CARSON CITY CONSOLIDATED MUNICIPALITY
NOTICE OF THE MEETING OF THE
ADVISORY BOARD TO MANAGE WILDLIFE

Day: Monday
Date: June 24, 2024
Time: Beginning at 5:30 pm
Location: Community Center, Robert 'Bob' Crowell Board Room
851 East William St.
Carson City, NV 89701

AGENDA

NOTICE TO THE PUBLIC:
Members of the public who wish to view the meeting may watch the livestream of the Advisory Board to Manage Wildlife meeting at www.carson.org/granicus and by clicking on "In progress" next to the meeting date, or by tuning in to cable channel 191. Livestream of the meeting is provided solely as a courtesy and convenience to the public. Carson City does not give any assurance or guarantee that the livestream or cable channel access will be reliable. Although all reasonable efforts will be made to provide livestream, unanticipated technical difficulties beyond the control of City staff may delay, interrupt, or render unavailable continuous livestream capability.

The public may provide public comment in advance of a meeting by written submission to the following email address: bmunoz@carson.org. For inclusion or reference in the minutes of the meeting, your public comment must include your full name and be submitted via email by not later than 3:00 p.m. the day before the meeting. Public comment during a meeting is limited to three minutes for each speaker.

1. Call to Order

2. Roll Call

3. Pledge of Allegiance

4. Public Comment:**
The public is invited at this time to comment on and discuss any topic that is relevant to, or within the authority of this public body.

5. For Possible Action: Approval of Minutes

5.A April 30, 2024 Draft Minutes
Click Here for Staff Report

6. Information Only: Update and Activity Report on the Carson City Urban Wildlife Committee

7. Update on the May 3 and 4, 2024 Nevada Board of Wildlife Commissioners' meeting

8. For Discussion Only: Reports - Informational

The following items are informational and for discussion only. No action may be taken by the Board. Any item requiring Board action will be scheduled on a future Board agenda.

8.A **DEPARTMENT ACTIVITY REPORT** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, a report will be provided on Nevada Department of Wildlife recent activities.
Click Here for Staff Report

8.B **LITIGATION REPORT** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, a report will be provided on Nevada Department of Wildlife litigation.
Click Here for Staff Report

8.C **REPORT ON COLUMBIAN SHARP-TAILED GROUSE IN NEVADA –** At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, an overview will be provided to the Commission on the status of Columbian Sharp-tailed Grouse in Nevada and future plans.
Click Here for Staff Report

8.D **REPORT ON NEVADA'S RESPONSE TO CHRONIC WASTING DISEASE (CWD) DETECTION IN CALIFORNIA** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, a report will be given on planned actions in response to the detection of CWD in Bishop, California.
Click Here for Staff Report

8.E **TAG ALLOCATION AND APPLICATION HUNT COMMITTEE (TAAHC) REPORT** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, a report will be provided on the recent TAAHC meeting.
Click Here for Staff Report

8.F **FINANCE COMMITTEE REPORT** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, a report will be provided on the recent Finance Committee meeting.
Click Here for Staff Report

8.G **WILDLIFE HERITAGE PROJECTS PRESENTATION** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, a presentation will be provided highlighting past funded Heritage Projects.
Click Here for Staff Report

Consent Agenda Items

The items listed under the consent agenda are considered routine and may be acted upon by the Advisory Board to Manage Wildlife with one action and without an extensive hearing. A member of the Advisory Board may request an item be pulled for separate discussion and action, but the Advisory Board Chair retains discretion in deciding whether to pull an item from the Consent Agenda. (For additional information on the items to be considered within this action item, please visit the Nevada Department of Wildlife website at www.ndow.org under agenda and corresponding support material).

9.A **FISCAL YEAR 2025 COUNTY ADVISORY BOARDS TO MANAGE**

WILDLIFE (CABMW) BUDGET REQUESTS – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will consider and may approve an amount to fund the County Advisory Boards to Management Wildlife for Fiscal Year 2025. The Finance Committee recommended to approve an allocation of $36,526 at their meeting on May 22, 2024. The CABMW request was $38,573. The Commission may discuss approving funding at either of the amounts requested.
Click Here for Staff Report

9.B **COMMISSION POLICY 12 – PREDATOR FEE FOR HABITAT, RESEARCH, & MANAGEMENT** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will review a new Commission Policy 12 for the second time and may take action to recommend revising or adopting the policy.
Click Here for Staff Report

9.C **APPROVAL FOR ELK DAMAGE PAYMENT EXCEEDING $10,000** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, an assessment of elk damage on Granite Peak Ranch in White Pine County, totaling $13,318 conducted by Department personnel and submitted for reimbursement by Bruce Hubbard, agent for the property will be presented. Per Nevada Administrative Code (NAC) 504.421 Section 1(f), "A loss on one site must be limited to $10,000 unless the Commission determines that a claimant may be paid more, and there is sufficient money to pay him or her." The Commission is required to review and approve the payment for elk damage.
Click Here for Staff Report

9.D **HERITAGE PROJECT EXTENSION REQUESTS** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will review recommendations and may approve extensions requests from projects approved in previous fiscal years.
Click Here for Staff Report

9.E **HERITAGE FUNDING REALLOCATION** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will review Committee recommendations and may approve reallocation of any unused Heritage funds from previously approved projects to other previously approved projects from the same fiscal year.
Click Here for Staff Report

9.F **FISCAL YEAR 2025 HERITAGE PROJECT PROPOSALS** – At the June 28, 2024 meeting of the Nevada Board of Wildlife Commissioners, the Commission will hear recommendations from the Committee and may take action to approve up to $1,840,130.76 for projects submitted for Fiscal Year 2025 from the annual year project funds. In addition, the Commission may take action to approve up to $98,548.64 for projects submitted for Fiscal Year 2025 from the principal balance for a total of $1,938,679.40. Funding requests are listed below and may be approved by the Commission.

- Memory Ranch Conservation Easement ($200,000)
- FY25 Bighorn Sheep and Mountain Goat Restoration and Management ($110,600)
- FY25 Wildfire-related Restoration and Seed Purchase ($150,000)
- FY25 Nevada Spring Protection Project ($100,000)

• FY25 Nevada Water Development Maintenance ($50,000)
• FY25 Clover Valley Wildlife Passage Improvement Project ($50,000)
• FY25 Cave Lake Habitat Improvement and Erosion Control ($98.538.40)
• FY25 Rosencrans Habitat Restoration ($50,000)
• FY25 Currant Summit PJ Removal ($75,000)
• FY25 Warmwater Fisheries Enhancement ($133,000)
• FY25 Lake Tahoe Fish Management Structure Phase 2 ($100,000)
• FY25 Shoshone Bench Habitat Restoration ($50,000)
• FY25 Corta Fire Habitat Improvement Phase III ($75,000)
• FY25 Sheep Creek Mountains Habitat Improvement Project ($72,500)
• FY25 Mule Deer Enhancement Project ($100,000)
• FY25 Toe Jam Mountain Habitat Improvement Project ($50,000)
• FY25 Statewide Elk Trace Mineral Profile and Population Demographics ($149,999)
• FY25 Granite Range Bitterbrush Planting ($45,000)
• FY25 Supplemental Oxygen for Gallagher Hatchery ($25,000)
• FY25 Black Bear Monitoring ($50,000)
• Leafy Spurge Eradication ($70,652)
• Evaluation and Improvement of Springbox Restoration in the Sheldon National Wildlife Refuge,
Nevada ($73,690)
• Mountain Lion Predation on Native and Feral Ungulates in Southeast Nevada ($59,700)
Click Here for Staff Report

9.G **BIENNIAL SMALL GAME RELEASE PLAN FOR FISCAL YEARS 2024 AND 2025 AMENDMENT #1** – At the June 29, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will review and may take action to approve an amendment to the Department's proposed biennial upland game release plan for fiscal years 2024 and 2025.
Click Here for Staff Report

9.H **BIENNIAL BIG GAME RELEASE PLAN FOR FISCAL YEARS 2024 AND 2025, AMENDMENT #1** – At the June 29,2024 of the Nevada Board of Wildlife Commissioners, the Commission will review and may take action to approve an amendment to the Department's Biennial Big Game Release Plan for fiscal years 2024 and 2025.
Click Here for Staff Report

9.I **ENERGY AND SOLAR PROJECTS UPDATE** – At the June 29, 2024, meeting of the Nevada Board of Wildlife Commissioners, a presentation will be provided on the Bureau of Land Management's (BLM) Solar Programmatic Environmental Impact Statement. The Commission will discuss possibly providing a letter of comment on this project, as well as an overview of renewable energy across Nevada.
Click Here for Staff Report

9.J **ENERGY AND SOLAR PROJECTS UPDATE** – At the June 29, 2024, meeting of the Nevada Board of Wildlife Commission, a presentation will be provided on the Bureau of Land Management's (BLM) Solar Programmatic Environmental Impact Statement. The Commission will discuss possibly providing a letter of comment on this project, as well as an overview of renewable energy across Nevada.

Click Here for Staff Report

9.K **DUCK STAMP REQUEST** – At the June 29, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will review and may take action to approve up to $90,750 for projects submitted for Fiscal Year 2025 funding from the Duck Stamp Account. The specific Duck Stamp projects that may be approved are listed below.
• FY25 Argenta WMA Improvement Project ($15,000)
• FY25 Ducks Unlimited Wetlands Conservation Support ($35,000)
• Carson Lake WMA Noxious Weed Treatment ($25,000)
• FY25 Purchase Support for Airboat ($13,750)
• FY25 Full Lifecycle Conservation of International Migratory Waterfowl and Other Avian Species
($2,000)
Click Here for Staff Report

9.L **UPLAND GAME BIRD STAMP REQUEST** – At the June 29, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will review and may take action to approve up to $262,230 for projects submitted for Fiscal Year 2025 funding from the Upland Game Bird Stamp Account. The specific Upland Game Bird Stamp projects that may be approved are listed below.
• FY25 Gilbert Creek Habitat Restoration Project Phase II ($15,000)
• FY25 Argenta WMA Improvement Project ($20,000)
• FY25 Toe Jam Mountain Habitat Improvement Project ($12,500)
• FY25 Greater Sage-grouse Monitoring ($46,330)
• FY25 Mineral Development Effects on Greater Sage-grouse ($60,000)
• FY25 Upland Game Translocation and Monitoring ($13,400)
• FY25 Bi-State Sage-grouse Coordinator ($10,000)
• FY25 Bi-State Sage-grouse Monitoring ($30,000)
• FY25 Petersen Mountains Bitterbush Planting ($15,000)
• FY25 Common Raven Modeling ($40,000)
Click Here for Staff Report

9.M **COMMISSION REGULATION 23-15 AMENDMENT #1, FISHING SEASONS AND REGULATIONS FOR JANUARY 1, 2024, THROUGH DECEMBER 31, 2025** – At the June 29, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will consider amending CR 23-15 to designate Smith Creek Reservoir as a closed water in Lander County.
Click Here for Staff Report

9.N **COMMISSION REGULATION 24-05, AMENDMENT #1, 2025 HERITAGE TAG VENDORS** – At the June 29, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will review the Wildlife Heritage Committee's recommendations regarding Heritage Tag Vendor Proposals for 2025 and may take action on the proposals.
Click Here for Staff Report

9.O **COMMISSION REGULATION 24-13, 2024-2025 & 2025-2026 UPLAND GAME AND FURBEARER SEASONS AND BAG LIMITS** – At the June 29, 2024, meeting of the Nevada Board of Wildlife Commissioners meeting, the Commission will

establish and may vote to adopt regulations for upland game birds and mammals, furbearers, and wild turkey for the 2024-2025 and 2025-2026 seasons.
Click Here for Staff Report

10. Informational Item: Future Agenda Items.

11. Public Comment:**
The public is invited at this time to comment on and discuss any matter that is relevant to or within the authority of the Carson City Advisory Board to Manage Wildlife, including any matter that is not specifically included on the agenda as an action item. No action may be taken on a matter raised under this item of the agenda.

12. For Possible Action: To Adjourn

**PUBLIC COMMENT LIMITATIONS - The Carson City Advisory Board to Manage Wildlife will provide at least two public comment periods in compliance with the minimum requirements of the Open Meeting Law prior to adjournment. Public comment will be limited to three minutes per speaker to facilitate the efficient conduct of a meeting and to provide a reasonable opportunity for comment from all members of the public who wish to speak. Testimony from a person who is directly involved with an item, such as City staff, an applicant, or a party to an administrative hearing or appeal, is not considered public comment and is not subject to the three-minute time limitation. No action may be taken on a matter raised under public comment unless the item has been specifically included on the agenda as an item upon which action may be taken.

Disclosures: Any member of the advisory board with a conflict of interest on an agendized item or relative to advisory board business should inform the chair of the member's conflict of interest prior to the meeting. Conflicts of interest must also be disclosed at the time a specific agenda item is introduced.

Agenda Management Notice - Items on the agenda may be taken out of order; the public body may combine two or more agenda items for consideration; and the public body may remove an item from the agenda or delay discussion relating to an item on the agenda at any time.

The agenda and supporting materials are available on the City's website at www.carson.org/agendas and on the State website: https://notice.nv.gov Posting on Carson City's website of supporting materials for its public meetings, other than such postings pertinent to the Board of Supervisors meetings, is not required. The posting of supporting materials on the City's website is a courtesy and no rights are thereby bestowed. Late materials or materials distributed during the public meeting will be incorporated into the public record and can be made available upon request.

Notice to persons with disabilities: Members of the public who are disabled and require special assistance or accommodations at the meeting are requested to notify Briana Munoz at (775) 283-7412 or, in writing, at 885 East Musser Street, Suite 1032, Carson City, Nevada 89701, as soon as possible.

On some occasions, three or more members of this Advisory Board will attend Nevada Board of Wildlife Commissioners meetings, which are publicly noticed. These are informational meetings, and no action will be taken by this Carson City Advisory Board to Manage Wildlife, nor will this body improperly deliberate toward any decision, on those occasions. Information obtained at the Nevada Board of Wildlife Commissioners meetings may be agendized and acted upon at the next regular meeting of this Advisory Board.

To request a copy of the supporting materials for this meeting, contact Briana Munoz at bmunoz@carson.org or (775) 283-7412. Additionally, a copy of the agenda with all supporting materials may be made available, upon request, from the Public Meetings / Records Division of the Carson City Clerk's Office, 885 East Musser Street, Suite 1032, Carson City, Nevada.

This notice has been posted at the following locations:
City Hall 201 North Carson Street
Community Center 851 East William Street
www.carson.org/agendas
http://notice.nv.gov

Agenda Item No: 5.A

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: April 30, 2024 Draft Minutes

Agenda Action: Formal Action / Motion **Time Requested:**

Proposed Motion
I move to approve the minutes of the April 30, 2024, Carson City Advisory Board to Manage Wildlife meeting as presented.

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
4-30-24 Draft Minutes.pdf

Motion: _____ 1) _____ Aye/Nay
2) _____
_____
_____
_____
_____
_____

(Vote Recorded By)

DRAFT MINUTES
Regular Meeting
Carson City Advisory Board to Manage Wildlife (WAB)
Tuesday, April 30, 2024 ● 5:30 PM
Community Center Robert "Bob" Crowell Room
851 East William Street, Carson City, Nevada 89701

Board Members

Chair – Corbett Fleming **Vice Chair – Daniel Thompson**
Member – Robert Boehmer **Member – Kirk Stewart**
Member – Tim Wilson

Staff

Briana Munoz, Public Meetings Clerk

NOTE: A recording of these proceedings, the board's agenda materials, and any written comments or documentation provided to the recording secretary during the meeting are public record. These materials are on file in the Clerk-Recorder's Office, and available for review during regular business hours.

Audio recordings and approved minutes of the Board's meetings are available on https://www.carson.org/government/city-meetings.

1. CALL TO ORDER

(5:32:50) – Chairperson Fleming called the meeting to order at 5:32 p.m.

2. ROLL CALL AND DETERMINATION OF QUORUM

Attendee Name	Status	Arrived
Corbett Fleming, Chair	Present	
Daniel Thompson, Vice Chair	Present	5:45 p.m.
Robert Boehmer	Absent	
Kirk Stewart	Present	
Tim Wilson	Present	

3. PLEDGE OF ALLEGIANCE

(5:33:08) – Led by Member Wilson.

4. PUBLIC COMMENT

(5:33:50) – Chairperson Fleming entertained public comments. Deni French introduced himself as a Carson City resident and expressed appreciation for the Board.

5. FOR POSSIBLE ACTION: APPROVAL OF MINUTES – MARCH 5, 2024

(5:34:25) – Chairperson Fleming introduced the item and entertained questions, comments, and/or a motion to approve the minutes of the March 5, 2024 meeting.

(5:34:30) – MOTION: Member Stewart moved to approve the minutes of the March 5, 2024 meeting as presented. The motion was seconded by Member Wilson and carried 4-0-0.

6. FOR INFORMATION ONLY: UPDATE AND ACTIVITY REPORT ON THE CARSON CITY URBAN WILDLIFE COMMITTEE AND UPDATE ON THE MARCH 8 AND 9, 2024 COMMISSION MEETINGS.

(5:34:42) – Chair Fleming read updates on the Carson City Urban Wildlife Committee provided by Member Boehmer via email, all of which are incorporated into the record. Member Boehmer reported on a proposed wildlife and urban wildlife education campaign with engagement from the Nevada Department of Wildlife (NDOW) and City-wide events including the annual Junior Park Ranger Day, the Great Basin Hike, and Annual Kids to Parks Day. Additionally, Member Boehmer provided a Draft Annual Report of the Urban Wildlife Sub-Committee and 2023 Data on the NDOW Urban Wildlife Program.

(5:38:00) – Chairperson Fleming provided a report on the March 8 and 9, 2024 Nevada Board of Wildlife Commission meetings in Las Vegas. He mentioned a proposal for coyote hunting contests and the roundup of wild horses on Bureau of Land Management (BLM) property, adding that the roundup was supported by the Commission. Chair Fleming noted a long discussion on coyote hunting, after which the petitioners withdrew their proposal.

7. FOR DISCUSSION ONLY: REPORTS – INFORMATIONAL

(5:40:01) – Chairperson Fleming introduced the item and entertained Member input on each of the reports. No Member input was forthcoming. Chair Fleming opened up Item 7-B for public comment following a request from Mr. French.

(5:47:09) – Chairperson Fleming entertained additional input on the reports. Mr. French requested information on Item 7-E regarding the Black Bear Presentation. Chair Fleming noted that the Board could discuss black bears more in depth with Item 8-J and Mr. French agreed.

7-A. DEPARTMENT ACTIVITY REPORT – *At the May 3, 2024, meeting of the Nevada Board of Wildlife Commissioners, a report will be provided on Nevada Department of Wildlife recent activities. The CCABMW may desire to offer public comment.*

7-B. LITIGATION REPORT – *At the May 3, 2024, meeting of the Nevada Board of Wildlife Commissioners, a report will be provided on Nevada Department of Wildlife litigation. The CCABMW may desire to offer public comment.*

(5:41:13) – Chairperson Fleming introduced the item and referenced the Staff Report and Support Materials.

(5:43:03) – Member Wilson noted ongoing litigation regarding a claim for a public trust doctrine to provide water to Walker Lake to support the fishery. Additionally, he went over a settlement case brought up at the previous Commission meeting.

(5:45:10) – Gene Green introduced himself as a Carson City resident and commented on the litigation reports at the Nevada Board of Wildlife Commissioners' meeting and why they seemed "vague at times." He explained that NDOW's Deputy Attorney General Craig Burkett can only report on completed cases and that some cases may not be reported on for long durations.

7-C. HABITAT STATUS AND TREND - *At the May 3, 2024, meeting of the Nevada Board of Wildlife Commissioners, a presentation will be provided on the status and trend of Nevada's wildlife habitat. The CCABMW may desire to offer public comment.*

7-D. WILDLIFE HERITAGE COMMITTEE REPORT – *At the May 3, 2024, meeting of the Nevada Board of Wildlife Commissioners, a report will be provided on the recent Wildlife Heritage Committee meeting. The CCABMW may desire to offer public comment.*

7-E. BLACK BEAR PRESENTATION - *At the May 3, 2024, meeting of the Nevada Board of Wildlife Commissioners, a presentation will be provided on the population status and distribution of Black Bears in Nevada. The CCABMW may desire to offer public comment.*

7-F. LAW ENFORCEMENT DIVISION OVERVIEW - *At the May 3, 2024, meeting of the Nevada Board of Wildlife Commissioners, a presentation will be provided on the Law Enforcement Division Programs. The CCABMW may desire to offer public comment.*

8. CONSENT AGENDA:

The items listed under the consent agenda are considered routine and may be acted upon by the Advisory Board to Manage Wildlife with one action and without extensive hearing. A member of the advisory board may request an item be pulled for separate discussion and action, but the advisory board chair retains discretion in deciding whether to pull an item from the consent agenda. (For additional information on the items to be considered within this action item, please visit the Nevada Department of Wildlife website at: http://www.ndow.org/Public_Meetings/Com/Agenda/ under agenda and corresponding support material).

(5:47:26) – Chairperson Fleming introduced the item and entertained Member requests to pull Consent Agenda items. Chair Fleming wished to pull Items 8-B and 8-J. Member Stewart requested to pull items 8-E and 8-F.

(5:49:37) – MOTION: Member Wilson moved to support Consent Agenda Items 8-A, 8-C, 8-D, 8-G, 8-H, 8-I, 8-K. Member Stewart seconded the motion. The motion carried 4-0-0.

8-A. FOR POSSIBLE ACTION: HERITAGE ACCOUNT PRINCIPAL PROJECT - *At the May 3, 2024, meeting, the Nevada Board of Wildlife Commissioners will consider and may take action*

to approve the South Schell Land Acquisition Heritage Account Principal Project Proposal. The Department is seeking Heritage Account Principal Project funding to acquire 1,720 acres of wildlife habitat in the Schell Creek Range near Ely, NV.

8-B. FOR POSSIBLE ACTION: REQUEST FROM THE STATE OF UTAH FOR THE DESERT BIGHORN SHEEP - *At its May 3, 2024, meeting, the Nevada Board of Wildlife Commissioners may consider the Utah Division of Wildlife Resources request for possible approval. The Utah Division of Wildlife Resources has requested desert bighorn sheep for translocation into the State of Utah. The Department will provide a briefing to the Commission of recent efforts with Utah and potential options for consideration.*

(5:51:01) – Chairperson Fleming introduced the item and referenced the Staff Report and Support Materials, all of which are incorporated into the record. Chair Fleming inquired about the request.

(5:52:10) – Vice Chair Thompson explained translocation efforts between Nevada, Utah, and Idaho involving desert bighorn sheep. Chairperson Fleming noted that the request seemed straightforward.

(5:53:10) – Mr. French expressed concerns with transferring the desert bighorn sheep, noting that issues taking place in Utah would then affect Nevada's population. Additionally, he shared concerns with the safety of the desert bighorn sheep being transported, noting that he was uncomfortable with the process. Chair Fleming emphasized the need to trust the "scientists and NDOW" with their plans for the desert bighorn sheep populations as it would help keep other herds healthy and thriving. Chairperson Fleming and Member Stewart expressed support for the proposal.

(5:56:37) – **MOTION: Member Stewart moved to support Item 8-B. The motion was seconded by Member Wilson and carried 4-0-0.**

8-C. FOR POSSIBLE ACTION: NEW COMMISSION POLICY 12 – FEE FOR HABITAT, RESEARCH AND MANAGEMENT - *At the May 3, 2024, meeting, the Nevada Board of Wildlife Commissioners will review a new Commission Policy 12 for the first time and may take action to recommend revising the policy.*

8-D. FOR POSSIBLE ACTION: FISCAL YEAR 2025 PREDATION MANAGEMENT PLAN - *At the May 3, 2024, meeting, the Nevada Board of Wildlife Commissioners will consider the Department's proposal to change Nevada Administrative Code (NAC) 503.172 that better identifies unlawful activity for shed hunting and provides provisions for big game mammal skull collection.*

8-E. FOR POSSIBLE ACTION: COMMISSION GENERAL REGULATION 518 – SHED HUNTING AND BIG GAME SKULL COLLECTING - *At the May 3, 2024, meeting, the Nevada Board of Wildlife Commissioners will consider the Department's proposal to change Nevada Administrative Code (NAC) 503.172 that better identifies unlawful activity for shed hunting and provides provisions for big game mammal skull collection.*

(5:57:03) – Chairperson Fleming introduced the item and referenced the Staff Report and Support Materials, all of which are incorporated into the record. Member Stewart said that while he did not disagree with the proposal, he found it too lengthy and suggested it be more concise. Member Stewart questioned the restriction on picking up antlers from private property while expressing support for the online class and certificate requirement.

(6:01:02) – Member Wilson echoed Member Stewart's concerns and highlighted the need "to look out for unintended consequences." Vice Chair Thompson cited an experience with turning in a desert bighorn skull and highlighted the need for clarification on the statute.

PUBLIC COMMENT

(6:03:55) – Mr. Green noted that his relative who frequently hunts had concerns about the regulation and its length.

(6:05:02) – Mr. French expressed appreciation for the discussion and information on the proposal. He noted that it was "a bit long-winded" and should be brought to a "a more capsulated condensed main point with a clear purpose and consequences." Mr. French agreed with Mr. Green's comments.

(6:06:41) – Member Stewart highlighted that he didn't disagree with the proposal but felt it should be condensed. Member Wilson expressed support for the regulation, noting that it was in response to situations that needed more clarity.

(6:08:38) – MOTION: Member Wilson moved to support Consent Agenda Item 8-E. Vice Chair Thompson seconded the motion. The motion carried 4-0-0.

8-F. FOR POSSIBLE ACTION: COMMISSION GENERAL REGULATION 519 – WAITING PERIODS FOR BIGHORN SHEEP AND MOUNTAIN GOAT - *At its May 3, 2024, meeting, the Nevada Board of Wildlife Commissioners will hold a workshop to consider amending Nevada Administrative Code (NAC) 502.345 and 502.364 that would adjust the waiting periods for Nelson (Desert) bighorn sheep, Rocky Mountain bighorn sheep, California bighorn sheep, moose and mountain goat to once in a customer's lifetime.*

(6:09:07) – Chairperson Fleming introduced the item and referenced the Staff Report and Support Materials, all of which are incorporated into the record.

(6:09:35) – Member Stewart acknowledged the positive and negative aspects of the proposal, noting that narrowing the waiting periods to once in a customer's lifetime was likely "okay."

(6:10:29) – Member Wilson stated that he supported the current waiting periods but noted the limited number of animals and high demand. He mentioned the potential impact on application and processing fees. Member Wilson expressed his indecision on the proposal and highlighted the need for more public input.

(6:14:15) – Vice Chair Thompson asked if the once-in-a-lifetime restriction applied only after harvesting or only after pulling a tag. He highlighted the need to draw another tag to harvest if the first attempt was unsuccessful and Member Wilson agreed.

(6:15:39) – Chairperson Fleming expressed concerns regarding the possibility of younger hunters passing tags to family members and questioned how tag transfers would affect the chance to hunt big game animals. In response to Member Wilson's comment on the limited number of applicants, Chair Fleming noted that only a few people might actually use the tag transfer each year. He addressed Vice Chair Thompson's comments on the policy's potential to increase participation rates and asked if the small increase was worth the problems it could cause.

(6:18:00) – Member Stewart expressed his support for the idea that unsuccessful applicants should have the opportunity to re-enter the draw and suggested a waiting period before re-entry. Member Wilson agreed and raised concerns regarding the potential lifetime ban for unsuccessful hunters.

(6:19:54) – MOTION: Vice Chair Thompson moved to support Consent Agenda Item 8-F with the caveat that individuals who successfully harvest the animal face a lifetime ban, whereas those who do not are allowed back into the pool after a waiting period. Member Wilson seconded the motion. The motion carried 4-0-0.

8-G. FOR POSSIBLE ACTION: COMMISSION GENERAL REGULATION 522 – E-TAG REGULATION - *At the May 3, 2024, meeting, the Nevada Board of Wildlife Commissioners will review language amending Nevada Administrative Code (NAC) 502 that would update the process related to use of game tags in the field and allow the Department to offer game tags in an electronic format.*

8-H. FOR POSSIBLE ACTION: Commission General Regulation 520 – TAG DEFERRAL EXTENUATING CIRCUMSTANCES REVISION - *At the May 4, 2024, meeting, the Nevada Board of Wildlife Commissioners will hold an adoption to amend Chapter 502 of the Nevada Administrative Code that would update the rules related to the timeframe and circumstances surrounding tag deferrals. If approved by the Commission, the Chairman will sign on behalf of the Commission approval of the Department's standard operating procedure.*

8-I. FOR POSSIBLE ACTION: COMMISSION GENERAL REGULATION 500, SUBDIVISION MAP REVIEW - *At the May 4, 2024, meeting, the Nevada Board of Wildlife Commissioners will need to re-adopt CGR 500 to amend Nevada Administrative Code (NAC) 278 to provide for the Department review of tentative subdivision map(s) and inclusion of recommendations for methods to avoid or minimize impacts to wildlife, mitigation measures, best management practices or design features, and provide for collection of associated fees to the Department.*

8-J. FOR POSSIBLE ACTION: COMMISSION REGULATION 24-11, 2024 BLACK BEAR QUOTAS AND HARVEST LIMITS – *At the May 4, 2024, meeting, the Nevada Board of Wildlife Commissioners will consider adopting the 2024 hunting season quotas and harvest limits for black bear.*

(6:20:46) – Chairperson Fleming introduced the item. Rebecca Carniello, a Game Biologist with NDOW filling in for Carl Lackey, provided a review on the previous year's synopsis and the Department's current recommendations. Ms. Carniello explained that female harvest limits have no impact on the population. She went over the harvest rates and population impact, noting a light harvest on both males and females and a higher success rate compared to the average. She explained the Department's recommendations for the current year, including specific unit group harvest limits, along with resident and non-resident quotas. Ms. Carniello provided statistics on non-hunting bear mortalities, total known mortalities, and the average yearly mortality. She noted an average population growth of 5 percent annually.

(6:28:18) – In response to Member Wilson, Ms. Carniello confirmed that there were studies and data supporting the idea that the bear population in California influences the bear population in Nevada.

PUBLIC COMMENT

(6:31:29) – Mr. French referenced a PBS Special and said it suggested female bears could have multiple offspring in their lifetime. He inquired if there was a market for transplanting bears, similar to the approach with the desert bighorn sheep in Utah. Mr. French suggested monitoring and tagging female bears to identify cubs that could be transplanted to areas with depleted bear populations.

(6:34:39) – Chairperson Fleming expressed support for the proposed quota, noting that it seemed to be based on solid data.

(6:35:21) – MOTION: Vice Chair Thompson moved to support Consent Agenda Item 8-J with the recommendation to remove the female subquota per unit. Member Wilson seconded the motion. The motion carried 4-0-0.

8-K. FOR POSSIBLE ACTION: COMMISSION REGULATION 24-12 – BIG GAME QUOTAS FOR THE 2024-2025 SEASON – *At the May 4, 2024, meeting, the Nevada Board of Wildlife Commissioners will consider and may take action to approve regulations for the numbers of tags to be issued for mule deer, pronghorn antelope, elk, moose, bighorn sheep, and mountain goats for the 2024-2025 season.*

******* END OF CONSENT AGENDA *******

9. FOR INFORMATION ONLY: ADVISORY BOARD MEMBER COMMITMENT(S) TO THE TO THE MAY 3 AND 4, 2024 AND THE JUNE 28 AND 29, 2024 MEETINGS.

(6:36:31) – Chairperson Fleming introduced the item and noted that he could not attend the May 3 and 4, 2024 meetings. Member Wilson stated that he could attend the May 3 and May 4, 2024 meetings. Chair Fleming and Vice Chair Thompson indicated that they could attend the June 28 and 29, 2024 meetings.

10. INFORMATIONAL ITEM: FUTURE AGENDA ITEMS

(6:38:36) – Chair Fleming introduced the item and entertained suggestions for future agenda items; however, none were forthcoming.

11. PUBLIC COMMENT

(6:38:47) – Chairperson Fleming entertained public comments. Mr. French expressed concerns regarding an upcoming meeting on Phase III of the Carson River Trail at Prison Hill, noting that he opposed the project due to the lack of species counts, including eagles, deer, and rabbits. He asked the Board to "nudge" project planners to conduct species counts. Mr. French commented that removing sagebrush could create heat spots, endangering smaller creatures and insects. Robyn Orloff introduced herself as a Carson City resident, and echoed Mr. French's concerns on the Prison Hill project. Ms. Orloff mentioned that the trail construction would mow over 2.4 miles of virgin sagebrush ecosystem. She inquired about the Board's influence over the project. Additionally, she expressed appreciation for inclusion of public comments on the agenda and highlighted the need for the Nevada Board of Wildlife Commission to consider the same approach with public comments. Chair Fleming commented that he could provide Ms. Orloff with information regarding the Prison Hill project.

12. FOR POSSIBLE ACTION: ADJOURNMENT

(6:43:51) – Chairperson Fleming adjourned the meeting at 6:43 p.m.

The minutes of the April 30, 2024 meeting of the Carson City Advisory Board to Manage Wildlife are approved on this 24th day of June, 2024.

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **DEPARTMENT ACTIVITY REPORT** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, a report will be provided on Nevada Department of Wildlife recent activities.

Agenda Action: Other / Presentation **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
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_____
(Vote Recorded By)

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **LITIGATION REPORT** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, a report will be provided on Nevada Department of Wildlife litigation.

Agenda Action: Other / Presentation **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
8B-June-Litigation-report.pdf

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
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_____
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_____

_____
(Vote Recorded By)

AARON D. FORD
Attorney General

KYLE E.N. GEORGE
First Assistant Attorney General

CHRISTINE JONES BRADY
Second Assistant Attorney General

JESSICA L. ADAIR
Chief of Staff

RACHEL J. ANDERSON
General Counsel

HEIDI PARRY STERN
Solicitor General

STATE OF NEVADA
OFFICE OF THE ATTORNEY GENERAL
100 North Carson Street
Carson City, Nevada 89701

MEMORANDUM

To: Nevada Board of Wildlife Commissioners
Alan Jenne, Director, Nevada Department of Wildlife

From: Craig Burkett, Senior Deputy Attorney General

Date: June 5, 2024

Subject: June March Board Meeting Litigation Update

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1. United States and Walker River Paiute Tribe v. Walker River Irrigation Dist., et al. (Walker River Litigation), (USDC, Reno).

This action involves federal, tribal and Mineral County claims for additional water from Walker River, in addition to those already established by the Walker River Decree. NDOW and others moved to dismiss certain claims against groundwater rights by the United States.

Subfile 3:73-CV-00127-RCJ-WGC (federal reserved rights)

This case involves claims by the United States for federal reserved water rights for all federal lands on the Walker River system. All claims are stayed except those concerning the Walker River Indian Reservation.

Currently, this case is before the District Court on remand from the Ninth Circuit Court of Appeals' May 22, 2018, decision. *The United States and the Tribe filed Amended Counterclaims on May 3, 2019. Answers to the Counterclaims were filed on August 1, 2019.* The next deadline is February 19, 2020 for the principle defendants and the United States to agree to a discovery plan. This deadline was extended from November 22, 2019.

On May 28, 2015, the District Court ruled that the United States' action to acquire federal reserved water rights for the Walker River Paiute Tribe and

several smaller tribes within the Walker River watershed were to be dismissed on "preclusion"; a doctrine that means the U.S. had its chance to make claims at the time of the original decree but failed to do so and thus cannot make them now.

On May 22, 2018, the Ninth Circuit Court of Appeals reversed the District Court's decision mostly based on the fact that the United States and the Tribe had not been given a chance to brief the issue before the District Court. In fact, the District Court specifically requested that the issue of preclusion should not be briefed.

On September 21, 2021 Plaintiffs' motion for summary judgment (ECF No. [2638]) was granted. Plaintiffs are entitled to judgment as a matter of law in their favor as to Defendants' Third, Seventh, Twelfth, and Fourteenth Affirmative Defenses. Nevertheless, Principal Defendants retain all other affirmative defenses and litigation remains ongoing.

The Principal Defendants have filed status reports regarding the status of access to tribal archives for discovery purposes. These archives remain closed due to the pandemic.

Discovery remains ongoing.

As of March 7, 2023, the case remains staid for 90 days pending settlement discussions. As of May 31, 2023, the parties appear to have reached a settlement agreement. the US, Tribe and WRID are now working through their internal approval processes. On February 13, 2024, the Court signed an Order issuing a 90 day stay of the proceedings to give the parties time to obtain approval from all the appropriate authorities to resolve the outstanding water rights claims.

Subfile 3:73-CV-00128-RCJ-WGC (public trust doctrine)

This case involves a claim filed by Mineral County for the court to recognize a public trust duty to provide water to Walker Lake to support the fishery therein.

On May 28, 2015, the District Court held that Mineral County did not have standing to pursue the public trust claims. Mineral County filed an appeal of this issue. The Court expounded on the issue of whether the shift of water from irrigators to the lake under the public trust law would be a taking of property under the 5th Amendment. The Court held that it would be a taking and that the State would have to pay compensation to each water right holder that is displaced by water that would have to be sent to Walker Lake. Finally, the

Court went on to hold that decision whether to take the water was a non-justiciable political question.

On May 22, 2018, the Ninth Circuit Court of Appeals reversed the District Court holding that Mineral County did not have standing to pursue the public trust claim. However, rather than ruling on the substantive issues, the Court held that the Public Trust Doctrine is a state-law issue that has not been squarely decided in Nevada. The Appeals Court sent one Certified Question to the Nevada Supreme Court. On August 22, 2018, the Ninth Circuit Court of Appeals amended its order and added a second Certified Question. Those two questions are as follows.

> Does the public trust doctrine apply to rights already adjudicated and settled under the doctrine of prior appropriation and, if so, to what extent?'
>
> If the public trust doctrine applies and allows for reallocation of rights settled under the doctrine of prior appropriation, does the abrogation of such adjudicated or vested rights constitute a "taking" under the Nevada Constitution requiring payment of just compensation?

On September 18, 2020, the Nevada Supreme Court rendered its Decision answering the Ninth Circuit Court of Appeals Certified Questions. The Nevada Supreme Court held that: (1) the public trust doctrine applies to rights already adjudicated and settled under the doctrine of prior appropriation; (2) the public trust doctrine applies to all waters within the state; and (3) the public trust doctrine does not permit reallocating water rights already adjudicated and settled under the doctrine of prior appropriation. Because the Court held the public trust doctrine does not allow for a reallocation of rights, there was no need to answer the second question.

The case has returned to the Ninth Circuit Court of Appeals. The Court asked parties to file Supplemental Briefs to address what effect the Nevada Supreme Court's decision has on the case. NDOW filed its Supplemental Brief on October 16, 2020 arguing that the effect of the decision precludes Mineral County's claims and that the District Court's decision dismissing the case must be affirmed. We await the Ninth Circuit Court of Appeals' further instruction or final decision.

On January 28, 2021, the Ninth Circuit Court issued its Opinion. The panel affirmed in part, and vacated in part, the district court's dismissal of Mineral County's complaint:

> In light of the Nevada Supreme Court's Decision, the panel held that the district court properly dismissed the County's public trust claim to the extent it sough a reallocation of water rights adjudicated under the Decree and settled under the doctrine of prior appropriation. The panel vacated the judgment of the district court and remanded with instruction to consider the county's public trust doctrine claim to the extent it sought remedies that would not involved a reallocation of adjudicated water rights. The panel remanded to the district court to consider in the first instance the County's arguments that were not properly addressed by the district court. The panel rejected as untimely the County's challenge to the 1936 Decree itself.

On April 21, 2021, the Department of Wildlife and other Principal Defendants filed a Joint Status Report submitted pursuant to the court's Minute Order of March 23, 2021. The Status Conference took place on April 28, 2021.On December 20, 2022, the Court entered a Discovery Plan and Scheduling Order Outlining dates and deadlines for the litigation.
Mineral County v. Lyon County, 136 Nev. Adv. Op. 58 (2020).

On June 30, 2021, Mineral County filed its Second Amended Complaint. Mineral county asserted that by permitting excessive and unreasonable upstream consumptive uses to reduce average annual inflows to Walker Lake to the detriment of the Lake's public trust values, the Decree Court and State of Nevada have violated this continuing duty under the public trust doctrine to maintain Walker Lake in a reasonable state of environmental health.

On October 28, 2021, the Principal Defendants filed a Motion to Dismiss Mineral County's Second Amended Complaint. The main arguments for dismissal are as follows: Paragraph XIV of the Walker River Decree does not give the Court subject matter jurisdiction to grant Declaratory Relief as to Nevada's, or the Court's purported obligation to Walker Lake; Mineral County's public trust claim is also inconsistent with the public trust doctrine as interpreted by the above Nevada supreme court opinion.

Defendants' Motion to Dismiss was denied on August 5, 2022. Judge Du found that Plaintiffs were still able to state a claim upon which relief can be

granted, largely technical claims asserted by Mineral County against WRID. Judge Du further found that NDOW and the State of Nevada are both ex rel. parties, meaning that NDOW is not simply a standalone rights holder in this case. As well, the political question doctrine does not apply to this case because caselaw cited provides authority for courts to modify or interpret the decree. It remains unclear from the ruling how this will impact NDOW. The relief sought by Mineral County is for NDOW to develop and fund a plan to improve the resource of Walker Lake, the legal argument against that is that such funding would more appropriately be decided by the legislature.

Because counsel for Mineral County has been gravely ill, the court has been deferential to Mineral County and allowed for a generous discovery schedule, as follows:

> Discovery may commence on April 7, 2023, and shall close on **April 4, 2025**. Dispositive Motions due no later than 60 days after the close of discovery (**6/3/2025**).

On April 18, 2023, the AG's office received Mineral County's initial disclosures. Document review remains ongoing.

On May 31, principal Defendants served their first joint discovery requests upon Mineral County.

> *Subfile 3:73-CV-00125-RCJ-WGC (main adjudication docket)*

This subfile is not a case in the traditional sense, but rather constitutes the ongoing court-managed administration of the Walker River Decree. Decreed rights must be adjusted and administered consistent with the Court's decisions documented in the court's docket.

=]
Walker Basin Conservancy's Permit Approvals: On July 28, 2023, NDOW filed Application 92910-T with the Nevada State Engineer seeking a temporarily change in the manger of use and place of water rights for the benefits of Walker Lake. This is a matter of course for any change in the Decreed water rights. NDOW is currently awaiting the Nevada State Engineer's decision on the Application, which is expected to be received any day. Assuming the State Engineer grants the Application, NDOW is expected tofile a Joint Motion with the Walker Basin Conservancy for an Order that temporarily modifies the Walker River Decree to reflect the changes in manner of use and place of the water rights.

A week long trial was completed beginning February 8, 2022 and concluding February 14. The trial Judge dismissed multiple claims and Defendants after conclusion of the Plaintiff's case. A single claim was submitted to the jury as to whether the Nevada Department of Wildlife defamed the Plaintiff in libel. The jury returned a defense verdict on the remaining claim.

The Court has issued a formal judgment in favor of the Defendants as to all causes of action. In addition, the Judge has issued costs and fees award to the Defendants in the total amount of roughly $91,000.

The Plaintiffs have appealed the case and the fees and costs award to the Nevada Supreme Court. The parties attended a Supreme Court Settlement Conference February 28. It was not successful.

**Indicates the matter is resolved and will not appear on future litigation updates.*

Italicized material, if any, (other than case name) is updated information since the last litigation update.

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **REPORT ON COLUMBIAN SHARP-TAILED GROUSE IN NEVADA** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, an overview will be provided to the Commission on the status of Columbian Sharp-tailed Grouse in Nevada and future plans.

Agenda Action: Other / Presentation **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
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(Vote Recorded By)

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **REPORT ON NEVADA'S RESPONSE TO CHRONIC WASTING DISEASE (CWD) DETECTION IN CALIFORNIA** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, a report will be given on planned actions in response to the detection of CWD in Bishop, California.

Agenda Action: Other / Presentation **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
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(Vote Recorded By)

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **TAG ALLOCATION AND APPLICATION HUNT COMMITTEE (TAAHC) REPORT** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, a report will be provided on the recent TAAHC meeting.

Agenda Action: Other / Presentation **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
8E-TAAHC-June-2024-Agenda.pdf

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
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(Vote Recorded By)

CHAIRMAN TOMMY CAVIGLIA
COMMISSIONER EDDIE BOOTH
COMMISSIONER SHANE ROGERS
COMMISSIONER PAUL YOUNG
CABMW REP. RYAN BROWNE
CABMW REP. JOE CRIM
PUBLIC REP. MEGHAN BROWN

STAFF TO THE COMMITTEE:
MEGAN MANFREDI, MANAGEMENT ANALYST
mmmanfredi@ndow.org, 775-688-1881

AGENDA

NEVADA BOARD OF WILDLIFE COMMISSIONERS

TAG ALLOCATION AND APPLICATION HUNT COMMITTEE

TUESDAY, JUNE 25, 2024 @ 4:00 PM

Please click this URL to join.
https://us02web.zoom.us/j/83162638742?pwd=kO8FyBq4X90ZaV9SvtmDkDaNSwkCJ6.1
Passcode: 578525

Public Comment will be taken on every action item after discussion but before action on each item and are limited to three (3) minutes per person. The Chair may allow persons representing groups to speak for six minutes. Persons may not allocate unused time to other speakers. Persons are invited to submit written comments to the Committee Staff or attend and make comment during the live meeting or, if utilized, be allowed to speak through a virtual platform which will become part of the official record. Persons attending virtually wishing to comment are invited to raise their virtual hands in the virtual meeting forum during the appropriate time. To ensure the public has notice of all matters the Committee will consider, Committee members may choose not to respond to public comments to avoid deliberation on topics not listed for action on the agenda.

FORUM RESTRICTIONS AND ORDERLY BUSINESS: In accordance with Attorney General Opinion No. 00-047, as restated in the Attorney General's Open Meeting Law Manual, the Chair may prohibit comment if the content of that comment is a topic that is not relevant to, or within the authority of the Nevada Board of Wildlife Commission and related Committees, or if the content is willfully disruptive of the meeting by being irrelevant, repetitious, slanderous, offensive, inflammatory, irrational or amounting to personal attacks or interfering with the rights of other speakers.

Please provide the Board of Wildlife Commissioners Tag Allocation and Application Hunt Committee with the complete electronic or written copies of testimony and visual presentations to include as exhibits with the minutes. Minutes of the meeting will be produced in summary format. All persons present are asked to sign-in whether speaking or not.

1. **Call to Order, Pledge and Roll Call – Committee Chairman Tommy Caviglia**

2. **Public Comment Period**
   This period is for general comment on anything not on the agenda. No action will be taken but may be scheduled on a future Committee agenda. The 3- and 6-minute time limits apply. Persons making comment are asked to begin by stating their name for the record. If applicable, commentors will be allowed to speak within the virtual platform utilized for the meeting and taken in the order of hands raised. Commentors can raise their hands by clicking the "raise hand" button found at the bottom of the program.

3. **Approval of Agenda – Committee Chairman Tommy Caviglia** **FOR POSSIBLE ACTION**
   The Committee will review the agenda and may take action to approve the agenda. The Committee may remove items from the agenda, continue items for consideration or take items out of order.

4.* **Approval of Minutes – Committee Chairman Tommy Caviglia** **FOR POSSIBLE ACTION**
   The Committee may take action to approve Committee minutes from the January 25, 2024, meeting.

5. Bighorn Sheep Data Request by the Committee – Management Analyst Megan Manfredi
FOR POSSIBLE ACTION

The Committee will provide direction to the Department on data to pull related to bighorn sheep applicants, bonus points, applications, and other relevant subjects to prepare for a deeper discussion related to bighorn sheep and interested applicants. The Department will gather data related to the subjects requested by the Committee and provide a report to the Committee at a future meeting.

6. Future Committee Meeting – Committee Chairman Tommy Caviglia **FOR POSSIBLE ACTION**

The committee will discuss possible future agenda topics and set a date and time for the next committee meeting.

7. Public Comment Period

This period is for general comment on anything not on the agenda. No action will be taken but may be scheduled on a future Committee agenda. The 3- and 6-minute time limits apply. Persons making comment are asked to begin by stating their name for the record. If applicable, commentors will be allowed to speak within the virtual platform utilized for the meeting and taken in the order of hands raised. Commentors can raise their hands by clicking the "raise hand" button found at the bottom of the program.

*Support material is posted at the NDOW website at this link: https://nvboardofwildlife.org/

Support material for this meeting may also be requested from Megan Manfredi, NDOW Management Analyst, at mmmanfredi@ndow.org, (775) 688-1881.

Note: In accordance with NRS 241.020, this agenda closes three days prior to the meeting date and has been posted at https://notice.nv.gov/ and the following Department of Wildlife offices: 6980 Sierra Center Parkway, Reno, NV 89511; 1100 Valley Rd, Reno, NV 89512; 380 W. "B" St, Fallon, NV 89406; 815 East Fourth St, Winnemucca, NV 89445; 60 Youth Center Rd, Elko, NV 89801; 1218 North Alpha St, Ely, NV 89301; and 3373 Pepper Lane, Las Vegas, NV 89120.

Notice to the Public: Nevada Department of Wildlife receives Federal Aid in Fish and/or Wildlife Restoration. The U.S. Department of the Interior prohibits discrimination based on race, color, national origin, age, sex, or disability. Individuals with hearing impairment may contact the Department at 775-688-1500 via a text telephone (TTY) telecommunications device by first calling the State of Nevada Relay Operator at 1-800-326-6868. Disabled individuals in need of special services should contact the Department prior to the meeting at (775) 688-1599.

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **FINANCE COMMITTEE REPORT** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, a report will be provided on the recent Finance Committee meeting.

