklet (see attachment 1). These dollars, along with \$2,000 in donations from NBU, WHIN and a private party benefactor and \$1,605 in W-48 funds paid for the print run which was completed in March 2009. It is unknown how Fiscal Services incorporated the donated funds (Attachment 2) and OGT funds. Most copies were directly mailed to Questionnaire recipients and the balance was distributed through NDOW offices.
- 4.) Last May, Duck Stamp and Upland Game Stamp dollars, in the amount of \$3,500 each, were again allocated to support the third run of the Hunter's Journal for March 2010. Also provided was a check from the Operation Game Thief Citizen's Board in the amount of \$1,000. (see Attachment 2). We did not solicit funding support from Sportsmen Organizations for the March 2010 print run.
- 5.) Game Division will continue to provide the *Nevada Hunter's Journal* through the processes described above for a minimum of three years in order to allow a sufficient time period to evaluate hunter usage and data quality efficacy. We ask for \$9,600 to be directed toward this purpose for FY2011, this time to support the printing of 20,000 copies under the premise that the 2010-11 Questionnaire mail out (which will be in March 2011) will be similar in scope.

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Project Fit with other Department Programs and Strategic Planning:

- | |
|--|
| <p>1.) The <i>Nevada Hunter's Journal</i> will facilitate better data collection the Game Division's 2009 Small Game Questionnaire. Better data leads to better analysis and better management decisions.</p> <p>2.) Sportsman's Journal will be perceived by some, and hopefully by most, clientele as an effort by NDOW to give something back to our clientele.</p> |
|--|

Project Costs:

	Divisions	Days	Travel	Operating	Mileage	Other (specify)
Year 3 Order 25,000 units.	Game	10				
	Habitat	1				
	Admin.	1				
	LE	1				

Project Funding for March 2011 Print Run: (est. 20,000 units)

Funding source	Amount
Upland Game Stamp	\$3,500
Duck Stamp	\$3,500
Game Division (W-48)	\$1,500
TOTAL:	\$8,500

Project Tasks Outline:

Task	Timing	Division	Personnel
1. Prepare Print Proposal	Feb.1, 2011	Game	Mig. Bird Staff
2. Submit Proposal to State Printer			
3. Print and mail journals	End of March 2011	State Printer and State Mailroom	
4. Take Delivery of undistributed journals	April 2011	Game	
5. Distribute to NDOW offices	Early August 2011	Operations	License
6. Develop media products to notify public.	Mar. & Sept. 2011	Con Ed	PIOs

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Fiscal Year:	<u>2011</u>	Budget Account:	<u>4458</u>
Bureau:	<u>Game</u>	Category:	<u>72</u>
Submitted by:	<u>Ed Partee</u>		
Project Title:	<u>Sage Grouse Telemetry: Santa Rosa PMU</u>		

Project Description: (Objectives, Approach, Benefits, Evaluation)

This project is proposed to learn the movement patterns of the sage-grouse population within the Santa Rosa Population Management Unit (PMU) and possible movement to the Desert PMU. There may be movement within this population across state lines into Oregon as well. A 1998 telemetry project indicated that some sage-grouse utilized leks on the Owyhee Desert portion of the Santa Rosa PMU; however, these birds also utilized the upper elevations of the Santa Rosa Range on USDA Forest Service managed lands for nesting and brood rearing. There has also been evidence of sage-grouse utilizing water developments designed for sage-grouse. Marking a segment of the sage-grouse population that utilize these water developments may help identify new or previously unknown leks located on the Owyhee Desert.

It is proposed to leg band as many sage-grouse as possible and to radio-mark approximately fifteen to twenty sage grouse each year for two years with VHF transmitters and follow the movements of these birds for the life of the radios (approximately 18 to 24 months). The capture operation would commence during the breeding season and continue into the early fall period if necessary.

This project would help further identify important nesting and brood rearing habitats and possibly assist with the identification of breeding habitats. A secondary benefit to this project would be to acquire harvest information from birds that have been captured and possibly determine survival rates. Additionally, documenting any movements between the Desert PMU in Elko County or across state lines into Oregon would also be important information.

An evaluation of the movements of this population would be reported at the conclusion of the study as well as in the yearly job progress reports.

Funding may be shared with the US Forest Service in the later part of the project.

Project Fit with other Department Programs and Strategic Planning:

This project was identified in the Santa Rosa Population Management Plan and meets the objectives also described within the North Central Local Area Conservation Plan for Greater Sage-grouse.

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Project Costs:

	Bureau	Days	Travel	Operating	Mileage @ .50¢/mile	Other (Specify)
Year 1	Game	20	\$1,600	\$300	\$1,330	
	Habitat			\$3,800		Flights: 10 follow up flights @ 4hrs each 40 hrs @ \$310/hr = \$12,400
	subtotal:	20	\$1,600	\$4,100	\$1330	\$8,000
Year 2	Game	20	\$1,600	\$300	\$1330	
	Habitat			\$3,800		Flights: \$12,400
	subtotal:	20	\$1,600	\$4100	\$1330	\$8,000
	Total:	40	\$3,200	\$8200	\$2660	\$16,000

Project Funding:

	Funding Source	Amount
Year 1	Game (W-64-R-10 Grant)	\$3230
	Habitat: Upland Game Stamp	\$3800
	subtotal:	\$7030
Year 2	Game (W-64-R-11 Grant)	\$3230
	Habitat: Upland Game Stamp	\$3800
	subtotal:	\$7030
	Total:	\$14060

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Fiscal Year:	11	Budget Account:	4458
Bureau:	Habitat	Category:	72
Submitted by:	Pat Kelly		
Project Title:	Maintenance of food plots		

Project Description: (Objectives, Approach, Benefits, Evaluation)

This would involve the maintenance of approximately 43 acres of established food plots at the Mason Valley WMA. Work may include fertilization and/or reseeding as necessary. Herbicidal application plays a significant role in the maintenance of these plots as well. Benefitting species of these food plots include, but are not limited to Rio-Grande Turkey, Ring Necked and Manchurian Pheasant, Mourning Dove, Valley Quail, resident mule deer, and a myriad of song birds.

Project Fit with other Department Programs and Strategic Planning:

One of the strategies listed in the Mason Valley CMP is the establishment of small to medium sized food plots at the Mason Valley WMA. This project is intended to maintain already established food plots so that they continue to be productive for wildlife. The project would involve the application of ammonium sulfate fertilizer to about 43 acres per year and the reseeding of about the same acreage to wildlife bird plot seed mix.

43 acres X 200 lbs/acre = 8600 lbs (4.3 tons) @ \$375.00/ton = \$1,612.50
 43 acres X 50 lbs /acre = 2,150 lbs @ \$.75 / lb = \$1,612.50

TOTAL COST PER YEAR = \$3,225.00

Project Costs:

	Bureau	Days	Travel	Operating	Mileage @ .50¢/mile	Other (Specify)
Year 1	Habitat			\$3,225.00	\$180.00	
Total:				\$3,405.00		

Project Funding:

	Funding Source	Amount
Year 1	Category 71	\$3,405.00
Total:		\$3,405.00

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Fiscal Year: 11 **Budget Account:** 4458
Bureau: Habitat **Category:** 72
Submitted by: Pat Kelly
Project Title: Purchase of pheasants for MVWMA

Project Description: (Objectives, Approach, Benefits, Evaluation)

This funding would provide for the purchase of pheasant chicks to be utilized in the two Surrogator incubator boxes present on the area, to help in the enhancement of the wild pheasant population on the Mason Valley WMA. \$500.00 a year will purchase 260 chicks, or a total of 520 over two years. Two different species of birds will be purchased initially, banded and studied for the viability of each on the area.

Project Fit with other Department Programs and Strategic Planning:

This project is in direct correlation to the areas CMP, in the rehabilitation of viable wild pheasant populations on the area.

Project Costs:

	Bureau	Days	Travel	Operating	Mileage @ .50¢/mile	Other (Specify)
Year 1	Habitat			\$500.00		
Total:				\$500.00		

Project Funding:

	Funding Source	Amount
Total:		\$500.00

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Fiscal Year:	FY 2011	Budget Account:	4458
Division:	Habitat	Category:	72
Submitted by:	Pat Kelly		
Project Title:	Food Plots MVWMA(Seed Mix)		

Project Description: (Objectives, Approach, Benefits, Evaluation)

The purchase of upland seed mix, sunflower and other upland grains for approximately 70 acres, help us continue to maintain healthy plant communities for upland bird species on the area. Target species for these plots include mourning dove, pheasant, Rio-Grande Turkey, valley quail, and song birds.

Project Fit with other Department Programs and Strategic Planning:

This project is a continuation of the same upland program, but a little larger scale, as outline in the CMT for Mason Valley WMA.

Project Costs:

	Division	Days	Travel	Operating	Mileage @ .50¢/mile	Other (specify)
	Habitat			\$2,100.00	\$250	
Total				\$2,100.00	\$250	

Project Funding: (conceptual – needs investigation)

	Funding Source	Amount
	Habitat Cat 72 Upland Game Stamp	\$2,350.00
Total		\$2,350.00

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Fiscal Year:	<u>2011</u>	Budget Account:	<u>4458</u>
Division:	<u>Game</u>	Category:	<u>72</u>
Submitted by:	<u>Shawn Espinosa</u>		
Project Title:	<u>Gambel's Quail Habitat Use</u>		

Project Description: (Objectives, Approach, Benefits, Evaluation)

Gambel's quail are an important upland game species in the southern region of Nevada. This species is the most popular upland game bird in Clark, Lincoln and Nye Counties with an average harvest of 17,308 birds and 9,242 hunter days each year. In 2005, significant portions of the Mojave Desert in Lincoln County experienced severe wildfires that negatively affected habitat conditions for Gambel's quail. A total of approximately 704,000 acres of Mojave desert shrub habitats burned between four different major fires (Fork, Meadow Valley, Delamar, and Duzak) in 2005. We currently do not completely understand how these events have impacted Gambel's quail in this region of the state.