Agenda Action: Other / Presentation **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
Finance-Committee-Report-Agenda.pdf

Motion: _____ 1) _____ Aye/Nay
2) _____
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(Vote Recorded By)

COMMITTEE MEMBERS:
CHAIRMAN SHANE ROGERS,
COMMISSIONER EDDIE BOOTH,
COMMISSIONER ALANA WISE,
CABMW REP. PAUL DIXON

STAFF TO THE COMMITTEE:
ADMINISTRATIVE SERVICES OFFICER III,
NANCY CAMARENA, ncamarena@ndow.org
775-688-1570
BUDGET ANALYST II,
ZEIDA ALBERT, zalbert@ndow.org
775-688-1014

AGENDA
NEVADA BOARD OF WILDLIFE COMMISSIONERS
FINANCE COMMITTEE
WEDNESDAY, MAY 22, 2024 – 1:00 PM
MEETING HELD VIA ZOOM

Please click the link below to join the webinar.
https://us02web.zoom.us/j/89762500997?pwd=dFF3TzF0dHhzbGdsa2tZeCtsb2MyQT09
Passcode: 269017

Public comment will be taken on each action item following Committee discussion and before any action is taken. Persons attending virtually wishing to comment are invited to raise their virtual hands in the virtual meeting forum during the appropriate time; each person offering public comment during this period will be limited to not more than three minutes. If you are a member of the public representing yourself, please type in self after your name. The Chair may allow people representing groups to speak for six minutes. Persons may not allocate unused time to other speakers. Persons are invited to submit written comments on items prior to the meeting at zalbert@ndow.org. Public comment will not be restricted based on viewpoint. To ensure the public has notice of all matters the Committee will consider, Committee members may choose not to respond to public comments to avoid the appearance of deliberation on topics not listed for action on the agenda. Minutes of the meeting will be produced in summary format.

FORUM RESTRICTIONS AND ORDERLY BUSINESS: The viewpoint of a speaker will not be restricted, but reasonable restrictions may be imposed upon the time, place, and manner of speech. Irrelevant and unduly repetitious statements and personal attacks which antagonize or incite others are examples of public comment that may be reasonably limited.

1. **Call to Order and Roll Call of Committee Members – Committee Chairman Shane Rogers**

2. **Public Comment Period – Informational**
   Public comment will be limited to three minutes. No action can be taken by the Committee at this time; any item requiring Committee action may be scheduled on a future Committee agenda.

3. **Approval of Agenda – Committee Chairman Shane Rogers – For Possible Action**
   The Committee will review the agenda and may take action to approve the agenda. The Committee may remove items from the agenda, continue items for consideration or take items out of order at any time.

4. ***Approval of Minutes – Committee Chairman Shane Rogers – For Possible Action**
   The Committee will review and may approve the minutes from the May 23, 2023, meeting.

5. **Member Items – Committee Chairman Shane Rogers – Informational**
   Committee members may present emerging items. Any item requiring committee action will be scheduled on a future Committee agenda.

6. ***Review of the State Budget Building Process – Deputy Director Jordan Goshert – Informational**
   A presentation on the state budget building process will be given.

7. ***County Advisory Boards to Manage Wildlife (CABMW) State Fiscal Year 2025 Budget Requests – Committee Chairman Shane Rogers – For Possible Action**
   Pursuant to Nevada Revised Statute (NRS) 501.320, the Committee may recommend up to $36,526 for CABMW budgets for State Fiscal Year 2025 to the Commission for approval.

8. **Future Committee Meetings and Agenda Items – Committee Chairman Shane Rogers – For Possible Action**
   The chairman may designate and adjust items, or meeting dates, times, and locations at this time.

9. **Public Comment Period – Informational**
   Public comment will be limited to three minutes. No action can be taken by the Committee at this time; any item requiring Committee action may be scheduled on a future Committee agenda.

*Support material provided and posted to the NDOW website www.ndow.org and may be requested from zalbert@ndow.org or 775-688-1014.

Notice to the Public: Nevada Department of Wildlife receives Federal Aid in Fish and/or Wildlife Restoration. The U.S. Department of the Interior prohibits discrimination on the basis of race, color, creed, religion, national origin, age, sex, or disability. In accordance with NRS 241.020, this agenda closes three days prior to the meeting date and has been posted at the following Department of Wildlife offices: 6980 Sierra Center Parkway, Reno, NV, 89511, 1100 Valley Road, Reno, NV 89512; 380 W. "B" Street, Fallon, NV 89406; 705 E. Fourth Street, Bldg. A, Winnemucca, NV 89445; 60 Youth Center Road, Elko, NV, 89801; 1218 N. Alpha Street, Ely, NV 89301; and 3373 Pepper Lane, Las Vegas, NV 89120. Individuals with hearing impairment may contact the Department at 775-688-1500 via a text telephone telecommunications device by first calling the State of Nevada Relay Operator at 1-800-326-6868. Individuals with a disability who are in need of special services should contact the Department with as much prior notice as possible at 775-688-1014.

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **WILDLIFE HERITAGE PROJECTS PRESENTATION** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, a presentation will be provided highlighting past funded Heritage Projects.

Agenda Action: Other / Presentation **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
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(Vote Recorded By)

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **FISCAL YEAR 2025 COUNTY ADVISORY BOARDS TO MANAGE WILDLIFE (CABMW) BUDGET REQUESTS** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will consider and may approve an amount to fund the County Advisory Boards to Management Wildlife for Fiscal Year 2025. The Finance Committee recommended to approve an allocation of $36,526 at their meeting on May 22, 2024. The CABMW request was $38,573. The Commission may discuss approving funding at either of the amounts requested.

Agenda Action: Formal Action / Motion **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
CABMW-Budget-Requests.pdf

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
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(Vote Recorded By)

SFY 2025 NDOW CAB Budget Requests

County	Reported Cash Balance	FY25 Budget Request	NDOW Preliminary Recommendation (Rounded)
Carson City	$ 6,875.93	$ 3,334.00	$ -
Churchill	$ 3,581.22	$ 1,785.73	$ -
Clark	$ 6,562.90	$ 13,773.19	$ 7,211.00
Douglas	$ 5,553.08	$ 6,329.29	$ 777.00
Elko	$ 2,791.65	$ 7,069.39	$ 4,278.00
Esmeralda*	$ -	$ -	$ -
Eureka	$ 4,406.40	$ 5,550.14	$ 1,144.00
Humboldt	$ 4,657.29	$ 6,159.00	$ 1,502.00
Lander	$ 1,568.07	$ 6,902.15	$ 5,335.00
Lincoln	$ 6,406.32	$ 5,197.29	$ -
Lyon	$ 4,559.52	$ 6,252.10	$ 1,693.00
Mineral	$ 2,922.00	$ 7,090.08	$ 4,169.00
Nye	$ 3,254.56	$ 5,370.28	$ 2,116.00
Pershing	$ 98.39	$ 6,256.52	$ 6,159.00
Storey**	$ -	$ -	$ -
Washoe	$ 4,812.04	$ 7,065.60	$ 2,254.00
White Pine	$ 6,551.32	$ 8,486.23	$ 1,935.00
Total:	**$ 64,600.69**	**$ 96,620.99**	**$ 38,573.00**

FY 25 Governor Recommends Budget:	**$ 36,526.00**
Balance:	$ (2,047.00)

* County was given $1,000 in FY22 and $2,300 in FY23

** County was given $1,000 in FY22

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **COMMISSION POLICY 12 – PREDATOR FEE FOR HABITAT, RESEARCH, & MANAGEMENT** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will review a new Commission Policy 12 for the second time and may take action to recommend revising or adopting the policy.

Agenda Action: Formal Action / Motion **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
Commission-Policy-12.pdf

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
_____
_____
_____
_____

_____
(Vote Recorded By)

STATE OF NEVADA
DEPARTMENT OF WILDLIFE
Data and Technology Services Division
6980 Sierra Center Parkway, Ste. 120 • Reno, Nevada 89511
(775) 688-1500 Fax (775) 688-1987

MEMORANDUM: **Wednesday June 5, 2024**

To: Nevada Board of Wildlife Commissioners, County Advisory Boards to Manage Wildlife, and Interested Publics

From: Kailey Musso, Management Analyst 3, Director's Office

Title: **Commission Policy 12**

Description: Commission Policy 12 has been updated following the May Commission Meeting.

Summary:
*The formatting of every policy will be updated, as they are passed, so that it is consistent in each policy.

Policy 12 was last reviewed at the May Commission Meeting. The policy has been developed to reflect legislative changes surrounding the three-dollar big game application fee ("predator fee"). Policy 12 has been drafted solely to address the habitat, research, and management of nonpredatory game species.

Recommendation:

Adopt

 Kailey Musso, Management Analyst, 775-688-1510

STATE OF NEVADA
BOARD OF WILDLIFE COMMISSIONERS

Commission Policy Number 12

Number: P-12
Title: Fee for Habitat, Research, and Management
Reference: NRS 501.100, 501.181, 502.253,
Effective Date: 2024

PURPOSE

To inform the public and guide the Nevada Department of Wildlife (Department) in actions relating to the Board of Wildlife Commissioners' (Commission) review and approval of expenditures of the $3 fee in accordance with NRS 502.253(1)(b).

Pursuant to NRS 502.253(1) a fee of $3 is charged for processing each application for a game tag to be used by the Department, at the direction of the applicant, for costs related to developing and implementing an annual program for the:

(a) Lethal removal of predatory wildlife; or
(b) Improvement of wildlife habitat and research or management activities beneficial to nonpredatory game species.

Pursuant to NRS 502.253(1)(b), the Department is authorized to expend funds directed for the use of improvement of wildlife habitat and research or management activities beneficial to nonpredatory game species. Unlike the Heritage projects, all funds collected in the previous year are eligible for expenditure.

POLICY

If selected pursuant to NRS 502.253(1)(b), it is the policy of the Board of Wildlife Commissioners (Commission) to make awards from the $3 fee for activities for the improvement of wildlife habitat and research or management activities beneficial to nonpredatory game species. All awards shall be made in the form of grant awards through the Wildlife Heritage Committee following the same process as prescribed by the Department's Heritage Program Grant Manual. Proposals must be submitted between January 1 and March 1 of each calendar year to receive consideration for annual allocations. Department applicants should submit projects through the Habitat Conservation Framework Project Portal (HCFPP). For more information, applicants should consult the HCFPP User Manual.

PROCEDURE

The Department shall administer the funds for projects awarded during the Wildlife Heritage Committee process and ensure its compliance with all applicable state rules

NEW DRAFT

and regulations. The Department will rank and score project proposals based on project viability and resource enhancement potential. Projects funded through paragraph (b), will be ranked and scored separately from Heritage Program Projects, but will be scored and evaluated in the same manner. As a condition for accepting any award, project proponents must agree to the terms and conditions of the Heritage Program Grant Manual. The Heritage Program Grant Manual is posted on the Department's website as part of the Wildlife Heritage Program.

This policy shall remain in effect until amended, repealed or superseded by the Board of Wildlife Commissioners.

BY ORDER OF THE BOARD OF WILDLIFE COMMISSIONERS IN REGULAR SESSION, XXXX 2024.

_____

Chairman Tommy Caviglia
Board of Wildlife Commissioners

NEW DRAFT

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **APPROVAL FOR ELK DAMAGE PAYMENT EXCEEDING $10,000** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, an assessment of elk damage on Granite Peak Ranch in White Pine County, totaling $13,318 conducted by Department personnel and submitted for reimbursement by Bruce Hubbard, agent for the property will be presented. Per Nevada Administrative Code (NAC) 504.421 Section 1(f), "A loss on one site must be limited to $10,000 unless the Commission determines that a claimant may be paid more, and there is sufficient money to pay him or her." The Commission is required to review and approve the payment for elk damage.

Agenda Action: Formal Action / Motion **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
Approval-for-Elk-Damage-Payment-Exceeding-10000.pdf

Motion: _____ 1) _____ Aye/Nay
2) _____ _____

_____
_____
_____
_____

_____
(Vote Recorded By)

STATE OF NEVADA
DEPARTMENT OF WILDLIFE
Game Division
6980 Sierra Center Parkway, Ste. 120 · Reno, Nevada 89511
(775) 688-1500 Fax (775) 688-1987

MEMORANDUM **JUNE 7, 2024**

To: Nevada Board of Wildlife Commissioners, County Advisory Boards to Manage Wildlife and Interested Publics

From: Cody McKee, Elk Staff Specialist, Game Division

Title: **Approval for Elk Damage Payment Exceeding $10,000 – For Possible Action**

Purpose: The Commission will review and approve an assessment of damage occurring on irrigated cropland on the Granite Peak Ranch in White Pine County.

Summary

Persistent elk damage was documented throughout 2023 on several irrigated alfalfa fields comprising the Granite Peak Ranch (GPR) in White Pine County. Despite efforts by the Department to haze, the implementation of special depredation hunts, and adequate forage conditions occurring on nearby public land, up-to 100 elk frequented the properties from April through November. Ongoing crop damage was attributed to alfalfa consumption, trampling, and wallowing behavior; however, estimated damage is significantly less than 2022 when assessed losses totaled $28,346.00.

For 2023, an assessment of elk damage totaling $13,318.00 was completed by Department personnel and submitted for reimbursement by Bruce Hubbard, agent for the property. Per NAC 504.421 Section 1 (f), a loss on one site must be limited to $10,000.00, unless the Commission determines that a claimant may be paid more, and there is sufficient money to pay him or her. The Commission will need to review and approve the assessment of elk damage on the GPR to authorize the Department to process the reimbursement.

As of June 2024, the balance in the Elk Damage Account was $2,237,224.50. The Department continues to evaluate options to mitigate damage caused by elk to GPR properties, as well as other locations throughout Nevada.

Recommendation

The Department recommends the Commission vote to approve the payment for elk damage on GPR as presented.

ELK DAMAGE COOPERATIVE AGREEMENT

An agreement between the state of Nevada
Acting by and through its

DEPARTMENT OF WILDLIFE
and

Bruce Hubbard- agent
Name and Title of Cooperator

4272 North High Noon Street Enoch, UT 84721 (435) 681-0557
Address and Phone Number of Cooperator

☐ Granite Peak Ranch
Ranch or General Property Name

111-115
Management Unit Group

WHEREAS, NRS 503.595 authorizes the Department to cause such action to be taken as it may deem necessary, desirable and practical to prevent or alleviate such damage or threatened damage to such land or property; and

WHEREAS, NRS 501.351 (1) authorizes the Administration of the Department to enter into cooperative or reciprocal agreements with any person in accordance with and for the purpose of carrying out the policy of the Commission; and

Whereas. NAC 504.350 through 504.440, under the authority of NRS.155, directs the Department in receiving funds for the the prevention and mitigation of damage and compensation for losses caused by elk, and NRS 504.165 directs the Department in the disbursement of money for the prevention and mitigation of damage and compensation for loss.

NOW, THEREFORE, in consideration of the aforesaid premises, the parties mutually agree as follows when damage is caused by elk:

1. The Department agrees to:

A) Act expeditiously when a complaint is received.

B) Assess the problem and recommend a course of action to the cooperator.

C) Carry out an orderly progression of action to alleviate the damage as agreed to by both parties.

D) Compensate the cooperator for damage if a preponderance of evidence proves that the loss was caused by elk.

2. The Cooperator agrees to:

A) Notify the Department in writing of any damage caused by elk within 5 days of its discovery. The notice must include:

a) Dates on which the damage occurred or an estimate of the dates;

b) Estimated number of elk that are causing damage;

c) Type of damage;

d) Date on which damage was discovered

e) Estimated extent of the damage; and

f) Location of damage.

B) Consult with the Department and consider its technical advise regarding:

a) Damage which occurs because of the placement of stored crops; and

b) The relocation of stored crops and the development of new agricultural fields.

C) Allow the Department to enter his property to:

a) Remove elk when the Department so requests.

b) Prevent further damage by any method necessary, including but not limited to, hazing, hunting, shooting and scaring.

D) Allow hunters to whom the Department has issued an elk depredation tag, to hunt on his property if the hunters will not constitute an undue safety hazard to persons or property.

3. Both parties acknowledge that if the Department and the Cooperator agree that hunting of elk is necessary to control damage, the parties agree to negotiate the circumstances under which access to the land of of the Cooperator will be allowed (NAC 501.351 (2)(a).

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be signed and intended to be legally bound thereby.

Bruce Hubbard Agent 2.20.2024
Signature - Cooperator (Landowner) Date

2-27-2024
Signature - Department Investigator Date
Nevada Department of Wildlife

W. Stt DA 4/18/24
Signature - Investigator's Supervisor Date
Nevada Department of Wildlife

Signature - Game Division Chief Date
Nevada Department of Wildlife

APPROVED TO FORM ONLY BY:

Nevada Attorney General

By:
Deputy Attorney General Date

ELK DEPREDATION DAMAGE OR LOSS REPORT

Bruce Hubbard- agent
(Name of Claimant)

4272 North High Noon Street Enoch, UT 84721
(Mailing Address

(435) 681-0557
(Telephone Number)

Granite Peak Ranch (Location of Damaged Property) White Pine (County)

Dates damage occurs: From 4/1/2023 To 11/30/2023

When was damage first discovered: 3/16/2023

When was NDOW notified of damage: 3/16/2023

If not within five days of the initial discovery of damage, why?

Date of NDOW investigation 9/7, 9/28, 10/30, 11/9

Persons Interviewed None

Description of Investigation:
Daylight count.

Have there been previous reports of damage caused by elk? Yes ☑ No ☐
If yes, the date(s): 2021 and 2022

Has the claimant refused to accept, use or maintain damage prevention materials provided by the Department? Yes ☐ No ☑ If yes, explain:

Are the damages caused by elk eligible for reimbursement pursuant to any policy of insurance? Yes ☐ No ☑

TYPE(S) OF DAMAGE:

Number of elk causing damage 25-100

Check all that apply

Pasture or meadow ☐ Standing Crop ☑ Stored Crop ☐

Number of acres involved in damage 3,100

If pasture or meadow, was it grazed by livestock? Yes ☐ No ☑ If so,

Type _____ Number _____

Season of use _____

If stored crop, type? _____ Total acres _____ Acres damaged _____

Other property damage (e.g., fencing) ☐ Type of property _____

What measures were taken to protect meadow/crops/property?

Hazing

Calculation of Damage Values

Pasture or meadow					
Avg # elk/month	# of months	% time elk on field/day	AUM elk conversion	Cost of 1 AUM	**Damage Value**
			2.1		$0

Standing crop				
Avg # elk/ day	# days	lbs/elk/day consumed	Market value/ton	**Damage Value**
75	244	7.1	$205	$13,318

Stored crops		
Amount damaged (tons, bales, lbs)	market value/unit	**Damage Value**
		$0

Other property damaged		
Amount damaged (units, e.g., feet of fencing)	market value/unit	**Damage Value**
		$0
	TOTAL VALUE	**$13,318**

DAMAGE PAYMENT AGREED TO BY CLAIMANT AND NDOW INVESTIGATOR

$ $13,318 Date 2/7/2024

I agree the above information is true to the best of my knowledge:

R Bruce Hubbard Agent — 2.20.24
Claimant's Signature — Date

2-27-2024
Department Investigator — Date

W. Sat RAS — 4/18/24
Supervisor Approval — Date

The Department approves the aforementioned claim for the amount identified:

Deputy Director, — Date
Nevada Department of Wildlife

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **HERITAGE PROJECT EXTENSION REQUESTS** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will review recommendations and may approve extensions requests from projects approved in previous fiscal years.

Agenda Action: Formal Action / Motion **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
Heritage-Memo.pdf

LATE MATERIAL Project Extension Request, Funding Reallocation, and Completion Reports.pdf

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
_____
_____
_____

_____

_____
(Vote Recorded By)

STATE OF NEVADA
DEPARTMENT OF WILDLIFE
Habitat Division
6980 Sierra Center Parkway, Ste. 120 · Reno, Nevada 89511
(775) 688-1500 Fax (775) 688-1987

MEMORANDUM **JUNE 7, 2024**

To: Nevada Board of Wildlife Commissioners, County Advisory Boards to Manage Wildlife and Interested Publics

From: Mark Freese, Habitat Division Administrator

Title: **Wildlife Heritage Project Extension Requests, Funding Reallocations, and Fiscal Year 2025 Heritage Project Proposals**

Purpose: The Commission will review the Heritage Committees recommendations for Heritage Project Extension Requests, Funding Reallocations, and Fiscal Year 2025 Heritage Project Proposals.

Summary

The Heritage Committee presents Project Extension Requests on Fiscal Year Projects from 2021-2024, Funding Reallocations on Fiscal Year Projects 2022-2024, and Fiscal Year 2025 funding applications to the Commission for review and possible approval.

Brief Explanation of the Proposed Funding

The Heritage Committee will complete its annual review of Project Extension Requests on Fiscal Year Projects from 2021-2024, Funding Reallocations on Fiscal Year Projects 2022-2024, and Fiscal Year 2025 funding applications at its June 2024 (tentatively scheduled for the 27th) Heritage Committee meeting for possible approval by the Commission for the protection, propagation, restoration, transplantation, introduction and management of any game fish, game mammal, game bird or fur-bearing mammal in this State; or the management and control of predatory wildlife in this State.

Recommendation

The Department and Heritage Committee recommends that the Commission review and adopt the proposed Heritage Committee recommendation for Heritage Project Extension Requests, Funding Reallocations, and Fiscal Year 2025 Heritage Project Proposals.

Nevada Department of Wildlife
Wildlife Heritage Program

Project Extension Request, Funding Reallocation, and Completion Reports for State Fiscal Years 2018-2024



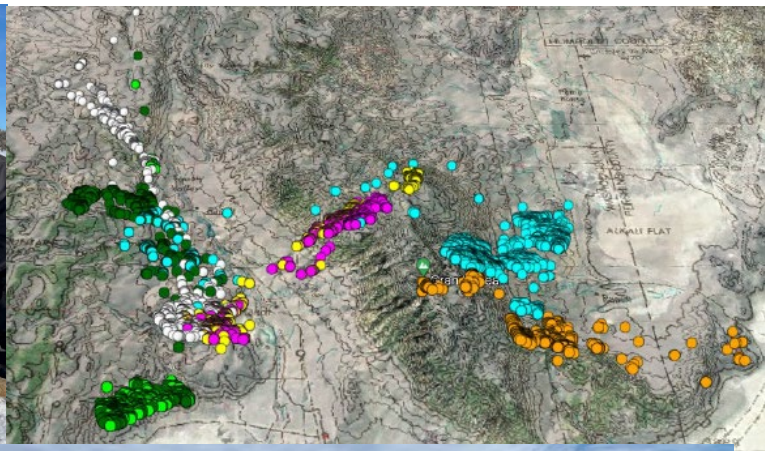






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STATUS OF ACTIVE AND RECENTLY COMPLETED HERITAGE PROJECTS

(Note: the financial data in this table are preliminary, include project charges according to DAWN as of 5/24/2024, and incorporate related input from Heritage project managers. The financial data may change before the 6/28/2024 Wildlife Heritage Committee Meeting.)

State Fiscal Year 2018 Projects

HERITAGE PROJECT #	*HERITAGE PROJECT TITLE*	PROJECT MANAGER	AMOUNT AWARDED	TOTAL EXPENDITURES AS OF 5/24/2024	BALANCE	RECOMMENDED ACTION TO ADDRESS UNSPENT BALANCE
18-05	*Overland Pass Pinyon and Juniper Thinning*	Caleb McAdoo, NDOW	$ 172,900.00	$ 172,900.00	$ -	All Funds Expended
	Project completed and all funds expended.					
		FY18 SUB-TOTALS	$ 172,900.00	$ 172,900.00	$ -	
				FY18 Funding available for reallocation	$ -	

State Fiscal Year 2021 Projects

HERITAGE PROJECT #	*HERITAGE PROJECT TITLE*	PROJECT MANAGER	AMOUNT AWARDED	TOTAL EXPENDITURES AS OF 5/24/2024	BALANCE	RECOMMENDED ACTION TO ADDRESS UNSPENT BALANCE
21-05	*Desert Creek Conservation Easement*	Shawn Espinosa	$ 100,000.00	$ 100,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					
21-06	*Middle Rock Creek Habitat Improvement*	Matt Glenn	$ 147,452.53	$ 121,298.79	$ 26,153.74	Return or reallocate funding
	Funds may revert to the Heritage account or be reallocated to within-year projects					
21-08	*Snake Range Aspen Habitat Restoration Project*	Moira Kolada	$ 30,000.00	$ 30,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					
21-11	*Area 10 Mule Deer Migration Corridor Habitat Enhancement*	Moira Kolada	$ 76,000.00	$ 76,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					
21-13	*SE Schell Habitat Restoration Project*	Moira Kolada	$ 75,000.00	$ 43,183.66	$ 31,816.34	Approve Extension
	Reason for Extension Request: The hand thinning portion of this work has been completed. Mastication is scheduled to begin summer of 2024 and should be completed by Fall 2024.					
21-14	*Enhancement of Crucial Habitat for Antelope and Mule Deer in Washoe County, Nevada*	Cody Schroeder (Mark Freese, Chris Hampson)	$ 125,540.25	$ 100,000.00	$ 25,540.25	Approve Extension
	Reason for Extension Request: Numerous projects have been completed to date with reminaining funding to be expended in FY25.					
21-17	*East Walker River Fish Habitat Enhancement Project*	Jessica Strickland, Truckee TU (Kris Urquhart)	$ 11,191.00	$ 11,191.00	$ -	All Funds Expended
	Project completed and all funds expended.					
		FY21 SUB-TOTALS	$ 565,183.78	$ 481,673.45	$ 83,510.33	
				FY21 Funding available for reallocation	$ 26,153.74	

State Fiscal Year 2022 Projects

HERITAGE PROJECT #	HERITAGE PROJECT TITLE	PROJECT MANAGER	AMOUNT AWARDED	TOTAL EXPENDITURES AS OF 5/24/2024	BALANCE	Notes
H22-03	Wildlife Water Development- Emergency Water Haul	Clint Bentley (Matt Maples)	$ 50,000.00	$ -	$ 50,000.00	Return or reallocate funding

H22-03	Funds may revert to the Heritage account or be reallocated to within-year projects					
H22-05	Area 10 Mule Deer Migration Corridor Habitat Enhancement	Moira Kolada	$ 75,000.00	$ 55,444.25	$ 19,555.75	Approve Extension
	Reason for Extension Request: The SOW was released and awarded Fall 2023. The first round of treatments were completed in Fall 2023. The second and final round are scheduled to be completed Fall 2024.					
H22-07	Nelson Creek Mule Deer Habitat Improvement	Matt Glenn	$ 57,750.00	$ 38,832.41	$ 18,917.59	Return or reallocate funding
	Funds may revert to the Heritage account or be reallocated to within-year projects					
H22-08	Smith Valley Habitat Restoration	Moira Kolada	$ 75,000.00	$ -	$ 75,000.00	Approve Extension
	Reason for Extension Request: Work was delayed due to weather. A Scope of Work will be released this Summer with work beginning in Fall 2024.					
H22-13	Area 6 Elk Mortality Investigation	Cody McKee	$ 85,710.86	$ 85,710.00	$ 0.86	Return or reallocate funding
	Project completed, funds may revert to the Heritage account or be reallocated to within-year projects					
H22-15	Common Raven Monitoring	Pat Jackson	$ 30,000.00	$ 1,362.20	$ 28,637.80	Approve Extension
	Reason for Extension Request: 17 ravens were captured and transmitters attached with monitoring ongoing. 411 point counts were conducted post raven removal. Difficulties awarding a subgrant has stalled the project, but work is expected to continue and be completed in FY25.					
H22-20	Restoration, foraging ecology, and mating behavior in Greater Sage-Grouse (phase 2)	Gail Patricelli (Shawn Espinosa)	$ 69,521.00	$ 67,579.46	$ 1,941.54	Project completed with pending charges
	Reason for Extension Request: The majority of work for this project has been completed with a remaining billing expected in FY24/FY25.					
		FY22 SUB-TOTALS	$ 442,981.86	$ 248,928.32	$ 194,053.54	
			FY22 Funding available for reallocation		$ 68,918.45	

State Fiscal Year 2023 Projects

HERITAGE PROJECT #	HERITAGE PROJECT TITLE	PROJECT MANAGER	AMOUNT AWARDED	TOTAL EXPENDITURES AS OF 5/24/2024	BALANCE	Notes
H23-02	Butler Basin Meadow and Spring Habitat Improvement Project	Tracey Kipke	$ 150,129.46	$ 41,827.40	$ 108,302.06	Return or Reallocate Funds
	Project completed, funds may revert to the Heritage account or be reallocated to within-year projects					
H23-05	2022-2023 Murdock Mountain Mule Deer Winter Habitat Enhancement Project	Brittany Trimble	$ 100,000.00	$ -	$ 100,000.00	Approve Extension
	Reason for Extension Request: 453 acres were hand-thinned in November 2023 using S.O. 3362 funds from USFWS Partners Program. A mastication contract of 562 acres has been awarded with the performance period ending in December 2024. Contractor delays have occured due to weather and the contractor's other project commitments. The contractor plans to start October 2024 to avoid migratory bird season and fire season.					
H23-08	Warmwater Sportfish Stocking for Large Reservoir Drought Recovery and Urban Fishing Opportunity	Brad Bauman	$ 125,168.00	$ 114,114.13	$ 11,053.87	Approve Extension
	Reason for Extension Request: We had difficulty sourcing warmwater fish and thus all the funds weren't spent. Supply issues have limited our ability to acquire desired species due to limited supply. We expect to expend the remining funds by December 2024.					
H23-09	Morey Bench Mule Deer Crucial Winter Habitat Enhancement	Hunter Burkett	$ 40,000.00	$ -	$ 40,000.00	Approve Extension
	Reason for Extension Request: Project design resulted in a treatment expansion from 700 to 3,850 acres, but requires additional NEPA. NEPA is expected to occur soon and we hope to contract and start implementation in FY25.					
H23-10	Bullwhack Habitat Restoration	Moira Kolada & Daniel Sallee	$ 75,000.00	$ 75,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					
H23-11	Corta Fire Habitat Improvement	Matt Glenn	$ 40,000.00	$ 40,000.00	$ -	All Funds Expended

STATUS OF ACTIVE AND RECENTLY COMPLETED HERITAGE PROJECTS

H23-11	Project completed and all funds expended.					
H23-13	Toner Spring Habitat Restoration	Moira Kolada & Daniel Sallee	$ 75,000.00	$ 75,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					
H23-14	Survey and Maintenance of Existing Big Game Guzzlers	Matt Maples	$ 40,000.00		$ 40,000.00	Approve Extension
	Reason for Extension Request: Aerial survey and maintenance flights were conducted across the southern region this year. Funding from the Heritage account was used for maintenance flights in the Reveille Range and Bare Mountains during FY24, expending approximately $4,676 for 5.1 hours of flight time. Additional survey and maintenance activities are planned for FY25 and an extension of this project is requested to cover those upcoming costs.					
H23-15	Duck Creek Aspen Restoration	Shane Boren & Jake Brunson (Moira Kolada)	$ 50,000.00	$ -	$ 50,000.00	Approve Extension
	Reason for Extension Request: Additional coordination with the FS was required and has been completed. A Scope of Work will be released in June 2024. Implementation is expected to begin and be completed fall/winter of 2024.					
H23-16	The Interaction Between Restoration, Foraging Ecology, and Mating Behavior in Greater Sage-Grouse (year 3)	Gail Patricelli (Shawn Espinosa)	$ 38,370.00	$ 7,743.61	$ 30,626.39	Approve Extension
	Reason for Extension Request: To finish additional analysis, including statistics, thesis and manuscript publications.					
H23-17	White Pine County Mastication and Brush Treatments	Shane Boren & Jake Brunson (Moira Kolada)	$ 41,339.69	$ 41,324.35	$ 15.34	Return or Reallocate Funds
	Project completed, funds may revert to the Heritage account or be reallocated to within-year projects					
		FY23 SUB-TOTALS	$ 775,007.15	$ 395,009.49	$ 379,997.66	
			FY23 Funding available for reallocation		$ 108,317.40	

State Fiscal Year 2024 Projects

HERITAGE PROJECT #	HERITAGE PROJECT TITLE	PROJECT MANAGER	AMOUNT AWARDED	TOTAL EXPENDITURES AS OF 5/24/2024	BALANCE	Notes
H24-01	FY24 Bighorn Sheep and Mountain Goat Restoration and Management	Mike Cox	$ 110,000.00	$ 66,958.81	$ 43,041.19	Project completed with pending charges
	The majority of work for this project has been completed with a remaining billing expected in late FY24.					
H24-02	FY24 Wildfire-Related Restoration and Seed Purchase	Mark Freese	$ 150,000.00	$ 150,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					
H24-03	Parrado Partners Community Park and Ponds Land Acquisition	Madi Stout	$ 100,000.00	$ 67,892.80	$ 32,107.20	Approve Extension
	Reason for Extension Requests: The acquisition has been completed; however, we request an extension to accommodate any additional billing inoices and allow for these funds to be invested in projects on the property.					
H24-04	Gilbert Creek Fencing and Habitat Restoration	Katie Andrle	$ 50,000.00	$ 50,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					
H24-05	Waking Spring Habitat Restoration	Moira Kolada	$ 65,000.00	$ -	$ 65,000.00	Approve Extension
	Reason for Extension Request: Treatment areas have been finalized with the private landowner and BLM. The Scope of Work will be released in June 2024.					
H24-06	FY24 Nevada Spring Protection Project	Matt Maples	$ 100,000.00	$ 33,792.10	$ 66,207.90	Approve Extension
	Reason for Extension Request: Heritage funds were applied in August 2023 to a project in the Montana Mountains. Remaining funding will be used for several projects in Washoe County, Goshute, and/or Dolly Varden Mountains. Purchase orders and contracts are being developed and it is anticipated this funding will be obligated soon.					
H24-07	Bald Mountain PJ Thinning*	Jermy Lutz	$ 100,000.00	$ -	$ 100,000.00	Approve Extension
	Reason for Extension Request: Jeremy Lutz took over this project after Sarah Hale left her position. The contract has been awarded, but weather delays and road conditions prevented this project from being implemented. We anticipate work to be completed by June 30, 2025.					

STATUS OF ACTIVE AND RECENTLY COMPLETED HERITAGE PROJECTS

H24-08	FY24 Corta Fire Habitat Improvement Phase II*	Matt Glenn	$ 60,000.00	$ -	$ 60,000.00	Approve Extension
	Reason for Extension Request: In the fall of 2023 seed was delivered to Lucky Peak Nursery where seedlings will be grown out and planted in the fall of 2024.					
H24-09	FY24 Wildcat Fire Mule Deer Migration Corridor Bitterbrush Planting*	Brittany Trimble	$ 82,000.00	$ 80,864.42	$ 1,135.58	Return or Reallocate Funds
	Project completed, funds may revert to the Heritage account or be reallocated to within-year projects					
H24-10	FY24 Lake Tahoe Fish Management Structure Phase 1	Sam Sedillo	$ 80,000.00	$ -	$ 80,000.00	Approve Extension
	Reason for Extension Request: This is a multi-year project, with phase 1 making progress towards getting designs, permitting, and planning completed through a Stantec Consulting contract.					
H24-11	FY24 Nevada Water Developments	Matt Maples	$ 50,000.00	$ -	$ 50,000.00	Approve Extension
	Reason for Extension Request: Several guzzler projects have been completed during the 2023-2034 build season. Other funding sources, such as the Federal water development grant are being used first. We request an extension of this Heritage Grant so that these funds can be utilized on projects late in FY2024 and early in FY2025.					
H24-12	Bruneau WMA Habitat Improvement	Matt Glenn	$ 31,000.00	$ -	$ 31,000.00	Approve Extension
	Reason for Extension Request: This project is currently being planed and it is anticipated implemention will occur late summer/early fall 2024.					
H24-13	Steptoe Valley Wildlife Management Area Water Enhancements	Adam Henroid	$ 117,277.58	$ 60,879.61	$ 56,397.97	Return or Reallocate Funds
	Project completed, funds may revert to the Heritage account or be reallocated to within-year projects					
H24-14	FY24 Izzenhood Mountains Habitat Improvement*	Matt Glenn	$ 64,000.00	$ 20,183.95	$ 43,816.05	Approve Extension
	Reason for Extension Request: In September of 2023 a preemergent herbicide was applied to approximately 180-acres of state land in the Izzenhood Mountains. Seedling planting is scheduled for Fall 2024 and Spring 2025.					
H24-15	FY24 Area 6 Toe Jam Mountain Mule Deer Corridor Fence Modification**	Travis Allen	$ 70,000.00	$ -	$ 70,000.00	Approve Extension
	Reason for Extension Request: The design phase of this project is taking longer than anticipated, largely due to the remote nature of the fence location and several sections of fence being of a different configuration than originally anticipated, although still not wildlife friendly. Field visits are scheduled, and final design should be completed within 1 - 2 months, followed by a scope of work shortly thereafter. We anticipate project completion by June 30, 2025.					
H24-17	Pole Canyon Fence	Madi Stout	$ 100,000.00	86285.96	$ 13,714.04	Return or Reallocate Funds
	Project completed, funds may revert to the Heritage account or be reallocated to within-year projects					
H24-18	Success Ward Habitat Improvements	Moira Kolada	$ 50,000.00	$ -	$ 50,000.00	Approve Extension
	Reason for Extension Request: Fencing and spring maintenance will be performed summer 2024.					
H24-19	FY24 MA13 Mule Deer Collaring*	Josh Kirk	$ 30,000.00	$ 30,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					
H24-20	FY24 Warmwater Fisheries Enhancement	Brad Bauman	$ 130,858.00	$ -	$ 130,858.00	Approve Extension
	Reason for Extension Request: This project builds off work from project H23-08. With funding remaining in H23-08, we plan to spend the remianing balance on this project first before spending funds from H24-20. We plan on spending H24-20 funds in FY25.					
		FY24 SUB-TOTALS	$ 1,540,135.58	$ 646,857.65	$ 893,277.93	
			FY24 Funding available for reallocation		$ 71,247.59	

Wildlife Heritage Project 30 Day Completion Report

Name of Project:

Project Manager (PM):Caleb McAdoo

Organization/Agency: NDOW

PM Email Address: cmcadoo@ndow.org

PM Phone Number:

Heritage Award Amount: $97,900 (including reallocation)

Heritage Project Number: 18-05

NDOW Monitor (if the project was managed by someone other than a NDOW employee): Moira Kolada

State Fiscal Year Project was Approved For: 18

Date this Report was Submitted to NDOW: 31 May 2024

Project Start Date: 10/10/2023

Project Completion Date: anticipated Oct 2024-seed below

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee): The project has two rounds of cutting by the sawyer crew. The first round was completed in Oct/Nov of 2023, with the inspection occurring November 16 2023 . The second round is scheduled to occur between August and November 2024.

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.): 4,688 acres

Summary of the Project's Accomplishments and Wildlife Species that Will Benefit:

A total of 4,688 acres of phase 1 and 2 pinyon and juniper was cut, a second round to remove any missed trees will occur in summer/fall of 2024. This project has benefited the Area 10 mule deer herd and the Ruby Valley greater sage grouse PUM. This project is one of several projects completed in the area between the Ely BLM and NDOW.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Travel		
Equipment (specify)		
Materials		
Miscellaneous incl. Contractors (specify)	$97,900	
Sub-totals	$97,900	
Total		
*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source):		

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

None

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc.





Post treatment photos will be taken after the second round of cutting this fall.

Wildlife Heritage Project 30 Day Completion Report

Name of Project: Desert Creek Conservation Easement

Project Manager (PM): Shawn Espinosa	Organization/Agency: Nevada Department of Wildlife
PM Email Address: sespinosa@ndow.org	PM Phone Number: (775) 688-1523
Heritage Award Amount: $100,000	Heritage Project Number: 21-05

NDOW Monitor (if the project was managed by someone other than a NDOW employee):

State Fiscal Year Project was Approved For: 2021	Date this Report was Submitted to NDOW: 5/31/2024
Project Start Date: July 1, 2021	Project Completion Date: September 18, 2023

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee):

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.):

The purpose of this project is to conserve an essential piece of private land for the long-term conservation of the Bi-State sage-grouse Distinct Population Segment (DPS) and other wildlife species in western Nevada. The Desert Creek Ranch provides a significant amount of breeding and brood rearing habitat for the Bi-State sage-grouse. A lek is located on the property that had 17 males observed displaying on it during the spring of 2019 and two other leks are located in the vicinity of the property. This property was identified in the 2012 Bi-State Action Plan as being one of the high priority properties in Nevada for the conservation of the Bi-State sage-grouse. The Nevada Department of Wildlife is working in conjunction with the Eastern Sierra Land Trust and other partners to purchase a conservation easement on this property and prevent potential future subdivision and development of the property.

Summary of the Project's Accomplishments and Wildlife Species that Will Benefit:

This ~1,228-acre cattle ranch is owned and operated by father and son Bruce and David Park. The property is primarily irrigated pastureland with Desert Creek running through the western and southern portion of the property, and upland sagebrush steppe surrounding the wet meadows. The ranch is composed of two disjunct parcels. The ranch is mostly surrounded by the Humboldt-Toiyabe National Forest, except for an area of multiple private properties adjacent to the west side of the northern parcel.

The property contains valuable habitat for the Bi-State population of Greater sage-grouse. The property was identified in the Bi-State Action Plan under Action MER2-2: "Secure a conservation easement or agreement with the Desert Creek Ranch to maintain essential brood rearing habitat in proximity to Desert Creek Lek #2 in the Desert Creek-Fales PMU."

The property contains more than one mile of Desert Creek and approximately one mile of Fourmile Hill Creek. The property has significant use by mule deer, Bi-State greater sage-grouse, mountain quail, sage thrasher, American badger, golden eagle, pinyon jay, short-eared owl, and neotropical migratory songbirds. Desert Creek, which runs through the property, has native fish including Paiute sculpin as well as a trout fishery. This project meets the goals of the Bi-State Regional Conservation Partnership Program (RCPP) by protecting key wet meadow ecosystems and would improve water quality in Desert Creek. Additionally, the landowners have already initiated fence marking (to reduce sage-grouse fence collisions) and invasive weed control projects on their land. Their conservation practices are a good demonstration for nearby private and public landowners who may wish to conduct similar projects.

The ranch has appropriative water rights in Desert Creek, which is a tributary to the West Walker River. Its headwaters are in the Sweetwater Mountains of California at greater than 9,000 ft. in elevation. The water rights used to flood irrigate the meadows are fully adjudicated under the Walker River Decree in Equity (C-125) entered April 14, 1936 and amended in April 24, 1940. The use of this water right is regulated by the federal watermaster in accordance with the Rules and Regulations for the Distribution of Water on the Walker River Stream System under the Provisions of Paragraph 15 of the Decree in Equity, No. C-125 as approved by the Federal District Court on September 3, 1953 and subsequent orders and amendments that specify that irrigation water may be applied beginning March 1 and ending October 31 each year with a water duty of 1.6 cubic feet per second for each 100 acres of land. Water rights under this decree include pre-1914 rights with priority assigned by year. This water has been diverted and spread to maintain the irrigated pasture on the ranch, enhancing wet meadows and riparian species, and supporting habitat for the Bi-State sage-grouse and other wildlife.

The property is rich in wildlife, habitat types, and provides corridors for movement of wildlife including mule deer. Habitat of special interest on the property includes healthy sagebrush steppe, riparian and meadows critical to sage-grouse in the Desert Creek Population Management Unit (PMU) of the Bi-State Sage-grouse DPS. Bi-State sage-grouse associated with three nearby leks are plentiful on the property, and the meadows provide important brood-rearing habitat. Mule deer, golden eagle, mountain quail, and many other species of wildlife frequent the ranch.

The grasslands on the property have been identified through various planning efforts including the Bi-State Action Plan for Conservation of the Greater Sage-Grouse Bi-State DPS (2012). The property is located in the Desert Creek-Fales PMU for sage-grouse in a region specifically identified for protection with a conservation easement under the "Minimize and Eliminate Risks" section, Action MER2-2: "Secure a conservation easement or agreement with the Desert Creek Ranch to maintain essential brood rearing habitat in proximity to Desert Creek Lek #2 in the Desert Creek-Fales PMU."

The importance of the property to sage-grouse has been further documented by GPS and VHF transmitter occurrence data. Existing sage-grouse telemetry data shows intensive sage-grouse use of the property. The property is also located in an important movement corridor, containing winter range for the Wellington and Pine Grove mule deer herds.

Also, within the Bi-State Action Plan, urbanization was identified as a high risk for the Desert Creek/Fales PMU. Lyon County has designated parcels in this area the Land Use Designation of "Agriculture", with 1 development unit per 20 acres, and RR5 (Land Use Code 600: Agricultural Qualified per NRS 361A – Vacant). According to the Lyon County Planning Department, "The purpose of the AG zone is to implement

the Lyon County master plan, to conserve agricultural resources, retain open spaces and the rural character of the county, and to direct urbanization into manageable and identified development areas. This is a low-density land use district. Unless otherwise specified in this development code, no more than one primary residence per parcel is permitted in this land use district". However, even under this designation, Desert Creek Ranch would have 56 development units. Given the level of development near Wellington, the western edge of Smith Valley and along the lower section of Desert Creek Road, conservation of the remaining intact quality habitat is of even greater importance.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Travel		
Equipment (specify)		
Materials		
Miscellaneous incl. Contractors (specify)	$100,000.000	$50,000* $1,545,000** $40,417***
Sub-totals		
Total		

*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source):
*$50,000 Nevada Question 1 Bond Initiative
**$1,545,000 NRCS – RCPP
*** NGO (Carson Valley Chukar Club), Nevada Upland Game Stamp

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc.



Wildlife Heritage Project 30 Day Completion Report

Name of Project: Middle Rock Creek Habitat Improvement

Project Manager (PM): Matt Glenn

Organization/Agency: NDOW

PM Email Address: mglenn@ndow.org

PM Phone Number: 775-777-2369

Heritage Award Amount: $57,750.00

Heritage Project Number: H21-06

NDOW Monitor (if the project was managed by someone other than a NDOW employee):

State Fiscal Year Project was Approved For: FY21

Date this Report was Submitted to NDOW:

Project Start Date: 9/8/21

Project Completion Date:6/21/2024

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee): N/A

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.):

Project	Middle Rock Creek Habitat Improvement	**Herbicide Treated acres**	2,000
Date Started	November 2019	**Seeded Acres**	2,000 Acres
Remote Sensing Project Acres	950,000	**Total Acres Treated**	2,000

Summary:

The Middle Rock Creek Habitat Improvement Project was identified as a project to improve habitat for the Management Area 6 mule deer herd. To date, nearly all the crucial winter habitat that the area 6 mule deer herd relies on has burned in the last 20 years transitioning to an annual grass state. From this state (defined in the State and Transition model) normal succession toward native plant communities is not possible without winter annual grass abatement before seeding desirable plant materials.

In this effort, 2,000 acres were treated with an aerial pre-emergent treatment in October of 2019. At the time of application, the site could be characterized by dense stands of cheatgrass, low densities of immigrant forage kochia, and very low densities of native plant species. After allowing the site fallow for one year an aerial over seed was applied in January 2021 consisting of Wyoming sagebrush, rubber rabbitbrush, snowstorm forage kochia, and snake river wheatgrass.

Herbicide Treatments:

In October 2019, 2,000 acres were treated with Imazapic on the East and West side of Rock Creek in the Middle Rock Creek area (see attached map). The pre-emergent application was modeled after an approach successful elsewhere as a foliar application with similar ESDs that has demonstrated high levels of cheatgrass control. This approach does not use an adjuvant/surfactant that is generally tanked to promote adhesion of the formulation to the target plant material but instead, allows the pre-emergent (imazapic) chemical to leech past the dried stem of leaves of the standing grass to the thatch layer and soil horizon where annual grass seeds persist.

Treatment Details:

Treatment Area	Date	Acres	Rates
Middle Rock Creek	October 2019	2,000	Imazapic 8 oz./acre
			Formulation 2 gal./acre

Ground Conditions:

Site	Temp Range (F)	Wind Speed Range (mph)	RH Range (%)	Soil Moisture
Middle Rock Creek	41-66	0-5	51-40	Dry

2020 Monitoring:

Monitoring for pre-emergent treatment effectiveness in the 2020 field season with multiple confounding ecological variables potentially impacting winter annual densities made it difficult

to discern any one causal factor in winter annual density reductions. Confounding variables that occurred in the fall, winter, and spring of 2019-2020 included but are not limited to very high winds (events up to 70 mph), drought, and a Mormon cricket infestation.

Nearly range wide winter annual density reductions were observed in the Elko District during the 2020 field season.

Remote Sensing:

A remote sensing model of approximately 950,000-acres was implemented in 2021 mapping seven Functional Vegetative Groups (FVGs) throughout the project polygon. The project provided a mapping product that achieved multiple objectives, namely the mapping of the full extent of medusahead, the periphery of core brush habitat, and a landscape perspective of existing stands of forage kochia species. The seven FVGs that were mapped included perennial grasses, brush species, bare ground, cheatgrass, medusahead, snowstorm forage kochia, and immigrant forage kochia.

An additional advantage of this effort is realized post-wildfire when the range is denuded of vegetation, the model illustrates what species were present pre-wildfire. For example, knowing the pre-existing condition pre-wildfire and if kochia was a component saves the restoration practitioner resources that could be used elsewhere. Preventing the seeding of forage kochia over existing forage kochia (because the species is known to respond favorably) and the site promotes restoration efficiency and costs savings.

Drill Seeding:

Not Applicable due to terrain.

Aerial Seeding:

Aerial seeding of the same 2,000-acre pre-emergent footprint was implemented in January 2021. The proposed treatment plan and schedule included seedling planting however due to contracting constraints aerial seeding was determined most feasible. Future Treatment of the site with seedling planting is likely but not planned.

Aerial Seed Mix (2,000 Acres):

Seeding	Acres	Seed Mix
Aerial Seeding Mix	2000	Wyoming Sagebrush, Rubber Rabbit Brush, Snowstorm Forage Kochia, Snake River Wheat Grass

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Travel		
Equipment (specify)		
Materials	$21,120.48 seedlings	TBD
Miscellaneous incl. Contractors (specify)	$100,178.31 Seedling and Remote Sensing contracting	TBD
Sub-totals	$121,298.79	TBD
Total		$121,298.79
*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source): TBD		

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc.




DIRECTION
159 deg(T)
41.09850°N
116.72367°W
ACCURACY 12 m
DATUM WGS84
Middle Rock Creek
West 2019 Herbicide
Treatment
2020-06-23
13:54:04-07:00


DIRECTION
140 deg(T)
41.09117°N
116.73083°W
ACCURACY 16 m
DATUM WGS84
Middle Rock Creek
West 2019 Herbicide
Treatment
2020-06-23
14:13:32-07:00

Wildlife Heritage Project 30 Day Completion Report

Name of Project:

Project Manager (PM): Moira Kolada	Organization/Agency: NDOW
PM Email Address: mkolada@ndow.org	PM Phone Number: 775-289-1655
Heritage Award Amount: $30,000	Heritage Project Number: 21-08

NDOW Monitor (if the project was managed by someone other than a NDOW employee):

State Fiscal Year Project was Approved For: 21	Date this Report was Submitted to NDOW: 31 May 2024
Project Start Date: 09/05/2023	Project Completion Date: 09/10/2023

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee): 9/11/2023

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.): 7 acres of lop and scatter and 48 acres of lop and pile (22 acres on GBNP and 26 acres on the Ely BLM district.

Summary of the Project's Accomplishments and Wildlife Species that Will Benefit:

A total of 55 acres of pinyon, juniper, and fir trees were removed from and near aspen stands in the Snake Range. This included 48 acres of lop and pile which the respective land

agency have agreed to burn. The long term result will be increased health to the aspen stands.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Travel		
Equipment (specify)		
Materials		
Miscellaneous incl. Contractors (specify)	$30,000	$16,835
Sub-totals	$76,000	$16,835
Total		
*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source): Spring Valley Mitigation Fund		

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

None

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc.


UTM: 11S
732494mE 4330567mN
Elevation: 6814.76±7 ft
Accuracy: 12.8 ft
Azimuth: 19° (N)
Pitch: -0.1°
GPSTime: 07 September 2023 11:37
Note: Weaver lower
Powered by AngleCam


UTM: 11S
742465mE 4317282mN
Elevation: 7278.94±14 ft
Accuracy: 12.8 ft
Azimuth: 190° (S)
Pitch: 10.7° (1.5°)
GPSTime: 09 September 2023 11:02
Note: Can Young Canyon
Powered by AngleCam

Wildlife Heritage Project 30 Day Completion Report

Name of Project:

Project Manager (PM): Moira Kolada

Organization/Agency: NDOW

PM Email Address: mkolada@ndow.org

PM Phone Number: 775-289-1655

Heritage Award Amount: $76,000 (including reallocation)

Heritage Project Number: 21-11

NDOW Monitor (if the project was managed by someone other than a NDOW employee):

State Fiscal Year Project was Approved For: 21

Date this Report was Submitted to NDOW: 31 May 2024

Project Start Date: 10/10/2023

Project Completion Date: anticipated Oct 2024-seed below

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee): The project has two rounds of cutting by the sawyer crew. The first round was completed in Oct/Nov of 2023, with the inspection occurring November 16 2023 . The second round is scheduled to occur between August and November 2024.

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.): 4,688 acres

Summary of the Project's Accomplishments and Wildlife Species that Will Benefit:

A total of 4,688 acres of phase 1 and 2 pinyon and juniper was cut, a second round to remove any missed trees will occur in summer/fall of 2024. This project has benefited the Area 10 mule deer herd and the Ruby Valley greater sage grouse PUM. This project is one of several projects completed in the area between the Ely BLM and NDOW.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Travel		
Equipment (specify)		
Materials		
Miscellaneous incl. Contractors (specify)	$76,000	
Sub-totals	$76,000	
Total		
*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source):		

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

None

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc.





Post treatment photos will be taken after the second round of cutting this fall.

Wildlife Heritage Project 30 Day Completion Report

Name of Project: East Walker Fish Habitat Enhacement Project

Project Manager (PM):Jessica Strickland	Organization/Agency: Trout Unlimited
PM Email Address:jstrickland@tu.org	PM Phone Number:830-515-9917
Heritage Award Amount: $11,191	Heritage Project Number: 21-17

NDOW Monitor (if the project was managed by someone other than a NDOW employee):

State Fiscal Year Project was Approved For: 2020	Date this Report was Submitted to NDOW: 11/21/2023
Project Start Date: 11/2019	Project Completion Date: 10/31/23

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee):

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.): 0.35 linear feet of stream miles restored.

Summary of the Project's Accomplishments and Wildlife Species that Will Benefit:

Seven boulder J-Hook Vane structures were placed along the main channel in configurations designed to: a) provide holding habitat for fish in relatively sparse habitat reaches: b) maintain a large, deep dissipation pool below each vane: c) center the high-velocity core of the river toward the central channel: d) reduce lateral erosion potential by centering flow and reducing the effective channel width. This project will benefit fish and aquatic macroinvertebrates.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Travel		$800 (Patagonia)
Equipment (specify)	0	0
Materials	0	0
Trout Unlimited Staff Time (design review, permitting, water rights issues rectification, construction project management, admin)		18,000 (Patagonia)
Misc – Instream Restoration Design		$3,500 (Patagonia)
Misc – Instream Construction Contractors	$11,191	$13,978.31 (Kinross Gold)
Misc – Floodplain Construction Contractors (beaver dam analogs design and construction)		$35,000 (Sagebrush Chapter TU, Kinross Gold)
Misc – Permitting Contractor (archeology & wetland delin)		$9,000 (Sagebrush Chapter TU, Kinross Gold)
Sub-totals	$11,191	$80,278.31
Total		$91,469.31
*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source):		

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

Consult with local water irrigation districts early.

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc.

Photos 1 & 2: Pre-construction

Photos 3 $ 4: During construction

Photos 5 & 6: Post-construction

As Built Report Provided.








CAT





Wildlife Heritage Project 30 Day Completion Report

Name of Project: Nelson Creek Habitat Improvement Project

Project Manager (PM): Matt Glenn

Organization/Agency: NDOW

PM Email Address: mglenn@ndow.org

PM Phone Number: 775-777-2369

Heritage Award Amount: $57,750.00

Heritage Project Number: H22-07

NDOW Monitor (if the project was managed by someone other than a NDOW employee):

Caleb McAdoo, Eastern Region Habitat Supervisor

State Fiscal Year Project was Approved For: FY22

Date this Report was Submitted to NDOW:

Project Start Date: 9/8/21

Project Completion Date: 6/21/2024

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee): N/A

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.): see attached report for details.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Travel		
Equipment (specify)		
Materials		

Miscellaneous incl. Contractors (specify)	$38,832.41	$50,779.97
Sub-totals	$38,832.41	$50,779.97
Total		$89,612.97
*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source): Upland Game Bird & Dream Tag. see attached report for details.		

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

see attached report for details.

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc.

see attached report for details.

Nelson Creek Habitat Improvement Treatment Report

Project	Nelson Creek Habitat Improvement	**Herbicide Treated acres**	1,000
Date Started	September 9 2021	**Seeded Acres**	N/A
Acres Planned	700	**Total Acres Treated**	1,000

Summary:

The primary objective of the Nelson Creek Habitat Improvement Project is to provide mule deer a critical forage and thermal cover component as they transition and migrate from summer to winter range. The proposed treatment areas represent two polygons within the greater stop-over, transition, and winter range located in the North Tuscarora mountains. At present, the two polygons identified in this proposal can be characterized by a mix of native herbaceous species and little to no brush species present. As a result of two successive imazapic treatments the project area is relatively free of winter annuals and prepped for seedling planting.

The importance of the North Tuscarora mountains cannot be overstated as it relates to the Management Area 6 mule deer herd health. On heavy snow years this is an important stop-over site as deer migrate to winter range, and on lighter snow years a large proportion of the deer will select to stay here throughout the winter. As this area provides crucial habitat annually regardless of winter conditions for one of Nevada's largest deer herds, its importance for the resource is critical.

Herbicide Treatments:

On September 9, 2021, Imazapic was aerially applied over 700 acres (see attached map). The pre-emergent application was modeled after an approach successful elsewhere as a foliar application with similar Ecological Site descriptions (ESDs) that has demonstrated high levels of cheatgrass control. This approach does not use an adjuvant/surfactant that is generally tanked to promote adhesion of the formulation to the target plant material but instead, allows the pre-emergent (imazapic) chemical to leech past the dried stem of leaves of the standing grass to the thatch layer and soil horizon where annual grass seeds persist.

Due to logistical hurdles in growing out seedlings, the initial preemergent treatment was applied prematurely. With the objective of planting seedlings into sites with limited or no winter annual densities, the residual control of the herbicide would have been ineffective and cheatgrass present by seedling planting implementation. As such, a second preemergent treatment was applied in September of 2022 to provide the site conditions necessary to plant seedlings in the spring of 2023. Preemergent application in 2021 was highly successful prompting an additional 300 acres to be treated in 2022, enlarging the treatment area from 700 to 1,000 acres.

Treatment Details:

Treatment Area	Date	Acres	Rates
Nelson Creek	September 9, 2021	700	Imazapic 6 oz./acre
			Formulation 2 gal./acre
	September 29, 2022	1,000	Imazapic 6 oz./acre
			Formulation 2 gal/acre

Ground Conditions:

Site	Temp Range (F)	Wind Speed Range (mph)	RH Range (%)	Soil Moisture
Nelson Creek (Sept 2021)	41-66	0-5	51-40	Dry
Nelson Creek (Sept 2022)	55-70	0-5	33-20	Dry

Seedling Planting

In selecting brush species for seedling planting, both desktop analysis of the ecological site description and site verification of the polygons identified was completed. As a result of these exercises antelope bitterbrush was selected for the grow out and seedling planting phase of this project. Seedlings for the project have been ordered this winter from the USFS Lucky Peak Nursery in near Boise Idaho and will be ready for planting as early as fall of 2022.

Seedlings will be delivered in d-pot containerized stock form the nursery and planted using contract labor. In selecting both the planting sites and timing, the Humboldt River Ranch Manager will be consulted to avoid conflict with livestock management. Approximately 50,000

seedlings will be planted within the two polygons where distribution will likely planted in clustered distribution where site potential and utility for mule deer is highest.

Spring 2023 Seedling Planting

The winter of 2023 delivered approximately 140% of average snowfall making access to the project site impossible until late April/early May 2023. Approximately 58,000 antelope bitterbrush seedlings were planted utilizing contract labor. The Contractor (Silhouette Farms) awarded the project completed the work within 1.5 weeks for $46,284.00 ($0.79/plant). All seedlings were planted in the western polygon of the project area.

All seedlings were grown at for one year and delivered to the NDOW office in a 53' refrigerated semi-van in early May 2023. Plants were 6 cu-inch containerized stock and removed from d-pots before shipped and maintained frozen until removed form van by the contractor the purpose of planting.

The site being treated with preemergent in 2021 was still largely free of cheatgrass and soil moisture conducive at the time of planting. Because the winter of 2023 provided better than average and the spring of 2023 continued with above average precipitation and below average temperatures planting, and conditions through the summer proved to be better than average.

2024 Sagebrush Seeding

Drill Seeding:

N/A

Aerial Seeding:

A trial aerial seeding of low sagebrush was implemented at both three and four pls lbs./acre over the project site. The eastern polygon was treated at every other swath at four pls lbs./acre and the western polygon full coverage at three pls lbs./acre. This component of the project was implemented opportunistically with the objective of developing a viable low sage seeding protocol. At present, low sage restoration is not being implemented successfully and not being actively pursued.

West Polygon 494-Acres: Full Coverage 3.1 lbs./acre

Mix

Species	Pounds Needed lbs.	Rate lbs./acre
Low Sagebrush	1050	2.1 lbs./acre PLS

East 208 (416)-Acres: Every Other Swath 4.0 lbs./acre

Mix

Species	Pounds Needed lbs.	Rate lbs./acre
Low Sagebrush	557	2.7 lbs./acre PLS

2021 Monitoring:

Monitoring for pre-emergent treatment effectiveness in the 2020 field season with multiple confounding ecological variables potentially impacting winter annual densities made it difficult to discern any one causal factor in winter annual density reductions. Confounding variables that occurred in the fall, winter, and spring of 2020-2021 included but are not limited to very high winds (events up to 70 mph), and drought.

Nearly range wide winter annual density reductions were observed in the Elko District during the 2020 field season.

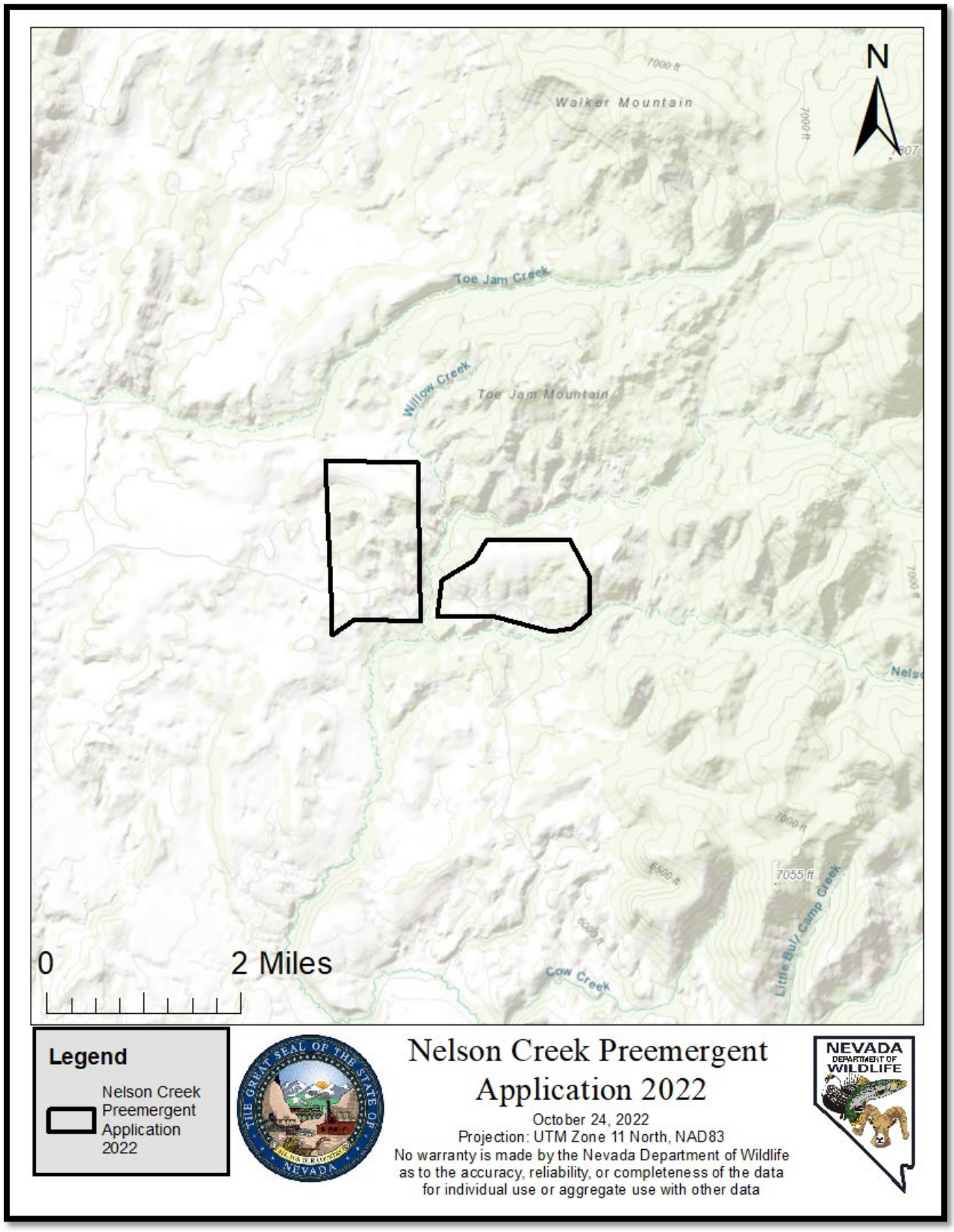
2022 Monitoring

Range wide winter annual densities appeared to be within normal or average range in 2022, allowing preemergent effectiveness to be determined. Winter annual densities within the project area were almost completely eliminated as a result of the 2021 preemergent treatment where immediately outside of the treatment area winter annual densities were observed at average densities.

NDOW Financial Contribution

Fire Rehabilitation Financial Break Down Sheet			
Treatment Type	Acres Treated	Cost/Acre	Total Cost
Herbicide	1,700	$6.25	$10,625.00
Herbicide Application	1,700	$8.50	$14,450.00
Drill Seeding	0	$0.00	$0.00
Aerial Seeding Application	702	$11.75	$9,130.00
Seed	702	$79.37	$54,780.00
Seedlings	494	$0.48	$237.12
Seedling Planting	494	$0.79	$390.26
Totals			$89,612.38

Maps


N
Walker Mountain
7000 ft
Toe Jam Creek
Willow Creek
Toe Jam Mountain
7055 ft
Cow Creek
Little Bull Camp Creek
0
2 Miles
Legend
Nelson Creek Preemergent Application 2022
Nelson Creek Preemergent Application 2022
October 24, 2022
Projection: UTM Zone 11 North, NAD83
No warranty is made by the Nevada Department of Wildlife as to the accuracy, reliability, or completeness of the data for individual use or aggregate use with other data
NEVADA DEPARTMENT OF WILDLIFE


DIRECTION
163 deg(T)
11T 545469
4570951
ACCURACY 4 m
DATUM NAD83
Nelson Creek Habitat
Improvment
2022-07-06
11:33:23-07:00


DIRECTION
256 deg(T)
11T 546301
4569865
ACCURACY 5 m
DATUM NAD83
Nelson Creek Habitat
Improvment
2022-07-06
10:49:43-07:00


DIRECTION
68 deg(T)
11T 545555
4570347
ACCURACY 5 m
DATUM NAD83
Nelson Creek Project
Seedling Project
2023-05-10
10:03:49-07:00


DIRECTION
87 deg(T)
11T 545578
4570361
ACCURACY 5 m
DATUM NAD83
Nelson Creek Project
Seedling Project
2023-05-10
10:05:03-07:00


DIRECTION
333 deg(T)
11T 545568
4570349
ACCURACY 5 m
DATUM NAD83
Nelson Creek
Project
Seedling Project
2023-05-10
10:04:14-07:00

Preliminary findings of investigations related to Season Elk Mortality Syndrome in western Elko County, Nevada

23 October 2023

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ACKNOWLEDGEMENTS

The authors gratefully acknowledge the contributions made by many Nevada Department of Wildlife biologists since the inception of monitoring for Seasonal Elk Mortality Syndrome (SEMS). Many of whom investigated elk deaths in all hours of the day and night, packed rancid tissue samples over several miles in the middle of summer, fielded phone calls from concerned parties, and provided thoughtful input on this project. Additionally, the invaluable contributions made by Dr. Peregrine Wolff, retired veterinarian, established a strong foundation for early understanding of SEMS and concurrent investigations. Several personnel from outside agencies and academic institutions have provided input and direction, oftentimes *pro-bono*, including the Poisonous Plant Research Laboratory at Utah State University and the USGS National Wildlife Health Center. Additionally, Dr. Rachel Cook, a Senior Research Scientist at the National Council for Air and Stream Improvement, Inc., traveled through a severe winter storm in March 2018 to assess body condition of captured elk in the Tuscarora Range. Many productive conversations with local stakeholders, representing diverse industries and interests, have encouraged critical thinking, and guided ongoing investigations. Finally, investigations and analyses have been funded through generous contributions from Nevada Bighorns Unlimited-Midas Chapter, as well as grants from the Nevada Wildlife Heritage Trust Account and the Federal Aid in Wildlife Restoration Act.

DISCLAIMER

This report summarizes preliminary findings. Investigations are ongoing and results are subject to revision. Any summaries or reports involving Seasonal Elk Mortality Syndrome released after 23 October 2023 may be inconsistent with information published within this document.

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BACKGROUND

Periodic reports of carcasses of Rocky Mountain elk (*Cervus canadensis*) found on the southern edge of the Owyhee Desert in western Elko County have been received by the Nevada Department of Wildlife (*hereafter,* Department) since, at least, 2009. Carcasses are often reported intact, and evidence of predation, or other causes of death (e.g., poaching), are absent. Beginning in 2015, the Department increased monitoring efforts of burgeoning elk herds in northern Nevada to improve understanding of herd boundaries and interstate movement dynamics (Fig. 1). During this initial effort, 5 radio-collars were deployed on adult cow elk (*hereafter,* cows) in the Tuscarora Range (Hunt Unit 067). During May 2015, Department personnel investigated the mortality notification transmitted from one cow. Due to rapid necrosis, the cause of death was inconclusive but consistent with previous carcass reports (i.e., intact carcass, no visible signs of predation, apparently healthy; Fig. 2). Further, this mortality followed a predictable pattern of seasonal mortalities, referred to as Seasonal Elk Mortality Syndrome (*hereafter,* SEMS; Fig. 3), coinciding with the peak of the growing season in northern Nevada (i.e., May – July; Fig. 4). Since 2015, 23 of 65 radio-collared elk in the southern Owyhee Desert (*hereafter, S*OD), mostly comprising Hunt Units 062 and 067, have succumbed to SEMS (Table 1, Fig. 5).

Concurrent to monitoring within the geographic extent of SEMS, the Department continues to monitor elk across all of Nevada. Excluding the SOD, and beginning in 2015, personnel have deployed over 130 radio-collars on elk for various purposes including understanding movement dynamics, herd delineation, and wildlife-vehicle safety concerns. Statewide, fates of elk vary from hunter harvest, predation by mountain lion (*Puma concolar*), and planned collar release (i.e., battery reached expected life; Table 2). Notably absent is a distinct seasonal pulse of mortalities occurring from May – July (Fig. 6). Given the abundance and distribution of monitored elk, the lack of SEMS detected in other areas is unlikely due to biases in sampling strategy and is indicative of a mortality agent unique to a specific geographic region.

Of note, elk mortalities consistent with SEMS have been documented in the Cedar Ridge area (Hunt Unit 065). However, abundance of the elk herd occupying Cedar Ridge area is extremely low. We focused intensive monitoring in the SOD because it appears to be the core area of SEMS and elk densities were adequate for larger capture and monitoring efforts. Despite speculation that SEMS may be occurring elsewhere, Hunt Units 062, 065, and 067 are the only regions of Nevada where reports of SEMS have been corroborated through mortality investigations of radio-marked individuals.

The Western Elko County Elk Management Subplan (2003) identified a population objective of 500 adult elk for the Management Area 6 (*hereafter,* MA 6) elk herd, which is comprised of 2 distinct

sub-herds wintering in the SOD and the Y-P Desert (*hereafter,* YP). In 2015, many of Nevada's elk herds were above population objectives, including portions of the elk population in MA 6. Aggressive harvest by hunters and, likely, below-average annual survival due to SEMS in the SOD, contributed to a reduction in estimated abundance for MA 6 elk, which is currently below population objective (Fig. 7). Divergent growth rates, where abundance of the YP sub-herd is increasing and the SOD sub-herd is decreasing, has resulted in stable abundance for the MA 6 herd since 2017. Light harvest by hunters and a larger population presumably masked additive effects of SEMS prior to 2015.

In response to persistent SEMS and declining elk abundance documented in the SOD, the Department has instituted a stepwise and methodical approach to SEMS investigations. Early efforts involved broad organ collection and analyses, evaluation of movement patterns, and dietary analysis. Monitoring efforts have evolved to incorporate targeted sample collection, new monitoring technologies, and rapid response to mortality notification. The intent of this report is to synthesis the Department's approach for responding to mortality notifications from radio-telemetered elk, identify the case definition, and summarize investigations and findings.

ANNUAL SUMMARY AND EVOLUTION OF SEMS INVESTIGATIONS, 2015-2023

2015

Five radio-collars were deployed on cows from the SOD sub-herd in the north Tuscarora Range of Hunt Unit 067. These collars were intended to delineate seasonal habitat and help the Department better understand and manage the growing elk population, especially behavioral responses to hunting pressure. In early May 2015, the first mortality attributed to SEMS was investigated by Department personnel. While sportsmen and livestock operators had submitted periodic reports of elk carcasses in the region, this was the first formal investigation of a SEMS case. The necropsy in 2015 included 'fresh' (not formalin-fixed) broad sample collection including essential organs, head, and rumen content. However, during this time the original radio-collars were triggered to relay a mortality notification after 8 to 12 hours of inactivity. This coupled with the additional time it took for department personnel to reach its location resulted in gross autolysis of organ tissue. Thus, identification of any causal death agents was not possible. Added emphasis was placed on determining the cause of SEMS concurrent to delineating habitat uses and migratory movements following the 2015 mortality.

2016

An additional 5 radio-collars were deployed on cows from the SOD sub-herd in 2016. One of the 5 collars failed shortly thereafter, and 3 radio-collars from the 2015 capture remained active. In total, 7 elk entered the SEMS season (i.e., 1 May – 31 July) in 2016 and 2 individuals died with symptoms consistent with SEMS (i.e., 28% mortality rate). Due to the likelihood of excessive anthrax loads in the environment, there was significant concern of the possibility of anthrax as the causal agent. Initial investigations were limited to the collection of nasal turbinates. Subsequent laboratory analysis, conducted by Dr. Jason Blackburn at the Emerging Pathogens Institute with the University of Florida, determined anthrax was not linked to SEMS. Overall, 7 total samples collected from elk would be tested for anthrax, all returning negative. In retrospect, failure to collect a broad suite of tissue samples in 2016 was a missed opportunity for understanding SEMS, delaying thorough investigations for an additional year. Another noteworthy observation during mortality investigations occurring in 2016 were signs of a physical struggle before death. Upon investigation, 1 of 2 elk had heavily disturbed the ground in an approximate 5-ft. by 8-ft. area, within a thick patch of ceanothus (*Ceanothus spp.*). This would not be the only evidence of struggle, or forms of physical distress, documented. Future cases would indicate similar stationary thrashing as the elk described above, but in multiple other instances it appeared elk had dragged themselves by their front legs for several meters before mortality occurred. In addition, while contradictory to a physical struggle, it's worth noting that other SEMS investigations indicated that elk had normal movement patterns in the hours prior to death.

2017

During the 2017 capture season, an additional 6 radio-collars were deployed on cows from the SOD sub-herd. Four radio-collars remained from the 2 previous capture seasons. In total, 4 of 10 radio-collared cows succumbed to SEMS in 2017 (i.e., 40% mortality rate). With concerns of anthrax eliminated, reduced response time to mortality notifications was prioritized and, in some cases, permitted necropsy within 12 to 36 hours, postmortem. Response times were greatly improved from previous years, but the remoteness of the region and the radio-collar mortality delay still resulted in substantial autolysis of tissue samples. The head, rumen content, and formalin-fixed samples of all essential organs were collected in 2017. The introduction of formalin for tissue preservation led to the first histopathology result, discovering lesions on heart cells, which would be a consistent finding in all SEMS cases. Severe pericardial and thoracic effusions (i.e., an escape of fluid into a body cavity), were

noted as a regular finding in 2017. Effusions and lesions on heart cells would become the most consistent symptoms among individuals associated with SEMS.

2018

In 2018, monitoring efforts were improved significantly with the incorporation of Mortality Implant Transmitters (*hereafter,* MIT), which communicate and transmit information through the radio-collar. These MIT devices are small stainless steel cylindrical tubes, like bolus units used in the livestock industry, and are inserted through the esophagus, eventually settling in the rumen, or reticulum, of the elk. The MIT allows for the immediate notification of a mortality event through highly sensitive movement sensors, which detect both heartbeat and rumination, while also recording internal body temperature. An animal carrying a MIT is presumed dead after only 4 minutes of inactivity (i.e., heartbeat and rumination has ceased). This information is then relayed through the radio-collar for satellite transmission, and a mortality notification is communicated to Department personnel via email and text message. Near instantaneous notification of a mortality event has allowed for the greatest improvement in response time. In some instances, aerial support, via rotorcraft, was utilized to transport staff into remote locations, allowing for necropsy within as little as 2 hours postmortem. The introduction of MITs into the SEMS investigation protocol allowed for the collection of the freshest tissue samples, to date. In addition to improved response time, temperature recordings from the MIT devices provided a better understanding of the various physiological processes occurring at the time of death (Fig. 8). Evaluation of temperature readings determined that preceding a SEMS death, internal body temperature spikes above 105°F and almost always result in death within 2 days, usually within 24 hours (n = 10, 2018 – 2023). Only in one instance did an elk spike a temperature over 106°F and survive the rest of the season, however, that individual died from SEMS the following year. Another physiological process detected from the use of MITs is that some elk may experience suppressed fight or flight response or decreased movement for several hours before cardiac arrest. On one occasion a biologist responded to an elevated MIT temperature but was unable to locate the elk even though he was unknowingly within about 12 meters of the still alive individual, bedded in tall brush. The elk did not flee or make itself known to the biologist. Collar data indicated there was no change in location between then and where the elk died the following morning. This suggests the possibility of decreased movement and stress response when temperatures are elevated and may play a role in SEMS cases.

Dr. Rachel Cook, a Senior Research Scientist at the National Council for Air and Stream Improvement, Inc. (*hereafter,* NCASI), attended the capture in March 2018 and collected biological

information needed to calculate ingesta free body fat (*hereafter,* IFBF) from 11 cows as outlined in Cook et al. 2010. IFBF from adult cows captured in the SEMS affected region ranged from 0.3% - 9.5% ($\bar{x}$ = 5.1%). Substantial heterogeneity in IFBF existed among individual elk but no clear relationship was detected between survival and body condition for those that died of SEMS the following spring (i.e., n = 2, 3.9% and 6.2%) or those that survived the following spring (n = 8, $\bar{x}$ = 4.9%). Both elk, for which IFBF were collected and subsequently died of SEMS, were pregnant based on levels of Pregnancy-Specific Protein B measured from serum samples. However, unless nutritional condition is severely inhibited, most female cervids are impregnated during the mating season. Of greater interest, is the presence of attendant calves when death occurs. Unfortunately, parturition status can be difficult to determine in the field and the relationship between lactation and likelihood of experiencing SEMS is unknown.

During the 2018 capture, 10 adult cow elk were fitted with paired radio-collars and MITs. Unfortunately, one radio-collar failed within the first month of capture. For the first time, 10 bull elk were fitted with standard radio-collars to determine their susceptibility to SEMS. Between 2009 and 2018, the Department had received dozens of reports of dead bulls with no apparent cause of death, primarily during the peak stages of antler growth when antlers are still covered in velvet, located within the geographic region known for SEMS, and during the seasonal timeframe. While none of which provided any instances to collect viable samples, it did provide evidence that SEMS was affecting both sexes, and justification for the monitoring of male elk. With 19 new radio-collars on the landscape, and one remaining from a previous deployment, 20 collared elk entered the 2018 SEMS season. Five were consistent with SEMS events (n = 5, 25% mortality rate); 3 being cow elk (n = 3, 30% female mortality rate), in which 2 experienced temperature spikes of 105°F and a MIT malfunction in the remaining cow; and 2 bulls (n = 2, 20% male mortality rate).

Once again, severe pericardial and thoracic effusions were observed among all cases in 2018. Due to this consistency, the collection of effused fluids from both the pericardial sac and thoracic cavity were added to the necropsy sampling protocol. To broaden the scope of information gathered pertaining to SEMS, spring plant phenology was considered. With the timing of SEMS events and their observed association with “peak spring green-up”, the Department focused efforts on the possible involvement of poisonous plant alkaloids contributing to SEMS. Members of the Utah State Poisonous Plant Research Lab joined Department biologists in the field to collect samples from most plant species within approximately one mile of a mortality consistent with SEMS occurring 1 July 2018. In conjunction with this plant sampling, rumen content from SEMS elk were compared and no poisonous alkaloids were detected in any submissions, likely eliminating the possibility of plant alkaloid toxicity as the primary

mechanism of SEMS. Up until this point, commonalities among field observations and necropsies of SEMS individuals include (although not exhibited by all): geographic location, animals of varying body conditions including those in excellent condition, physical struggle, and decreased movement and fight or flight response when temperatures are elevated leading up to mortality, white/green/red froth from nose and mouth, and strong evidence of cardiac failure. While the vastly improved response time and updated sampling strategies provided the Department with a robust dataset, no specific cause of death was identified.

2019

The 2019 elk capture resulted in the deployment of 2 radio-collars on adult cow elk, and 7 adult bull elk, of which 2 bull collars failed soon after capture and additional MIT devices were not deployed due to remote capture logistics. Six collared cows (with 2 functioning MITs) and one bull remained active from previous years captures. Of the 14 total elk monitored during the 2019 SEMS season, 5 cases consistent with SEMS were observed (n = 5, 36% mortality rate), including 4 cow mortalities (n = 4, 50% female mortality rate) and one bull mortality (n = 1, 16% male mortality rate). Two of the 3 cow mortalities had paired MIT devices, both of which spiked above 105°F and died within 2 days. The other 3 elk died during the seasonal death timeframe. All mortality investigations in 2019 had symptoms consistent with SEMS. Since nearly all elk with a paired MIT device experienced a temperature spike over 105°F and died within 2 days, we emphasized temperature monitoring during the SEMS season. Once an individual's temperature elevated to 105°F, personnel would attempt to observe and document their behavior and possibly chemically immobilize for sample collection during this brief period before predicted death. Since postmortem sampling had not led to a causal agent, focus shifted to sample collection from a live elk exhibiting SEMS symptoms. Unfortunately, live elk observed during this window did not exhibit expected symptoms and immobilization efforts were not successful. Necropsy protocol did not change significantly between 2018 and 2019; however, lymph nodes, femur, urinary bladder and uterus tissue, along with an identical suite of samples from any fetus, were added to the list of targeted samples.

Of note, a cow elk captured by Idaho Department of Fish and Game in southwest Idaho in 2019, traveled into Nevada the following June, entered the SEMS-affected area on 16 June and died 6 days later. Unfortunately, rapid necrosis prevented the collection of viable samples for laboratory analysis. Time of year, proximity to confirmed SEMS cases, and lack of obvious cause of mortality implicates SEMS as a suspected cause of death. Although the Idaho case is not confirmed to be SEMS, similarities with

other cases underscore the geographic importance of the SOD in understanding the factors that cause SEMS.

2020

In 2020, 5 cow elk radio-collars and paired MITs were redeployed. An additional 2 cows remained active from previous years. At this time, all remaining bull collars had either failed or were recovered. Of the 7 elk monitored through the SEMS season in 2020, one died with symptoms consistent with SEMS (n = 1, 14% mortality rate). Uniquely, this elk died outside of the normal seasonal period. She did, however, spike a temperature of 104°F in June then survived until August, when her temperature surpassed 105°F and died 2 days later. Winter and spring 2020 were particularly dry and undoubtedly affected plant phenology. Timing and characteristics of the 2020 mortality may, in part, have been due to environmental conditions but this relationship has not yet been fully investigated. Due to the SEMS event occurring later than expected, monitoring vigilance was decreased, and response time was less rapid. Although samples viable for histopathology were collected, added information was not gained. The sampling protocol in 2020 was amended to include multiple glass slide smears of both blood and effusion fluids, several additional blood and fluid vials for additional tests, fixed and fresh tissues from muscle mass, tongue, pericardium, rumen, and fecal from intestinal tract and surrounding area, as well as external parasites (i.e., ticks) if present.

2021

Due to the global COVID-19 pandemic, elk were not captured for radio-collar deployments in 2021, however 3 cow elk remained active from 2020. Two of the remaining elk exhibited symptoms consistent with SEMS (n = 2, 67% mortality rate). Both experienced elevated temperatures above 105°F; however, only one died within 24 hours. The other cow was euthanized by Department personnel in the field. The euthanized cow was a result of the strategy adopted in 2019 to chemically immobilize live elk experiencing elevated temperatures. Since previous attempts to chemically immobilize had failed, a rifle was brought as a secondary option if darting was again unsuccessful. While in the field, personnel decided euthanasia of an elk with elevated temperatures could provide added information. The necropsy was not fully consistent with past cases of suspected SEMS (e.g., pericardial and thoracic effusions had not yet taken place). However, there was evidence of heart lesions from histopathology. Rotorcraft was used for support during this event, facilitating the fastest to ice and freshest lab samples

to date. Unfortunately, sample collection at the time of euthanasia did not have the desired outcome for identifying a causal agent.

2022

By 2022, results of elk composition surveys in the SOD have plummeted from 569 elk observed in 2016 to just 108 elk encountered in 2022. The 2022 observations consisted of only 45 cows and 9 calves. Conditions for the survey were favorable, primarily due to fresh snow cover. Further, about 3 hours of flight time was committed to both survey efforts and thoroughly covered the geographic area where the sub-herd resides. A fixed wing survey was conducted immediately prior to captures to identify adequate capture targets to meet project objectives. While survey conditions were once again favorable for locating elk, only one group of elk was located, adding confidence that very few elk remain in the SOD. Only 6 of 10 planned radio-collar and MIT pairings were deployed the following day. Unfortunately, one collar failed immediately after deployment, while one remained active from a previous deployment. The remaining radio-collars could not be deployed due to concerns of overexertion and subsequent capture myopathy from repeated pressure to the same group of elk. The 2 elk mortalities observed during the 2022 season were both consistent with SEMS (n = 2, 33% mortality rate). A significant emphasis was placed on monitoring elk temperatures and temperature reading frequencies were increased to transmit once per hour during the SEMS period, compared to every 4 hours in previous years. For the lone elk that died with a MIT pairing, observations were made of the elk for 3 consecutive days following temperature readings exceeding 104°F. During those 3 days, body temperature readings frequently exceeded 105°F, nearing 106°F. Once again, despite previous evidence of limited movements, this elk was mobile throughout the 3 days of monitoring and there were no obvious signs of poor health, other than seemingly lethargic behavior. In 2022, necropsy protocol was amended to include eyeballs and tissues samples from the 4 stomach chambers and the gastrointestinal tract (Appendix 1).

2023

An additional 5 radio-collars with paired MITs were deployed in the SEMS-affected region in March 2023. Two cows, caught in previous years, remained active entering the SEMS season in 2023. Historic precipitation and abnormally cool weather seemingly delayed onset of SEMS in the SOD. Indeed, elevated temperature readings began in early June with the first suspected SEMS mortality occurring on July 8th. Vigilant monitoring of temperatures and previous experience facilitated the first

successful immobilization of a cow exhibiting elevated temperatures. Within 48 hours of successful live capture, this same cow died. Subsequent necropsy determined similarities with previous SEMS cases (i.e., temperature exceeding 107°F, gross lesions, pericardial and thoracic effusion, etc.), while lab results from both the live capture and the necropsy are pending. Further, we initiated efforts to understand mineral profiles in soils and plants through targeted sample collection, as well genetic sequencing of rumen contents to determine diet composition.

Summary of SEMS Investigations

Since 2015, SEMS investigations have experienced 3 major breakthroughs. The first was the identification of SEMS as a distinct source of mortality in the SOD and the exclusion of anthrax as a causative agent. Next, the introduction of MITs paved the way for a deeper understanding of physiological changes and pathology of SEMs-affected elk. Finally, we are evaluating the interaction of mineral concentrations with immune response and potential involvement of novel diseases. As our understanding of SEMS grows, our protocols for investigations and sample collection have evolved based on the best available information. We remain committed to identifying a definitive explanation for SEMS and will continue to adapt our protocols as new information is acquired.

CASE DEFINITION AND CLINICAL SIGNS

The main finding in SEMS is an increase in seasonal mortality in the SOD that greatly surpassed the normal background mortality rate of elk in Nevada. Annually, 31% of radio-collared elk in the SOD die from SEMS. In contrast, across the remainder of the state, about 3% of radio-collared elk die each year from causes not related to hunting (e.g., predation, accident, etc.). Initial investigations of elk mortalities in 2015 and 2016 were limited to testing for anthrax along with some consideration of poisonous plants. However, necropsy findings were not well recorded during early investigations. Adult cow elk are overrepresented in our monitoring dataset since capture efforts often targeted cows, as well as radio-collar performance because bull collars often did not last past the rut. Therefore, it is unclear whether the mortality rate of cows is higher than bulls.

Based on better reporting of necropsy findings in 2017 and beyond it became apparent that severe pericardial effusion was the main gross necropsy lesion of this disease, with fluid volumes exceeding one-half liter. When fresh, the fluid tended to be clear to yellowish and did not appear hemorrhagic. Other gross lesions were not consistent across cases and tended to be less severe. Other gross lesions included a pale liver, which may be secondary to the venous congestion from the heart,

and changes in the spleen. In addition to pericardial effusion, thoracic effusion is also often present, however it varies from minimal to severe.

The use of MITS has allowed personnel to collect much fresher tissues through a quicker, coordinated response. We have also determined that every animal that dies with SEMS has temperatures exceeding 105°F prior to death. One elk exhibiting a temperature over 106°F recovered but died the following SEMS season. In addition, several animals that have not died, have experienced temperatures exceeding 104°F during the mortality season. Therefore, it seems that elevated temperature is a hallmark of this syndrome. Rapid response also allowed improved collection and analysis of the pericardial effusion, demonstrating high protein content but little cellular content. Based on the gross lesions, timing of mortality events, and MIT data we defined the case definition for SEMS as:

Adult male and female elk within the southern Owyhee desert sub-herd who die between May 1st and July 31st and who have a significant volume of proteinaceous pericardial effusion and, when available, have an elevated temperature.

Since 2015, 14 mortalities have been investigated in which sufficient information is available to determine that they met the case definition. Another 9 cases are presumed to have died of SEMS due to time of the year. In the following sections, we describe the relevant investigations and findings for those animals meeting the case definition.

HISTOPATHOLOGY AND CLINICAL PATHOLOGY

Histopathology

Initial histopathology results were inconclusive due to significant autolysis. With the use of MITs, fresh samples, especially in the last 2 years, have allowed more detailed histopathology results to be obtained. Below we summarize histopathology findings by organ.

Brain: Brains of many SEMS elk had mild, non-suppurative encephalitis or meningoencephalitis. Others showed only evidence of congestion while others had no significant findings. Overall changes are absent to mild with changes mostly indicative of low levels of inflammation.

Heart: In most animals, the heart contained the most significant histopathologic findings, consistent with the gross necropsy signs of pericardial effusion. Most animals had myocardial necrosis with some having concurrent thrombi and hemorrhage. Some had a few mononuclear cell infiltrates. One had mesothelial hypertrophy. Finally, a case from 2022, had myocardial fibrosis, indicative of a more chronic process, while others had more acute changes. Interestingly, the 2022 case also had very low copper, so it is possible this case was multifactorial.

Lungs: Findings in the lungs were varied with several animals showing no significant findings. However, most animals had evidence of edema, and some had perivascular inflammation and fibrin. In 2021, both cases had evidence of mild to moderate vasculitis. These findings are often either characteristic of findings secondary to other processes (i.e., heart failure) or are focused on inflammation surrounding the vasculature.

Liver: Liver findings were minimal with either no significant lesions or evidence of mild centrilobular necrosis or small foci of necrosis. These findings are often secondary to heart failure and do not appear to represent primary pathology.

Kidney: Most cases had no significant findings while some had evidence of mild to moderate tubular necrosis and nephritis. Acute tubular necrosis is most likely secondary to heart failure and the cases with some level of inflammation also showed mild evidence of inflammation in other organs.

Spleen: Findings were mostly not significant with one exhibiting mild fibrin and one with mild capsular hemorrhage. An additional case had significant fibrinosuppurative splenitis, but this case had an elevated temperature and recovered, dying 2 months later. This finding was mostly likely due to a secondary bacterial infection following the primary insult.

Lymph nodes: Lymph nodes in many cases were not submitted. In those that had findings several showed evidence of edema, one was hyperplastic with eosinophils, and one had an increase in neutrophils.

Other tissues: Other tissues were mostly not submitted or did not have significant findings.

Clinical Pathology

Cytologic evaluation of effusions have only been conducted on the 4 more recent animals.

Pericardial effusion: Pericardial effusions of all animals consisted of a modified transudate with a few mesothelial cells and lymphocytes. Modified transudates generally result from cardiac or liver disease, neoplasia, early inflammation, or long-standing transudates.

Pleural effusion: Two cases had modified transudates like the pericardial effusion findings, while one had evidence of a mildly hemorrhagic effusion.

Pathologist comments: Pathologist comments vary with each case but, in summary, most pathologists felt that despite individual variation in findings, all animals fit a single pattern of disease. However, comments on individual cases varied from cases with more inflammation, where the pathologist felt it was more characteristic of a viral disease, such as an orbiviruses, to cases with less of an inflammatory component where the pathologist felt it fit more with a deficiency or a toxicity.

Summary of Pathology

Overall, the histopathologic and clinical pathologic results point to a primary injury to the heart with resulting myocardial necrosis and occasional myocarditis. This injury most likely causes cardiac insufficiency leading to development of pulmonary edema, pleural effusion, pericardial effusion, hepatic centrilobular necrosis, and renal tubular necrosis. The final mechanism of death may be cardiac tamponade due to the development of severe pericardial effusion. Cases have varying levels of inflammation associated with the disease process, from very mild to more moderate pulmonary vasculitis. In all cases the inflammation seems to affect the vasculature. The level of inflammation seen may represent individual responses to the insult or may be due to the timing of death in the course of the disease. While the elevated body temperatures align more with an infectious component, a toxic or mineral imbalance cannot be ruled out.

ETIOLOGIC AGENT INVESTIGATION

Infectious Disease Testing

Bacterial Culture: Culture results were either negative or resulted in growth of mixed environmental bacteria (8 cases ran).

Virus Isolation (VI): VI for all animals when it was run was negative (9 cases ran).

Anthrax: Communication with biologists indicated that anthrax was an early rule out, (7 cases tested).

Bluetongue and EHD PCR (orbiviruses): One animal had a weak positive, which may have been an incidental finding. All other animals were negative. However, it should be noted that this only tests for bluetongue and EHD and would potentially miss other orbiviruses. (12 cases ran).

Bluetongue and EHD ELISA: The animal with the peak positive PCR was also positive for ELISA on pericardial effusion. At captures most animals had low rates of exposure to bluetongue and mostly low rates of exposure to EHD, other than a single capture on the north end of the Snowstorm Mountains as in 2017, where most were positive.

Adenovirus: This was not tested for in early cases. Only one tested case was positive in renal tissue but did not have associated inclusions on histopathology and was not isolated on VI, indicative of a potentially low-level infection or recovered infection. (6 cases ran)

Malignant Catarrhal Fever (MCF): MCF was only hypothesized as a potential cause recently and most cases were not tested. The cases that were tested were negative. (2 cases ran).

Tick-borne disease panel: Many were either *Theileria spp.* or *Babesia spp.* suspect or positive (5 of 7 cases ran). However, because the test does not distinguish between genera, it was determined, through sequencing, that only *Babesia* was detected, and none were positive for *Theileria*. *Babesia* might fit with the described pathology, however none of these were able to

be directly associated with disease. An analysis by Southeastern Cooperate Wildlife Disease Study (*hereafter,* SCWDS) of serum results and tick sampling from across Nevada did not find a higher occurrence of any tick-borne parasite in SOD vs other elk in NV. The most common exposure on serum was *Babesia duncani* which, while a potential zoonotic disease, is not known to cause disease in elk and was not present at a higher rate in SOD samples. Other findings of *Anaplasma* and *Borrelia* were deemed to be non-pathogenic species.

Pasteurella: *Pasteurella* bacteria were tested by either culture or PCR and was not detected (8 cases ran)

Broad based viral discovery and sequencing: On 2 recent cases, we attempted broad-based viral discovery, which demonstrated a novel gamma herpesvirus. However, gamma herpesviruses may be non-pathogenic, meaning more investigation is needed. (2 out of 2 cases ran, one negative was euthanized but did not have consistent gross lesions).

Toxin Investigation

Mass Spectrometry: One recent animal was tested for toxins in the rumen contents by gas chromatography. The result was negative.

Plant Investigation: Rumen contents were evaluated for the presence of toxic plants. This was mostly done in early cases that may not meet the case definition due to the lack of reported gross pathology. However, analysis of rumen contents on multiple animals showed some utilization of larkspur (*Delphinium spp.*). Death camus (*Toxicoscordin venenosum*) was not present nor were alkaloids detected.

Nutritional Investigations

Grass Tetany: Ocular magnesium levels on 2 recent cases did not show any evidence of deficiency (2 cases ran).

Lichen Consumption: In 2004, officials with the Wyoming Game and Fish Department estimated 400-500 elk died from consumption of tumbleweed lichen (*Xanthoparmelia chlorochroa*), which

is distributed throughout deserts of the intermountain west (1). Symptoms of tumbleweed lichen consumption included immobility, sudden death, and, upon gross examination, lesions of the heart and muscle tissues. Genetic sequencing of rumen and fecal samples from *n* = 6 SEMS-affected elk did not detect tumbleweed lichen. One sequence was detected from the same class as *Xanthoparmelia* (i.e., *Lecanoromycetes*) but could not be identified at a finer resolution. Nonetheless, this detection occurred in only one sample and at low levels. Therefore, consumption of tumbleweed lichen or close relatives does not appear to explain SEMS.

Liver Trace Mineral: Trace mineral analysis of liver, where compared to established reference ranges frequency demonstrates very low copper values, mildly low selenium values, mildly high iron values (Table 3). Trace minerals can be difficult to interpret when reference ranges are not created for the local nutritional conditions and there were large variation in results. However, we did not have a single SEMS elk that was within a west wide rocky mountain elk reference range for copper. Results of a Mann Whitney one-tailed test comparing trace mineral values between SEMS affected elk, elk from the SEMS affected area, and elk from elsewhere in Nevada suggest elk who die of SEMS have significantly lower liver copper than elk elsewhere in the state (Table 3).

Summary of Findings

While there is some variability between cases, findings point to a single syndrome causing increased later spring and summer mortality in adult elk residing in the SOD. The syndrome is classified by the case definition (see above) with a final mechanism of death likely to be cardiac tamponade (i.e., excessive fluid within the pericardium surrounding the heart) of unknown origin. While testing has so far been inconclusive, results point to shared etiology or etiologies that cause this syndrome.

Both the clinical signs and the etiologic investigations point to either an infectious cause or a nutritional/toxicological cause of death. However, most of the common infectious disease agents have been ruled out and toxicological investigations have not yielded any promising results. The 2 most promising investigations were trace mineral analysis and broad-based sequencing.

Trace mineral results when compared to reference ranges show mildly high iron, mildly low selenium, and very low copper. When compared to other elk in Nevada, both elk residing in the SEMS affected area and elk dying from SEMS show much lower copper levels, although only SEMS elk were

significant (Table 3). Sample sizes are very low, thus more samples are needed from elk around Nevada, as well as surviving elk from the SOD, for an adequate comparison.