Brigham Young University (Randy Larsen, PhD.) is currently conducting research on Gambel's quail for the Utah Division of Wildlife Resources near the Nevada state line and has a facility near Beaver Dam Wash. We propose to conduct a 2-3 year monitoring study to determine habitat selectivity and use of water sources within the Meadow Valley, Delamar and Mormon Mountain ranges. For the first year of the study, we propose to deploy approximately 32 transmitters on Gambel's quail and use a technician to follow-up marked individuals for the life of the transmitters (approximately 6 months).

The key main objectives of this research include the following:

- 1) Evaluate habitat selection of Gambel's quail in relation to recent (2005-2006) severe fires in the Mojave Desert; and
- 2) Assess the effect (spatial response, survival, recruitment) of available free water on Gambel's quail.

This work will help fulfill some objectives identified in the Nevada Upland Game Species Management Plan. These objectives include such things as identifying key habitat types for the species, sighting new water developments to take advantage of existing cover and topography, develop a habitat utilization map of the area. Additional benefits from this research will be increased understanding of basic biology and ecology of Gambel's quail. There has been very little research of any kind in the last couple of decades. Most of what we know comes from early (1960's and 1970's) research that did not have the benefit of telemetry. We will, for example, be able to assess harvest rates, home range size, movement patterns, causes of mortality, etc. as part of this work.

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Project Fit with other Department Programs and Strategic Planning:

This project will help achieve objectives identified in the Nevada Upland Game Species Management Plan and will also serve to help indirectly address objectives stated in the Nevada Wildlife Action Plan.

Project Costs:

	Division	Days	Travel	Operating	Mileage @ .50¢/mile	Other (specify)
	Habitat			\$12,000		
Total				\$12,000		

Project Funding: *(conceptual – needs investigation)*

	Funding Source	Amount
	Upland Game Stamp – Radio Transmitters	\$6,000.00
	Upland Game Stamp - BYU Wildlife Tech.	\$6,000.00
Total		\$12,000.00

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Fiscal Year:	<u>FY 11</u>	Budget Account:	<u>4458</u>
Division:	<u>Game Division</u>	Category:	<u>72</u>
Submitted by:	<u>Shawn Espinosa</u>		
Project Title:	<u>Survival, movement and habitat use by Mountain Quail in northern NV</u>		

Project Description: (Objectives, Approach, Benefits, Evaluation)

This project will estimate survival, nesting propensity, movements and habitat use by introduced mountain quail, in comparison to established populations. Nevada Department of Wildlife is currently introducing mountain quail to expand their range within Nevada with ultimate goals of (1) increasing harvest opportunity and (2) increasing viability of mountain quail in Nevada. The Nevada Department of Wildlife currently does not have knowledge of demographic parameters of mountain quail immediately following release. Understanding survival and breeding success of newly released individuals will assist in improving future releases and in forecasting population dynamics following release.

This project will capture and attach radio transmitters to 40 mountain quail from a pending release in the northern Bilk Creek Mountains and an additional 25 Mountain Quail from an existing population either in the Buffalo Hills in Washoe County or the Desatoya Mountains in Churchill County. Individuals will be located weekly. Survival and nest success will be estimated using modern known-fate methods. GPS coordinates will be recorded for each location for later characterization of habitat use and estimating the relationships between survival and habitat features.

Project Fit with other Department Programs and Strategic Planning:

This project substantially enhances the upland game bird program by providing new information about the success of mountain quail transplants. This study will also guide future transplants by providing information about habitat use and the relationship between habitat and survival and reproductive success.

The Nevada Upland Game Species Management Plan
The Western Quail Species Management Plan

Project Costs:

	Division	Days	Travel	Operating	Mileage @ .50¢/mile	Other (specify)
Total						

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Project Funding: *(conceptual – needs investigation)*

	Funding Source	Amount
	Upland Game Stamp – Cat. 72	\$29,500
	W-48 Wildlife Restoration Grant	\$88,500
Total		\$118,000

Please see attached 3-year preliminary budget.

**Nevada Department of Wildlife
LEVEL B PROJECT REQUEST**

Budget

	Year 1	Year 2	Year 3	Total
Stipends, salaries and benefits				
Graduate Student	18500	18500	12000	49000
Graduate Student benefits	2775	2775	1800	7350
Tuition	3500	3500		7000
Technician	5000	5000		10000
Total	29775	29775	13800	73350
Supplies				
Radios 65 @ \$200 ea	13000	13000		26000
Radio receivers and antennae	1000	0		1000
Food	1500	1500		3000
Fuel	5000	5000		10000
Miscellaneous	1000	1000		2000
Total	21500	20500	0	42000
Equipment				
Weatherport	3000	0		3000
2 tents	1700	0		1700
2 sleeping bags	300	0		300
Miscellaneous camp equipment	1500	0		1500
Quad	5000	0		5000
2, 4 wheel drive trucks	50000	0		50000
Total	61500	0	0	61500
Services				
Vehicle maintenance	3000	3000		6000
Aircraft charters	3000	3000		6000
Publications	0	0	2000	2000
Total	6000	6000	2000	14000
Total Direct costs	118775	56275	15800	190850