In 3 of the most recent SEMS cases, we used broad-based sequencing to identify a novel gamma-herpesvirus. While promising, gamma-herpesviruses are common among many species and each species often has their own species-specific herpesviruses. Most of the time, these viruses are non-pathogenic. However, some are pathogenic or are pathogenic under specific circumstances. More investigation is needed to determine the pathogenic potential of this virus.

Given the debate between an infectious and non-infectious cause it is also possible that SEMS is multifactorial. It may be possible that an infectious disease that normally does not cause disease in elk may cause cardiac damage when trace mineral values are low. That is just one example, however, and there are several nutritional, infectious, environmental, and toxicological factors that could be interacting to cause SEMS.

FUTURE DIRECTIONS

The most promising directions include further investigations of the novel herpesvirus, trace minerals, mortality events, as well as modeling of elk deaths, risk factors, and environmental factors, to further evaluate potential unknown determinants or their interactions. For novel herpesvirus, we will explore the development of a PCR for this virus and test tissues from both SEMS elk and non-SEMS elk from around the state to determine if it is geographically isolated or more ubiquitous across Nevada. We will continue to collect liver samples from hunter harvested elk from around the state and compare results to determine if SEMS elk do, indeed, have lower copper levels or other inequities in trace minerals. We will also continue to conduct mass spectrometry to further explore possible toxicological explanations. Finally, we are exploring outside collaborations to conduct in-depth modeling of SEMS to investigate potential environmental and landscape factors, as well as the interaction of various test parameters.

LITERATURE REVIEW

A literature search for "C*ervus elaphus*" and "*pericardial effusion*" found limited results for elk with results for Bluetongue virus (2) and other orbiviruses (3). A similar search for cattle showed cattle pericardial effusion most associated with traumatic pericarditis (e.g., hardware disease), bacteria endocarditis, dilated cardiomyopathy, congenital defects, neoplasm (e.g., bovine leukosis virus), and idiopathic (4,5). Idiopathic means were unknown but is thought to occur secondary to an unknown

bacterial or viral infection (5). Causes of dilated cardiomyopathy (DCM) include toxicity, parasitic infection, viral infection, and nutritional (low copper or low selenium (6).

Given that the main finding on histology was myocardial necrosis, we conducted a search for "*Cervus elaphus*" and "*myocardial necrosis*". There were no significant results. A similar search for cattle indicates it was associated with ionophore toxicosis (7) and other toxicities such as yew (8). We have also searched the literature for various causes of death in elk. Of note, copper deficiency was determined to be the cause of death in elk while causing reduced reproductive success, deformed antlers, light pelage, and poor body condition at Point Reyes in tule elk (9). Further, research of moose (*Alces alces L.*) in Sweden linked copper deficiency and/or molybdenosis to a "mysterious" moose disease where clinical signs included sudden heart failure (10). Other conditions not already investigated that may cause atypical mortality in free-ranging elk included lichen intoxication (11) and locoism (12).

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TABLES

Table 1. Summary of elk monitoring, by year, in the southern Owyhee Desert, Nevada, 2015-2023. Summary includes total of elk monitored on 1 May and total elk determined to have succumbed to seasonal elk mortality syndrome (SEMS).

	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Elk Monitored	5	7	10	20	14	7	3	6	7	79*
Probable SEMS	1	2	4	5	5	1	2	2	1	23

*79 reflects the total number of SEMS seasons (1 May – 31 July) experienced by 56 radio-collared elk

Table 2. Summary of fates of radio-collared elk in Nevada and the southern Owyhee Desert, Nevada, 2015-2023. Elk fates attributed to unknown causes were predominately attributed to a lack of reporting or carcass decomposition prevented the determination of a known fate. Statewide summary is approximate (+/- 10%) due to inconsistencies in reporting. Summary does not include currently active collars or those that failed to transmit data.

Elk Fate	**Southern Owyhee**	**Statewide***
capture-related	1 (1.9%)	5 (5.0%)
collar release	12 (23.1%)	10 (16.7%)
hunter harvest	6 (11.5%)	31 (51.7%)
lion predation	0 (0%)	2 (3.3%)
rut-related	0 (0%)	1 (1.7%)
unknown	3 (5.8%)	13 (22%)
Seasonal Elk Mortality Syndrome	**23 (44.2%)**	**0 (0%)**

*Excluding Southern Owyhee Desert and Hunt Unit 065

Table 3: Preliminary summary of trace mineral analyses for iron, copper, and selenium levels measured from mortalities attributed to Seasonal Elk Mortality Syndrome (SEMS) in the southern Owyhee Desert, Nevada, in comparison to statewide levels.

Area	N	Iron Median	Copper Median	Selenium Median
Rest of Nevada	5	170	23	0.24
SEMS Area	15	270	4.2	0.22
SEMS area, non-SEMS elk	4	215	13.5	0.24
SEMS Elk	11	278.3	3.5	0.22
Mann-Whitney Test Results				
No vs SEMS Area		*P* = 0.258	*P* = 0.058	*P* = 0.258
No vs SEMS elk		*P* = 0.248	***P* = 0.045**	*P* = 0.215

FIGURES

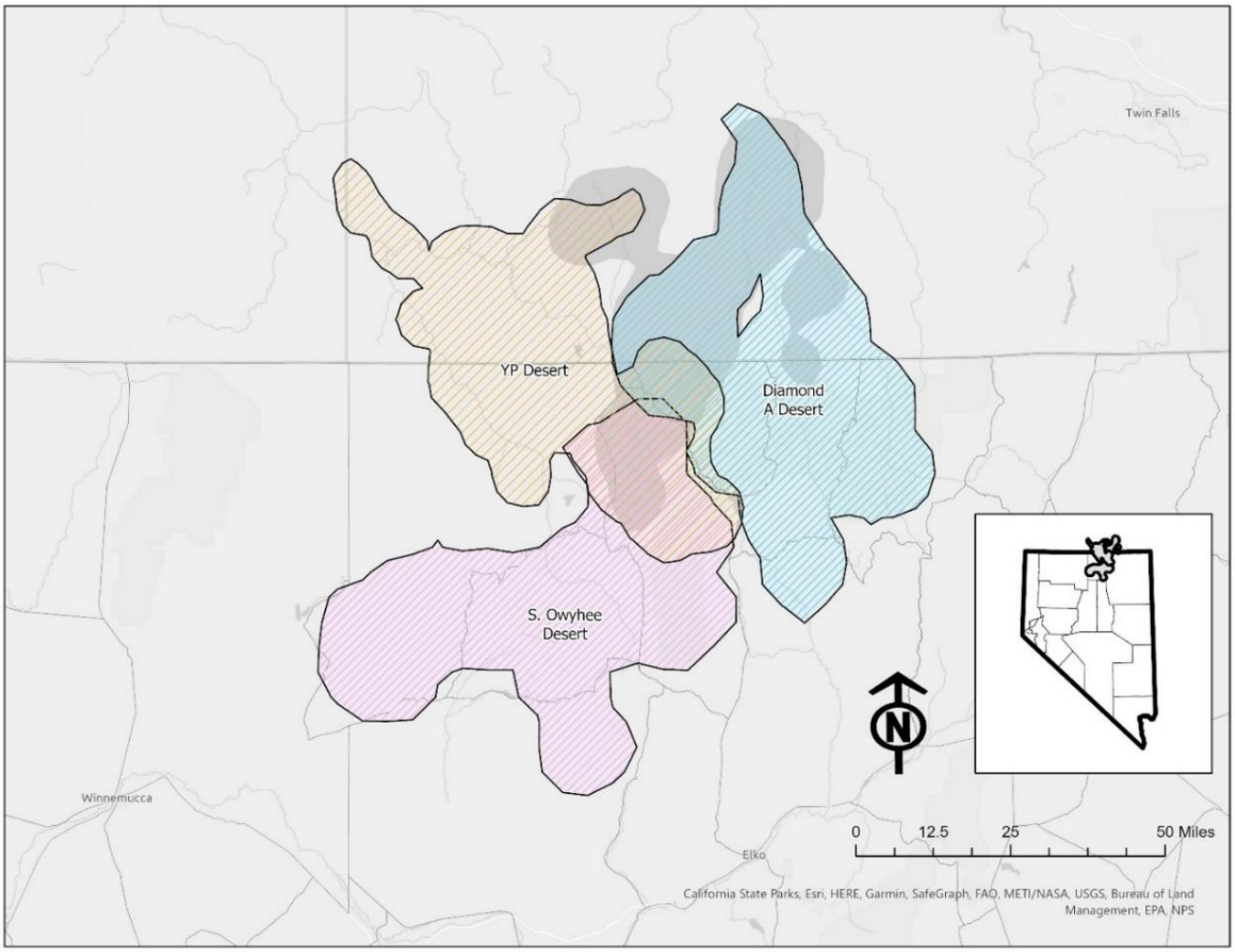


Figure 1. Geographic distribution of elk sub-herds monitored along the Idaho-Nevada border. Seasonal Elk Mortality Syndrome (SEMS) has primarily been documented in elk using winter range of the southern Owyhee Desert.



Figure 2. Common positioning of elk carcasses when investigating mortality events in the southern Owyhee Desert, Nevada. Elk mortalities attributed to Seasonal Elk Mortality Syndrome (SEMS) are typically found intact without visible indicators of predation and individuals appear to be healthy. Photo credit: T. Allen, Nevada Dept. of Wildlife, 2021.

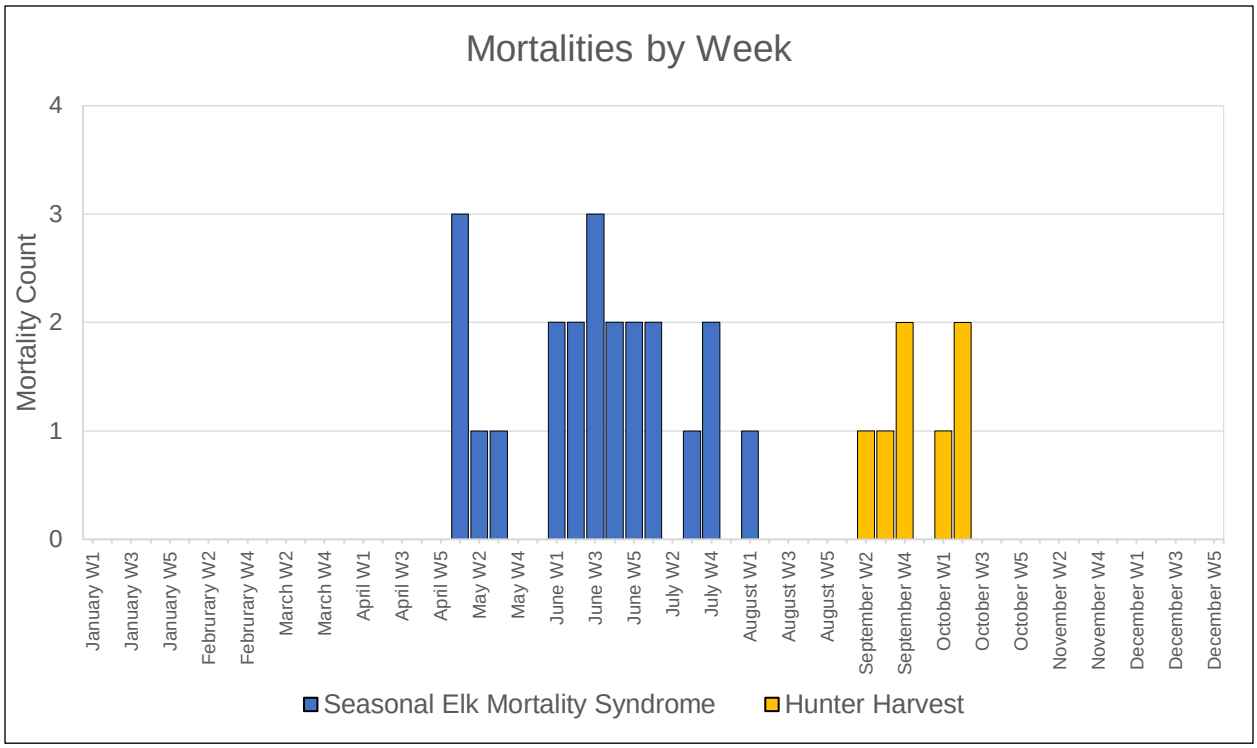


Figure 3. Weekly summary of mortality events experienced by radio-collared elk monitored in the southern Owyhee Desert, Nevada, 2015-2022. Note distinct pulse of mortalities occurring during the late spring to early summer (May – July; *n* = 22) followed by a second pulse during autumn attributed to hunter harvest (*n* = 7).



Figure 4. Range conditions on 22 June 2017 at the headwaters of Sheep Creek in the Independence Range, Elko County, Nevada. Photo was captured 8 days after an elk died in this vicinity with symptoms consistent with Seasonal Elk Mortality Syndrome (SEMS). Photo credit: C. McKee, Nevada Dept. of Wildlife, 2017.

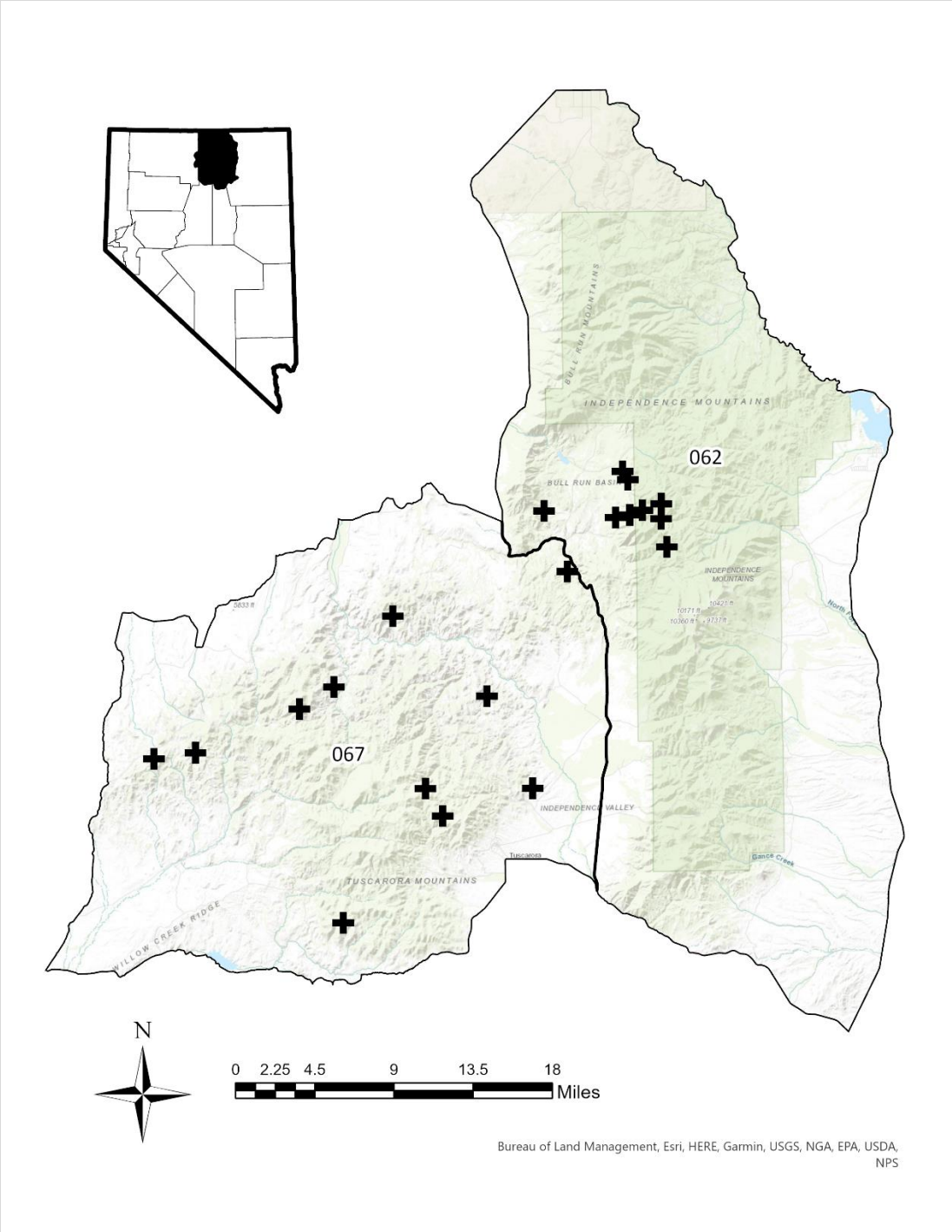


Figure 5. Geographic distribution of elk deaths (displayed as '+') attributed to Seasonal Elk Mortality Syndrome (SEMS) in the southern Owyhee Desert, Nevada, 2015-2022.

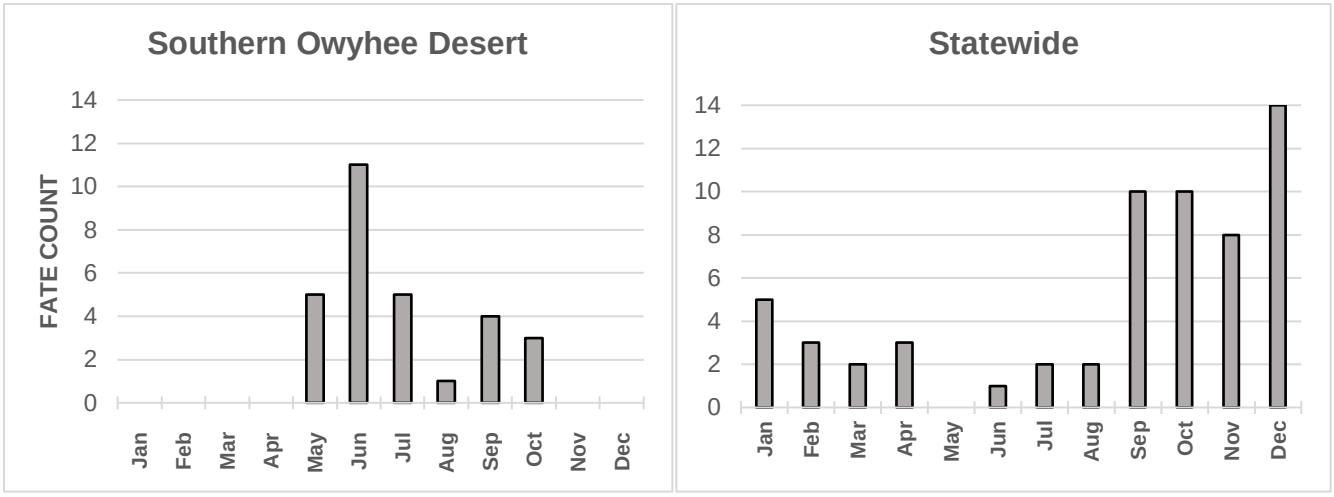


Figure 6. (*left*) Monthly breakdown of elk fates for the southern Owyhee Desert where seasonal elk mortality syndrome (SEMS) has been documented, and (right) breakdown of fates for elk monitored throughout the remainder of Nevada, 2015-2022.

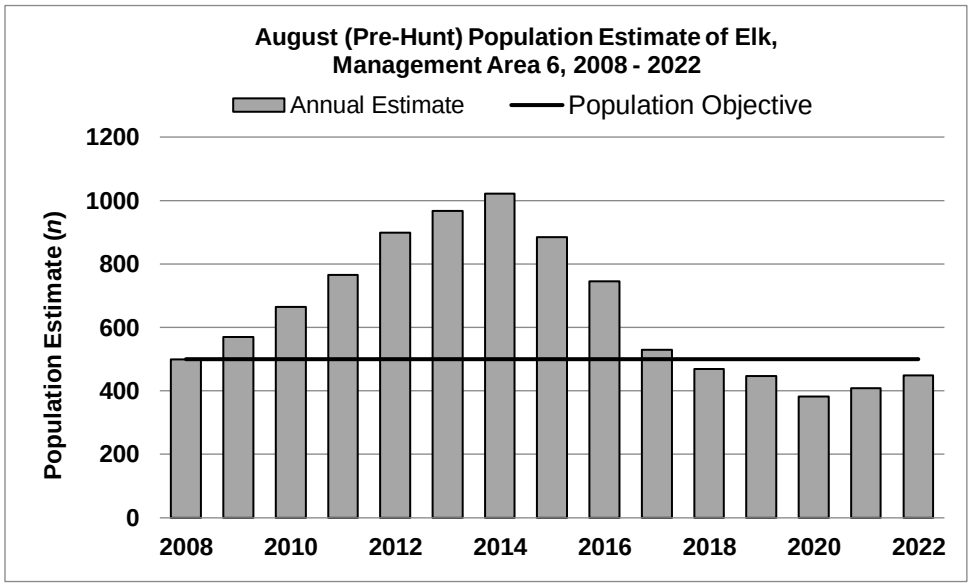


Figure 7. Annual population estimate of elk, relative to a population objective of *n* = 500, residing in Management Area 6, Elko County, Nevada, 2008-2022.

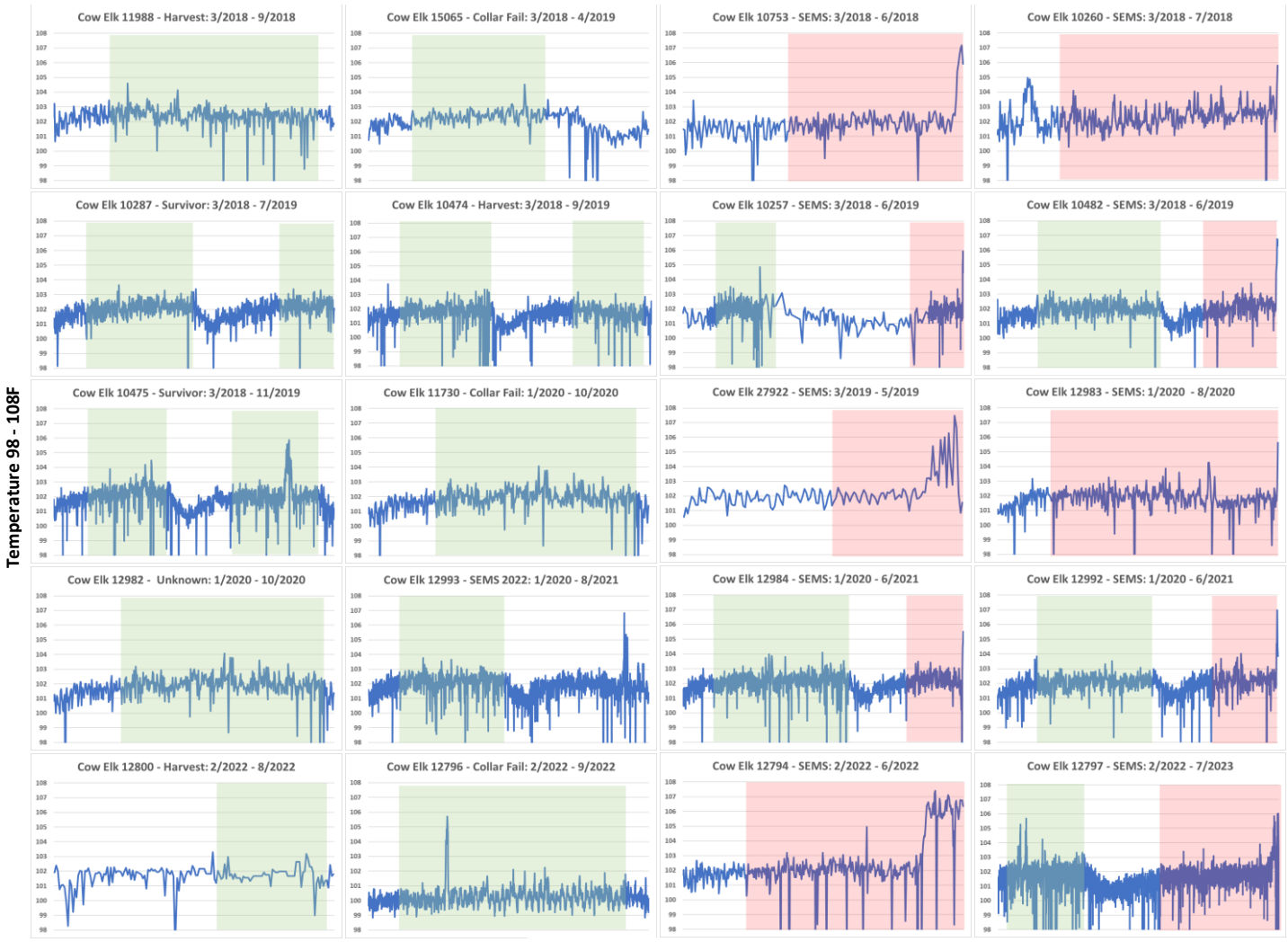


Figure 8. Real-time internal body temperature data collected from mortality implant transmitters (MIT) implanted in radio-collared elk in the southern Owyhee Desert, 2018-2023.The X-axis represents time throughout the lifespan of the MIT device and the Y-axis indicates internal body temperature recorded by the MIT. Sections of colored charts depict the SEMS season (i.e., 1 May – 31 July), for each year. Sections portrayed in green are those SEMS seasons in which a collared elk survived, and those shown in red indicate a season when an elk died from SEMS.

Wildlife Heritage Project 30 Day Completion Report

Name of Project: Area 6 Elk Mortality Investigation

Project Manager (PM): Cody McKee	Organization/Agency: Nevada Dept. of Wildlife
PM Email Address: cmckee@ndow.org	PM Phone Number: 775-688-1525
Heritage Award Amount: $85,710.86	Heritage Project Number: H22-13

NDOW Monitor (if the project was managed by someone other than a NDOW employee):

State Fiscal Year Project was Approved For: FY22	Date this Report was Submitted to NDOW: 2024-05-30
Project Start Date: 2021-07-01	Project Completion Date: 2024-06-30

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee):

Not Applicable

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.):

Funding received from the Wildlife Heritage Trust Account was used to purchase 10 radio-collars and mortality implants transmitters (MIT), which allow for rapid response to real-time mortality notifications, darts and immobilization drugs for captures, 7-hours of fixed-wing flight surveys to locate elk groups to locate possible capture targets in February 2022, capture and handling efforts during in February 2022 (6 adult females caught) and March 2023 (5 adult females caught). Fecal DNA analysis was completed in 2023 to determine diet

composition for elk at the time of death. Finally, a detailed mineral analysis was conducted on soil and plant samples collected during summer 2023.

Summary of the Project's Accomplishments and Wildlife Species that Will Benefit:

Periodic reports of carcasses of Rocky Mountain elk (*Cervus canadensis*) found on the southern edge of the Owyhee Desert in western Elko County have been received by the Nevada Department of Wildlife (hereafter, Department) since, at least, 2009. Carcasses are often reported intact, and evidence of predation, or other causes of death (e.g., poaching), are absent. Beginning in 2015, the Department increased monitoring efforts of burgeoning elk herds in northern Nevada to improve understanding of herd boundaries and interstate movement dynamics. During this initial effort, 5 radio-collars were deployed on adult cow elk (hereafter, cows) in the Tuscarora Range (Hunt Unit 067). During May 2015, Department personnel investigated the mortality notification transmitted from one cow. Due to rapid necrosis, the cause of death was inconclusive but consistent with previous carcass reports (i.e., intact carcass, no visible signs of predation, apparently healthy). Further, this mortality followed a predictable pattern of seasonal mortalities, referred to as Seasonal Elk Mortality Syndrome (hereafter, SEMS), coinciding with the peak of the growing season in northern Nevada (i.e., May – July). Since 2015, 23 of 65 radio-collared elk in the southern Owyhee Desert (hereafter, SOD), mostly comprising Hunt Units 062 and 067, have succumbed to SEMS. The following paragraphs summarize findings during the grant period. **Please review Allen et al. (2023) for a detailed summary of cumulative findings, including maps, figures, and photographs.**

Results of elk composition surveys in the SOD plummeted from 569 elk observed in 2016 to just 108 elk encountered in 2022. The 2022 observations consisted of only 45 cows and 9 calves. Conditions for the survey were favorable, primarily due to fresh snow cover. Further, about 3 hours of flight time was committed to both survey efforts and thoroughly covered the geographic area where the sub-herd resides. A fixed wing survey was conducted immediately prior to captures to identify adequate capture targets to meet project objectives. While survey conditions were once again favorable for locating elk, only one group of elk was located, adding confidence that very few elk remain in the SOD. Only 6 of 10 planned radio-collar and MIT pairings were deployed the following day. Unfortunately, one collar failed immediately after deployment, while one remained active from a previous deployment. The remaining radio-collars could not be deployed due to concerns of

overexertion and subsequent capture myopathy from repeated pressure to the same group of elk. The 2 elk mortalities observed during the 2022 season were both consistent with SEMS ($n = 2$, 33% mortality rate). A significant emphasis was placed on monitoring elk temperatures and temperature reading frequencies were increased to transmit once per hour during the SEMS period, compared to every 4 hours in previous years. For the lone elk that died with a MIT pairing, observations were made of the elk for 3 consecutive days following temperature readings exceeding 104° F. During those 3 days, body temperature readings frequently exceeded 105° F, nearing 106° F. Despite previous evidence of limited movements, this elk was mobile throughout the 3 days of monitoring and there were no obvious signs of poor health, other than seemingly lethargic behavior. In 2022, necropsy protocol was amended to include eyeballs and tissues samples from the 4 stomach chambers and the gastrointestinal tract (Appendix 1).

An additional 5 radio-collars with paired MITs were deployed in the SEMS-affected region in March 2023. Two cows, caught in previous years, remained active entering the SEMS season in 2023. Historic precipitation and abnormally cool weather seemingly delayed onset of SEMS in the SOD. Indeed, elevated temperature readings began in early June with the first suspected SEMS mortality occurring on July 8th. Vigilant monitoring of temperatures and previous experience facilitated the first successful immobilization of a cow exhibiting elevated temperatures. Within 48 hours of successful live capture, this same cow died. Subsequent necropsy determined similarities with previous SEMS cases (i.e., temperature exceeding 107° F, gross lesions, pericardial and thoracic effusion, etc.). Further, we initiated efforts to understand mineral profiles in soils and plants through targeted sample collection, as well genetic sequencing of rumen contents to determine diet composition. Detailed analysis of mineral profiles and diet composition have not been completed.

Since 2015, SEMS investigations have experienced 3 major breakthroughs. The first was the identification of SEMS as a distinct source of mortality in the SOD and the exclusion of anthrax as a causative agent. Next, the introduction of MITs paved the way for a deeper understanding of physiological changes and pathology of SEMs-affected elk. Finally, we are evaluating the interaction of mineral concentrations with immune response and potential involvement of novel diseases. As our understanding of SEMS grows, our protocols for investigations and sample collection have evolved based on the best available

information. We remain committed to identifying a definitive explanation for SEMS and will continue to adapt our protocols as new information is acquired.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Equipment (specify)	Radio-Collars & MITs - $40,026.11	
Materials	Darts & Drugs - $772.16	
Miscellaneous incl. Contractors (specify)	Fixed Wing Survey - $2,492.40 Capture Services - $25,779.57 Fecal DNA - $1,165.00 Veg Mineral Profile - $15,474.76	Soils Analysis – $957.00 Veg Mineral Profile - $323.24
Sub-totals	$85,710.00	$1,280.24
	Total	$86,990.24
*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source): 1. Federal Wildlife Restoration Grant for Big Game Management and Investigations.		

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

Identifying the definitive cause of SEMS has been elusive. We've determined, thus far, that SEMS appears to be a mortality agent unlike any other found in North America. Herds occupying the western distribution of elk in Nevada continue to perform poorly and considerable speculation exists that these areas are also subject to SEMS. These are also areas where the current population estimates are well under population objectives and are really the only areas where elk populations could grow. Thus, identifying the cause of SEMS and whether it occurs elsewhere has real implications for elk management in Nevada.

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc.

McKee, C.J., T. Allen, M. Jeffress, C. Morris, N. Lahue. 2023. Nevada: Seasonal Elk Mortality Syndrome. An oral presentation given at the Western Elk Summit hosted by the Rocky Mountain Elk Foundation.

Allen, T., M. Jeffress, N. Lahue, and C. McKee. 2023. Preliminary findings of investigations related to Season Elk Mortality Syndrome in western Elko County, Nevada. Internal NDOW report: unpublished. (attached)

May 28, 2024

NDOW Projects #22-20 and #23-16 Update: *The Interaction Between Restoration, Foraging Ecology, and Mating Behavior in Greater Sage-Grouse*

Principle Investigator: Gail Patricelli, Professor of Evolution and Ecology, University of California, Davis
Graduate Student Researcher: Maria Ospina, NSF fellow and PhD candidate, Graduate Group in Ecology, UC Davis

This ongoing project addresses the impacts of wildfire and restoration treatments on greater sage-grouse foraging behavior (diet choice and quality) and breeding behaviors (display behavior and mating success)—microhabitat-scale processes that are critical drivers of population health and habitat use. This work has been conducted in the Santa Rosa Mountains (Humboldt Co., NV), which lost 440,000 acres of critical sagebrush habitat in the 2018 Martin Fire. **Objective 1** is to use non-invasive biomarkers from fecal samples to assay stress and diet quality of sage-grouse in burned and unburned areas, with different types of ongoing restoration. **Objective 2** is to follow GPS PTT satellite-tagged birds to foraging sites to examine how nutritional quality of sagebrush differs with different burn/restoration status, and to examine sage-grouse diet preference at the patch and plant level. **Objective 3** is to assess movement of GPS PTT satellite-tagged birds among leks and foraging sites relative to burn/restoration status, and whether the habitat quality of lek sites affects male and female lek behaviors and the browsing on sagebrush in the lek area.

In spring 2021, with funding from the Wildlife Heritage Trust Account (Award #21-18), we began Phase 1 of the project. We monitored 6 leks across our Santa Rosa Mountains field site, 3 in burned areas and 3 in unburned areas, every 3 days through the breeding season. Each monitoring visit, we observed and recorded video from a hunting blind near the lek. During spring 2022, with funding from the Wildlife Heritage Trust Account (Award #22-20), we monitored an increased sample size of 9 leks, 4 in unburned areas and 5 in burned areas, every other morning. As expected, our unburned leks had consistently better sage-grouse attendance (maximum daily attendance of 12-68 males per lek) than our burned leks (maximum 2-21 males per lek). While attendance at burned leks is low, we observed significant female visitation and copulation at these leks (maximum daily attendance of 5-12 females per lek) and 1-2 juveniles strutting at each lek, suggesting the potential for persistence. Since spring 2022, with funding from the Wildlife Heritage Trust Account (Award #23-16), we have been analyzing the data collected during the 2021 and 2022 field seasons. Progress on each of our three main research objectives is described below.

For Objective 1, on every observation day in Spring 2022, we collected fecal pellet samples after birds left the lek in the morning (146 samples total). In 2023, these samples were prepared in the Patricelli Lab at UC Davis for gas chromatography (GC) analysis. For this processing, each sample was kept frozen on dry ice and 50 milligrams was weighed on an analytical balance and transferred to a microcentrifuge tube for GC analysis. Prepped samples were shipped on dry ice to Prof. Jennifer Forbey's Lab at Boise State University in fall 2023, where GC analysis for the chemotype of each pellet sample was completed.

For Objective 2, in Spring 2021 we deployed 12-gram GPS PTT tags from GeoTrak on 2 females and 2 males. In Spring 2022, we purchased fourteen 12-gram GPSPTT tags from GeoTrak to track

males. We tagged a total of eleven males during the 2022 field season. We split up our tags and in total tagged 3 males at unburned leks and deployed the rest of the tags at burned leks. We were able to find locations where males forage after they leave the lek using data from GPS PTT tags and our observations of bird departure direction. These foraging sites were then paired with randomly chosen sites. At foraging and control sites, we measured habitat characteristics (forb, grass, and shrub cover; shrub height; evidence of browsing by sage-grouse) and collected vegetation samples to examine the dietary quality of sagebrush postfire. Using these methods in Spring 2022, we collected 200 samples of sagebrush.

Along with the fecal pellet samples for Objective 1, we prepared in the Patricelli Lab at UC Davis a subset of sagebrush samples for GC analysis. Processing of these samples was time consuming—each sample was "de-wooded" by dipping it in liquid nitrogen to manually separate the leaves from the woody stems, then the sample was ground with a mortar and pestle and a 50 mg sample was weighed on a precision analytical balance and transferred to a microcentrifuge tube for GC analysis. Prepped samples were shipped on dry ice to the Forbey Lab in fall 2023, where GC analysis for chemotypes of each plant sample was recently completed; we are planning the analyze a second batch of plant samples this summer.

We have since been working with Prof. Forbey and members of her lab to proof and process the GC outputs for fecal and plant samples for Objectives 1 and 2. We have been meeting regularly to discuss the statistical analysis plan and hope to complete the analysis by fall 2024 and write the results for publication. By comparing the chemotypes of the pellet samples to sagebrush samples, we will determine the chemistry of plants being consumed by the birds and how this relates to the chemistry of available plants near the focal lek. In conjunction with GPS movement data for birds in burned areas versus unburned areas, this will help us to understand the characteristics of palatable plants, their availability, and the distance of travel for foraging.

For Objective 3, on each day we visited leks in spring 2021 and 2022, we collected behavioral observations and video of lek activity to measure display behaviors. We individually identified core males on each lek using plumage patterns ("buttprints") and noted their location relative to a grid of stakes. These field observations can be used to identify males in our videos, which can then be tracked throughout the video for that day to score male display effort, an important indicator of reproductive health. Each lek was recorded on multiple days, allowing us to track the display effort of multiple identified males throughout the breeding season. Since returning from the field, we completed a first pass through the videos, but realized that we were missing key information for our analysis. We are therefore in the process of scoring the videos in more detail. We will use the resulting data to examine the relationships between display rate, lek attendance, and burn status.

Overall progress: Due to health challenges, Maria Ospina, the graduate student in charge of the project required an emergency medical leave followed by a leave of absence from campus work. This delayed the progress on the project, but we have nonetheless accomplished a great deal over the past year—completing the processing and chemical analyses of pellet samples and most plant samples, making progress on analysis of behavioral observations from the lek and GPS movement data, writing methods sections and introductions for the resulting manuscripts. We are now moving ahead at full speed and will complete the work over the next year.

Alterations of the project and plans for the coming year:

Despite intensive trapping efforts during our 2022 field season, we were unable to deploy 4 of the 14 tags we purchased in 2022 (Award #22-20) in time to use the data for this project. After discussions with Shawn Espinosa (NDOW), we gave the tags to a project run by Dr. Peter Coates (USGS) that is complimentary to the goals of our project and will be conducted in Nevada. The larger USGS project addresses habitat selection and fire impacts on female sage-grouse during the brood-rearing season, comparing sites in multiple states, including the Santa Rosa mountains and other NV sites. We have been coordinating and collaborating with the Coates team throughout our project and the USGS has donated time, supplies, and equipment to us. For example, the USGS covered part of our housing costs in our 2020 pilot year, they assisted us with trapping sage-grouse on many nights, and they connected us to their emergency response network with the use of their iPhones and SPOT devices, allowing us to pull each other's trucks out of mud holes and snow drifts (many, many times). Dr. Coates was also part of the original planning of our project and will be included as a co-author on the resulting publications. We are sharing data between our projects. The Coates team was able to deploy 2 of the tags last spring at their field site in the Virginia Mountains, NV; they plan to use the other 2 tags at a Nevada site this spring.

We planned to use part of our funding to collect drone imagery at our Santa Rosa sites. This would have allowed us to characterize the sagebrush community on a larger and more detailed scale. Unfortunately, our planned collaborator on that project moved to a new institution and was unable to do the work. This accounts for much of the funding remaining in our Project #23-16 account (balance of $14,614.98 after pending charges are processed). Rather than seek a new collaborator for the drone work, we have decided that the best use of these funds is to analyze a larger sample of the sagebrush plants that we collected in 2021 and 2022. As part of Objective 2 we collected many hundreds of sagebrush samples—more than needed for our project. Due to limitations in funding and time, we chose a subset of these samples for chemotype analysis in the Forbey lab. However, we have concluded that a larger subsample would better characterize the variation across the site, especially in restoration areas. Thus we propose to perform GC analysis on a second subset of our existing samples. The funds will cover GC costs in the Forbey Lab, as well as per diem expenses for Maria Ospina as she helps to prepare the additional samples for analysis in the Forbey Lab.

For Wildlife Heritage Trust Project #22-20, we have completed the work, as described above, and closed out the account. For Wildlife Heritage Trust Project #23-16, we are requesting a one-year no-cost extension to pay for the preparation and chemical analysis of additional sagebrush samples. Additionally, over the following year, we will complete the analysis of behavior from videos, statistical analysis for all three objectives, as well as preparation of manuscripts for publication in peer-reviewed journals.

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: Butler Basin Meadow and Spring Habitat Improvement Project **Project ID:** 722

Lead Agency: Nevada Department of Wildlife

Project Manager: Tracy Kipke Nevada Department of Wildlife

Phone Number: (702) 668-3962

Email: tkipke@ndow.org

Project Partners

Name	Agency	Role
Lance Brown	US Forest Service	Agency Cooperator
Shawn Espinosa	Nevada Department of Wildlife	Implementation Lead
Jeremy Lutz	Nevada Department of Wildlife	Implementation Lead
Mark Freese	Nevada Department of Wildlife	Implementation Lead

Project Schedule

Project Start Date: 07/01/2022 **State Fiscal Year:** 2023

Projected Completion Date: 06/30/2023 **State Fiscal Year:** 2023

Actual Completion Date: 10/31/2023

Project Location and Land Status

Location Narrative:

Project is located on the Humboldt-Toiyabe National Forest, Austin-Tonopah Ranger District approximately 85 miles north of Tonopah, Nye County, Nevada in Butler Basin.

Site Coordinates (Centroid UTM's 11 Datum NAD 1983)

Easting Northing Legal Description

Copenhagen Meadow 551412 4325360 T14N, R49E, Sec 13, 23 & 24

Copenhagen Headwater 551837 4325180 T14N, R49E, Sec 24

Sagehen Spring 548965 4324870 T14N, R49E, Sec 22

Savory Creek 549660 4324220 T14N, R49E, Sec 22 & 23

Section 15 Meadow 547973 4326540 T14N, R49E, Sec 15 & 16

Section 21 Meadow 546815 4324970 T14N, R49E, Sec 20 & 21

Access into the project area is via US Hwy 6 east to State Route 82 (Monitor Valley Road), north on SR 82 to Potts Ranch, then east past Blackburn Spring and up Long Canyon. The nearest full support community to the project site is Tonopah, NV to the south or Eureka, NV to the northeast. Both are approximately 2.5 hours drive time from the site.

NDOW Region: Southern

NDOW Management Units: 162

Nevada Sage Grouse Population Management Unit: Monitor

County: Nye

Land Status

Land Status	Acres	Percent of Project
Forest Service	6219.2	100

Bureau of Land Management Office: N/A

US Forest Service Ranger District: Humboldt-Toiyabe National Forest - Austin-Tonopah Ranger District

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Riparian, Meadow, Spring Restoration

Project Objectives:

- To install fencing that excludes livestock or wild horses/burros and prevents grazing and enhances spring and riparian habitat conditions.

NDOW Initiative Addressed: No initiatives

Strategic Habitats Addressed: Aspen woodland, High-elevation sagebrush dominated shrubland, Linear riparian: perennial and ephemeral rivers and streams, Low-elevation sagebrush dominated shrubland, Other habitats (grassland and meadows, playa, sand dunes and badlands, alpine and tundra), Other riparian: meadow, marsh, spring, seep, and lakeshore, Pinyon-juniper woodland (not encroachment), Upper montane coniferous forest and woodland

Priority Resource Impacted: Big Game, Diversity/Non-game, Upland Game

Priority Species Impacted: Elk, Greater sage-grouse, Migratory songbirds (multiple species), Mule deer

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Rationale:

The purpose of the Butler Basin project is to maintain, improve, and restore habitat quality for greater sage-grouse and other species (e.g. mule deer, elk, and migratory birds) that utilize high elevation meadows and springs. Past livestock grazing, contemporary excessive wild horse numbers and trespass livestock have caused habitat degradation within the exclosures, reducing the quality and availability of greater sage-grouse brood rearing habitat and important habitat for a multitude of wildlife species.

The meadow and spring sources will be protected by 1) removing three existing barbed wire and wood fences and replacing it with wildlife-friendly welded drill steel fence capable of withstanding pressure from horses, livestock, and snow; 2) constructing two new riparian fences; and 3) installing two ground level cattleguards at the Sagehen Spring exclosure and up to two ground level cattleguards at the Savory Creek exclosure.

NEPA Compliance: It is anticipated the notice to proceed for fence removal and replacement will be issued in the summer of 2022 with NEPA clearances needed for phase II of this project.

Work performed under this scope includes furnishing labor and equipment (and possibly materials) to construct the following projects:

• Copenhagen Meadow: remove approximately 5,912 ft of existing barbed wire fence and install 7,095 ft of pipe rail fence

• Sagehen Spring: remove 3,268 ft of existing barbed wire fence, install 3,268 ft of pipe rail fence and install two- 12 cattle guards

• Savory Creek: remove 2,824 ft of existing barb wire fence and install 6,225 ft of pipe rail fence

• Section 15 Meadow: install 4,663 ft of pipe rail fence

• Section 21 Meadow: install 10,050 ft of pipe rail fence

Project materials will be delivered by NDOW helicopter to a previously disturbed area or as designated by the U.S. Forest Service (USFS) – Austin/Tonopah Ranger District.

The fence will likely be drill stem pipe , but is subject to modification based upon material availability and site constraints.

Date Work Completed: 10/31/2023

Completion Effectiveness Rating:

Effort is already effective

Completion Effectiveness Statement:

Project actions were implemented as planned and are considered effective once fully implemented. No further monitoring is planned or needed.

Completion Monitoring Plan:

Vegetation monitoring may continue out to year 5 post-fence installation.

Project Treatments and Actions

Treatment Name: Butler Basin Fences

Acres: 104.6

Action: Intall or maintain pipe-rail fence
Date Completed: 10/31/2023
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

This project consisted of replacing 12,014 linear feet of non-functioning barbed wire fence with 12,014 linear feet of wildlife friendly welded drill steel fence capable of withstanding pressure from horses, livestock, and snow. This represents three exclosures including Copenhagen Meadow, Sagehen Spring, and Savory Creek protecting 40 acres of valuable riparian habitat in the Monitor Range, Nye County, Nevada. This project will have lasting and beneficial effects on greater sage-grouse, deer, elk, and non-game species such as the mountain bluebird.

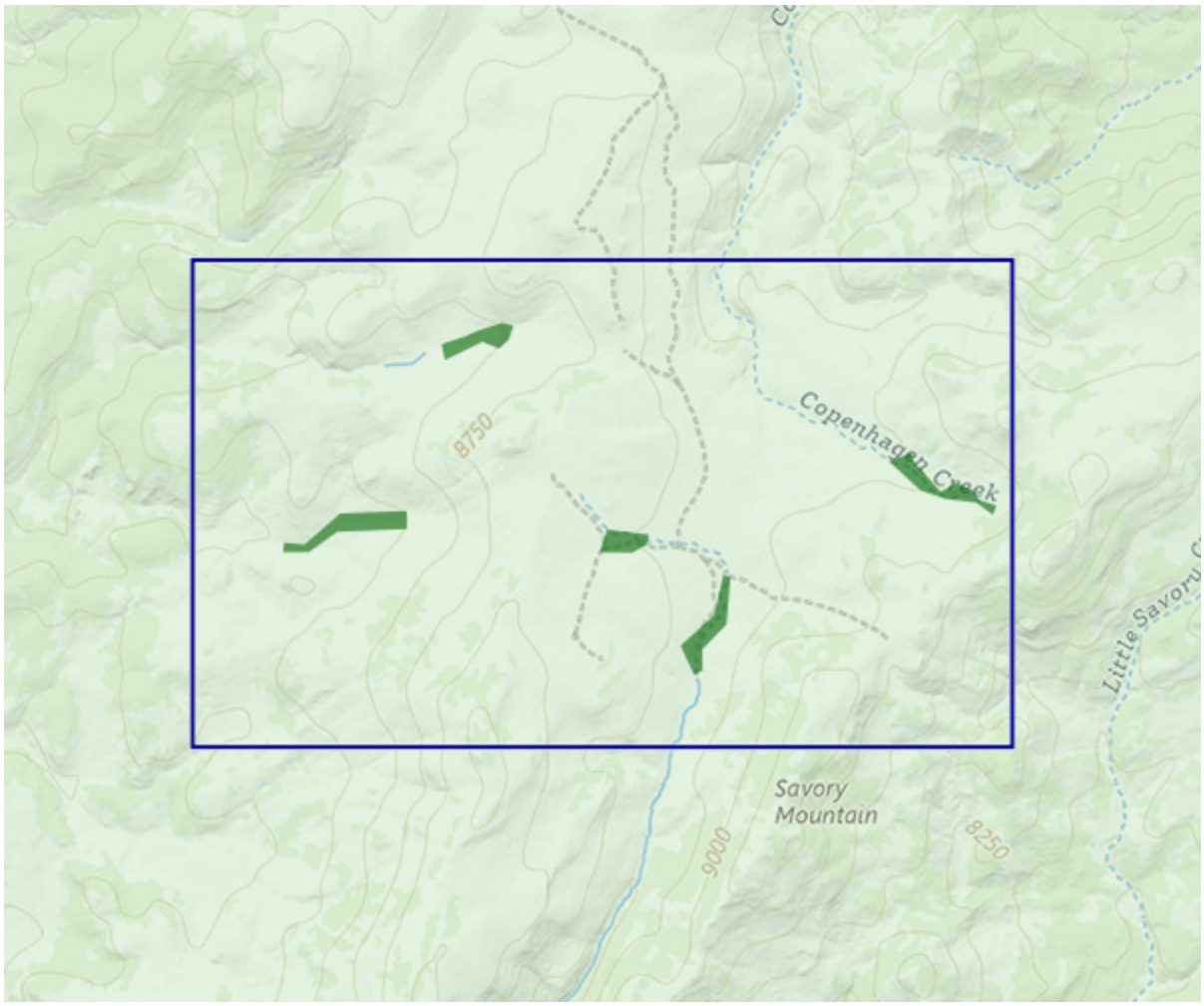
Project Monitoring

Monitoring Plan:

NDOW will contract the work and have contract monitors onsite while the project is being implemented. NDOW will also document habitat improvements through photographic monitoring and/or vegetation monitoring. We plan to have vegetation monitoring crews collect vegetation data in years 1, 3, and 5 to capture pre- and post-treatment results to document changes in the vegetation community. We will provide pre- and post-project pictures and vegetation findings in at least one annual report to the RAC additional to internal and partner reporting requirements.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2023	Forest Service RAC	$0	$
2023	Navy REPI	$0	$
2023	NDOW Habitat Conservation Fee	$0	$
2023	NDOW Heritage Trust Account	$150000	$
2023	NDOW Upland Game Stamp	$40000	$
2023	Nevada Dream Tag	$0	$
2023	USFWS Grant - Sage Grouse Conservation	$0	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Butler Basin Fences

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: Bullwhack Habitat Restoration **Project ID:** 803

Lead Agency: Nevada Department of Wildlife

Project Manager: Moira Kolada Nevada Department of Wildlife

Phone Number: (775) 289-1655

Email: mkolada@ndow.org

Project Partners

Name	Agency	Role
Not Specified	Bureau of Land Management	Agency Cooperator

Project Schedule

Project Start Date: 07/29/2022 **State Fiscal Year:** 2023

Projected Completion Date: 06/30/2024 **State Fiscal Year:** 2024

Actual Completion Date: 09/15/2023

Project Location and Land Status

Location Narrative:

White Pine County, Cave Valley

NDOW Region: Eastern

NDOW Management Units: 221, 222

Nevada Sage Grouse Population Management Unit: Steptoe/Cave

County: White Pine

Land Status

Land Status	Acres	Percent of Project
Bureau of Land Management	12141	95.6
Private	195	1.5

Bureau of Land Management Office: N/A

US Forest Service Ranger District: N/A

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Conifer removal

Project Objectives:

- To remove pinyon and juniper trees as a restorative measure to reduce expansion, restore degraded sagebrush habitat, increase hydrologic function, improve forage and cover for wildlife, and/or increase connectivity of sagebrush habitat.
- To remove pinyon and juniper trees as a preventative measure against uncharacteristic wildfire and prevent loss of positive ecological conditions.

NDOW Initiative Addressed:

- Mule Deer Enhancement Program (NDOW)

Strategic Habitats Addressed: Aspen woodland, High-elevation sagebrush dominated shrubland, Linear riparian: perennial and ephemeral rivers and streams, Low-elevation sagebrush dominated shrubland, Other habitats (grassland and meadows, playa, sand dunes and badlands, alpine and tundra), Other riparian: meadow, marsh, spring, seep, and lakeshore, Pinyon-juniper woodland (not encroachment), Salt desert shrub, Upper montane coniferous forest and woodland

Priority Resource Impacted: Big Game

Priority Species Impacted: Mule deer

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Rationale:

Vegetation attributes in North Cave Valley have been altered from their desired (historic) range and now include uncharacteristically high densities of trees and below normal levels of perennial grasses and forbs. Current conditions indicate that appropriate management actions (i.e. vegetation treatments) could prevent these areas from further departure from the desired condition and instead move towards a more ecologically sound condition.

The areas proposed for treatment in North Cave Valley were selected because of the habitat values that they provide, specifically mule deer and sage grouse. However, these treatments and their designs will be designed to benefit a variety of game and non-game wildlife species. This area was also prioritized because of the lack of feral horse pressure. In addition, the proposed treatments in North Cave Valley will allow for a seamless transition of treatments from North Cave Valley to the treatments underway in South Steptoe Valley

Date Work Completed: 09/15/2023

Completion Effectiveness Rating:

Effort is already effective

Completion Effectiveness Statement:

Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.

Completion Monitoring Plan:

Photo points will continue to be monitored.

Project Treatments and Actions

Treatment Name: Bullwhack Handthining

Acres: 3,094.2

Action: Phase 1 Hand Thinning or Lop-Scatter
Date Completed: 09/15/2023
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

Hand thinning was completed Fall 2023. Site will be monitored using photos points.

Action: Phase 2 Hand Thinning or Lop-Scatter
Date Completed: 09/15/2023
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

Hand thinning was completed Fall 2023. Site will be monitored using photos points.

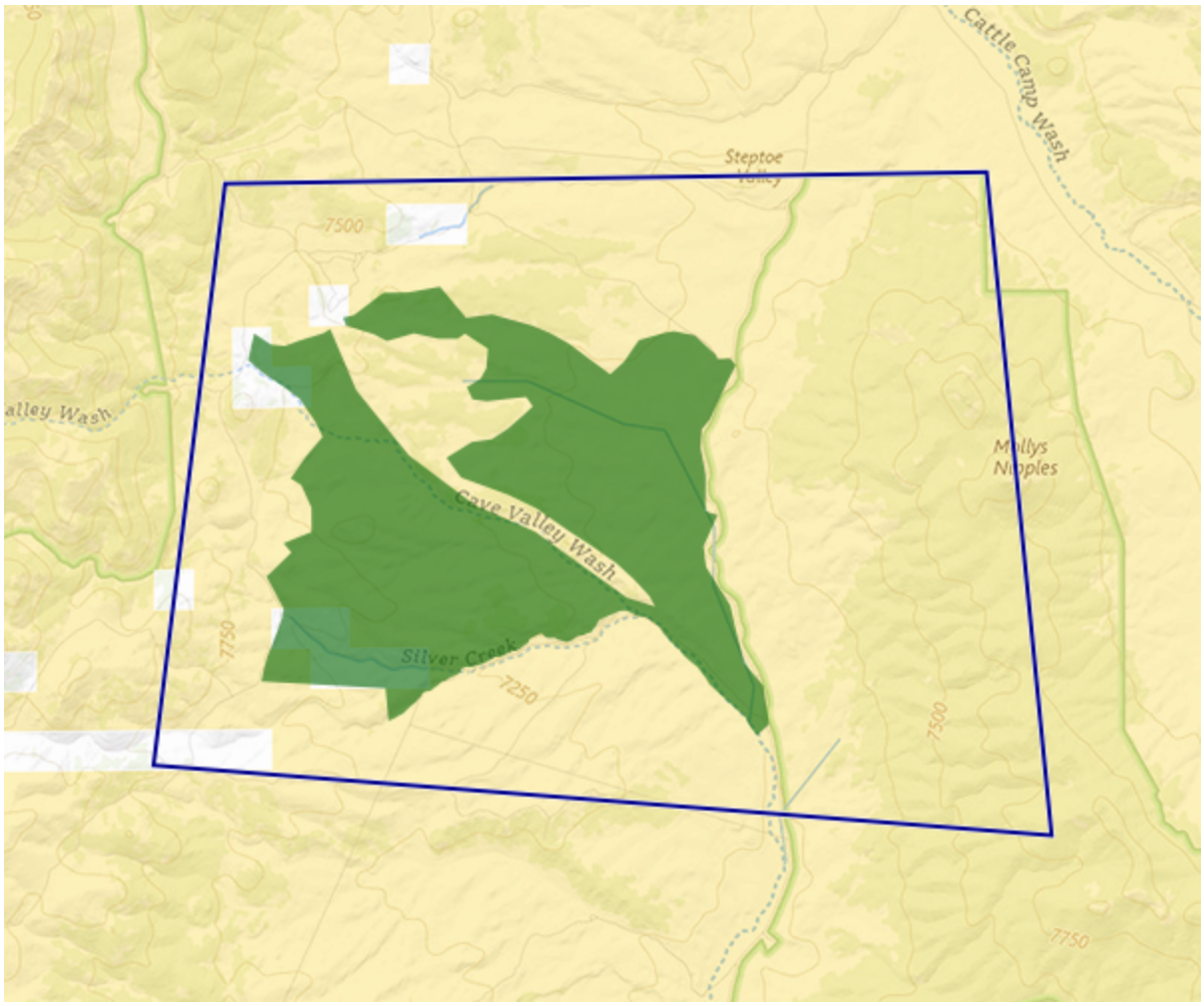
Project Monitoring

Monitoring Plan:

Photo monitoring will be used to monitor this project.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2023	Bureau of Land Management	$0	$
2023	NDOW Heritage Trust Account	$75000	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Bullwhack Handthining

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: Corta Fire Habitat Improvement **Project ID:** 802

Lead Agency: Nevada Department of Wildlife

Project Manager: Matt Glenn Nevada Department of Wildlife

Phone Number: (775) 777-2369

Email: mglenn@ndow.org

Project Partners

Name	Agency	Role
Not Specified	US Forest Service	Agency Cooperator

Project Schedule

Project Start Date: 11/01/2022 **State Fiscal Year:** 2023

Projected Completion Date: 04/26/2024 **State Fiscal Year:** 2024

Actual Completion Date: 11/30/2023

Project Location and Land Status

Location Narrative:

Harrison Pass, Ruby Mountains Elko County Nevada

NDOW Region: Eastern

NDOW Management Units: 102, 103

Nevada Sage Grouse Population Management Unit: South Fork

County: Elko

Land Status

Land Status	Acres	Percent of Project
Forest Service	15834.1	95.8
Private	511	3.1

Bureau of Land Management Office: N/A

US Forest Service Ranger District: Humboldt-Toiyabe National Forest - Mountain City-Ruby Mountains-Jarbidge Ranger District

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Wildland fire rehabilitation

Project Objectives:

- To measurably increase wildlife populations, wildlife use, or habitat for the benefit of public use and hunter success.
- To plant seedlings on habitat impacted by wildfire to improve ecological conditions, prevent expansion of invasive annual grasses, and rehabilitate wildlife habitat.

NDOW Initiative Addressed:

- Mule Deer Enhancement Program (NDOW)
- Shared Stewardship (USFS)

Strategic Habitats Addressed: Aspen woodland, High-elevation sagebrush dominated shrubland, Linear riparian: perennial and ephemeral rivers and streams, Low-elevation sagebrush dominated shrubland, Other habitats (grassland and meadows, playa, sand dunes and badlands, alpine and tundra), Other riparian: meadow, marsh, spring, seep, and lakeshore, Pinyon-juniper woodland (not encroachment), Salt desert shrub, Upper montane coniferous forest and woodland

Priority Resource Impacted: Big Game, Upland Game

Priority Species Impacted: Greater sage-grouse, Mule deer

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Rationale:

The treatment prescription necessary to restore brush species at this site just requires a single step in planting brush species seedlings. In this project approximately 75,000 antelope bitterbrush and sagebrush species seedlings would be grown out from seed at a nursery for 1-2 years, transported to the site, then planted by both contract and volunteer labor. Seed would be provided by the Nevada Department of Wildlife to the nursery in the fall of 2022 to be grown out for approximately one calendar year, seedlings will then either be planted in fall of 2023 or cold stored and planted in spring of 2024. Due to the high use of this area by migrating deer, seedlings will require protective mesh to protect the young plants and allow time to mature sufficiently to handle herbivory.

A desktop analysis of the site has been completed to determine species composition and soil profiles to help increase likeliness of success of the project. Sagebrush composition is largely low and mountain sage with antelope bitterbush as a higher density component of the composition. When considering the logistics of the nursery grow out process, and the time it takes to grow out low sage (in most cases two-years), antelope bitterbrush and mountain sage stand out as the best candidates for our purposes. Timing of the planting portion of the project is planned for fall, after the soil at the site has likely received some moisture and the young plants can take advantage the higher soil moisture throughout the winter and spring months.

Date Work Completed: 11/30/2023

Completion Effectiveness Rating:

Effort is reasonably certain to be effective given adequate time.

Completion Effectiveness Statement:

Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.

Completion Monitoring Plan:

N/A

Project Treatments and Actions

Treatment Name: Corta Fire Seedling Planting 1

Acres: 4,451.8

Action: Planting (container stock)
Date Completed: 11/30/2023
Effectiveness Rating: Effort is reasonably certain to be effective given adequate time.
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

Please see attached completion report.

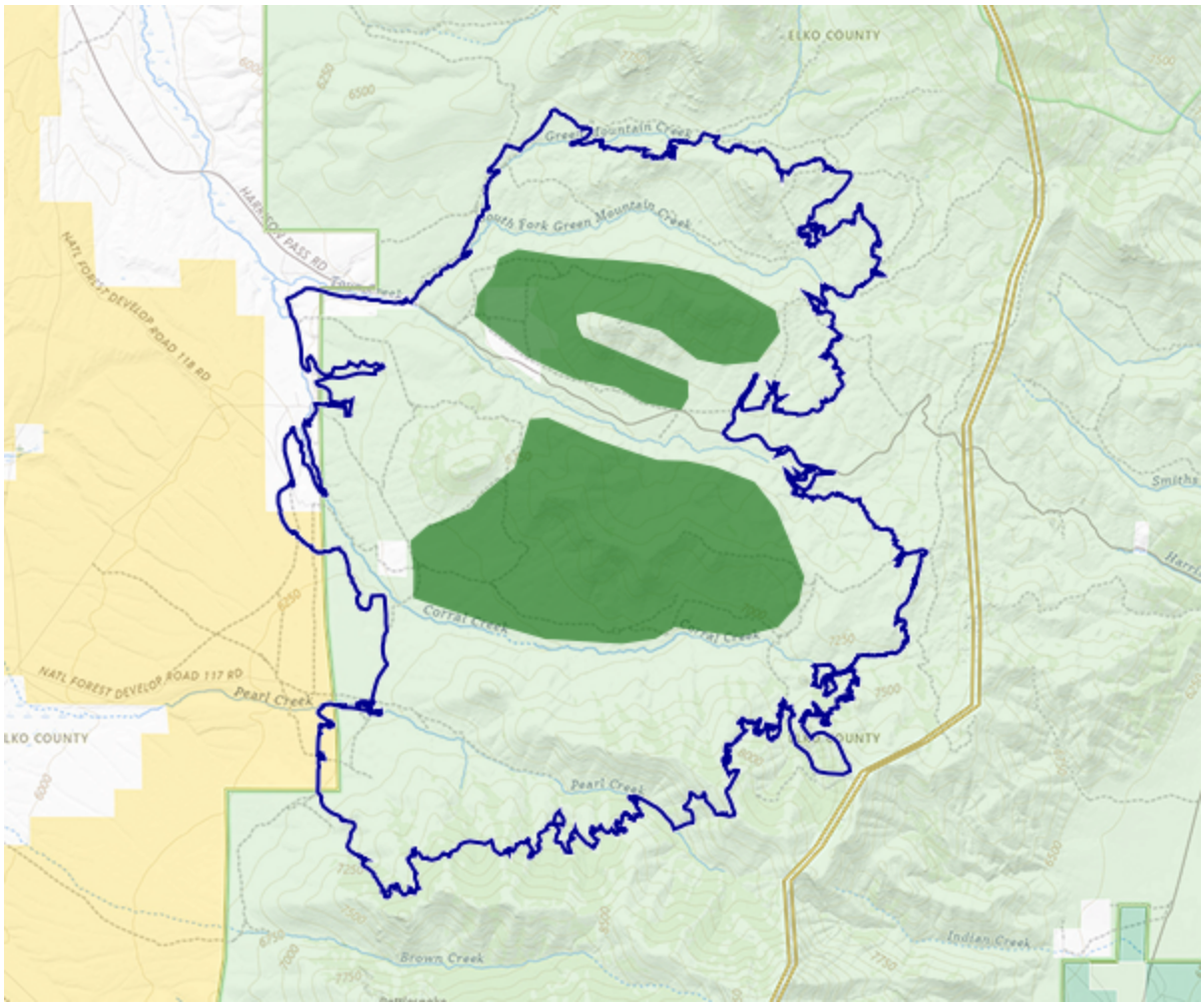
Project Monitoring

Monitoring Plan:

Photo points will be established and retaken on a 5-year interval.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2023	NDOW Heritage Trust Account	$40000	$40000
2024	NDOW Habitat Conservation Fee	$17250	$17250
2024	NDOW Upland Game Stamp	$17250	$817
2024	Other NDOW Funds	$0	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Corta Fire Seedling Planting 1

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: Toner Spring Mastication **Project ID:** 805

Lead Agency: Nevada Department of Wildlife

Project Manager: Moira Kolada Nevada Department of Wildlife

Phone Number: (775) 289-1655

Email: mkolada@ndow.org

Project Partners

Name	Agency	Role
Not Specified	Bureau of Land Management	Agency Cooperator

Project Schedule

Project Start Date: 07/29/2022 **State Fiscal Year:** 2023

Projected Completion Date: 06/30/2024 **State Fiscal Year:** 2024

Actual Completion Date: 04/19/2024

Project Location and Land Status

Location Narrative:

Smith Valley, White Pine County

NDOW Region: Eastern

NDOW Management Units: 121

Nevada Sage Grouse Population Management Unit: Butte/Buck/White Pine

County: White Pine

Land Status

Land Status	Acres	Percent of Project
Private	1168.3	12.5
Bureau of Land Management	8133.8	87

Bureau of Land Management Office: N/A

US Forest Service Ranger District: N/A

Special Land Designations: DOI - BLM|Bristlecone|Designated Wilderness

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Conifer removal

Project Objectives:

- To remove pinyon and juniper trees as a restorative measure to reduce expansion, restore degraded sagebrush habitat, increase hydrologic function, improve forage and cover for wildlife, and/or increase connectivity of sagebrush habitat.
- To remove pinyon and juniper trees as a preventative measure against uncharacteristic wildfire and prevent loss of positive ecological conditions.
- To apply seed in conjuction with conifer removal to improve ecological conditions, prevent expansion of invasive annual grasses, and restore wildlife habitat.

NDOW Initiative Addressed:

- Mule Deer Enhancement Program (NDOW)

Strategic Habitats Addressed: Aspen woodland, High-elevation sagebrush dominated shrubland, Linear riparian: perennial and ephemeral rivers and streams, Low-elevation sagebrush dominated shrubland, Other habitats (grassland and meadows, playa, sand dunes and badlands, alpine and tundra), Other riparian: meadow, marsh, spring, seep, and lakeshore, Pinyon-juniper woodland (not encroachment), Salt desert shrub, Upper montane coniferous forest and woodland

Priority Resource Impacted: Big Game

Priority Species Impacted: Mule deer

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Rationale:

Vegetation attributes in within the Toner Spring Habitat Restoration area have been altered from their desired (historic) range and now include uncharacteristically high densities of trees and below normal levels of perennial grasses and forbs. Current conditions indicate that appropriate management actions (i.e. vegetation treatments) could prevent these areas from further departure from the desired condition and instead move towards a more ecologically sound condition.

The areas proposed for treatment were selected because of the importance of the area for the Area 12 mule deer and habitat values that they provide, specifically for wintering mule deer, However, these treatments and their designs will be designed to benefit a variety of game and non-game wildlife species. This area was also prioritized because of the lack of feral horse pressure. In addition, the proposed treatments are adjacent to the Smith Valley Habitat Restoration.

The Bureau of Land Management (BLM) Ely District, in coordination with the Nevada Department of Wildlife has identified approximately 10,000 acres of being affected by pinyon and juniper encroachment. The Bristlecone Field Office is currently processing a CX for these treatments. The CX and necessary cultural clearances will be completed by July 2023. Treatment will consist of complete removal of pinyon and juniper within the treatment area. Islands and stringers would be designed to benefit big game, upland game, and nongame species.

Tree removal would be done primarily by mastication, however in some areas hand crews may be more appropriate to achieve the desired outcome. Biomass created from mastication or mulching equipment would be left on-site to naturally degrade. When masticating or mulching, biomass material depth would be restricted to six inches or less. Aerial seeding would occur to help bolster the understory species. Shrub species such as bitterbrush would be seeded utilizing seeders mounted on the masticators.

Date Work Completed: 04/19/2024

Completion Effectiveness Rating:

Effort has a high likelihood of being effective given adequate time

Completion Effectiveness Statement:

Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.

Completion Monitoring Plan:

Photos points will continue to be monitored.

Project Treatments and Actions

Treatment Name: TonerMastication

Acres: 950

Action: Seeding (aerial)
Date Completed: 02/06/2023
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. No futher monitoring is planned or needed.
Completion Narrative:

Seeded species were seen in the Spring 2023 and in the Spring 2024.

Action: Phase 2 Mastication
Date Completed: 04/19/2024
Effectiveness Rating: Effort is reasonably certain to be effective given adequate time.
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

Mastication was completed over the course of 2 winters. The first round of mastication took place in 2023 but was delayed by heavy snow fall which created access issues. The remaining acres were completed in Winter 2024. Initial the remaining acres were to scheduled to start late summer of 2024 but the contractor delayed implementation due to concerns that the machines would damage newly emerging vegetation.

Action: Phase 3 Mastication
Date Completed: 04/19/2024
Effectiveness Rating: Effort is reasonably certain to be effective given adequate time.
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

Mastication was completed over the course of 2 winters. The first round of mastication took place in 2023 but was delayed by heavy snow fall which created access issues. The remaining acres were completed in

Winter 2024. Initial the remaining acres were to scheduled to start late summer of 2024 but the contractor delayed implementation due to concerns that the machines would damage newly emerging vegetation.

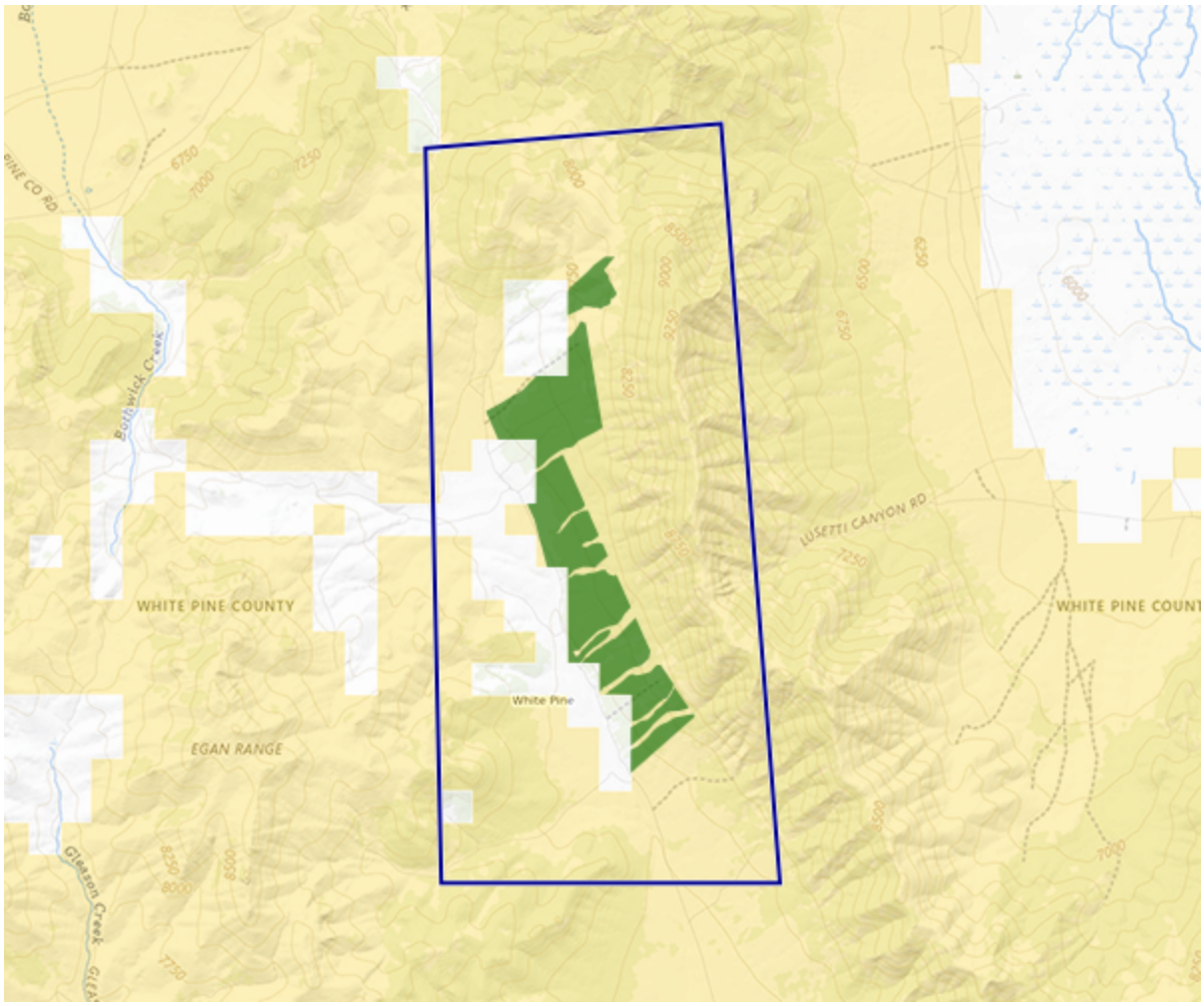
Project Monitoring

Monitoring Plan:

Photo monitoring will be used to monitor this project.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2023	NDOW Heritage Trust Account	$75000	$
2023	Other/Not Specified	$0	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: TonerMastication

Wildlife Heritage Project 30 Day Completion Report

Name of Project: Cave Valley Ranch Mastication

Project Manager (PM): Lauren Williams

Organization/Agency: DCNR, Conservation Districts Program

PM Email Address: lawilliams@dcnr.nv.gov

PM Phone Number: 775-461-6469

Heritage Award Amount: $41, 339.69

Heritage Project Number: 23-17

NDOW Monitor (if the project was managed by someone other than a NDOW employee): Moira Kolada

State Fiscal Year Project was Approved For: 2023

Date this Report was Submitted to NDOW: 3/26/24

Project Start Date: August 2023

Project Completion Date: March 2024

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee: March 2024

Lauren Williams inspected tree removal activities during and after the project. George Hall's property was last checked in August of 2023 after pinyon and juniper piles were masticated. In October 2023, a few volunteers with some extra rangeland seed mix, dispersed seed on the property before snow started to fall. Jacob Carter's property was last checked in October of 2023 after mastication and rabbitbrush treatments were completed. Seed has been purchased for acres that were not seeded with the masticator. Project specifications were met, and work was approved.

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.): This project included 4 acres of masticated pinyon and juniper piles on George Hall's property, 58.65 acres or rabbit brush treatments, and 70 acres of pinyon and juniper mastication. Mastication included seeding and a dryland custom mix was purchased with the remining $1,800.

Summary of the Project's Accomplishments and Wildlife Species that Will Benefit:

Thinning of pinyon and juniper assists in reducing encroachment into the valley bottom, with rabbit brush treatments completing the beginning of wet meadow restoration. Greater Sage-grouse (GRSG) will benefit from decreased predator perch points and increased water availability from PJ removal. Forage for GRSG as well as other wildlife is also expected to increase as existing understory recovers and seed will enhance understory re-growth. This will also benefit deer and elk as they utilize Cave Valley year-round for forage and seasonal habit.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Travel		
Equipment (specify)		
Materials	$1,800 for seed purchase	
Miscellaneous incl. Contractors (specify)	$33,000 for PJ mastication (Carter and Hall) $6,524.35 for Rabbitbrush treatments	
Sub-totals	$41,324.35	
Total $41,324.35		
*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source):		

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

The only significant issue the arised was finding a contractor able to masticate a small acreage property (George Hall) for a reasonable price. Pairing a small property with a larger project is ideal, but that wasn't an option in this case.

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc



Jake Carter's property prior to rabbitbrush treatments



Jake Carter's property during/post rabbitbrush treatment #1





Part of Jake Carter’s property after mastication



Post mastication regrowth



George Hall’s property prior to tree removal and mastication



George Hall’s property post mastication

Wildlife Heritage Project 30 Day Completion Report

Name of Project:

Project Manager (PM): Mike Cox	Organization/Agency: NDOW
PM Email Address: mcox@ndow.org	PM Phone Number: 775-688-1556
Heritage Award Amount: $110,000	Heritage Project Number: 97

NDOW Monitor (if the project was managed by someone other than a NDOW employee):

State Fiscal Year Project was Approved For: 2024	Date this Report was Submitted to NDOW: 5/31/24
Project Start Date:	Project Completion Date:

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee):

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.): **Animals captured, sampled, tested, and/or collared**

Summary of the Project's Accomplishments and Wildlife Species that Will Benefit:

August 2023 – multiple objectives. 20 California Bighorn Sheep, primarily ewes with a few rams collared and tested to help evaluate population performance, new habitat use areas, mountain lion predation and any recent new exposure to Mycoplasma ovipneumoniae in Virginia Mountains, Granite Range, Calico Hills, Sheldon National Wildllife Refuge, and Double H Mountains.

August 2023 – continued Test and Remove efforts in the Snowstorm Mtns and Santa Rosa Range. Snowstorms – 7 sampled (1 ewe and 6 rams) – 1 ram PCR+. Santa Rosa Range (Martin Creek, Calico Mtn, and Eight Mile area) – 20 sampled (18 ewes and 2 rams); 2 PCR+; 1 previously detected chronic carrier euthanized

February 2024 - continued Test and Remove efforts in the Snowstorm Mtns and Santa Rosa Range. Snowstorms – 6 sampled, 0 PCR+. Santa Rosa Range (12 sampled, 3 PCR+, 2 euthanized from previous testing). Initial Test and Remove effort on Lone Mountain desert bighorn herd – 11 ewes and 7 rams sampled and collared and tested – all were PCR negative for Movi). Five mountain goats capture, sampled and collared in East Humboldt Range as precursor to hopeful fall 2024 mountain goat augmentation to assess Movi status and more focal nannies for summer kid surveys. Four additional bighorn sheep captured, sampled and collared in Virgin Creek on SNWR to help assess need and opportunity for augmentation and level of mountain lion predation.

March 2024 –

- Snowstorms – 2 sampled and collared – 0 PCR+. Santa Rosa Range (2 euthanized from previous testing)
- 15 ewes and 3 young rams captured and collared from the Sheep Creek Range translocated to the Montana Mountains to reestablish the bighorn herd there.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Travel		

Equipment (specify)		
Materials		
Miscellaneous incl. Contractors (specify)	105,219	$227,620
Sub-totals		
	Total	$322,840
*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source):		

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc.

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: FY24 Wildfire-Related Restoration and Seed Purchase **Project ID:** 856

Lead Agency: Nevada Department of Wildlife

Project Manager: Mark Freese Nevada Department of Wildlife

Phone Number: (775) 688-1542

Email: markfreese@ndow.org

Project Partners

Name	Agency	Role
Not Specified	Bureau of Land Management	Agency Cooperator
Amanda Gearhart	Nevada Department of Wildlife	Implementation Lead

Project Schedule

Project Start Date: 07/01/2023 **State Fiscal Year:** 2024

Projected Completion Date: 06/30/2024 **State Fiscal Year:** 2024

Actual Completion Date: 05/31/2024

Project Location and Land Status

Location Narrative:

Statewide

NDOW Region: Not Applicable – Statewide Project

NDOW Management Units: Not Applicable – Statewide Project

Nevada Sage Grouse Population Management Unit: Not Applicable – Statewide Project

County: Not Applicable – Statewide Project

Land Status

Land Status	Acres	Percent of Project
No results		

Bureau of Land Management Office: Not Applicable – Statewide Project

US Forest Service Ranger District: Not Applicable – Statewide Project

Special Land Designations: Not Applicable – Statewide Project

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Wildland fire rehabilitation

Project Objectives:

- To control cheatgrass and other non-native annual grasses with herbicide application.
- To control noxious weeds with herbicide application.
- To apply seed on habitat impacted by wildfire to improve ecological conditions, prevent expansion of invasive annual grasses, and rehabilitate wildlife habitat.
- To re-apply seed on habitat impacted by wildfire to improve ecological conditions, prevent expansion of invasive annual grasses, and rehabilitate wildlife habitat.
- To plant seedlings on habitat impacted by wildfire to improve ecological conditions, prevent expansion of invasive annual grasses, and rehabilitate wildlife habitat.

NDOW Initiative Addressed:

- Sagebrush Habitat Plan (NDOW)

Strategic Habitats Addressed: Not Applicable – Statewide Project

Priority Resource Impacted: Not Applicable – Statewide Project

Priority Species Impacted: Not Applicable – Statewide Project

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Rationale:

The primary goal of this project is to work with the Nevada BLM, FS, and private landowners to supplement and conduct fire rehabilitation efforts. Approximately 1,700,937 acres of habitat have burned in Nevada during the 2018-2022 period. Emergency Stabilization and Rehabilitation (ESR) funding granted to BLM covers only a portion of the acres burned. BLM has requested that NDOW assist with securing additional funding to purchase seeds, apply seeds and conduct seedbed preparation to the remaining acreage and to partner with the BLM to leverage funding and contracting abilities so that the largest acreage and most effective treatments can be applied. Similar to BLM, the FS and private landowners also need assistance. Funds awarded for this project will be used to purchase seeds, apply seed, and conduct other seed bed preparation during the rehabilitation of fires across high priority sage grouse, mule deer and other habitat across the state of Nevada. The seeding and other activities will augment the amount and diversity of plant species that will be applied to key burned habitats on public and private lands across Nevada. Treatment effectiveness monitoring will be conducted to inform project success and inform the need for future management actions.

Date Work Completed: 05/31/2024

Completion Effectiveness Rating:

Effort is already effective

Completion Effectiveness Statement:

Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.

Completion Monitoring Plan:

Monitoring will occur on a fire by fire basis.

Project Treatments and Actions

Treatment Name: Statewide Fire Rehabilitation

Acres: 70,739,191.5

Action: Herbicide application (aerial)
Date Completed: 05/31/2024
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

See individual fire projects for further details.

Action: Seeding (aerial)
Date Completed: 05/31/2024
Effectiveness Rating: Effort is reasonably certain to be effective given adequate time.
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

See individual fire projects for further details.

Project Monitoring

Monitoring Plan:

Fire rehabilitation projects will be monitored and assessed for project effectiveness and knowledge gained will be applied towards future projects in an adaptive management framework. At a minimum, projects will be visited by NDOW biologist to monitor and assess project outcomes. Products may include repeat photograph points, density measurements, field trip reports, etc. Projects may also be monitored with vegetation survey crews to collect vegetation community structure and composition data (Line-Point-Intercept, density and belt transects, soil assessment, etc.) on large and/or important projects. Monitoring products for the more extensive survey efforts include producing reports with photographs, statistical analysis, project summaries of what worked or didn't work well, etc.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2024	Bureau of Land Management	$0	$
2024	NDOW Heritage Trust Account	$150000	$
2024	NDOW Industrial Development Fund	$0	$
2024	Nevada Dream Tag	$0	$
2024	NGO Donations	$0	$

Fiscal Year	Funding Source	Budget	Amount Spent
2024	USFWS Grant - Statewide Habitat Restoration	$0	$
	Total:	$0	$0



Boundaries

County Boundary USFS Office Boundaries BLM Office Boundaries NDOW Region Boundary

Land Status

Bureau of Indian Affairs Bureau of Land Management Bureau of Reclamation

Department of Defense Department of Energy Fish and Wildlife Service US Forest Service

National Park Service Nevada State Lands Nevada Park Service Private Other

Project Geometry

Project Boundary Treatment Area: Statewide Fire Rehabilitation

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: FY24 Gilbert Creek Fencing and Habitat Restoration Phase I **Project ID:** 855

Lead Agency: Nevada Department of Wildlife

Project Manager: Katie Andrle Nevada Department of Wildlife

Phone Number: (775) 688-1145

Email: kmandrle@ndow.org

Project Partners

Name	Agency	Role
Tori Cernoch	Nevada Department of Wildlife	Implementation Lead
Jeremy Lutz	Nevada Department of Wildlife	Implementation Lead

Project Schedule

Project Start Date: 07/01/2023 **State Fiscal Year:** 2024

Projected Completion Date: 06/30/2024 **State Fiscal Year:** 2024

Actual Completion Date: 10/23/2023

Project Location and Land Status

Location Narrative:

The Gilbert Creek property is approximately 477 acres located within the New Pass Mountains, Lander County.

NDOW Region: Eastern

NDOW Management Units: 183

Nevada Sage Grouse Population Management Unit: Desatoya

County: Lander

Land Status

Land Status	Acres	Percent of Project
Private	480.4	99.8

Bureau of Land Management Office: N/A

US Forest Service Ranger District: N/A

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Riparian, Meadow, Spring Restoration

Project Objectives:

- To measurably increase wildlife populations, wildlife use, or habitat for the benefit of public use and hunter success.
- To control cheatgrass and other non-native annual grasses with herbicide application.
- To install fencing that excludes livestock or wild horses/burros and prevents grazing and enhances spring and riparian habitat conditions.
- To install fencing that allows for improved management of livestock or wild horse/burro grazing and enhances spring and riparian habitat conditions.
- To install spring development features that improve water management and allows for providing water outside exclusionary fencing.
- To install fencing that allows for protection and recovery of natural water sources to increase water availability for wildlife.
- To control noxious weeds with herbicide application.
- To apply seed on riparian areas to improve ecological conditions, prevent expansion of invasive annual grasses, and rehabilitate wildlife habitat.

NDOW Initiative Addressed:

- Sagebrush Habitat Plan (NDOW)

Strategic Habitats Addressed: Aspen woodland, Linear riparian: perennial and ephemeral rivers and streams, Other habitats (grassland and meadows, playa, sand dunes and badlands, alpine and tundra), Other riparian: meadow, marsh, spring, seep, and lakeshore, Pinyon-juniper woodland (not encroachment), Upper montane coniferous forest and woodland

Priority Resource Impacted: Big Game, Upland Game

Priority Species Impacted: Greater sage-grouse, Mule deer, Pronghorn antelope

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Rationale:

Approximately 477 acres of land surrounding Gilbert Creek in the New Pass Mountains was acquired by Lander County in 2022. NDOW has been coordinating with the County to plan, design, and implement habitat restoration projects on the property. Proposed projects include property perimeter barbed wire fencing, which may include drill stem fencing in sections expected to experience increased pressure from snow pack, livestock, or feral horses. Additional drill stem pipe rail fencing is proposed to exclude feral horses and livestock from three spring sites and associated riparian areas within the property; it is reasonable to assume at some point the perimeter barbed wire fence may fail temporarily, enabling access by horses or cattle. Therefore it is important that drill stem fencing be constructed surrounding the most critical riparian resources to permanently exclude feral horses and cattle from these valuable resources.

In addition to fencing, we propose riparian and stream restoration projects along the ~2-mile stretch of perennial stream within the Gilbert Creek property boundary. Gilbert Creek and associated springs are heavily overutilized, which has resulted in degraded vegetation, large amounts of bare ground, negligible riparian vegetation, impaction, and non-functioning riparian systems. Beaver Dam Analogs, rock structures, willow or other shrub staking or planting, as well as seeding will be

planned and implemented along Gilbert Creek. Currently, there is little streambank incision and no major headcuts along Gilbert Creek, which presents an ideal opportunity to quickly improve riparian vegetation, soils, and maintain streambank stability with minimal effort that will result in meaningful and immediate uplift. The goal of any stream restoration will be to maintain bank stability and to spread water out across the floodplain, reducing erosive velocity and activating the "soil as a sponge" to keep water on the land for longer periods, especially into the hot season. If this system is not protected and continues to be overutilized by livestock and feral horses, cost of restoration efforts will only increase over time and lengthen the recovery timeline. Additional potential habitat treatments we hope to implement in the future pending available funding sources includes herbicide treatments and re-seeding efforts along the springs, creek, and uplands. In addition, Lander County obtained all water rights associated with these waters as part of their acquisition.

The Gilbert Creek property occurs within Hunt Unit 183, containing mapped mule deer, antelope and sage-grouse habitat. Field visits to the site have determined that big game species regularly and heavily use this site. Sage-grouse sign was also commonly seen, despite the site's degraded condition. Gilbert Creek is the only perennial water source on the east side of the New Pass Range, which appears to result in wildlife concentrating use on this riparian system. Improving the riparian and stream systems along Gilbert Creek, and excluding livestock and feral horses, will allow upland and riparian vegetation to improve and provide forage and cover for wildlife, including small mammals, passerines, and bats. Proposed riparian improvements will increase water quality, retention, and availability longer into the hot season. This parcel presents an important opportunity to improve habitat conditions in a fire-affected region where overall rangeland conditions are in a degraded state, and therefore significant uplift is expected.

Since 2020, in cooperation with the Battle Mountain BLM and local private landowners, NDOW has initiated several habitat projects immediately adjacent to this property including the treatment of ~2,000 acres with pre-emergent herbicide to control invasive non-native annuals, followed by seeding with a mix that included a variety of grasses, forbs and several different shrub species desirable by wildlife. In the spring of 2021, tens of thousands of sagebrush and bitterbrush seedlings were hand planted north of Gilbert Creek towards Water Canyon to help establish critical forage for sagebrush obligate species. Currently, work is underway to fence off another privately-owned parcel that contains several important springs and seeps critical for wildlife in Water Canyon (north of Gilbert Creek).

Date Work Completed: 10/23/2023

Completion Effectiveness Rating:

Effort is already effective

Completion Effectiveness Statement:

Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.

Completion Monitoring Plan:

Photo monitoring will be conducted over the next several years to document success and improvement as a result of the fencing.

Project Treatments and Actions

Treatment Name: Spring Exclosures

Acres: 1.1

Action: Intall or maintain pipe-rail fence
Date Completed: 10/23/2023
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

Photo monitoring will be conducted over the next several years to document success and improvement as a result of the fencing.

Treatment Name: Gilbert Creek Perimeter Fence

Acres: 481.3

Action: Other - please specify
Date Completed: 12/01/2023
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Other. Enter effectiveness rationale in text box.
Completion Narrative:

Range fence has been planned and the contract is awarded. Project updates will be provided in FY25 Gilbert Creek Restoration Project.

Project Monitoring

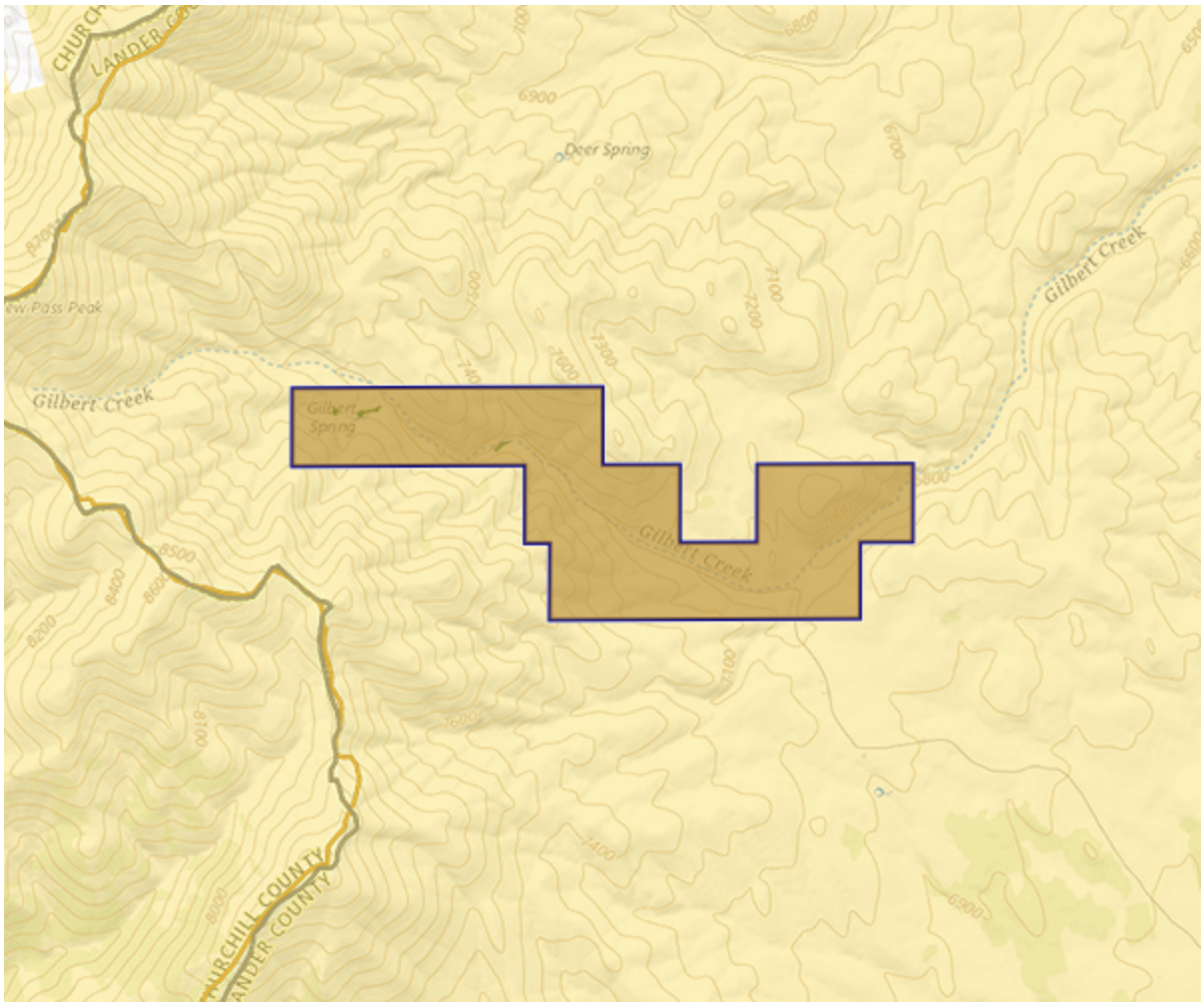
Monitoring Plan:

We plan to monitor habitat improvements when fencing and habitat restoration projects are implemented, starting in 2024 following fence installing in summer/fall 2023.

Summer 2024-2028: Annual monitoring, which may include photos and vegetation transects or measurements.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2024	Lander Conservation District	$0	$
2024	NDOW Heritage Trust Account	$50000	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Spring Exclosures · Treatment Area: Gilbert Creek Perimeter Fence

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: FY24 Wildcat Fire Mule Deer Migration Corridor Bitterbrush Planting **Project ID:** 831

Lead Agency: Nevada Department of Wildlife

Project Manager: Brittany Trimble Nevada Department of Wildlife

Phone Number: (775) 777-2393

Email: btrimble@ndow.org

Project Partners

Name	Agency	Role
US FOREST SERVICE	US Forest Service	Agency Cooperator
Kari Huebner	Nevada Department of Wildlife	Implementation Lead
Brittany Trimble	Nevada Department of Wildlife	Implementation Lead

Project Schedule

Project Start Date: 10/01/2023 **State Fiscal Year:** 2024

Projected Completion Date: 04/30/2024 **State Fiscal Year:** 2024

Actual Completion Date: 11/30/2023

Project Location and Land Status

Location Narrative:

Planting will occur on approximately 1,000 acres of the USFS HTNF Jarbidge Ranger District portion of the 2022 Wildcat Fire in Elko County.

NDOW Region: Eastern

NDOW Management Units: 075, 072

Nevada Sage Grouse Population Management Unit: O'Neil Basin

County: Elko

Land Status

Land Status	Acres	Percent of Project
Forest Service	3059.8	48.3
Bureau of Land Management	3273.4	51.6

Bureau of Land Management Office: N/A

US Forest Service Ranger District: Humboldt-Toiyabe National Forest - Mountain City-Ruby Mountains-Jarbidge Ranger District

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Wildland fire rehabilitation

Project Objectives:

- To measurably increase wildlife populations, wildlife use, or habitat for the benefit of public use and hunter success.
- To plant seedlings on habitat impacted by wildfire to improve ecological conditions, prevent expansion of invasive annual grasses, and rehabilitate wildlife habitat.

NDOW Initiative Addressed:

- Mule Deer Enhancement Program (NDOW)
- Shared Stewardship (USFS)

Strategic Habitats Addressed: Aspen woodland, High-elevation sagebrush dominated shrubland, Linear riparian: perennial and ephemeral rivers and streams, Low-elevation sagebrush dominated shrubland, Other habitats (grassland and meadows, playa, sand dunes and badlands, alpine and tundra), Pinyon-juniper woodland (not encroachment), Salt desert shrub, Upper montane coniferous forest and woodland, Other riparian: meadow, marsh, spring, seep, and lakeshore

Priority Resource Impacted: Big Game, Diversity/Non-game, Upland Game

Priority Species Impacted: Dark Kangaroo Mouse, Greater sage-grouse, Mule deer, Pronghorn antelope

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Rationale:

The 2022 Wildcat Fire burned 21,423 acres total with 17,353 acres occurring on BLM land, 3,075 acres occurring on Forest Service land, and 955 acres on private land. The burned area is classified as crucial stop over habitat, migration corridor, and summer range for the Area 7 mule deer herd, as well as year-round pronghorn antelope, elk, Greater Sage-grouse, Lahontan cutthroat trout, and dark kangaroo mouse habitat. Elko BLM seeded the entire BLM-managed burned area with upland grasses, forbs, and shrubs in fall 2022-early 2023 and is also planning to plant up to 1 million bitterbrush seedlings throughout burned BLM land over subsequent years. Forest Service is unsure how much funding they will receive to be able to reseed or plant seedlings on their portion of the burn, so in collaboration with the HTNF Jarbidge Ranger District, NDOW seeded a sagebrush and watershed mix on 1,550 acres of Forest Service land in January 2023 and the Area 7 MDEP subcommittee proposed bitterbrush seedling planting for fall 2023 to supplement the seeding in restoring the mountain brush community so relied upon by the diverse wildlife community in the area. The HTNF Jarbidge Ranger District is supportive of this effort and has committed to completing any NEPA/SHPO clearance required before planting is scheduled to occur in fall 2023. This project will also be a Shared Stewardship project, which may lead to additional funding availability for this project.

The proposed project area has experienced severe drought in the years previous to the Wildcat Fire and, in combination with the decadent age of the mountain brush community, was in an extremely stressed state at the time of the wildfire. These conditions have been shown to reduce bitterbrush resprouting post-fire and, given the reluctance to drill-seed on Forest Service land, the near-zero establishment of bitterbrush from aerial seeding, and the importance of bitterbrush to the Area 7 mule deer herd during their migration through this burned area, planting of bitterbrush seedlings was determined to be a

priority to help re-establish the habitat values in the burned area. Of the 3,075 acres of Forest Service land that burned in the Wildcat Fire, 1,000 acres will be targeted for planting 74,000 antelope bitterbrush seedlings in "shrub islands" with biodegradable caging to protect the seedlings from overutilization in the first couple years vital for establishment.

Date Work Completed: 11/30/2023

Completion Effectiveness Rating:

Effort has a high likelihood of being effective given adequate time

Completion Effectiveness Statement:

Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.

Completion Monitoring Plan:

Repeated monitoring of photo points established prior to treatment implementation.

Project Treatments and Actions

Treatment Name: Wildcat Fire Migration Corridor FS Seedling Planting

Acres: 3,074.9

Action: Planting (container stock)
Date Completed: 11/08/2023
Effectiveness Rating: Effort has a high likelihood of being effective given adequate time
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

Bitterbrush seedlings were grown at USFS Lucky Peak Nursery and were contracted for planting on the USFS portion of the burn in November 2023. Even though 74,000 bitterbrush plants were ordered for this project (34,000 container + 40,000 bareroot), poor growing conditions at the Lucky Peak Nursery during summer 2023 resulted in only 56,260 seedlings surviving and being available for planting (22,800 container + 33,460 bareroot). Eight-thousand Wyoming sagebrush seedlings were grown by the local Wells High School FFA program during the summer 2023 and were also planted on the Wildcat burned area under the same contract. Overall, 64,260 plants were planted across 253 acres under this NDOW contract using Heritage project funds. Elko BLM planted an additional 150,000 Wyoming sagebrush on the BLM portion of the burn in November 2023 and 120,000 antelope bitterbrush seedlings in spring 2024.

Action: Planting (root stock)
Date Completed: 11/08/2023
Effectiveness Rating: Effort has a high likelihood of being effective given adequate time
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

Bitterbrush seedlings were grown at USFS Lucky Peak Nursery and were contracted for planting on the USFS portion of the burn in November 2023. Even though 74,000 bitterbrush plants were ordered for this project (34,000 container + 40,000 bareroot), poor growing conditions at the Lucky Peak Nursery during summer 2023 resulted in only 56,260 seedlings surviving and being available for planting (22,800 container + 33,460 bareroot). Eight-thousand Wyoming sagebrush seedlings were grown by the local Wells High School FFA program during the summer 2023 and were also planted on the Wildcat burned area under the same contract. Overall, 64,260 plants were planted across 253 acres under this NDOW contract using

Heritage project funds. Elko BLM planted an additional 150,000 Wyoming sagebrush on the BLM portion of the burn in November 2023 and 120,000 antelope bitterbrush seedlings in spring 2024.

Treatment Name: BitterbrushPlanting_implemented

Acres: 272.8

Action: Planting (container stock)
Date Completed: 11/08/2023
Effectiveness Rating: Effort has a high likelihood of being effective given adequate time
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

Bitterbrush seedlings were grown at USFS Lucky Peak Nursery and were contracted for planting on the USFS portion of the burn in November 2023. Even though 74,000 bitterbrush plants were ordered for this project (34,000 container + 40,000 bareroot), poor growing conditions at the Lucky Peak Nursery during summer 2023 resulted in only 56,260 seedlings surviving and being available for planting (22,800 container + 33,460 bareroot). Eight-thousand Wyoming sagebrush seedlings were grown by the local Wells High School FFA program during the summer 2023 and were also planted on the Wildcat burned area under the same contract. Overall, 64,260 plants were planted across 253 acres under this NDOW contract using Heritage project funds. Elko BLM planted an additional 150,000 Wyoming sagebrush on the BLM portion of the burn in November 2023 and 120,000 antelope bitterbrush seedlings in spring 2024.

Action: Planting (root stock)
Date Completed: 11/08/2023
Effectiveness Rating: Effort has a high likelihood of being effective given adequate time
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

Bitterbrush seedlings were grown at USFS Lucky Peak Nursery and were contracted for planting on the USFS portion of the burn in November 2023. Even though 74,000 bitterbrush plants were ordered for this project (34,000 container + 40,000 bareroot), poor growing conditions at the Lucky Peak Nursery during summer 2023 resulted in only 56,260 seedlings surviving and being available for planting (22,800 container + 33,460 bareroot). Eight-thousand Wyoming sagebrush seedlings were grown by the local Wells High School FFA program during the summer 2023 and were also planted on the Wildcat burned area under the same contract. Overall, 64,260 plants were planted across 253 acres under this NDOW contract using Heritage project funds. Elko BLM planted an additional 150,000 Wyoming sagebrush on the BLM portion of the burn in November 2023 and 120,000 antelope bitterbrush seedlings in spring 2024.

Treatment Name: Pre-emergent Herbicide

Acres: 6,338.2

Action: Herbicide application (aerial)
Date Completed: 09/15/2023
Effectiveness Rating: Effort is reasonably certain to be effective given adequate time.
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

In fall 2023, the presence of cheatgrass along the roads throughout the fire became apparent and NDOW and project partners alike were concerned about the spread of cheatgrass from roadsides further into the burned areas that are in recovery. After reaching out to Dream Tag and RMEF about the available

funds with the changes in the bitterbrush planting project, we received permission from both project sponsors to use their respective funds for the application of pre-emergent herbicide over 3,561 acres along roads through the BLM and privately owned burned areas to prevent the spread further into the burn from the roads. Pre-emergent application was completed in September 2023.

Project Monitoring

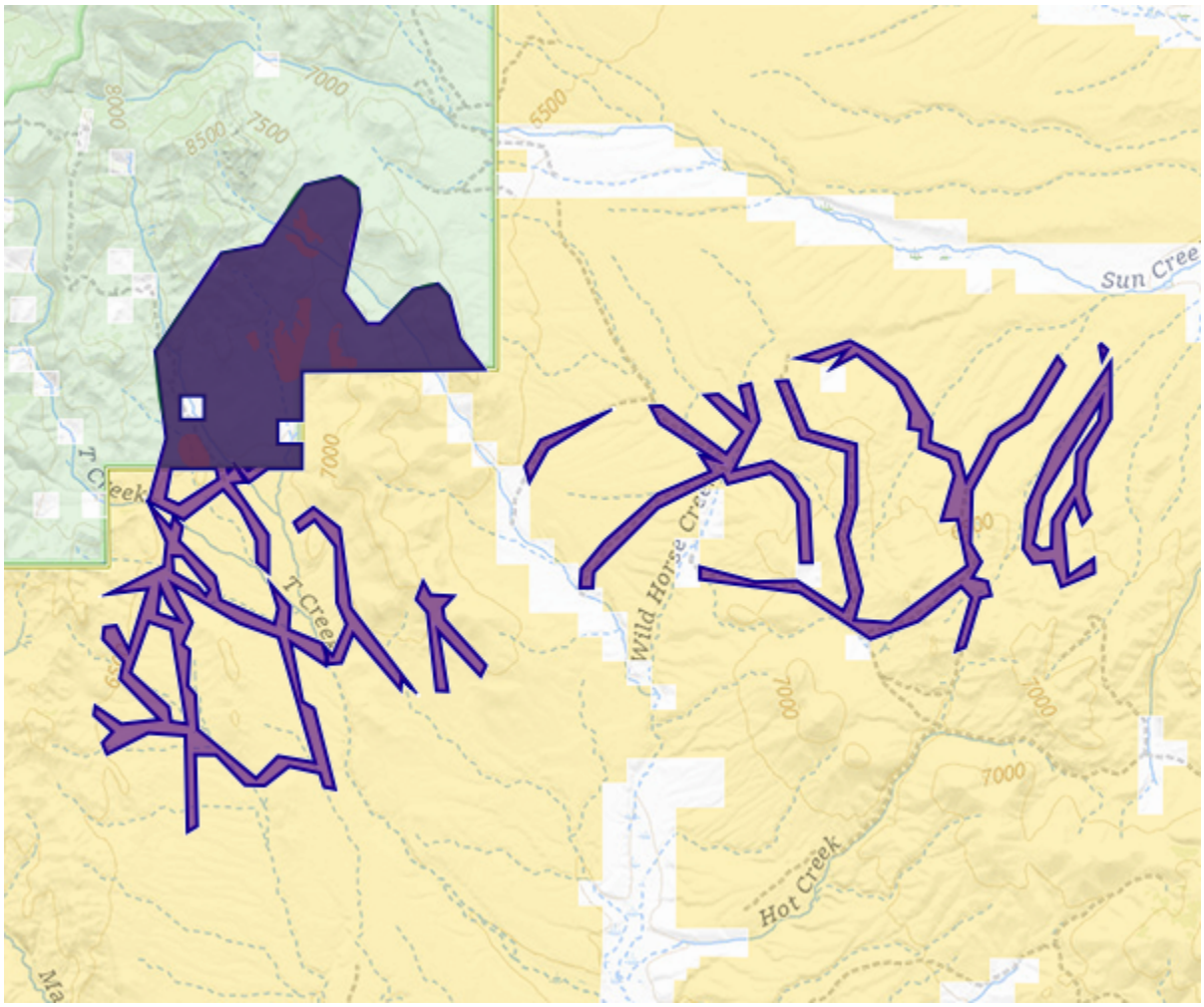
Monitoring Plan:

Monitoring will include repeated photo points that will be established in summer 2023 before project implementation and revisited annually to assess habitat changes over time, as well as ocular estimates of bitterbrush establishment from planting. Photo points will be shared with all project cooperators so everyone has the opportunity to revisit and contribute to project monitoring.

Implementation of planting will be inspected throughout the period of performance and upon completion of implementation to ensure the Scope of Work was adhered to appropriately.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2024	NDOW Heritage Trust Account	$82000	$81524.42
2024	Nevada Dream Tag	$0	$
2024	Rocky Mountain Elk Foundation	$0	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Wildcat Fire Migration Corridor FS Seedling Planting

Treatment Area: BitterbrushPlanting_implemented · Treatment Area: Pre-emergent Herbicide

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: Steptoe Valley Wildlife Management Area Water Enhancements **Project ID:** 842

Lead Agency: Nevada Department of Wildlife

Project Manager: Adam Henriod Nevada Department of Wildlife

Phone Number: (775) 289-1690

Email: ahenriod@ndow.org

Project Partners

Name	Agency	Role
No results		

Project Schedule

Project Start Date: 07/01/2023 **State Fiscal Year:** 2024

Projected Completion Date: 09/30/2024 **State Fiscal Year:** 2025

Actual Completion Date: 06/06/2024

Project Location and Land Status

Location Narrative:

This test well will be located on the Steptoe Valley Wildlife Management Area in White Pine County.

NDOW Region: Eastern

NDOW Management Units: 111, 222

Nevada Sage Grouse Population Management Unit: Steptoe/Cave

County: White Pine

Land Status

Land Status	Acres	Percent of Project
Bureau of Land Management	6297.9	49.2
Private	6508.2	50.8

Bureau of Land Management Office: N/A

US Forest Service Ranger District: N/A

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT IMPROVEMENT or MANAGEMENT: Management of Wildlife Management Areas (WMA)

Project Objectives:

- Other - please specify

NDOW Initiative Addressed: No initiatives

Strategic Habitats Addressed: High-elevation sagebrush dominated shrubland, Lakes and reservoirs, Linear riparian: perennial and ephemeral rivers and streams, Low-elevation sagebrush dominated shrubland, Mixed desert scrub, Other habitats (grassland and meadows, playa, sand dunes and badlands, alpine and tundra), Pinyon-juniper woodland (not encroachment), Salt desert shrub, Upper montane coniferous forest and woodland

Priority Resource Impacted: Big Game, Diversity/Non-game, Fish, Upland Game, Waterfowl

Priority Species Impacted: Dabbling duck species, Diving duck species, Elk, Geese, Greater sage-grouse, Migratory songbirds (multiple species), Mule deer, Pronghorn antelope, Rainbow trout, Relict dace, Shorebirds

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Rationale:

Project Objectives-Other

1. Perform research and field reconnaissance to evaluate existing infrastructure and determine best place for test well location.

2. Design and construct test well.

3. Pump test well to evaluate aquifer properties.

4. Prepare hydrogeologic report.

5. Develop production well site plan.

6. Prepare engineer’s estimate to design and construct production well capable of producing 2,875 acre-feet of water annually.

This project seeks funding for the installation of a well and appropriate pumping, delivery, and power infrastructure on Steptoe Valley Wildlife Management Area (SVWMA). After a test well has been completed a system will be designed that will allow NDOW to use ground water for wildlife benefits on SVWMA. NDOW will enter into a Memorandum of Agreement (MOA) with White Pine County Nevada to utilize approximately 2,875 acre feet of water annually. The value of this water will count as State matching dollars for Federal grants.

The addition of 2,875 acre feet or water yearly will benefit wildlife in multiple ways. Comins Lake is one of the top fisheries in Nevada. It is know for producing large rainbow trout. In addition anglers can also catch brown trout, tiger trout, largemouth

bass and bluegill. Comins lake is also desirable nesting and foraging habitat for many waterfowl and shorebird species. Currently Comins lake can have drastic seasonal shifts in water elevation. This is particularly noticeable in drought years. Water from the well will allow Comins Lake levels to be more appropriately managed to provide better fishing and hunting opportunities as well as more desired habitat for wildlife.

Well water will also allow the creation of food plots on the management area. Food plots will be designed to benefit big game found on the property (elk, mule deer, pronghorn) as well as game birds (dove, waterfowl, sage-grouse). Additionally they will benefit many songbirds, wading birds, and small mammals.

This water will also be used to supplement the WMA pond system. The transport of water in earthen ditch systems and water storage in ponds on the WMA will benefit many species. During drought years as many as seven of the properties thirteen ponds can go dry. Big game, upland game, waterfowl, and shorebirds use these ponds and ditches as water and food sources. Relict Dace live within the spring systems found on the WMA. All species mentioned will benefit with the ability to better maintain pond levels through the installation of the well.

Date Work Completed: 06/06/2024

Completion Effectiveness Rating:

Effort is uncertain or unlikely to be effective

Completion Effectiveness Statement:

Project actions were implemented as planned, but events occurred that undermined project effectiveness

Completion Monitoring Plan:

N/A

Project Treatments and Actions

Treatment Name: Steptoe WMA

Acres: 12,806.5

Action: Create, modify, or maintain diversion canals, headgates, or water pipelines
Date Completed: 06/06/2024
Effectiveness Rating: Effort is uncertain or unlikely to be effective
Effectiveness Statement: Project actions were implemented as planned, but events occurred that undermined project effectiveness
Completion Narrative:

Heritage funds were used to design and drill a test well on the SVWMA to determine if there was sufficient water to take advantage of an opportunity offered by White Pine County to utilize their water rights. The test well produced about 400 gallons per minute which was only a small portion of the water that was offered. Due to the lack of water and the anticipated price to obtain additional water, NDOW decided that it did not make sense from an economical standpoint to continue with the project.

Action: Other - please specify
Date Completed: 06/06/2024
Effectiveness Rating: Effort is uncertain or unlikely to be effective
Effectiveness Statement: Project actions were implemented as planned, but events occurred that undermined project effectiveness
Completion Narrative:

Heritage funds were used to design and drill a test well on the SVWMA to determine if there was sufficient water to take advantage of an opportunity offered by White Pine County to utilize their water rights. The test well produced about 400 gallons per minute which was only a small portion of the water that was offered. Due to the lack of water and the anticipated price to obtain additional water, NDOW decided that it did not make sense from an economical standpoint to continue with the project.

Project Monitoring

Monitoring Plan:

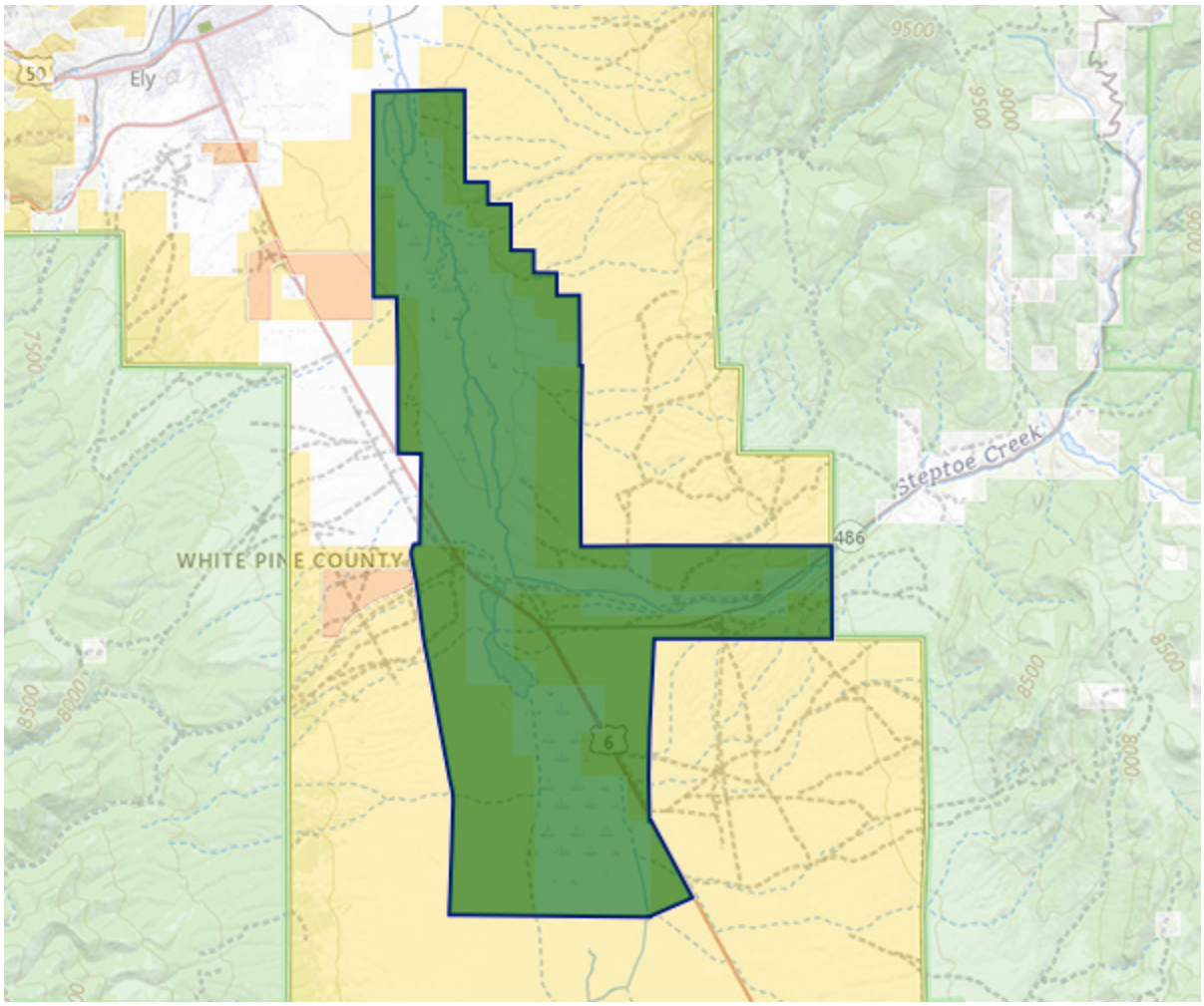
NDOW WMA and Fisheries staff will utilize the Steptoe WMA Water Management Plan to manage Comins Lake levels.

Food plots will be planted annually and planted species will be evaluated for effectiveness.

Ponds will be regularly checked and flows adjusted to provide the most ideal habitat conditions.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2024	AB84 - Conservation Bond Initiative	$0	$
2024	NDOW Heritage Trust Account	$117277.58	$
2024	USFWS Grant - Wildlife Management Areas	$0	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Steptoe WMA

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: Pole Canyon Fence **Project ID:** 851

Lead Agency: Nevada Department of Wildlife

Project Manager: Madi Stout Nevada Department of Wildlife

Phone Number: (775) 777-2392

Email: mstout@ndow.org

Project Partners

Name	Agency	Role
RMEF	RMEF- Aaron Swift	Non-Agency Cooperator
Elko Bighorns Unlimited	Elko Bighorns Unlimited	Non-Agency Cooperator

Project Schedule

Project Start Date: 07/01/2023 **State Fiscal Year:** 2024

Projected Completion Date: 10/31/2023 **State Fiscal Year:** 2024

Actual Completion Date: 01/22/2024

Project Location and Land Status

Location Narrative:

The Project is located approximately 30 miles east of Elko, Nevada, in the northern portion of the East Humboldt Range in Elko County, Nevada. The Figure 1(attached) shows the vicinity of proposed Project location. The Project Area is located on private lands surrounded by National Forest System (NFS) land in the Ruby Mountain Ranger District.

NDOW Region: Eastern

NDOW Management Units: 105, 101, 102

Nevada Sage Grouse Population Management Unit: South Fork, Ruby Valley

County: Elko

Land Status

Land Status	Acres	Percent of Project
Bureau of Land Management	8199.6	16.4
Forest Service	18788.4	37.5
Private	22032.5	44

Bureau of Land Management Office: N/A

US Forest Service Ranger District: Humboldt-Toiyabe National Forest - Mountain City-Ruby Mountains-Jarbidge Ranger District

Special Land Designations: USDA Forest Service|East Humboldts Wilderness|Designated Wilderness

Project Summary and Justification

Project Activity and Sub-activity: INFRASTRUCTURE and LAND: Direct infrastructure purchase, construction, or maintenance

Project Objectives:

- To purchase new equipment or facilities.
- To measurably increase access for wildlife-dependent recreation.

NDOW Initiative Addressed: No initiatives

Strategic Habitats Addressed: Aspen woodland, High-elevation sagebrush dominated shrubland, Linear riparian: perennial and ephemeral rivers and streams, Low-elevation sagebrush dominated shrubland, Other habitats (grassland and meadows, playa, sand dunes and badlands, alpine and tundra), Other riparian: meadow, marsh, spring, seep, and lakeshore, Pinyon-juniper woodland (not encroachment), Salt desert shrub, Upper montane coniferous forest and woodland

Priority Resource Impacted: Big Game, Diversity/Non-game, Upland Game

Priority Species Impacted: American Pika, Greater sage-grouse, Migratory songbirds (multiple species), Mountain Goat, Mule deer, Northern goshawk, Rocky Mountain Bighorn Sheep

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: no

Project Rationale:

The Pole Canyon Conservation Easement will permanently protect 12,122.43 acres of private rangeland along the base of the East Humboldt mountains in northern Nevada. The proposed conservation easement will conserve habitat along a critical migratory corridor for the largest population of mule deer in Nevada and will serve as important sagebrush, grassland and riparian habitat for mule deer, bighorn sheep, mountain goat, and several species of conservation priority, including the greater sage-grouse. The proposed conservation easement will also improve habitat connectivity to neighboring U.S. Forest Service administered lands for game and non-game species movement across the landscape. The Pole Canyon public access easement, a complementary document to the conservation easement, allows public access onto 4,600-acres of property as well as to United States Forest Service (USFS) lands beyond. As part of the access easement, the NDOW committed to building a roughly 4000-ft welded drill steel fence and parking area that will inform the public of where access is permitted. The construction of this fence/parking area is a crucial piece to continuing what has thus far been a very successful partnership.

Date Work Completed: 01/22/2024

Completion Effectiveness Rating:

Effort is reasonably certain to be effective given adequate time.

Completion Effectiveness Statement:

Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.

Completion Monitoring Plan:

N/A

Project Treatments and Actions

Treatment Name: Pole Canyon Fence

Linear Feet: 17877

Action: Purchase/install new equipment
Date Completed: 08/07/2023
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

In July of 2023, the fence was constructed by Gold Standard Fence; the project was completed on August 7th, 2023. This report serves as NDOW's documentation of meeting the signage and fencing obligations within the Access Easement. Additionally, in January of 2024, the NDOW seeded the disturbed area that was created along the fence line and parking lot during construction, per the request of the private landowner. Species composition was derived according to environmental site descriptions for the area as well as a mixture of highly desirable species for pollinators.

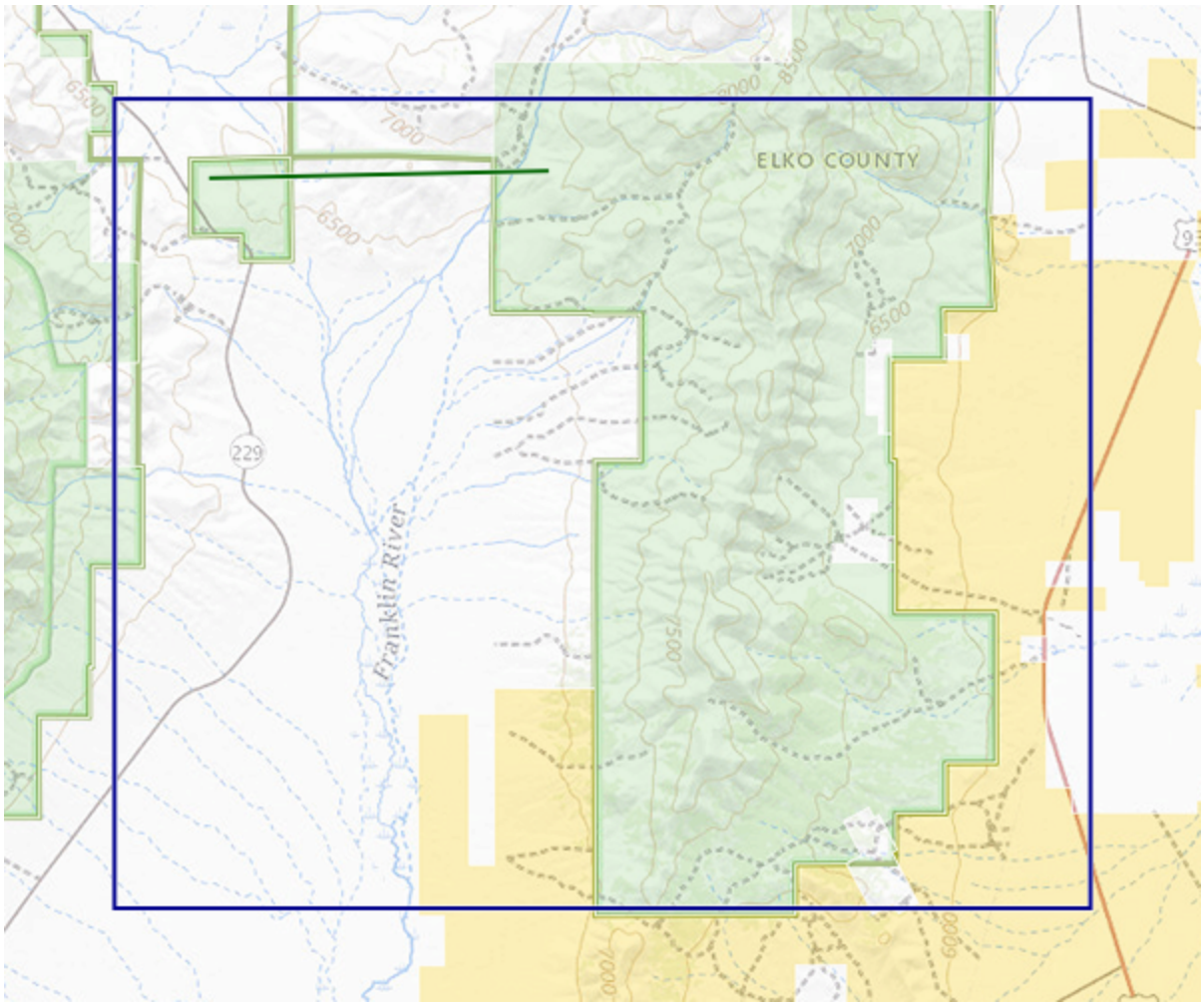
Project Monitoring

Monitoring Plan:

A monitoring plan is not applicable to this project.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2024	NDOW Heritage Trust Account	$100000	$
2024	Nevada Dream Tag	$0	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Pole Canyon Fence

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: FY24 MA13 Mule Deer Collaring **Project ID:** 852

Lead Agency: Nevada Department of Wildlife

Project Manager: Josh Kirk Nevada Department of Wildlife

Phone Number: (775) 777-2342

Email: joshua.kirk@ndow.org

Project Partners

Name	Agency	Role
Josh Kirk	Nevada Department of Wildlife	Implementation Lead

Project Schedule

Project Start Date: 07/01/2023 **State Fiscal Year:** 2024

Projected Completion Date: 06/30/2024 **State Fiscal Year:** 2024

Actual Completion Date: 02/22/2024

Project Location and Land Status

Location Narrative:

White Pine, Lincoln and Nye Counties, Nevada, MA 13, Mule Deer Winter Range (HU 131: Currant Hills, Ellison Knobs – HU 132: Douglas Hills, E. Horse Range, Scofield Bench – HU 133: Golden Gate Range)

NDOW Region: Eastern, Southern

NDOW Management Units: 132, 134, 131, 133

Nevada Sage Grouse Population Management Unit: Diamond, Butte/Buck/White Pine, Quinn

County: Nye, Lincoln, White Pine

Land Status

Land Status	Acres	Percent of Project
No results		

Bureau of Land Management Office: N/A

US Forest Service Ranger District: Humboldt-Toiyabe National Forest - Ely Ranger District

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: POPULATION MANAGEMENT, MONITORING, and RESEARCH: Terrestrial Wildlife

Project Objectives:

- To measurably increase wildlife populations, wildlife use, or habitat for the benefit of public use and hunter success.
- To conduct population surveys or research that informs management or monitoring needs.

NDOW Initiative Addressed:

- Mule Deer Enhancement Program (NDOW)

Strategic Habitats Addressed: N/A

Priority Resource Impacted: Big Game

Priority Species Impacted: Mule deer

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: no

Project Rationale:

MA13 has had very few collaring efforts in the past and currently, there are no existing projects in place monitoring the declining status and trends of the mule deer herd. There has been multiple habitat enhancement and water development projects over the years but little to no collar data to support their success. Recruitment rates in MA13 are one of the lowest in the state and population size has been steadily decreasing over the last few years. During the 2021-2022 survey season, the number of adults observed, as well as number of fawns observed and recruited into the population, were all significantly below the 5-year average. Additionally, buck ratios are significantly below the management objective, resulting in lower quota recommendations and reduced hunting opportunities for the public. Mule deer are also experiencing additional pressures resulting from unfavorable environmental conditions in the last five years. Extreme and persistent drought conditions, interspersed with extreme winter conditions combined with competition with wild horses for resource availability have resulted in additional additive mortality year to year. Without funding from the Wildlife Heritage Account, the project would likely be delayed or would not occur, limiting the critical data that these collars would provide. A delay in collaring mule deer in MA13 would likely result in continued herd contractions with little to no knowledge on the limiting factors causing the decline.

We would like to deploy 30 Satellite Global Positioning System (GPS) collars in the targeted mule deer wintering areas of MA13. We are asking that 20 of the collars and capture cost be funded through Wildlife Heritage Account, while the remaining 10 collars will be funded through the USFW Grant - Statewide Game Management account. We are asking for $60,000 from the Wildlife Heritage Fund account and $30,000 from the USFWS Grant, totaling $90,000 for the project's entirety. Captures will take place during winter 2023-2024 and will be conducted by a professional contractor. The capture crew will use a net-gun to capture female mule deer and will physically restrain individuals with hobbles and blindfolds while outfitting them with the collars. Collars will remain on deer for a specific amount of time before a locking mechanism releases and allow collars to drop-off. Upon release, collars will transmit signals to notify mangers who will retrieve them from the field. In the event of a mortality or slipped collar, the collar will be redeployed the following capture season to continue to gather data. Data from collars will regularly upload to a database and will be accessible to managers online for seasonal space use, survival, and migration corridor analyses.

Understanding mule deer movements will aid the subcommittee in identifying future habitat projects through the Mule Deer Enhancement Program (MDEP). Radio-collaring mule deer will provide data on MA13 mule deer movements, space use, and resource selection in relation to their migration. Biologists will also be able to quantify survival rates and identify causes of mortality. A large enough sample size of radio-collars to properly analyze data has never been deployed in this management area. Mule deer will be captured throughout the winter range of MA13 in order to encompass potential variation in large scale movements. We are expecting that spatiotemporal movement data from radio-collared deer will further inform us on the most impactful locations for effective habitat management efforts. These data are vital in the decision-making process for future habitat projects and will ultimately greatly benefit the herd. This project will also allow NDOW to provide the BLM and USFS with valuable data during the EIS/NEPA process to inform sound mitigation decisions to best protect mule deer habitats while simultaneously protecting and enhancing other species habitats (i.e., Greater Sage-grouse, elk, pronghorn, and a variety of non-game species).

This project would also be in conjunction with the Pancake HMA 2022 horse gather conducted by the BLM (https://www.blm.gov/programs/wild-horse-and-burro/herd-management/gathers-and-removals/nevada/2022-pancake-complex-wild). In 2021, the Pancake Complex was estimated to be at a level of approximately 3,244 wild horses, 450%+ over the Appropriate Management Level of 361-638 wild horses. In February 2022, 2,054 wild horses were gathered by the BLM. The current wild horse population is estimated to be at about 700 individuals, which is still over the AML, but the density has been significantly reduced. The negative influence of wild horse overpopulation on mule deer populations and wildlife habitat (water and food resource availability) is well known, and following the gather the population is sure to increase over time without regular and frequent gathers. This presents a unique opportunity that will allow for inference on how changes in horse densities over time influence mule deer behavior on the greater landscape. Taking advantage of this scenario surrounding horse-deer interspecific interactions may also assist in management of mule deer in other areas of the state where wild horse populations are over AML.

Date Work Completed: 02/22/2024

Completion Effectiveness Rating:

Effort is already effective

Completion Effectiveness Statement:

Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.

Completion Monitoring Plan:

The outcome of this project was a huge success. The number of collars that were purchased were hung on mule deer throughout the prime winter ranges of Area 13. The collar data that will be analyzed from this project will be undoubtably beneficial. Close monitoring of the collared mule deer will be continued until the battery life of the collar ends or the fate of an individual has succumbed. The collar data will then be analyzed comprehensively to determine seasonal habitat use, migration corridors, as well as other limiting factors to this mule deer herd.

Project Treatments and Actions

Treatment Name: Currant Hills

Acres: 22,608.8

Action: Deploy GPS/VHF collars on big game species
Date Completed: 02/22/2024
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

A total of 4 collars (2 adult does and 2 doe fawns) were deployed in the Currant Hills winter range in Area 13.

Action: Collect, analyze, or model big game population or habitat use data
Date Completed: 02/22/2024

Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

A total of 4 collars (2 adult does and 2 doe fawns) were deployed in the Currant Hills winter range in Area 13.

Treatment Name: East Horse Range

Acres: 46,792.4

Action: Deploy GPS/VHF collars on big game species
Date Completed: 02/22/2024
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

A total of 8 collars (4 adult does, 3 doe fawns, and 1 buck fawn) were deployed in the East Horse Range in Area 13.

Action: Collect, analyze, or model big game population or habitat use data
Date Completed: 02/22/2024
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

A total of 8 collars (4 adult does, 3 doe fawns, and 1 buck fawn) were deployed in the East Horse Range in Area 13.

Treatment Name: Ellison Knobs and Douglas Hills

Acres: 31,965.4

Action: Deploy GPS/VHF collars on big game species
Date Completed: 02/22/2024
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

A total of 7 collars (3 adult does, 2 buck fawns, and 2 doe fawns) were deployed in the Ellison Knobs and Douglas Hills winter range in Area 13.

Action: Collect, analyze, or model big game population or habitat use data
Date Completed: 02/22/2024
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

A total of 7 collars (3 adult does, 2 buck fawns, and 2 doe fawns) were deployed in the Ellison Knobs and Douglas Hills winter range in Area 13.

Treatment Name: Golden Gate Range

Acres: 46,009.1

Action: Collect, analyze, or model big game population or habitat use data
Date Completed: 02/22/2024
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

A total of 11 collars (6 adult does and 5 doe fawns) were deployed in the Golden Gate Range in southern Area 13.

Action: Deploy GPS/VHF collars on big game species
Date Completed: 02/22/2024
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

A total of 11 collars (6 adult does and 5 doe fawns) were deployed in the Golden Gate Range in southern Area 13.

Treatment Name: Scofield Bench

Acres: 38,491.7

Action: Collect, analyze, or model big game population or habitat use data
Date Completed: 02/22/2024
Effectiveness Rating: Effort is uncertain or unlikely to be effective
Effectiveness Statement: Project actions were implemented as planned, but events occurred that undermined project effectiveness
Completion Narrative:

Due to the excessive snow loads on Scofield Bench during the time of the capture, no deer were present and were heavily consolidated in the Golden Gate Range just due east. In terms of the overall project effectiveness, it was a success. The total number of collars purchased were deployed elsewhere with little to no issues.

Action: Deploy GPS/VHF collars on big game species
Date Completed: 02/22/2024
Effectiveness Rating: Effort is uncertain or unlikely to be effective
Effectiveness Statement: Project actions were implemented as planned, but events occurred that undermined project effectiveness
Completion Narrative:

Due to the excessive snow loads on Scofield Bench during the time of the capture, no deer were present and were heavily consolidated in the Golden Gate Range just due east. In terms of the overall project effectiveness, it was a success. The total number of collars purchased were deployed elsewhere with little to no issues.

Project Monitoring

Monitoring Plan:

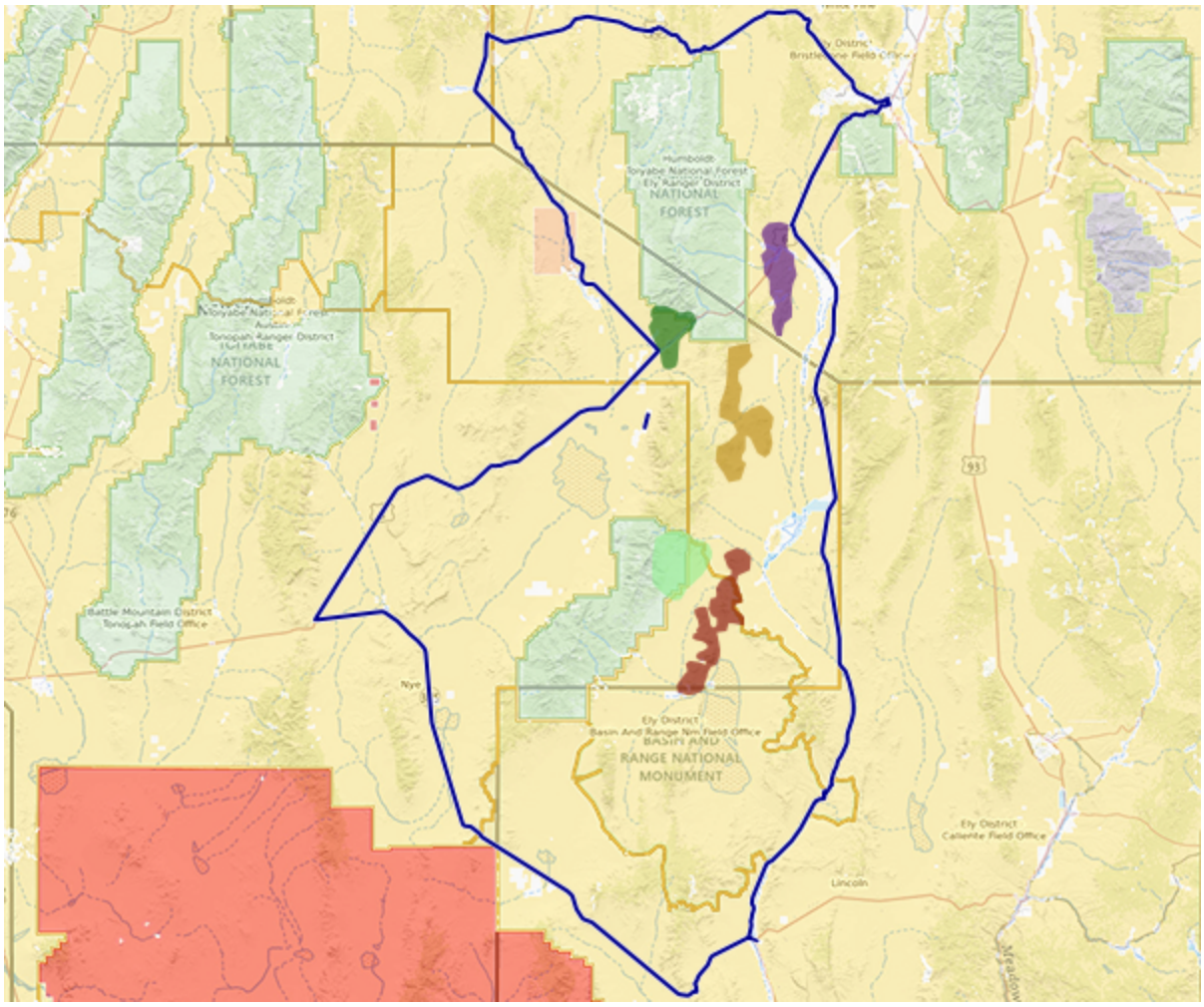
1) Monitor seasonal habitat use data, movement corridors, and survival rates post collar drop-off.

2) Analyze these data using home range size analysis, conduct known-fate survival incorporating exposure metrics, and analyze movement and space use data through resource and step selection functions.

3) Use these data to implement adaptive management decisions and propose projects to mitigate factors that are limiting this mule deer herd.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2024	NDOW Heritage Trust Account	$30000	$
2024	USFWS Grant - Statewide Game Management	$0	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Currant Hills · Treatment Area: East Horse Range

Treatment Area: Ellison Knobs and Douglas Hills · Treatment Area: Golden Gate Range

Treatment Area: Scofield Bench

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **HERITAGE FUNDING REALLOCATION** – At the June 28, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will review Committee recommendations and may approve reallocation of any unused Heritage funds from previously approved projects to other previously approved projects from the same fiscal year.

Agenda Action: Formal Action / Motion **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
Heritage-Project-14-Heritage-Funding.pdf

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
_____
_____
_____
_____

_____
(Vote Recorded By)

Nevada Department of Wildlife
Wildlife Heritage Program

Project Extension Request, Funding Reallocation, and Completion Reports for State Fiscal Years 2018-2024



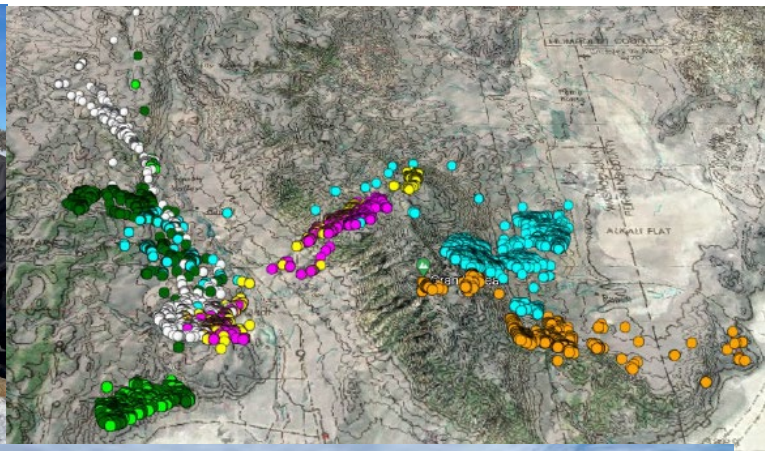






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STATUS OF ACTIVE AND RECENTLY COMPLETED HERITAGE PROJECTS

(Note: the financial data in this table are preliminary, include project charges according to DAWN as of 5/24/2024, and incorporate related input from Heritage project managers. The financial data may change before the 6/28/2024 Wildlife Heritage Committee Meeting.)

State Fiscal Year 2018 Projects						
HERITAGE PROJECT #	*HERITAGE PROJECT TITLE*	PROJECT MANAGER	AMOUNT AWARDED	TOTAL EXPENDITURES AS OF 5/24/2024	BALANCE	RECOMMENDED ACTION TO ADDRESS UNSPENT BALANCE
18-05	*Overland Pass Pinyon and Juniper Thinning*	Caleb McAdoo, NDOW	$ 172,900.00	$ 172,900.00	$ -	All Funds Expended
	Project completed and all funds expended.					
		FY18 SUB-TOTALS	$ 172,900.00	$ 172,900.00	$ -	
			FY18 Funding available for reallocation		$ -	

State Fiscal Year 2021 Projects						
HERITAGE PROJECT #	*HERITAGE PROJECT TITLE*	PROJECT MANAGER	AMOUNT AWARDED	TOTAL EXPENDITURES AS OF 5/24/2024	BALANCE	RECOMMENDED ACTION TO ADDRESS UNSPENT BALANCE
21-05	*Desert Creek Conservation Easement*	Shawn Espinosa	$ 100,000.00	$ 100,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					
21-06	*Middle Rock Creek Habitat Improvement*	Matt Glenn	$ 147,452.53	$ 121,298.79	$ 26,153.74	Approve Extension
	Reason for Extension Request: An extension is requested to utilize remaining funds for remote sensing monitoring related to the restoration treatments conducted under the initial phases of the project.					
21-08	*Snake Range Aspen Habitat Restoration Project*	Moira Kolada	$ 30,000.00	$ 30,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					
21-11	*Area 10 Mule Deer Migration Corridor Habitat Enhancement*	Moira Kolada	$ 76,000.00	$ 76,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					
21-13	*SE Schell Habitat Restoration Project*	Moira Kolada	$ 75,000.00	$ 43,183.66	$ 31,816.34	Approve Extension
	Reason for Extension Request: The hand thinning portion of this work has been completed. Mastication is scheduled to begin summer of 2024 and should be completed by Fall 2024.					
21-14	*Enhancement of Crucial Habitat for Antelope and Mule Deer in Washoe County, Nevada*	Cody Schroeder (Mark Freese, Chris Hampson)	$ 125,540.25	$ 100,000.00	$ 25,540.25	Approve Extension
	Reason for Extension Request: Numerous projects have been completed to date with reminaining funding to be expended in FY25.					
21-17	*East Walker River Fish Habitat Enhancement Project*	Jessica Strickland, Truckee TU (Kris Urquhart)	$ 11,191.00	$ 11,191.00	$ -	All Funds Expended
	Project completed and all funds expended.					
		FY21 SUB-TOTALS	$ 565,183.78	$ 481,673.45	$ 83,510.33	
			FY21 Funding available for reallocation			

State Fiscal Year 2022 Projects						
HERITAGE PROJECT #	HERITAGE PROJECT TITLE	PROJECT MANAGER	AMOUNT AWARDED	TOTAL EXPENDITURES AS OF 5/24/2024	BALANCE	Notes
H22-03	Wildlife Water Development- Emergency Water Haul	Clint Bentley (Matt Maples)	$ 50,000.00	$ -	$ 50,000.00	Return or reallocate funding

STATUS OF ACTIVE AND RECENTLY COMPLETED HERITAGE PROJECTS

H22-03	Funds may revert to the Heritage account or be reallocated to within-year projects					
H22-05	Area 10 Mule Deer Migration Corridor Habitat Enhancement	Moira Kolada	$ 75,000.00	$ 55,444.25	$ 19,555.75	Approve Extension
	Reason for Extension Request: The SOW was released and awarded Fall 2023. The first round of treatments were completed in Fall 2023. The second and final round are scheduled to be completed Fall 2024.					
H22-07	Nelson Creek Mule Deer Habitat Improvement	Matt Glenn	$ 57,750.00	$ 38,832.41	$ 18,917.59	Approve Extension
	Reason for Extension Request: Herbicide was applied September 2021. 50,000 seedlings are being grown out at Lucky Peak Nursery and will be planted soon.					
H22-08	Smith Valley Habitat Restoration	Moira Kolada	$ 75,000.00	$ -	$ 75,000.00	Approve Extension
	Reason for Extension Request: Work was delayed due to weather. A Scope of Work will be released this Summer with work beginning in Fall 2024.					
H22-13	Area 6 Elk Mortality Investigation	Cody McKee	$ 85,710.86	$ 85,710.00	$ 0.86	Return or reallocate funding
	Project completed, funds may revert to the Heritage account or be reallocated to within-year projects					
H22-15	Common Raven Monitoring	Pat Jackson	$ 30,000.00	$ 1,362.20	$ 28,637.80	Approve Extension
	Reason for Extension Request: 17 ravens were captured and transmitters attached with monitoring ongoing. 411 point counts were conducted post raven removal. Difficulties awarding a subgrant has stalled the project, but work is expected to continue and be completed in FY25.					
H22-20	Restoration, foraging ecology, and mating behavior in Greater Sage-Grouse (phase 2)	Gail Patricelli (Shawn Espinosa)	$ 69,521.00	$ 67,579.46	$ 1,941.54	Project completed with pending charges
	Reason for Extension Request: The majority of work for this project has been completed with a remaining billing expected in FY24/FY25.					
		FY22 SUB-TOTALS	$ 442,981.86	$ 248,928.32	$ 194,053.54	
			FY22 Funding available for reallocation		$ 50,000.86	

State Fiscal Year 2023 Projects

HERITAGE PROJECT #	HERITAGE PROJECT TITLE	PROJECT MANAGER	AMOUNT AWARDED	TOTAL EXPENDITURES AS OF 5/24/2024	BALANCE	Notes
H23-02	Butler Basin Meadow and Spring Habitat Improvement Project	Tracey Kipke	$ 150,129.46	$ 41,827.40	$ 108,302.06	Return or Reallocate Funds
	Project completed, funds may revert to the Heritage account or be reallocated to within-year projects					
H23-05	2022-2023 Murdock Mountain Mule Deer Winter Habitat Enhancement Project	Brittany Trimble	$ 100,000.00	$ -	$ 100,000.00	Approve Extension
	Reason for Extension Request: 453 acres were hand-thinned in November 2023 using S.O. 3362 funds from USFWS Partners Program. A mastication contract of 562 acres has been awarded with the performance period ending in December 2024. Contractor delays have occured due to weather and the contractor's other project commitments. The contractor plans to start October 2024 to avoid migratory bird season and fire season.					
H23-08	Warmwater Sportfish Stocking for Large Reservoir Drought Recovery and Urban Fishing Opportunity	Brad Bauman	$ 125,168.00	$ 114,114.13	$ 11,053.87	Approve Extension
	Reason for Extension Request: We had difficulty sourcing warmwater fish and thus all the funds weren't spent. Supply issues have limited our ability to acquire desired species due to limited supply. We expect to expend the remining funds by December 2024.					
H23-09	Morey Bench Mule Deer Crucial Winter Habitat Enhancement	Hunter Burkett	$ 40,000.00	$ -	$ 40,000.00	Approve Extension
	Reason for Extension Request: Project design resulted in a treatment expansion from 700 to 3,850 acres, but requires additional NEPA. NEPA is expected to occur soon and we hope to contract and start implementation in FY25.					
H23-10	Bullwhack Habitat Restoration	Moira Kolada & Daniel Sallee	$ 75,000.00	$ 75,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					
H23-11	Corta Fire Habitat Improvement	Matt Glenn	$ 40,000.00	$ 40,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					

STATUS OF ACTIVE AND RECENTLY COMPLETED HERITAGE PROJECTS

H23-13	Toner Spring Habitat Restoration	Moira Kolada & Daniel Sallee	$ 75,000.00	$ 75,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					
H23-14	Survey and Maintenance of Existing Big Game Guzzlers	Matt Maples	$ 40,000.00		$ 40,000.00	Approve Extension
	Reason for Extension Request: Aerial survey and maintenance flights were conducted across the southern region this year. Funding from the Heritage account was used for maintenance flights in the Reveille Range and Bare Mountains during FY24, expending approximately $4,676 for 5.1 hours of flight time. Additional survey and maintenance activities are planned for FY25 and an extension of this project is requested to cover those upcoming costs.					
H23-15	Duck Creek Aspen Restoration	Shane Boren & Jake Brunson (Moira Kolada)	$ 50,000.00	$ -	$ 50,000.00	Approve Extension
	Reason for Extension Request: Additional coordination with the FS was required and has been completed. A Scope of Work will be released in June 2024. Implementation is expected to begin and be completed fall/winter of 2024.					
H23-16	The Interaction Between Restoration, Foraging Ecology, and Mating Behavior in Greater Sage-Grouse (year 3)	Gail Patricelli (Shawn Espinosa)	$ 38,370.00	$ 7,743.61	$ 30,626.39	Approve Extension
	Reason for Extension Request: To finish additional analysis, including statistics, thesis and manuscript publications.					
H23-17	White Pine County Mastication and Brush Treatments	Shane Boren & Jake Brunson (Moira Kolada)	$ 41,339.69	$ 41,324.35	$ 15.34	Return or Reallocate Funds
	Project completed, funds may revert to the Heritage account or be reallocated to within-year projects					
		FY23 SUB-TOTALS	$ 775,007.15	$ 395,009.49	$ 379,997.66	
			FY23 Funding available for reallocation		$ 108,317.40	

State Fiscal Year 2024 Projects

HERITAGE PROJECT #	HERITAGE PROJECT TITLE	PROJECT MANAGER	AMOUNT AWARDED	TOTAL EXPENDITURES AS OF 5/24/2024	BALANCE	Notes
H24-01	FY24 Bighorn Sheep and Mountain Goat Restoration and Management	Mike Cox	$ 110,000.00	$ 66,958.81	$ 43,041.19	Project completed with pending charges
	The majority of work for this project has been completed with a remaining billing expected in late FY24.					
H24-02	FY24 Wildfire-Related Restoration and Seed Purchase	Mark Freese	$ 150,000.00	$ 150,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					
H24-03	Parrado Partners Community Park and Ponds Land Acquisition	Madi Stout	$ 100,000.00	$ 67,892.80	$ 32,107.20	Approve Extension
	Reason for Extension Requests: The acquisition has been completed; however, we request an extension to accommodate any additional billing inoices and allow for these funds to be invested in projects on the property.					
H24-04	Gilbert Creek Fencing and Habitat Restoration	Katie Andrle	$ 50,000.00	$ 50,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					
H24-05	Waking Spring Habitat Restoration	Moira Kolada	$ 65,000.00	$ -	$ 65,000.00	Approve Extension
	Reason for Extension Request: Treatment areas have been finalized with the private landowner and BLM. The Scope of Work will be released in June 2024.					
H24-06	FY24 Nevada Spring Protection Project	Matt Maples	$ 100,000.00	$ 33,792.10	$ 66,207.90	Approve Extension
	Reason for Extension Request: Heritage funds were applied in August 2023 to a project in the Montana Mountains. Remaining funding will be used for several projects in Washoe County, Goshute, and/or Dolly Varden Mountains. Purchase orders and contracts are being developed and it is anticipated this funding will be obligated soon.					
H24-07	Bald Mountain PJ Thinning*	Jermy Lutz	$ 100,000.00	$ -	$ 100,000.00	Approve Extension
	Reason for Extension Request: Jeremy Lutz took over this project after Sarah Hale left her position. The contract has been awarded, but weather delays and road conditions prevented this project from being implemented. We anticipate work to be completed by June 30, 2025.					
H24-08	FY24 Corta Fire Habitat Improvement Phase II*	Matt Glenn	$ 60,000.00	$ -	$ 60,000.00	Approve Extension
	Reason for Extension Request: In the fall of 2023 seed was delivered to Lucky Peak Nursery where seedlings will be grown out and planted in the fall of 2024.					

STATUS OF ACTIVE AND RECENTLY COMPLETED HERITAGE PROJECTS

H24-09	FY24 Wildcat Fire Mule Deer Migration Corridor Bitterbrush Planting*	Brittany Trimble	$ 82,000.00	$ 80,864.42	$ 1,135.58	Return or Reallocate Funds
	Project completed, funds may revert to the Heritage account or be reallocated to within-year projects					
H24-10	FY24 Lake Tahoe Fish Management Structure Phase 1	Sam Sedillo	$ 80,000.00	$ -	$ 80,000.00	Approve Extension
	Reason for Extension Request: This is a multi-year project, with phase 1 making progress towards getting designs, permitting, and planning completed through a Stantec Consulting contract.					
H24-11	FY24 Nevada Water Developments	Matt Maples	$ 50,000.00	$ -	$ 50,000.00	Approve Extension
	Reason for Extension Request: Several guzzler projects have been completed during the 2023-2034 build season. Other funding sources, such as the Federal water development grant are being used first. We request an extension of this Heritage Grant so that these funds can be utilized on projects late in FY2024 and early in FY2025.					
H24-12	Bruneau WMA Habitat Improvement	Matt Glenn	$ 31,000.00	$ -	$ 31,000.00	Approve Extension
	Reason for Extension Request: This project is currently being planed and it is anticipated implemention will occur late summer/early fall 2024.					
H24-13	Steptoe Valley Wildlife Management Area Water Enhancements	Adam Henroid	$ 117,277.58	$ 60,879.61	$ 56,397.97	Return or Reallocate Funds
	Project completed, funds may revert to the Heritage account or be reallocated to within-year projects					
H24-14	FY24 Izzenhood Mountains Habitat Improvement*	Matt Glenn	$ 64,000.00	$ 20,183.95	$ 43,816.05	Approve Extension
	Reason for Extension Request: In September of 2023 a preemergent herbicide was applied to approximately 180-acres of state land in the Izzenhood Mountains. Seedling planting is scheduled for Fall 2024 and Spring 2025.					
H24-15	FY24 Area 6 Toe Jam Mountain Mule Deer Corridor Fence Modification**	Travis Allen	$ 70,000.00	$ -	$ 70,000.00	Approve Extension
	Reason for Extension Request: The design phase of this project is taking longer than anticipated, largely due to the remote nature of the fence location and several sections of fence being of a different configuration than originally anticipated, although still not wildlife friendly. Field visits are scheduled, and final design should be completed within 1 - 2 months, followed by a scope of work shortly thereafter. We anticipate project completion by June 30, 2025.					
H24-17	Pole Canyon Fence	Madi Stout	$ 100,000.00	86285.96	$ 13,714.04	Return or Reallocate Funds
	Project completed, funds may revert to the Heritage account or be reallocated to within-year projects					
H24-18	Success Ward Habitat Improvements	Moira Kolada	$ 50,000.00	$ -	$ 50,000.00	Approve Extension
	Reason for Extension Request: Fencing and spring maintenance will be performed summer 2024.					
H24-19	FY24 MA13 Mule Deer Collaring*	Josh Kirk	$ 30,000.00	$ 30,000.00	$ -	All Funds Expended
	Project completed and all funds expended.					
H24-20	FY24 Warmwater Fisheries Enhancement	Brad Bauman	$ 130,858.00	$ -	$ 130,858.00	Approve Extension
	Reason for Extension Request: This project builds off work from project H23-08. With funding remaining in H23-08, we plan to spend the remianing balance on this project first before spending funds from H24-20. We plan on spending H24-20 funds in FY25.					
		FY24 SUB-TOTALS	$ 1,540,135.58	$ 646,857.65	$ 893,277.93	
			FY24 Funding available for reallocation		$ 71,247.59	

Wildlife Heritage Project 30 Day Completion Report

Name of Project:

Project Manager (PM):Caleb McAdoo

Organization/Agency: NDOW

PM Email Address: cmcadoo@ndow.org

PM Phone Number:

Heritage Award Amount: $97,900 (including reallocation)

Heritage Project Number: 18-05

NDOW Monitor (if the project was managed by someone other than a NDOW employee): Moira Kolada

State Fiscal Year Project was Approved For: 18

Date this Report was Submitted to NDOW: 31 May 2024

Project Start Date: 10/10/2023

Project Completion Date: anticipated Oct 2024-seed below

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee): The project has two rounds of cutting by the sawyer crew. The first round was completed in Oct/Nov of 2023, with the inspection occurring November 16 2023 . The second round is scheduled to occur between August and November 2024.

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.): 4,688 acres

Summary of the Project's Accomplishments and Wildlife Species that Will Benefit:

A total of 4,688 acres of phase 1 and 2 pinyon and juniper was cut, a second round to remove any missed trees will occur in summer/fall of 2024. This project has benefited the Area 10 mule deer herd and the Ruby Valley greater sage grouse PUM. This project is one of several projects completed in the area between the Ely BLM and NDOW.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Travel		
Equipment (specify)		
Materials		
Miscellaneous incl. Contractors (specify)	$97,900	
Sub-totals	$97,900	
Total		
*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source):		

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

None

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc.





Post treatment photos will be taken after the second round of cutting this fall.

Wildlife Heritage Project 30 Day Completion Report

Name of Project:

Project Manager (PM): Shawn Espinosa	Organization/Agency: Nevada Department of Wildlife
PM Email Address: sespinosa@ndow.org	PM Phone Number: (775) 688-1523
Heritage Award Amount: $100,000	Heritage Project Number:

NDOW Monitor (if the project was managed by someone other than a NDOW employee):

State Fiscal Year Project was Approved For: 2021	Date this Report was Submitted to NDOW: 5/31/2024
Project Start Date: July 1, 2021	Project Completion Date: September 18, 2023

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee):

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.):

The purpose of this project is to conserve an essential piece of private land for the long-term conservation of the Bi-State sage-grouse Distinct Population Segment (DPS) and other wildlife species in western Nevada. The Desert Creek Ranch provides a significant amount of breeding and brood rearing habitat for the Bi-State sage-grouse. A lek is located on the property that had 17 males observed displaying on it during the spring of 2019 and two other leks are located in the vicinity of the property. This property was identified in the 2012 Bi-State Action Plan as being one of the high priority properties in Nevada for the conservation of the Bi-State sage-grouse. The Nevada Department of Wildlife is working in conjunction with the Eastern Sierra Land Trust and other partners to purchase a conservation easement on this property and prevent potential future subdivision and development of the property.

Summary of the Project's Accomplishments and Wildlife Species that Will Benefit:

This ~1,228-acre cattle ranch is owned and operated by father and son Bruce and David Park. The property is primarily irrigated pastureland with Desert Creek running through the western and southern portion of the property, and upland sagebrush steppe surrounding the wet meadows. The ranch is composed of two disjunct parcels. The ranch is mostly surrounded by the Humboldt-Toiyabe National Forest, except for an area of multiple private properties adjacent to the west side of the northern parcel.

The property contains valuable habitat for the Bi-State population of Greater sage-grouse. The property was identified in the Bi-State Action Plan under Action MER2-2: "Secure a conservation easement or agreement with the Desert Creek Ranch to maintain essential brood rearing habitat in proximity to Desert Creek Lek #2 in the Desert Creek-Fales PMU."

The property contains more than one mile of Desert Creek and approximately one mile of Fourmile Hill Creek. The property has significant use by mule deer, Bi-State greater sage-grouse, mountain quail, sage thrasher, American badger, golden eagle, pinyon jay, short-eared owl, and neotropical migratory songbirds. Desert Creek, which runs through the property, has native fish including Paiute sculpin as well as a trout fishery. This project meets the goals of the Bi-State Regional Conservation Partnership Program (RCPP) by protecting key wet meadow ecosystems and would improve water quality in Desert Creek. Additionally, the landowners have already initiated fence marking (to reduce sage-grouse fence collisions) and invasive weed control projects on their land. Their conservation practices are a good demonstration for nearby private and public landowners who may wish to conduct similar projects.

The ranch has appropriative water rights in Desert Creek, which is a tributary to the West Walker River. Its headwaters are in the Sweetwater Mountains of California at greater than 9,000 ft. in elevation. The water rights used to flood irrigate the meadows are fully adjudicated under the Walker River Decree in Equity (C-125) entered April 14, 1936 and amended in April 24, 1940. The use of this water right is regulated by the federal watermaster in accordance with the Rules and Regulations for the Distribution of Water on the Walker River Stream System under the Provisions of Paragraph 15 of the Decree in Equity, No. C-125 as approved by the Federal District Court on September 3, 1953 and subsequent orders and amendments that specify that irrigation water may be applied beginning March 1 and ending October 31 each year with a water duty of 1.6 cubic feet per second for each 100 acres of land. Water rights under this decree include pre-1914 rights with priority assigned by year. This water has been diverted and spread to maintain the irrigated pasture on the ranch, enhancing wet meadows and riparian species, and supporting habitat for the Bi-State sage-grouse and other wildlife.

The property is rich in wildlife, habitat types, and provides corridors for movement of wildlife including mule deer. Habitat of special interest on the property includes healthy sagebrush steppe, riparian and meadows critical to sage-grouse in the Desert Creek Population Management Unit (PMU) of the Bi-State Sage-grouse DPS. Bi-State sage-grouse associated with three nearby leks are plentiful on the property, and the meadows provide important brood-rearing habitat. Mule deer, golden eagle, mountain quail, and many other species of wildlife frequent the ranch.

The grasslands on the property have been identified through various planning efforts including the Bi-State Action Plan for Conservation of the Greater Sage-Grouse Bi-State DPS (2012). The property is located in the Desert Creek-Fales PMU for sage-grouse in a region specifically identified for protection with a conservation easement under the "Minimize and Eliminate Risks" section, Action MER2-2: "Secure a conservation easement or agreement with the Desert Creek Ranch to maintain essential brood rearing habitat in proximity to Desert Creek Lek #2 in the Desert Creek-Fales PMU."

The importance of the property to sage-grouse has been further documented by GPS and VHF transmitter occurrence data. Existing sage-grouse telemetry data shows intensive sage-grouse use of the property. The property is also located in an important movement corridor, containing winter range for the Wellington and Pine Grove mule deer herds.

Also, within the Bi-State Action Plan, urbanization was identified as a high risk for the Desert Creek/Fales PMU. Lyon County has designated parcels in this area the Land Use Designation of "Agriculture", with 1 development unit per 20 acres, and RR5 (Land Use Code 600: Agricultural Qualified per NRS 361A – Vacant). According to the Lyon County Planning Department, "The purpose of the AG zone is to implement

the Lyon County master plan, to conserve agricultural resources, retain open spaces and the rural character of the county, and to direct urbanization into manageable and identified development areas. This is a low-density land use district. Unless otherwise specified in this development code, no more than one primary residence per parcel is permitted in this land use district". However, even under this designation, Desert Creek Ranch would have 56 development units. Given the level of development near Wellington, the western edge of Smith Valley and along the lower section of Desert Creek Road, conservation of the remaining intact quality habitat is of even greater importance.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Travel		
Equipment (specify)		
Materials		
Miscellaneous incl. Contractors (specify)	$100,000.000	$50,000* $1,545,000** $40,417***
Sub-totals		
Total		

*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source):
*$50,000 Nevada Question 1 Bond Initiative
**$1,545,000 NRCS – RCPP
*** NGO (Carson Valley Chukar Club), Nevada Upland Game Stamp

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc.



Wildlife Heritage Project 30 Day Completion Report

Name of Project:

Project Manager (PM): Moira Kolada	Organization/Agency: NDOW
PM Email Address: mkolada@ndow.org	PM Phone Number: 775-289-1655
Heritage Award Amount: $30,000	Heritage Project Number: 21-08

NDOW Monitor (if the project was managed by someone other than a NDOW employee):

State Fiscal Year Project was Approved For: 21	Date this Report was Submitted to NDOW: 31 May 2024
Project Start Date: 09/05/2023	Project Completion Date: 09/10/2023

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee): 9/11/2023

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.): 7 acres of lop and scatter and 48 acres of lop and pile (22 acres on GBNP and 26 acres on the Ely BLM district.

Summary of the Project's Accomplishments and Wildlife Species that Will Benefit:

A total of 55 acres of pinyon, juniper, and fir trees were removed from and near aspen stands in the Snake Range. This included 48 acres of lop and pile which the respective land

agency have agreed to burn. The long term result will be increased health to the aspen stands.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Travel		
Equipment (specify)		
Materials		
Miscellaneous incl. Contractors (specify)	$30,000	$16,835
Sub-totals	$76,000	$16,835
Total		
*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source): Spring Valley Mitigation Fund		

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

None

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc.


UTM: 11S
732494mE 4330567mN
Elevation: 6814.76±7 ft
Accuracy: 12.8 ft
Azimuth: 19° (N)
Pitch: -0.1°
GPSTime: 07 September 2023 11:37
Note: Weaver lower
Powered by AngleCam


UTM: 11S
742465mE 4317282mN
Elevation: 7278.94±14 ft
Accuracy: 12.8 ft
Azimuth: 190° (S)
Pitch: 10.7° (1.5°)
GPSTime: 09 September 2023 11:02
Note: Can Young Canyon
Powered by AngleCam

Wildlife Heritage Project 30 Day Completion Report

Name of Project:

Project Manager (PM): Moira Kolada

Organization/Agency: NDOW

PM Email Address: mkolada@ndow.org

PM Phone Number: 775-289-1655

Heritage Award Amount: $76,000 (including reallocation)

Heritage Project Number: 21-11

NDOW Monitor (if the project was managed by someone other than a NDOW employee):

State Fiscal Year Project was Approved For: 21

Date this Report was Submitted to NDOW: 31 May 2024

Project Start Date: 10/10/2023

Project Completion Date: anticipated Oct 2024-seed below

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee): The project has two rounds of cutting by the sawyer crew. The first round was completed in Oct/Nov of 2023, with the inspection occurring November 16 2023 . The second round is scheduled to occur between August and November 2024.

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.): 4,688 acres

Summary of the Project's Accomplishments and Wildlife Species that Will Benefit:

A total of 4,688 acres of phase 1 and 2 pinyon and juniper was cut, a second round to remove any missed trees will occur in summer/fall of 2024. This project has benefited the Area 10 mule deer herd and the Ruby Valley greater sage grouse PUM. This project is one of several projects completed in the area between the Ely BLM and NDOW.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Travel		
Equipment (specify)		
Materials		
Miscellaneous incl. Contractors (specify)	$76,000	
Sub-totals	$76,000	
Total		
*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source):		

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

None

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc.





Post treatment photos will be taken after the second round of cutting this fall.

Wildlife Heritage Project 30 Day Completion Report

Name of Project: East Walker Fish Habitat Enhacement Project

Project Manager (PM):Jessica Strickland	Organization/Agency: Trout Unlimited
PM Email Address:jstrickland@tu.org	PM Phone Number:830-515-9917
Heritage Award Amount: $11,191	Heritage Project Number: 21-17

NDOW Monitor (if the project was managed by someone other than a NDOW employee):

State Fiscal Year Project was Approved For: 2020	Date this Report was Submitted to NDOW: 11/21/2023
Project Start Date: 11/2019	Project Completion Date: 10/31/23

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee):

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.): 0.35 linear feet of stream miles restored.

Summary of the Project's Accomplishments and Wildlife Species that Will Benefit:

Seven boulder J-Hook Vane structures were placed along the main channel in configurations designed to: a) provide holding habitat for fish in relatively sparse habitat reaches: b) maintain a large, deep dissipation pool below each vane: c) center the high-velocity core of the river toward the central channel: d) reduce lateral erosion potential by centering flow and reducing the effective channel width. This project will benefit fish and aquatic macroinvertebrates.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Travel		$800 (Patagonia)
Equipment (specify)	0	0
Materials	0	0
Trout Unlimited Staff Time (design review, permitting, water rights issues rectification, construction project management, admin)		18,000 (Patagonia)
Misc – Instream Restoration Design		$3,500 (Patagonia)
Misc – Instream Construction Contractors	$11,191	$13,978.31 (Kinross Gold)
Misc – Floodplain Construction Contractors (beaver dam analogs design and construction)		$35,000 (Sagebrush Chapter TU, Kinross Gold)
Misc – Permitting Contractor (archeology & wetland delin)		$9,000 (Sagebrush Chapter TU, Kinross Gold)
Sub-totals	$11,191	$80,278.31
Total		$91,469.31
*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source):		

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

Consult with local water irrigation districts early.

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc.

Photos 1 & 2: Pre-construction

Photos 3 $ 4: During construction

Photos 5 & 6: Post-construction

As Built Report Provided.








CAT





Preliminary findings of investigations related to Season Elk Mortality Syndrome in western Elko County, Nevada

23 October 2023

Prepared by:

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ACKNOWLEDGEMENTS

The authors gratefully acknowledge the contributions made by many Nevada Department of Wildlife biologists since the inception of monitoring for Seasonal Elk Mortality Syndrome (SEMS). Many of whom investigated elk deaths in all hours of the day and night, packed rancid tissue samples over several miles in the middle of summer, fielded phone calls from concerned parties, and provided thoughtful input on this project. Additionally, the invaluable contributions made by Dr. Peregrine Wolff, retired veterinarian, established a strong foundation for early understanding of SEMS and concurrent investigations. Several personnel from outside agencies and academic institutions have provided input and direction, oftentimes *pro-bono*, including the Poisonous Plant Research Laboratory at Utah State University and the USGS National Wildlife Health Center. Additionally, Dr. Rachel Cook, a Senior Research Scientist at the National Council for Air and Stream Improvement, Inc., traveled through a severe winter storm in March 2018 to assess body condition of captured elk in the Tuscarora Range. Many productive conversations with local stakeholders, representing diverse industries and interests, have encouraged critical thinking, and guided ongoing investigations. Finally, investigations and analyses have been funded through generous contributions from Nevada Bighorns Unlimited-Midas Chapter, as well as grants from the Nevada Wildlife Heritage Trust Account and the Federal Aid in Wildlife Restoration Act.

DISCLAIMER

This report summarizes preliminary findings. Investigations are ongoing and results are subject to revision. Any summaries or reports involving Seasonal Elk Mortality Syndrome released after 23 October 2023 may be inconsistent with information published within this document.

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BACKGROUND

Periodic reports of carcasses of Rocky Mountain elk (*Cervus canadensis*) found on the southern edge of the Owyhee Desert in western Elko County have been received by the Nevada Department of Wildlife (*hereafter,* Department) since, at least, 2009. Carcasses are often reported intact, and evidence of predation, or other causes of death (e.g., poaching), are absent. Beginning in 2015, the Department increased monitoring efforts of burgeoning elk herds in northern Nevada to improve understanding of herd boundaries and interstate movement dynamics (Fig. 1). During this initial effort, 5 radio-collars were deployed on adult cow elk (*hereafter,* cows) in the Tuscarora Range (Hunt Unit 067). During May 2015, Department personnel investigated the mortality notification transmitted from one cow. Due to rapid necrosis, the cause of death was inconclusive but consistent with previous carcass reports (i.e., intact carcass, no visible signs of predation, apparently healthy; Fig. 2). Further, this mortality followed a predictable pattern of seasonal mortalities, referred to as Seasonal Elk Mortality Syndrome (*hereafter,* SEMS; Fig. 3), coinciding with the peak of the growing season in northern Nevada (i.e., May – July; Fig. 4). Since 2015, 23 of 65 radio-collared elk in the southern Owyhee Desert (*hereafter, S*OD), mostly comprising Hunt Units 062 and 067, have succumbed to SEMS (Table 1, Fig. 5).

Concurrent to monitoring within the geographic extent of SEMS, the Department continues to monitor elk across all of Nevada. Excluding the SOD, and beginning in 2015, personnel have deployed over 130 radio-collars on elk for various purposes including understanding movement dynamics, herd delineation, and wildlife-vehicle safety concerns. Statewide, fates of elk vary from hunter harvest, predation by mountain lion (*Puma concolar*), and planned collar release (i.e., battery reached expected life; Table 2). Notably absent is a distinct seasonal pulse of mortalities occurring from May – July (Fig. 6). Given the abundance and distribution of monitored elk, the lack of SEMS detected in other areas is unlikely due to biases in sampling strategy and is indicative of a mortality agent unique to a specific geographic region.

Of note, elk mortalities consistent with SEMS have been documented in the Cedar Ridge area (Hunt Unit 065). However, abundance of the elk herd occupying Cedar Ridge area is extremely low. We focused intensive monitoring in the SOD because it appears to be the core area of SEMS and elk densities were adequate for larger capture and monitoring efforts. Despite speculation that SEMS may be occurring elsewhere, Hunt Units 062, 065, and 067 are the only regions of Nevada where reports of SEMS have been corroborated through mortality investigations of radio-marked individuals.

The Western Elko County Elk Management Subplan (2003) identified a population objective of 500 adult elk for the Management Area 6 (*hereafter,* MA 6) elk herd, which is comprised of 2 distinct

sub-herds wintering in the SOD and the Y-P Desert (*hereafter,* YP). In 2015, many of Nevada's elk herds were above population objectives, including portions of the elk population in MA 6. Aggressive harvest by hunters and, likely, below-average annual survival due to SEMS in the SOD, contributed to a reduction in estimated abundance for MA 6 elk, which is currently below population objective (Fig. 7). Divergent growth rates, where abundance of the YP sub-herd is increasing and the SOD sub-herd is decreasing, has resulted in stable abundance for the MA 6 herd since 2017. Light harvest by hunters and a larger population presumably masked additive effects of SEMS prior to 2015.

In response to persistent SEMS and declining elk abundance documented in the SOD, the Department has instituted a stepwise and methodical approach to SEMS investigations. Early efforts involved broad organ collection and analyses, evaluation of movement patterns, and dietary analysis. Monitoring efforts have evolved to incorporate targeted sample collection, new monitoring technologies, and rapid response to mortality notification. The intent of this report is to synthesis the Department's approach for responding to mortality notifications from radio-telemetered elk, identify the case definition, and summarize investigations and findings.

ANNUAL SUMMARY AND EVOLUTION OF SEMS INVESTIGATIONS, 2015-2023

2015

Five radio-collars were deployed on cows from the SOD sub-herd in the north Tuscarora Range of Hunt Unit 067. These collars were intended to delineate seasonal habitat and help the Department better understand and manage the growing elk population, especially behavioral responses to hunting pressure. In early May 2015, the first mortality attributed to SEMS was investigated by Department personnel. While sportsmen and livestock operators had submitted periodic reports of elk carcasses in the region, this was the first formal investigation of a SEMS case. The necropsy in 2015 included 'fresh' (not formalin-fixed) broad sample collection including essential organs, head, and rumen content. However, during this time the original radio-collars were triggered to relay a mortality notification after 8 to 12 hours of inactivity. This coupled with the additional time it took for department personnel to reach its location resulted in gross autolysis of organ tissue. Thus, identification of any causal death agents was not possible. Added emphasis was placed on determining the cause of SEMS concurrent to delineating habitat uses and migratory movements following the 2015 mortality.

2016

An additional 5 radio-collars were deployed on cows from the SOD sub-herd in 2016. One of the 5 collars failed shortly thereafter, and 3 radio-collars from the 2015 capture remained active. In total, 7 elk entered the SEMS season (i.e., 1 May – 31 July) in 2016 and 2 individuals died with symptoms consistent with SEMS (i.e., 28% mortality rate). Due to the likelihood of excessive anthrax loads in the environment, there was significant concern of the possibility of anthrax as the causal agent. Initial investigations were limited to the collection of nasal turbinates. Subsequent laboratory analysis, conducted by Dr. Jason Blackburn at the Emerging Pathogens Institute with the University of Florida, determined anthrax was not linked to SEMS. Overall, 7 total samples collected from elk would be tested for anthrax, all returning negative. In retrospect, failure to collect a broad suite of tissue samples in 2016 was a missed opportunity for understanding SEMS, delaying thorough investigations for an additional year. Another noteworthy observation during mortality investigations occurring in 2016 were signs of a physical struggle before death. Upon investigation, 1 of 2 elk had heavily disturbed the ground in an approximate 5-ft. by 8-ft. area, within a thick patch of ceanothus (*Ceanothus spp.*). This would not be the only evidence of struggle, or forms of physical distress, documented. Future cases would indicate similar stationary thrashing as the elk described above, but in multiple other instances it appeared elk had dragged themselves by their front legs for several meters before mortality occurred. In addition, while contradictory to a physical struggle, it's worth noting that other SEMS investigations indicated that elk had normal movement patterns in the hours prior to death.

2017

During the 2017 capture season, an additional 6 radio-collars were deployed on cows from the SOD sub-herd. Four radio-collars remained from the 2 previous capture seasons. In total, 4 of 10 radio-collared cows succumbed to SEMS in 2017 (i.e., 40% mortality rate). With concerns of anthrax eliminated, reduced response time to mortality notifications was prioritized and, in some cases, permitted necropsy within 12 to 36 hours, postmortem. Response times were greatly improved from previous years, but the remoteness of the region and the radio-collar mortality delay still resulted in substantial autolysis of tissue samples. The head, rumen content, and formalin-fixed samples of all essential organs were collected in 2017. The introduction of formalin for tissue preservation led to the first histopathology result, discovering lesions on heart cells, which would be a consistent finding in all SEMS cases. Severe pericardial and thoracic effusions (i.e., an escape of fluid into a body cavity), were

noted as a regular finding in 2017. Effusions and lesions on heart cells would become the most consistent symptoms among individuals associated with SEMS.

2018

In 2018, monitoring efforts were improved significantly with the incorporation of Mortality Implant Transmitters (*hereafter,* MIT), which communicate and transmit information through the radio-collar. These MIT devices are small stainless steel cylindrical tubes, like bolus units used in the livestock industry, and are inserted through the esophagus, eventually settling in the rumen, or reticulum, of the elk. The MIT allows for the immediate notification of a mortality event through highly sensitive movement sensors, which detect both heartbeat and rumination, while also recording internal body temperature. An animal carrying a MIT is presumed dead after only 4 minutes of inactivity (i.e., heartbeat and rumination has ceased). This information is then relayed through the radio-collar for satellite transmission, and a mortality notification is communicated to Department personnel via email and text message. Near instantaneous notification of a mortality event has allowed for the greatest improvement in response time. In some instances, aerial support, via rotorcraft, was utilized to transport staff into remote locations, allowing for necropsy within as little as 2 hours postmortem. The introduction of MITs into the SEMS investigation protocol allowed for the collection of the freshest tissue samples, to date. In addition to improved response time, temperature recordings from the MIT devices provided a better understanding of the various physiological processes occurring at the time of death (Fig. 8). Evaluation of temperature readings determined that preceding a SEMS death, internal body temperature spikes above 105°F and almost always result in death within 2 days, usually within 24 hours (n = 10, 2018 – 2023). Only in one instance did an elk spike a temperature over 106°F and survive the rest of the season, however, that individual died from SEMS the following year. Another physiological process detected from the use of MITs is that some elk may experience suppressed fight or flight response or decreased movement for several hours before cardiac arrest. On one occasion a biologist responded to an elevated MIT temperature but was unable to locate the elk even though he was unknowingly within about 12 meters of the still alive individual, bedded in tall brush. The elk did not flee or make itself known to the biologist. Collar data indicated there was no change in location between then and where the elk died the following morning. This suggests the possibility of decreased movement and stress response when temperatures are elevated and may play a role in SEMS cases.

Dr. Rachel Cook, a Senior Research Scientist at the National Council for Air and Stream Improvement, Inc. (*hereafter,* NCASI), attended the capture in March 2018 and collected biological

information needed to calculate ingesta free body fat (*hereafter,* IFBF) from 11 cows as outlined in Cook et al. 2010. IFBF from adult cows captured in the SEMS affected region ranged from 0.3% - 9.5% ($\bar{x}$ = 5.1%). Substantial heterogeneity in IFBF existed among individual elk but no clear relationship was detected between survival and body condition for those that died of SEMS the following spring (i.e., n = 2, 3.9% and 6.2%) or those that survived the following spring (n = 8, $\bar{x}$ = 4.9%). Both elk, for which IFBF were collected and subsequently died of SEMS, were pregnant based on levels of Pregnancy-Specific Protein B measured from serum samples. However, unless nutritional condition is severely inhibited, most female cervids are impregnated during the mating season. Of greater interest, is the presence of attendant calves when death occurs. Unfortunately, parturition status can be difficult to determine in the field and the relationship between lactation and likelihood of experiencing SEMS is unknown.

During the 2018 capture, 10 adult cow elk were fitted with paired radio-collars and MITs. Unfortunately, one radio-collar failed within the first month of capture. For the first time, 10 bull elk were fitted with standard radio-collars to determine their susceptibility to SEMS. Between 2009 and 2018, the Department had received dozens of reports of dead bulls with no apparent cause of death, primarily during the peak stages of antler growth when antlers are still covered in velvet, located within the geographic region known for SEMS, and during the seasonal timeframe. While none of which provided any instances to collect viable samples, it did provide evidence that SEMS was affecting both sexes, and justification for the monitoring of male elk. With 19 new radio-collars on the landscape, and one remaining from a previous deployment, 20 collared elk entered the 2018 SEMS season. Five were consistent with SEMS events (n = 5, 25% mortality rate); 3 being cow elk (n = 3, 30% female mortality rate), in which 2 experienced temperature spikes of 105°F and a MIT malfunction in the remaining cow; and 2 bulls (n = 2, 20% male mortality rate).

Once again, severe pericardial and thoracic effusions were observed among all cases in 2018. Due to this consistency, the collection of effused fluids from both the pericardial sac and thoracic cavity were added to the necropsy sampling protocol. To broaden the scope of information gathered pertaining to SEMS, spring plant phenology was considered. With the timing of SEMS events and their observed association with “peak spring green-up”, the Department focused efforts on the possible involvement of poisonous plant alkaloids contributing to SEMS. Members of the Utah State Poisonous Plant Research Lab joined Department biologists in the field to collect samples from most plant species within approximately one mile of a mortality consistent with SEMS occurring 1 July 2018. In conjunction with this plant sampling, rumen content from SEMS elk were compared and no poisonous alkaloids were detected in any submissions, likely eliminating the possibility of plant alkaloid toxicity as the primary

mechanism of SEMS. Up until this point, commonalities among field observations and necropsies of SEMS individuals include (although not exhibited by all): geographic location, animals of varying body conditions including those in excellent condition, physical struggle, and decreased movement and fight or flight response when temperatures are elevated leading up to mortality, white/green/red froth from nose and mouth, and strong evidence of cardiac failure. While the vastly improved response time and updated sampling strategies provided the Department with a robust dataset, no specific cause of death was identified.

2019

The 2019 elk capture resulted in the deployment of 2 radio-collars on adult cow elk, and 7 adult bull elk, of which 2 bull collars failed soon after capture and additional MIT devices were not deployed due to remote capture logistics. Six collared cows (with 2 functioning MITs) and one bull remained active from previous years captures. Of the 14 total elk monitored during the 2019 SEMS season, 5 cases consistent with SEMS were observed (n = 5, 36% mortality rate), including 4 cow mortalities (n = 4, 50% female mortality rate) and one bull mortality (n = 1, 16% male mortality rate). Two of the 3 cow mortalities had paired MIT devices, both of which spiked above 105°F and died within 2 days. The other 3 elk died during the seasonal death timeframe. All mortality investigations in 2019 had symptoms consistent with SEMS. Since nearly all elk with a paired MIT device experienced a temperature spike over 105°F and died within 2 days, we emphasized temperature monitoring during the SEMS season. Once an individual's temperature elevated to 105°F, personnel would attempt to observe and document their behavior and possibly chemically immobilize for sample collection during this brief period before predicted death. Since postmortem sampling had not led to a causal agent, focus shifted to sample collection from a live elk exhibiting SEMS symptoms. Unfortunately, live elk observed during this window did not exhibit expected symptoms and immobilization efforts were not successful. Necropsy protocol did not change significantly between 2018 and 2019; however, lymph nodes, femur, urinary bladder and uterus tissue, along with an identical suite of samples from any fetus, were added to the list of targeted samples.

Of note, a cow elk captured by Idaho Department of Fish and Game in southwest Idaho in 2019, traveled into Nevada the following June, entered the SEMS-affected area on 16 June and died 6 days later. Unfortunately, rapid necrosis prevented the collection of viable samples for laboratory analysis. Time of year, proximity to confirmed SEMS cases, and lack of obvious cause of mortality implicates SEMS as a suspected cause of death. Although the Idaho case is not confirmed to be SEMS, similarities with

other cases underscore the geographic importance of the SOD in understanding the factors that cause SEMS.

2020

In 2020, 5 cow elk radio-collars and paired MITs were redeployed. An additional 2 cows remained active from previous years. At this time, all remaining bull collars had either failed or were recovered. Of the 7 elk monitored through the SEMS season in 2020, one died with symptoms consistent with SEMS (n = 1, 14% mortality rate). Uniquely, this elk died outside of the normal seasonal period. She did, however, spike a temperature of 104°F in June then survived until August, when her temperature surpassed 105°F and died 2 days later. Winter and spring 2020 were particularly dry and undoubtedly affected plant phenology. Timing and characteristics of the 2020 mortality may, in part, have been due to environmental conditions but this relationship has not yet been fully investigated. Due to the SEMS event occurring later than expected, monitoring vigilance was decreased, and response time was less rapid. Although samples viable for histopathology were collected, added information was not gained. The sampling protocol in 2020 was amended to include multiple glass slide smears of both blood and effusion fluids, several additional blood and fluid vials for additional tests, fixed and fresh tissues from muscle mass, tongue, pericardium, rumen, and fecal from intestinal tract and surrounding area, as well as external parasites (i.e., ticks) if present.

2021

Due to the global COVID-19 pandemic, elk were not captured for radio-collar deployments in 2021, however 3 cow elk remained active from 2020. Two of the remaining elk exhibited symptoms consistent with SEMS (n = 2, 67% mortality rate). Both experienced elevated temperatures above 105°F; however, only one died within 24 hours. The other cow was euthanized by Department personnel in the field. The euthanized cow was a result of the strategy adopted in 2019 to chemically immobilize live elk experiencing elevated temperatures. Since previous attempts to chemically immobilize had failed, a rifle was brought as a secondary option if darting was again unsuccessful. While in the field, personnel decided euthanasia of an elk with elevated temperatures could provide added information. The necropsy was not fully consistent with past cases of suspected SEMS (e.g., pericardial and thoracic effusions had not yet taken place). However, there was evidence of heart lesions from histopathology. Rotorcraft was used for support during this event, facilitating the fastest to ice and freshest lab samples

to date. Unfortunately, sample collection at the time of euthanasia did not have the desired outcome for identifying a causal agent.

2022

By 2022, results of elk composition surveys in the SOD have plummeted from 569 elk observed in 2016 to just 108 elk encountered in 2022. The 2022 observations consisted of only 45 cows and 9 calves. Conditions for the survey were favorable, primarily due to fresh snow cover. Further, about 3 hours of flight time was committed to both survey efforts and thoroughly covered the geographic area where the sub-herd resides. A fixed wing survey was conducted immediately prior to captures to identify adequate capture targets to meet project objectives. While survey conditions were once again favorable for locating elk, only one group of elk was located, adding confidence that very few elk remain in the SOD. Only 6 of 10 planned radio-collar and MIT pairings were deployed the following day. Unfortunately, one collar failed immediately after deployment, while one remained active from a previous deployment. The remaining radio-collars could not be deployed due to concerns of overexertion and subsequent capture myopathy from repeated pressure to the same group of elk. The 2 elk mortalities observed during the 2022 season were both consistent with SEMS (n = 2, 33% mortality rate). A significant emphasis was placed on monitoring elk temperatures and temperature reading frequencies were increased to transmit once per hour during the SEMS period, compared to every 4 hours in previous years. For the lone elk that died with a MIT pairing, observations were made of the elk for 3 consecutive days following temperature readings exceeding 104°F. During those 3 days, body temperature readings frequently exceeded 105°F, nearing 106°F. Once again, despite previous evidence of limited movements, this elk was mobile throughout the 3 days of monitoring and there were no obvious signs of poor health, other than seemingly lethargic behavior. In 2022, necropsy protocol was amended to include eyeballs and tissues samples from the 4 stomach chambers and the gastrointestinal tract (Appendix 1).

2023

An additional 5 radio-collars with paired MITs were deployed in the SEMS-affected region in March 2023. Two cows, caught in previous years, remained active entering the SEMS season in 2023. Historic precipitation and abnormally cool weather seemingly delayed onset of SEMS in the SOD. Indeed, elevated temperature readings began in early June with the first suspected SEMS mortality occurring on July 8th. Vigilant monitoring of temperatures and previous experience facilitated the first

successful immobilization of a cow exhibiting elevated temperatures. Within 48 hours of successful live capture, this same cow died. Subsequent necropsy determined similarities with previous SEMS cases (i.e., temperature exceeding 107°F, gross lesions, pericardial and thoracic effusion, etc.), while lab results from both the live capture and the necropsy are pending. Further, we initiated efforts to understand mineral profiles in soils and plants through targeted sample collection, as well genetic sequencing of rumen contents to determine diet composition.

Summary of SEMS Investigations

Since 2015, SEMS investigations have experienced 3 major breakthroughs. The first was the identification of SEMS as a distinct source of mortality in the SOD and the exclusion of anthrax as a causative agent. Next, the introduction of MITs paved the way for a deeper understanding of physiological changes and pathology of SEMs-affected elk. Finally, we are evaluating the interaction of mineral concentrations with immune response and potential involvement of novel diseases. As our understanding of SEMS grows, our protocols for investigations and sample collection have evolved based on the best available information. We remain committed to identifying a definitive explanation for SEMS and will continue to adapt our protocols as new information is acquired.

CASE DEFINITION AND CLINICAL SIGNS

The main finding in SEMS is an increase in seasonal mortality in the SOD that greatly surpassed the normal background mortality rate of elk in Nevada. Annually, 31% of radio-collared elk in the SOD die from SEMS. In contrast, across the remainder of the state, about 3% of radio-collared elk die each year from causes not related to hunting (e.g., predation, accident, etc.). Initial investigations of elk mortalities in 2015 and 2016 were limited to testing for anthrax along with some consideration of poisonous plants. However, necropsy findings were not well recorded during early investigations. Adult cow elk are overrepresented in our monitoring dataset since capture efforts often targeted cows, as well as radio-collar performance because bull collars often did not last past the rut. Therefore, it is unclear whether the mortality rate of cows is higher than bulls.

Based on better reporting of necropsy findings in 2017 and beyond it became apparent that severe pericardial effusion was the main gross necropsy lesion of this disease, with fluid volumes exceeding one-half liter. When fresh, the fluid tended to be clear to yellowish and did not appear hemorrhagic. Other gross lesions were not consistent across cases and tended to be less severe. Other gross lesions included a pale liver, which may be secondary to the venous congestion from the heart,

and changes in the spleen. In addition to pericardial effusion, thoracic effusion is also often present, however it varies from minimal to severe.

The use of MITS has allowed personnel to collect much fresher tissues through a quicker, coordinated response. We have also determined that every animal that dies with SEMS has temperatures exceeding 105°F prior to death. One elk exhibiting a temperature over 106°F recovered but died the following SEMS season. In addition, several animals that have not died, have experienced temperatures exceeding 104°F during the mortality season. Therefore, it seems that elevated temperature is a hallmark of this syndrome. Rapid response also allowed improved collection and analysis of the pericardial effusion, demonstrating high protein content but little cellular content. Based on the gross lesions, timing of mortality events, and MIT data we defined the case definition for SEMS as:

Adult male and female elk within the southern Owyhee desert sub-herd who die between May 1st and July 31st and who have a significant volume of proteinaceous pericardial effusion and, when available, have an elevated temperature.

Since 2015, 14 mortalities have been investigated in which sufficient information is available to determine that they met the case definition. Another 9 cases are presumed to have died of SEMS due to time of the year. In the following sections, we describe the relevant investigations and findings for those animals meeting the case definition.

HISTOPATHOLOGY AND CLINICAL PATHOLOGY

Histopathology

Initial histopathology results were inconclusive due to significant autolysis. With the use of MITs, fresh samples, especially in the last 2 years, have allowed more detailed histopathology results to be obtained. Below we summarize histopathology findings by organ.

Brain: Brains of many SEMS elk had mild, non-suppurative encephalitis or meningoencephalitis. Others showed only evidence of congestion while others had no significant findings. Overall changes are absent to mild with changes mostly indicative of low levels of inflammation.

Heart: In most animals, the heart contained the most significant histopathologic findings, consistent with the gross necropsy signs of pericardial effusion. Most animals had myocardial necrosis with some having concurrent thrombi and hemorrhage. Some had a few mononuclear cell infiltrates. One had mesothelial hypertrophy. Finally, a case from 2022, had myocardial fibrosis, indicative of a more chronic process, while others had more acute changes. Interestingly, the 2022 case also had very low copper, so it is possible this case was multifactorial.

Lungs: Findings in the lungs were varied with several animals showing no significant findings. However, most animals had evidence of edema, and some had perivascular inflammation and fibrin. In 2021, both cases had evidence of mild to moderate vasculitis. These findings are often either characteristic of findings secondary to other processes (i.e., heart failure) or are focused on inflammation surrounding the vasculature.

Liver: Liver findings were minimal with either no significant lesions or evidence of mild centrilobular necrosis or small foci of necrosis. These findings are often secondary to heart failure and do not appear to represent primary pathology.

Kidney: Most cases had no significant findings while some had evidence of mild to moderate tubular necrosis and nephritis. Acute tubular necrosis is most likely secondary to heart failure and the cases with some level of inflammation also showed mild evidence of inflammation in other organs.

Spleen: Findings were mostly not significant with one exhibiting mild fibrin and one with mild capsular hemorrhage. An additional case had significant fibrinosuppurative splenitis, but this case had an elevated temperature and recovered, dying 2 months later. This finding was mostly likely due to a secondary bacterial infection following the primary insult.

Lymph nodes: Lymph nodes in many cases were not submitted. In those that had findings several showed evidence of edema, one was hyperplastic with eosinophils, and one had an increase in neutrophils.

Other tissues: Other tissues were mostly not submitted or did not have significant findings.

Clinical Pathology

Cytologic evaluation of effusions have only been conducted on the 4 more recent animals.

Pericardial effusion: Pericardial effusions of all animals consisted of a modified transudate with a few mesothelial cells and lymphocytes. Modified transudates generally result from cardiac or liver disease, neoplasia, early inflammation, or long-standing transudates.

Pleural effusion: Two cases had modified transudates like the pericardial effusion findings, while one had evidence of a mildly hemorrhagic effusion.

Pathologist comments: Pathologist comments vary with each case but, in summary, most pathologists felt that despite individual variation in findings, all animals fit a single pattern of disease. However, comments on individual cases varied from cases with more inflammation, where the pathologist felt it was more characteristic of a viral disease, such as an orbiviruses, to cases with less of an inflammatory component where the pathologist felt it fit more with a deficiency or a toxicity.

Summary of Pathology

Overall, the histopathologic and clinical pathologic results point to a primary injury to the heart with resulting myocardial necrosis and occasional myocarditis. This injury most likely causes cardiac insufficiency leading to development of pulmonary edema, pleural effusion, pericardial effusion, hepatic centrilobular necrosis, and renal tubular necrosis. The final mechanism of death may be cardiac tamponade due to the development of severe pericardial effusion. Cases have varying levels of inflammation associated with the disease process, from very mild to more moderate pulmonary vasculitis. In all cases the inflammation seems to affect the vasculature. The level of inflammation seen may represent individual responses to the insult or may be due to the timing of death in the course of the disease. While the elevated body temperatures align more with an infectious component, a toxic or mineral imbalance cannot be ruled out.

ETIOLOGIC AGENT INVESTIGATION

Infectious Disease Testing

Bacterial Culture: Culture results were either negative or resulted in growth of mixed environmental bacteria (8 cases ran).

Virus Isolation (VI): VI for all animals when it was run was negative (9 cases ran).

Anthrax: Communication with biologists indicated that anthrax was an early rule out, (7 cases tested).

Bluetongue and EHD PCR (orbiviruses): One animal had a weak positive, which may have been an incidental finding. All other animals were negative. However, it should be noted that this only tests for bluetongue and EHD and would potentially miss other orbiviruses. (12 cases ran).

Bluetongue and EHD ELISA: The animal with the peak positive PCR was also positive for ELISA on pericardial effusion. At captures most animals had low rates of exposure to bluetongue and mostly low rates of exposure to EHD, other than a single capture on the north end of the Snowstorm Mountains as in 2017, where most were positive.

Adenovirus: This was not tested for in early cases. Only one tested case was positive in renal tissue but did not have associated inclusions on histopathology and was not isolated on VI, indicative of a potentially low-level infection or recovered infection. (6 cases ran)

Malignant Catarrhal Fever (MCF): MCF was only hypothesized as a potential cause recently and most cases were not tested. The cases that were tested were negative. (2 cases ran).

Tick-borne disease panel: Many were either *Theileria spp.* or *Babesia spp.* suspect or positive (5 of 7 cases ran). However, because the test does not distinguish between genera, it was determined, through sequencing, that only *Babesia* was detected, and none were positive for *Theileria*. *Babesia* might fit with the described pathology, however none of these were able to

be directly associated with disease. An analysis by Southeastern Cooperate Wildlife Disease Study (*hereafter,* SCWDS) of serum results and tick sampling from across Nevada did not find a higher occurrence of any tick-borne parasite in SOD vs other elk in NV. The most common exposure on serum was *Babesia duncani* which, while a potential zoonotic disease, is not known to cause disease in elk and was not present at a higher rate in SOD samples. Other findings of *Anaplasma* and *Borrelia* were deemed to be non-pathogenic species.

Pasteurella: *Pasteurella* bacteria were tested by either culture or PCR and was not detected (8 cases ran)

Broad based viral discovery and sequencing: On 2 recent cases, we attempted broad-based viral discovery, which demonstrated a novel gamma herpesvirus. However, gamma herpesviruses may be non-pathogenic, meaning more investigation is needed. (2 out of 2 cases ran, one negative was euthanized but did not have consistent gross lesions).

Toxin Investigation

Mass Spectrometry: One recent animal was tested for toxins in the rumen contents by gas chromatography. The result was negative.

Plant Investigation: Rumen contents were evaluated for the presence of toxic plants. This was mostly done in early cases that may not meet the case definition due to the lack of reported gross pathology. However, analysis of rumen contents on multiple animals showed some utilization of larkspur (*Delphinium spp.*). Death camus (*Toxicoscordin venenosum*) was not present nor were alkaloids detected.

Nutritional Investigations

Grass Tetany: Ocular magnesium levels on 2 recent cases did not show any evidence of deficiency (2 cases ran).

Lichen Consumption: In 2004, officials with the Wyoming Game and Fish Department estimated 400-500 elk died from consumption of tumbleweed lichen (*Xanthoparmelia chlorochroa*), which

is distributed throughout deserts of the intermountain west (1). Symptoms of tumbleweed lichen consumption included immobility, sudden death, and, upon gross examination, lesions of the heart and muscle tissues. Genetic sequencing of rumen and fecal samples from *n* = 6 SEMS-affected elk did not detect tumbleweed lichen. One sequence was detected from the same class as *Xanthoparmelia* (i.e., *Lecanoromycetes*) but could not be identified at a finer resolution. Nonetheless, this detection occurred in only one sample and at low levels. Therefore, consumption of tumbleweed lichen or close relatives does not appear to explain SEMS.

Liver Trace Mineral: Trace mineral analysis of liver, where compared to established reference ranges frequency demonstrates very low copper values, mildly low selenium values, mildly high iron values (Table 3). Trace minerals can be difficult to interpret when reference ranges are not created for the local nutritional conditions and there were large variation in results. However, we did not have a single SEMS elk that was within a west wide rocky mountain elk reference range for copper. Results of a Mann Whitney one-tailed test comparing trace mineral values between SEMS affected elk, elk from the SEMS affected area, and elk from elsewhere in Nevada suggest elk who die of SEMS have significantly lower liver copper than elk elsewhere in the state (Table 3).

Summary of Findings

While there is some variability between cases, findings point to a single syndrome causing increased later spring and summer mortality in adult elk residing in the SOD. The syndrome is classified by the case definition (see above) with a final mechanism of death likely to be cardiac tamponade (i.e., excessive fluid within the pericardium surrounding the heart) of unknown origin. While testing has so far been inconclusive, results point to shared etiology or etiologies that cause this syndrome.

Both the clinical signs and the etiologic investigations point to either an infectious cause or a nutritional/toxicological cause of death. However, most of the common infectious disease agents have been ruled out and toxicological investigations have not yielded any promising results. The 2 most promising investigations were trace mineral analysis and broad-based sequencing.

Trace mineral results when compared to reference ranges show mildly high iron, mildly low selenium, and very low copper. When compared to other elk in Nevada, both elk residing in the SEMS affected area and elk dying from SEMS show much lower copper levels, although only SEMS elk were

significant (Table 3). Sample sizes are very low, thus more samples are needed from elk around Nevada, as well as surviving elk from the SOD, for an adequate comparison.

In 3 of the most recent SEMS cases, we used broad-based sequencing to identify a novel gamma-herpesvirus. While promising, gamma-herpesviruses are common among many species and each species often has their own species-specific herpesviruses. Most of the time, these viruses are non-pathogenic. However, some are pathogenic or are pathogenic under specific circumstances. More investigation is needed to determine the pathogenic potential of this virus.

Given the debate between an infectious and non-infectious cause it is also possible that SEMS is multifactorial. It may be possible that an infectious disease that normally does not cause disease in elk may cause cardiac damage when trace mineral values are low. That is just one example, however, and there are several nutritional, infectious, environmental, and toxicological factors that could be interacting to cause SEMS.

FUTURE DIRECTIONS

The most promising directions include further investigations of the novel herpesvirus, trace minerals, mortality events, as well as modeling of elk deaths, risk factors, and environmental factors, to further evaluate potential unknown determinants or their interactions. For novel herpesvirus, we will explore the development of a PCR for this virus and test tissues from both SEMS elk and non-SEMS elk from around the state to determine if it is geographically isolated or more ubiquitous across Nevada. We will continue to collect liver samples from hunter harvested elk from around the state and compare results to determine if SEMS elk do, indeed, have lower copper levels or other inequities in trace minerals. We will also continue to conduct mass spectrometry to further explore possible toxicological explanations. Finally, we are exploring outside collaborations to conduct in-depth modeling of SEMS to investigate potential environmental and landscape factors, as well as the interaction of various test parameters.

LITERATURE REVIEW

A literature search for "C*ervus elaphus*" and "*pericardial effusion*" found limited results for elk with results for Bluetongue virus (2) and other orbiviruses (3). A similar search for cattle showed cattle pericardial effusion most associated with traumatic pericarditis (e.g., hardware disease), bacteria endocarditis, dilated cardiomyopathy, congenital defects, neoplasm (e.g., bovine leukosis virus), and idiopathic (4,5). Idiopathic means were unknown but is thought to occur secondary to an unknown

bacterial or viral infection (5). Causes of dilated cardiomyopathy (DCM) include toxicity, parasitic infection, viral infection, and nutritional (low copper or low selenium (6).

Given that the main finding on histology was myocardial necrosis, we conducted a search for "*Cervus elaphus*" and "*myocardial necrosis*". There were no significant results. A similar search for cattle indicates it was associated with ionophore toxicosis (7) and other toxicities such as yew (8). We have also searched the literature for various causes of death in elk. Of note, copper deficiency was determined to be the cause of death in elk while causing reduced reproductive success, deformed antlers, light pelage, and poor body condition at Point Reyes in tule elk (9). Further, research of moose (*Alces alces L.*) in Sweden linked copper deficiency and/or molybdenosis to a "mysterious" moose disease where clinical signs included sudden heart failure (10). Other conditions not already investigated that may cause atypical mortality in free-ranging elk included lichen intoxication (11) and locoism (12).

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TABLES

Table 1. Summary of elk monitoring, by year, in the southern Owyhee Desert, Nevada, 2015-2023. Summary includes total of elk monitored on 1 May and total elk determined to have succumbed to seasonal elk mortality syndrome (SEMS).

	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Elk Monitored	5	7	10	20	14	7	3	6	7	79*
Probable SEMS	1	2	4	5	5	1	2	2	1	23

*79 reflects the total number of SEMS seasons (1 May – 31 July) experienced by 56 radio-collared elk

Table 2. Summary of fates of radio-collared elk in Nevada and the southern Owyhee Desert, Nevada, 2015-2023. Elk fates attributed to unknown causes were predominately attributed to a lack of reporting or carcass decomposition prevented the determination of a known fate. Statewide summary is approximate (+/- 10%) due to inconsistencies in reporting. Summary does not include currently active collars or those that failed to transmit data.

Elk Fate	Southern Owyhee	Statewide*
capture-related	1 (1.9%)	5 (5.0%)
collar release	12 (23.1%)	10 (16.7%)
hunter harvest	6 (11.5%)	31 (51.7%)
lion predation	0 (0%)	2 (3.3%)
rut-related	0 (0%)	1 (1.7%)
unknown	3 (5.8%)	13 (22%)
Seasonal Elk Mortality Syndrome	**23 (44.2%)**	**0 (0%)**

*Excluding Southern Owyhee Desert and Hunt Unit 065

Table 3: Preliminary summary of trace mineral analyses for iron, copper, and selenium levels measured from mortalities attributed to Seasonal Elk Mortality Syndrome (SEMS) in the southern Owyhee Desert, Nevada, in comparison to statewide levels.

Area	N	Iron Median	Copper Median	Selenium Median
Rest of Nevada	5	170	23	0.24
SEMS Area	15	270	4.2	0.22
SEMS area, non-SEMS elk	4	215	13.5	0.24
SEMS Elk	11	278.3	3.5	0.22
Mann-Whitney Test Results				
No vs SEMS Area		*P* = 0.258	*P* = 0.058	*P* = 0.258
No vs SEMS elk		*P* = 0.248	***P* = 0.045**	*P* = 0.215

FIGURES

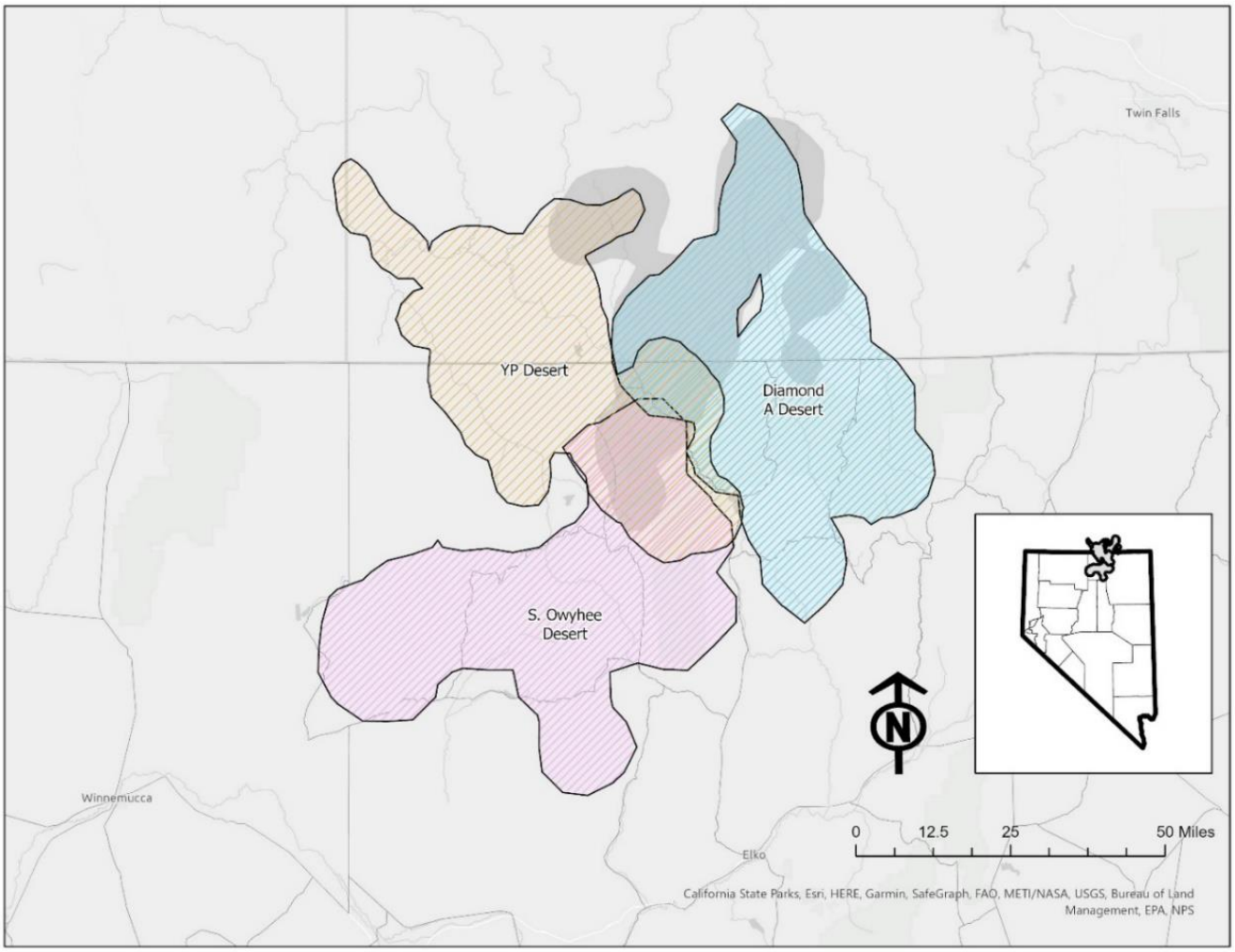


Figure 1. Geographic distribution of elk sub-herds monitored along the Idaho-Nevada border. Seasonal Elk Mortality Syndrome (SEMS) has primarily been documented in elk using winter range of the southern Owyhee Desert.



Figure 2. Common positioning of elk carcasses when investigating mortality events in the southern Owyhee Desert, Nevada. Elk mortalities attributed to Seasonal Elk Mortality Syndrome (SEMS) are typically found intact without visible indicators of predation and individuals appear to be healthy. Photo credit: T. Allen, Nevada Dept. of Wildlife, 2021.

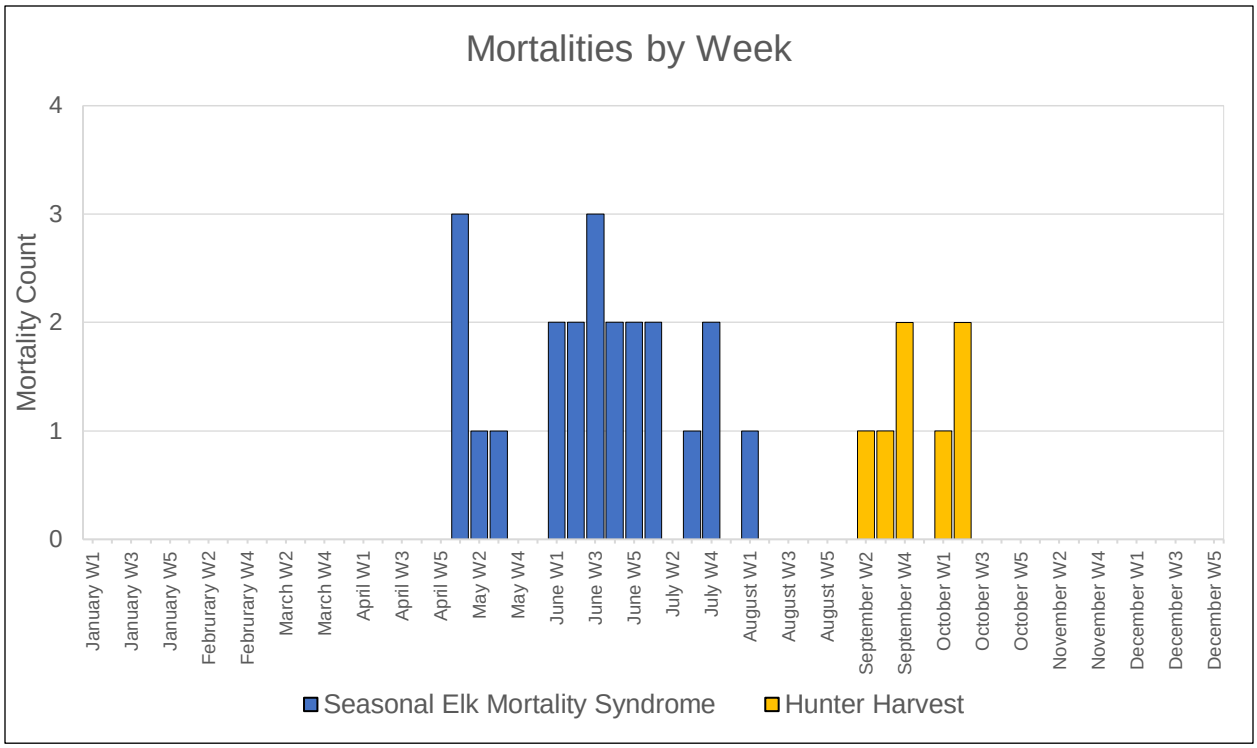


Figure 3. Weekly summary of mortality events experienced by radio-collared elk monitored in the southern Owyhee Desert, Nevada, 2015-2022. Note distinct pulse of mortalities occurring during the late spring to early summer (May – July; *n* = 22) followed by a second pulse during autumn attributed to hunter harvest (*n* = 7).



Figure 4. Range conditions on 22 June 2017 at the headwaters of Sheep Creek in the Independence Range, Elko County, Nevada. Photo was captured 8 days after an elk died in this vicinity with symptoms consistent with Seasonal Elk Mortality Syndrome (SEMS). Photo credit: C. McKee, Nevada Dept. of Wildlife, 2017.

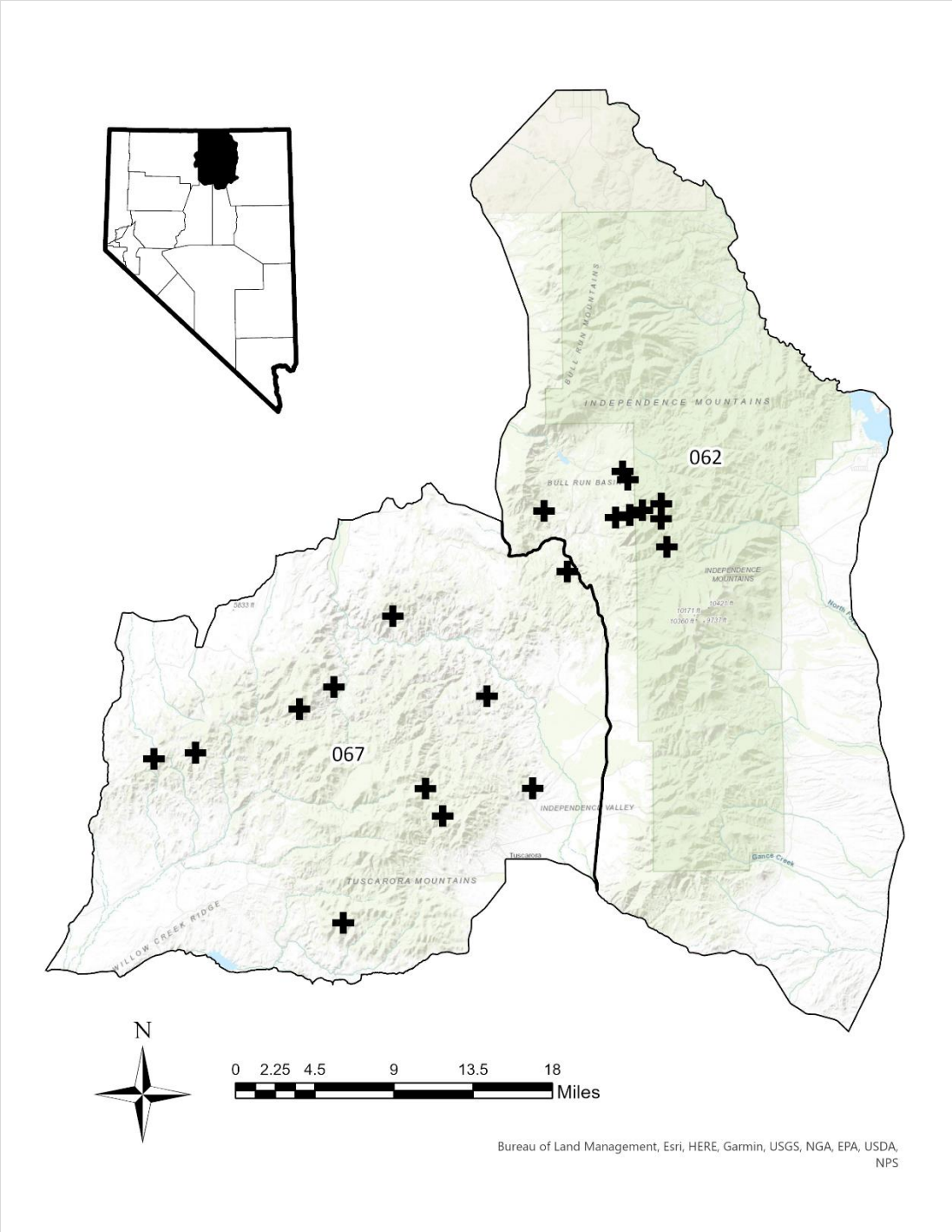


Figure 5. Geographic distribution of elk deaths (displayed as '+') attributed to Seasonal Elk Mortality Syndrome (SEMS) in the southern Owyhee Desert, Nevada, 2015-2022.

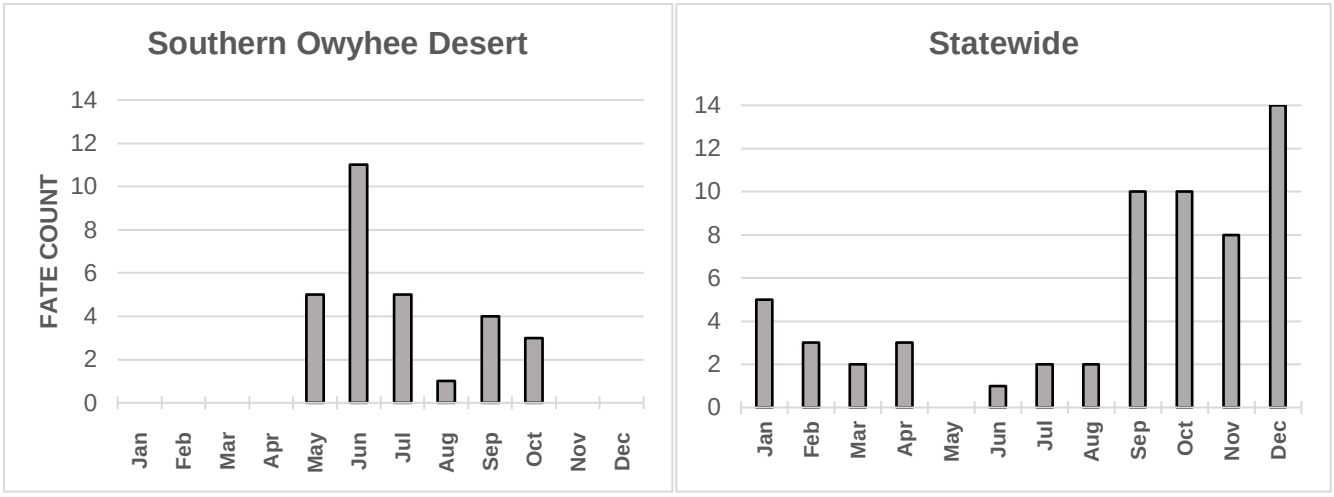


Figure 6. (*left*) Monthly breakdown of elk fates for the southern Owyhee Desert where seasonal elk mortality syndrome (SEMS) has been documented, and (right) breakdown of fates for elk monitored throughout the remainder of Nevada, 2015-2022.

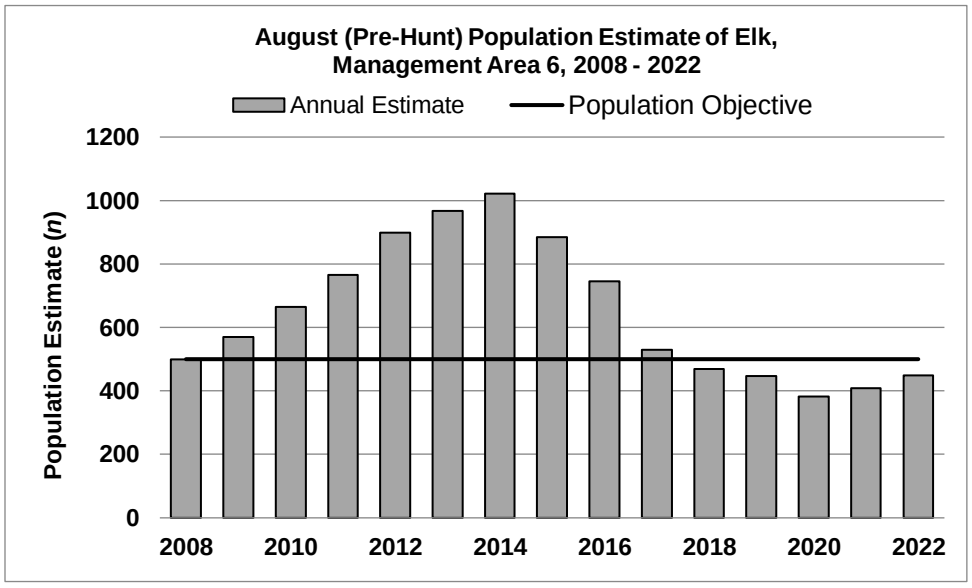


Figure 7. Annual population estimate of elk, relative to a population objective of *n* = 500, residing in Management Area 6, Elko County, Nevada, 2008-2022.

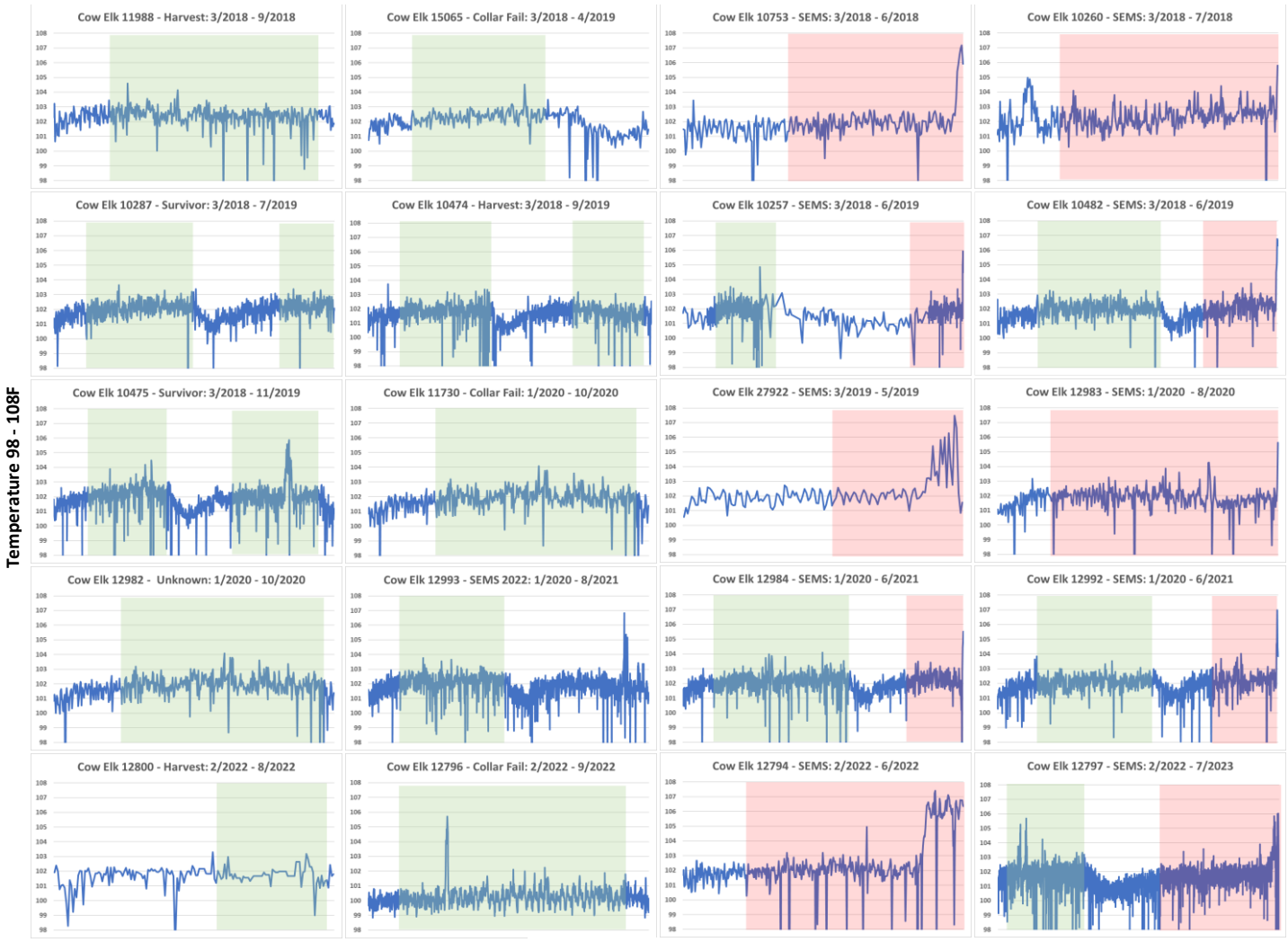


Figure 8. Real-time internal body temperature data collected from mortality implant transmitters (MIT) implanted in radio-collared elk in the southern Owyhee Desert, 2018-2023.The X-axis represents time throughout the lifespan of the MIT device and the Y-axis indicates internal body temperature recorded by the MIT. Sections of colored charts depict the SEMS season (i.e., 1 May – 31 July), for each year. Sections portrayed in green are those SEMS seasons in which a collared elk survived, and those shown in red indicate a season when an elk died from SEMS.

Wildlife Heritage Project 30 Day Completion Report

Name of Project: Area 6 Elk Mortality Investigation

Project Manager (PM): Cody McKee	Organization/Agency: Nevada Dept. of Wildlife
PM Email Address: cmckee@ndow.org	PM Phone Number: 775-688-1525
Heritage Award Amount: $85,710.86	Heritage Project Number: H22-13

NDOW Monitor (if the project was managed by someone other than a NDOW employee):

State Fiscal Year Project was Approved For: FY22	Date this Report was Submitted to NDOW: 2024-05-30
Project Start Date: 2021-07-01	Project Completion Date: 2024-06-30

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee):

Not Applicable

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.):

Funding received from the Wildlife Heritage Trust Account was used to purchase 10 radio-collars and mortality implants transmitters (MIT), which allow for rapid response to real-time mortality notifications, darts and immobilization drugs for captures, 7-hours of fixed-wing flight surveys to locate elk groups to locate possible capture targets in February 2022, capture and handling efforts during in February 2022 (6 adult females caught) and March 2023 (5 adult females caught). Fecal DNA analysis was completed in 2023 to determine diet

composition for elk at the time of death. Finally, a detailed mineral analysis was conducted on soil and plant samples collected during summer 2023.

Summary of the Project's Accomplishments and Wildlife Species that Will Benefit:

Periodic reports of carcasses of Rocky Mountain elk (*Cervus canadensis*) found on the southern edge of the Owyhee Desert in western Elko County have been received by the Nevada Department of Wildlife (hereafter, Department) since, at least, 2009. Carcasses are often reported intact, and evidence of predation, or other causes of death (e.g., poaching), are absent. Beginning in 2015, the Department increased monitoring efforts of burgeoning elk herds in northern Nevada to improve understanding of herd boundaries and interstate movement dynamics. During this initial effort, 5 radio-collars were deployed on adult cow elk (hereafter, cows) in the Tuscarora Range (Hunt Unit 067). During May 2015, Department personnel investigated the mortality notification transmitted from one cow. Due to rapid necrosis, the cause of death was inconclusive but consistent with previous carcass reports (i.e., intact carcass, no visible signs of predation, apparently healthy). Further, this mortality followed a predictable pattern of seasonal mortalities, referred to as Seasonal Elk Mortality Syndrome (hereafter, SEMS), coinciding with the peak of the growing season in northern Nevada (i.e., May – July). Since 2015, 23 of 65 radio-collared elk in the southern Owyhee Desert (hereafter, SOD), mostly comprising Hunt Units 062 and 067, have succumbed to SEMS. The following paragraphs summarize findings during the grant period. **Please review Allen et al. (2023) for a detailed summary of cumulative findings, including maps, figures, and photographs.**

Results of elk composition surveys in the SOD plummeted from 569 elk observed in 2016 to just 108 elk encountered in 2022. The 2022 observations consisted of only 45 cows and 9 calves. Conditions for the survey were favorable, primarily due to fresh snow cover. Further, about 3 hours of flight time was committed to both survey efforts and thoroughly covered the geographic area where the sub-herd resides. A fixed wing survey was conducted immediately prior to captures to identify adequate capture targets to meet project objectives. While survey conditions were once again favorable for locating elk, only one group of elk was located, adding confidence that very few elk remain in the SOD. Only 6 of 10 planned radio-collar and MIT pairings were deployed the following day. Unfortunately, one collar failed immediately after deployment, while one remained active from a previous deployment. The remaining radio-collars could not be deployed due to concerns of

overexertion and subsequent capture myopathy from repeated pressure to the same group of elk. The 2 elk mortalities observed during the 2022 season were both consistent with SEMS ($n = 2$, 33% mortality rate). A significant emphasis was placed on monitoring elk temperatures and temperature reading frequencies were increased to transmit once per hour during the SEMS period, compared to every 4 hours in previous years. For the lone elk that died with a MIT pairing, observations were made of the elk for 3 consecutive days following temperature readings exceeding 104° F. During those 3 days, body temperature readings frequently exceeded 105° F, nearing 106° F. Despite previous evidence of limited movements, this elk was mobile throughout the 3 days of monitoring and there were no obvious signs of poor health, other than seemingly lethargic behavior. In 2022, necropsy protocol was amended to include eyeballs and tissues samples from the 4 stomach chambers and the gastrointestinal tract (Appendix 1).

An additional 5 radio-collars with paired MITs were deployed in the SEMS-affected region in March 2023. Two cows, caught in previous years, remained active entering the SEMS season in 2023. Historic precipitation and abnormally cool weather seemingly delayed onset of SEMS in the SOD. Indeed, elevated temperature readings began in early June with the first suspected SEMS mortality occurring on July 8th. Vigilant monitoring of temperatures and previous experience facilitated the first successful immobilization of a cow exhibiting elevated temperatures. Within 48 hours of successful live capture, this same cow died. Subsequent necropsy determined similarities with previous SEMS cases (i.e., temperature exceeding 107° F, gross lesions, pericardial and thoracic effusion, etc.). Further, we initiated efforts to understand mineral profiles in soils and plants through targeted sample collection, as well genetic sequencing of rumen contents to determine diet composition. Detailed analysis of mineral profiles and diet composition have not been completed.

Since 2015, SEMS investigations have experienced 3 major breakthroughs. The first was the identification of SEMS as a distinct source of mortality in the SOD and the exclusion of anthrax as a causative agent. Next, the introduction of MITs paved the way for a deeper understanding of physiological changes and pathology of SEMs-affected elk. Finally, we are evaluating the interaction of mineral concentrations with immune response and potential involvement of novel diseases. As our understanding of SEMS grows, our protocols for investigations and sample collection have evolved based on the best available

information. We remain committed to identifying a definitive explanation for SEMS and will continue to adapt our protocols as new information is acquired.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Equipment (specify)	Radio-Collars & MITs - $40,026.11	
Materials	Darts & Drugs - $772.16	
Miscellaneous incl. Contractors (specify)	Fixed Wing Survey - $2,492.40 Capture Services - $25,779.57 Fecal DNA - $1,165.00 Veg Mineral Profile - $15,474.76	Soils Analysis – $957.00 Veg Mineral Profile - $323.24
Sub-totals	$85,710.00	$1,280.24
	Total	$86,990.24
*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source): 1. Federal Wildlife Restoration Grant for Big Game Management and Investigations.		

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

Identifying the definitive cause of SEMS has been elusive. We've determined, thus far, that SEMS appears to be a mortality agent unlike any other found in North America. Herds occupying the western distribution of elk in Nevada continue to perform poorly and considerable speculation exists that these areas are also subject to SEMS. These are also areas where the current population estimates are well under population objectives and are really the only areas where elk populations could grow. Thus, identifying the cause of SEMS and whether it occurs elsewhere has real implications for elk management in Nevada.

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc.

McKee, C.J., T. Allen, M. Jeffress, C. Morris, N. Lahue. 2023. Nevada: Seasonal Elk Mortality Syndrome. An oral presentation given at the Western Elk Summit hosted by the Rocky Mountain Elk Foundation.

Allen, T., M. Jeffress, N. Lahue, and C. McKee. 2023. Preliminary findings of investigations related to Season Elk Mortality Syndrome in western Elko County, Nevada. Internal NDOW report: unpublished. (attached)

May 28, 2024

NDOW Projects #22-20 and #23-16 Update: *The Interaction Between Restoration, Foraging Ecology, and Mating Behavior in Greater Sage-Grouse*

Principle Investigator: Gail Patricelli, Professor of Evolution and Ecology, University of California, Davis
Graduate Student Researcher: Maria Ospina, NSF fellow and PhD candidate, Graduate Group in Ecology, UC Davis

This ongoing project addresses the impacts of wildfire and restoration treatments on greater sage-grouse foraging behavior (diet choice and quality) and breeding behaviors (display behavior and mating success)—microhabitat-scale processes that are critical drivers of population health and habitat use. This work has been conducted in the Santa Rosa Mountains (Humboldt Co., NV), which lost 440,000 acres of critical sagebrush habitat in the 2018 Martin Fire. **Objective 1** is to use non-invasive biomarkers from fecal samples to assay stress and diet quality of sage-grouse in burned and unburned areas, with different types of ongoing restoration. **Objective 2** is to follow GPS PTT satellite-tagged birds to foraging sites to examine how nutritional quality of sagebrush differs with different burn/restoration status, and to examine sage-grouse diet preference at the patch and plant level. **Objective 3** is to assess movement of GPS PTT satellite-tagged birds among leks and foraging sites relative to burn/restoration status, and whether the habitat quality of lek sites affects male and female lek behaviors and the browsing on sagebrush in the lek area.

In spring 2021, with funding from the Wildlife Heritage Trust Account (Award #21-18), we began Phase 1 of the project. We monitored 6 leks across our Santa Rosa Mountains field site, 3 in burned areas and 3 in unburned areas, every 3 days through the breeding season. Each monitoring visit, we observed and recorded video from a hunting blind near the lek. During spring 2022, with funding from the Wildlife Heritage Trust Account (Award #22-20), we monitored an increased sample size of 9 leks, 4 in unburned areas and 5 in burned areas, every other morning. As expected, our unburned leks had consistently better sage-grouse attendance (maximum daily attendance of 12-68 males per lek) than our burned leks (maximum 2-21 males per lek). While attendance at burned leks is low, we observed significant female visitation and copulation at these leks (maximum daily attendance of 5-12 females per lek) and 1-2 juveniles strutting at each lek, suggesting the potential for persistence. Since spring 2022, with funding from the Wildlife Heritage Trust Account (Award #23-16), we have been analyzing the data collected during the 2021 and 2022 field seasons. Progress on each of our three main research objectives is described below.

For Objective 1, on every observation day in Spring 2022, we collected fecal pellet samples after birds left the lek in the morning (146 samples total). In 2023, these samples were prepared in the Patricelli Lab at UC Davis for gas chromatography (GC) analysis. For this processing, each sample was kept frozen on dry ice and 50 milligrams was weighed on an analytical balance and transferred to a microcentrifuge tube for GC analysis. Prepped samples were shipped on dry ice to Prof. Jennifer Forbey's Lab at Boise State University in fall 2023, where GC analysis for the chemotype of each pellet sample was completed.

For Objective 2, in Spring 2021 we deployed 12-gram GPS PTT tags from GeoTrak on 2 females and 2 males. In Spring 2022, we purchased fourteen 12-gram GPSPTT tags from GeoTrak to track

males. We tagged a total of eleven males during the 2022 field season. We split up our tags and in total tagged 3 males at unburned leks and deployed the rest of the tags at burned leks. We were able to find locations where males forage after they leave the lek using data from GPS PTT tags and our observations of bird departure direction. These foraging sites were then paired with randomly chosen sites. At foraging and control sites, we measured habitat characteristics (forb, grass, and shrub cover; shrub height; evidence of browsing by sage-grouse) and collected vegetation samples to examine the dietary quality of sagebrush postfire. Using these methods in Spring 2022, we collected 200 samples of sagebrush.

Along with the fecal pellet samples for Objective 1, we prepared in the Patricelli Lab at UC Davis a subset of sagebrush samples for GC analysis. Processing of these samples was time consuming—each sample was "de-wooded" by dipping it in liquid nitrogen to manually separate the leaves from the woody stems, then the sample was ground with a mortar and pestle and a 50 mg sample was weighed on a precision analytical balance and transferred to a microcentrifuge tube for GC analysis. Prepped samples were shipped on dry ice to the Forbey Lab in fall 2023, where GC analysis for chemotypes of each plant sample was recently completed; we are planning the analyze a second batch of plant samples this summer.

We have since been working with Prof. Forbey and members of her lab to proof and process the GC outputs for fecal and plant samples for Objectives 1 and 2. We have been meeting regularly to discuss the statistical analysis plan and hope to complete the analysis by fall 2024 and write the results for publication. By comparing the chemotypes of the pellet samples to sagebrush samples, we will determine the chemistry of plants being consumed by the birds and how this relates to the chemistry of available plants near the focal lek. In conjunction with GPS movement data for birds in burned areas versus unburned areas, this will help us to understand the characteristics of palatable plants, their availability, and the distance of travel for foraging.

For Objective 3, on each day we visited leks in spring 2021 and 2022, we collected behavioral observations and video of lek activity to measure display behaviors. We individually identified core males on each lek using plumage patterns ("buttprints") and noted their location relative to a grid of stakes. These field observations can be used to identify males in our videos, which can then be tracked throughout the video for that day to score male display effort, an important indicator of reproductive health. Each lek was recorded on multiple days, allowing us to track the display effort of multiple identified males throughout the breeding season. Since returning from the field, we completed a first pass through the videos, but realized that we were missing key information for our analysis. We are therefore in the process of scoring the videos in more detail. We will use the resulting data to examine the relationships between display rate, lek attendance, and burn status.

Overall progress: Due to health challenges, Maria Ospina, the graduate student in charge of the project required an emergency medical leave followed by a leave of absence from campus work. This delayed the progress on the project, but we have nonetheless accomplished a great deal over the past year—completing the processing and chemical analyses of pellet samples and most plant samples, making progress on analysis of behavioral observations from the lek and GPS movement data, writing methods sections and introductions for the resulting manuscripts. We are now moving ahead at full speed and will complete the work over the next year.

Alterations of the project and plans for the coming year:

Despite intensive trapping efforts during our 2022 field season, we were unable to deploy 4 of the 14 tags we purchased in 2022 (Award #22-20) in time to use the data for this project. After discussions with Shawn Espinosa (NDOW), we gave the tags to a project run by Dr. Peter Coates (USGS) that is complimentary to the goals of our project and will be conducted in Nevada. The larger USGS project addresses habitat selection and fire impacts on female sage-grouse during the brood-rearing season, comparing sites in multiple states, including the Santa Rosa mountains and other NV sites. We have been coordinating and collaborating with the Coates team throughout our project and the USGS has donated time, supplies, and equipment to us. For example, the USGS covered part of our housing costs in our 2020 pilot year, they assisted us with trapping sage-grouse on many nights, and they connected us to their emergency response network with the use of their iPhones and SPOT devices, allowing us to pull each other's trucks out of mud holes and snow drifts (many, many times). Dr. Coates was also part of the original planning of our project and will be included as a co-author on the resulting publications. We are sharing data between our projects. The Coates team was able to deploy 2 of the tags last spring at their field site in the Virginia Mountains, NV; they plan to use the other 2 tags at a Nevada site this spring.

We planned to use part of our funding to collect drone imagery at our Santa Rosa sites. This would have allowed us to characterize the sagebrush community on a larger and more detailed scale. Unfortunately, our planned collaborator on that project moved to a new institution and was unable to do the work. This accounts for much of the funding remaining in our Project #23-16 account (balance of $14,614.98 after pending charges are processed). Rather than seek a new collaborator for the drone work, we have decided that the best use of these funds is to analyze a larger sample of the sagebrush plants that we collected in 2021 and 2022. As part of Objective 2 we collected many hundreds of sagebrush samples—more than needed for our project. Due to limitations in funding and time, we chose a subset of these samples for chemotype analysis in the Forbey lab. However, we have concluded that a larger subsample would better characterize the variation across the site, especially in restoration areas. Thus we propose to perform GC analysis on a second subset of our existing samples. The funds will cover GC costs in the Forbey Lab, as well as per diem expenses for Maria Ospina as she helps to prepare the additional samples for analysis in the Forbey Lab.

For Wildlife Heritage Trust Project #22-20, we have completed the work, as described above, and closed out the account. For Wildlife Heritage Trust Project #23-16, we are requesting a one-year no-cost extension to pay for the preparation and chemical analysis of additional sagebrush samples. Additionally, over the following year, we will complete the analysis of behavior from videos, statistical analysis for all three objectives, as well as preparation of manuscripts for publication in peer-reviewed journals.

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: Butler Basin Meadow and Spring Habitat Improvement Project **Project ID:** 722

Lead Agency: Nevada Department of Wildlife

Project Manager: Tracy Kipke Nevada Department of Wildlife

Phone Number: (702) 668-3962

Email: tkipke@ndow.org

Project Partners

Name	Agency	Role
Lance Brown	US Forest Service	Agency Cooperator
Shawn Espinosa	Nevada Department of Wildlife	Implementation Lead
Jeremy Lutz	Nevada Department of Wildlife	Implementation Lead
Mark Freese	Nevada Department of Wildlife	Implementation Lead

Project Schedule

Project Start Date: 07/01/2022 **State Fiscal Year:** 2023

Projected Completion Date: 06/30/2023 **State Fiscal Year:** 2023

Actual Completion Date: 10/31/2023

Project Location and Land Status

Location Narrative:

Project is located on the Humboldt-Toiyabe National Forest, Austin-Tonopah Ranger District approximately 85 miles north of Tonopah, Nye County, Nevada in Butler Basin.

Site Coordinates (Centroid UTM's 11 Datum NAD 1983)

Easting Northing Legal Description

Copenhagen Meadow 551412 4325360 T14N, R49E, Sec 13, 23 & 24

Copenhagen Headwater 551837 4325180 T14N, R49E, Sec 24

Sagehen Spring 548965 4324870 T14N, R49E, Sec 22

Savory Creek 549660 4324220 T14N, R49E, Sec 22 & 23

Section 15 Meadow 547973 4326540 T14N, R49E, Sec 15 & 16

Section 21 Meadow 546815 4324970 T14N, R49E, Sec 20 & 21

Access into the project area is via US Hwy 6 east to State Route 82 (Monitor Valley Road), north on SR 82 to Potts Ranch, then east past Blackburn Spring and up Long Canyon. The nearest full support community to the project site is Tonopah, NV to the south or Eureka, NV to the northeast. Both are approximately 2.5 hours drive time from the site.

NDOW Region: Southern

NDOW Management Units: 162

Nevada Sage Grouse Population Management Unit: Monitor

County: Nye

Land Status

Land Status	Acres	Percent of Project
Forest Service	6219.2	100

Bureau of Land Management Office: N/A

US Forest Service Ranger District: Humboldt-Toiyabe National Forest - Austin-Tonopah Ranger District

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Riparian, Meadow, Spring Restoration

Project Objectives:

- To install fencing that excludes livestock or wild horses/burros and prevents grazing and enhances spring and riparian habitat conditions.

NDOW Initiative Addressed: No initiatives

Strategic Habitats Addressed: Aspen woodland, High-elevation sagebrush dominated shrubland, Linear riparian: perennial and ephemeral rivers and streams, Low-elevation sagebrush dominated shrubland, Other habitats (grassland and meadows, playa, sand dunes and badlands, alpine and tundra), Other riparian: meadow, marsh, spring, seep, and lakeshore, Pinyon-juniper woodland (not encroachment), Upper montane coniferous forest and woodland

Priority Resource Impacted: Big Game, Diversity/Non-game, Upland Game

Priority Species Impacted: Elk, Greater sage-grouse, Migratory songbirds (multiple species), Mule deer

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Rationale:

The purpose of the Butler Basin project is to maintain, improve, and restore habitat quality for greater sage-grouse and other species (e.g. mule deer, elk, and migratory birds) that utilize high elevation meadows and springs. Past livestock grazing, contemporary excessive wild horse numbers and trespass livestock have caused habitat degradation within the exclosures, reducing the quality and availability of greater sage-grouse brood rearing habitat and important habitat for a multitude of wildlife species.

The meadow and spring sources will be protected by 1) removing three existing barbed wire and wood fences and replacing it with wildlife-friendly welded drill steel fence capable of withstanding pressure from horses, livestock, and snow; 2) constructing two new riparian fences; and 3) installing two ground level cattleguards at the Sagehen Spring exclosure and up to two ground level cattleguards at the Savory Creek exclosure.

NEPA Compliance: It is anticipated the notice to proceed for fence removal and replacement will be issued in the summer of 2022 with NEPA clearances needed for phase II of this project.

Work performed under this scope includes furnishing labor and equipment (and possibly materials) to construct the following projects:

• Copenhagen Meadow: remove approximately 5,912 ft of existing barbed wire fence and install 7,095 ft of pipe rail fence

• Sagehen Spring: remove 3,268 ft of existing barbed wire fence, install 3,268 ft of pipe rail fence and install two- 12 cattle guards

• Savory Creek: remove 2,824 ft of existing barb wire fence and install 6,225 ft of pipe rail fence

• Section 15 Meadow: install 4,663 ft of pipe rail fence

• Section 21 Meadow: install 10,050 ft of pipe rail fence

Project materials will be delivered by NDOW helicopter to a previously disturbed area or as designated by the U.S. Forest Service (USFS) – Austin/Tonopah Ranger District.

The fence will likely be drill stem pipe , but is subject to modification based upon material availability and site constraints.

Date Work Completed: 10/31/2023

Completion Effectiveness Rating:

Effort is already effective

Completion Effectiveness Statement:

Project actions were implemented as planned and are considered effective once fully implemented. No further monitoring is planned or needed.

Completion Monitoring Plan:

Vegetation monitoring may continue out to year 5 post-fence installation.

Project Treatments and Actions

Treatment Name: Butler Basin Fences

Acres: 104.6

Action: Intall or maintain pipe-rail fence
Date Completed: 10/31/2023
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

This project consisted of replacing 12,014 linear feet of non-functioning barbed wire fence with 12,014 linear feet of wildlife friendly welded drill steel fence capable of withstanding pressure from horses, livestock, and snow. This represents three exclosures including Copenhagen Meadow, Sagehen Spring, and Savory Creek protecting 40 acres of valuable riparian habitat in the Monitor Range, Nye County, Nevada. This project will have lasting and beneficial effects on greater sage-grouse, deer, elk, and non-game species such as the mountain bluebird.

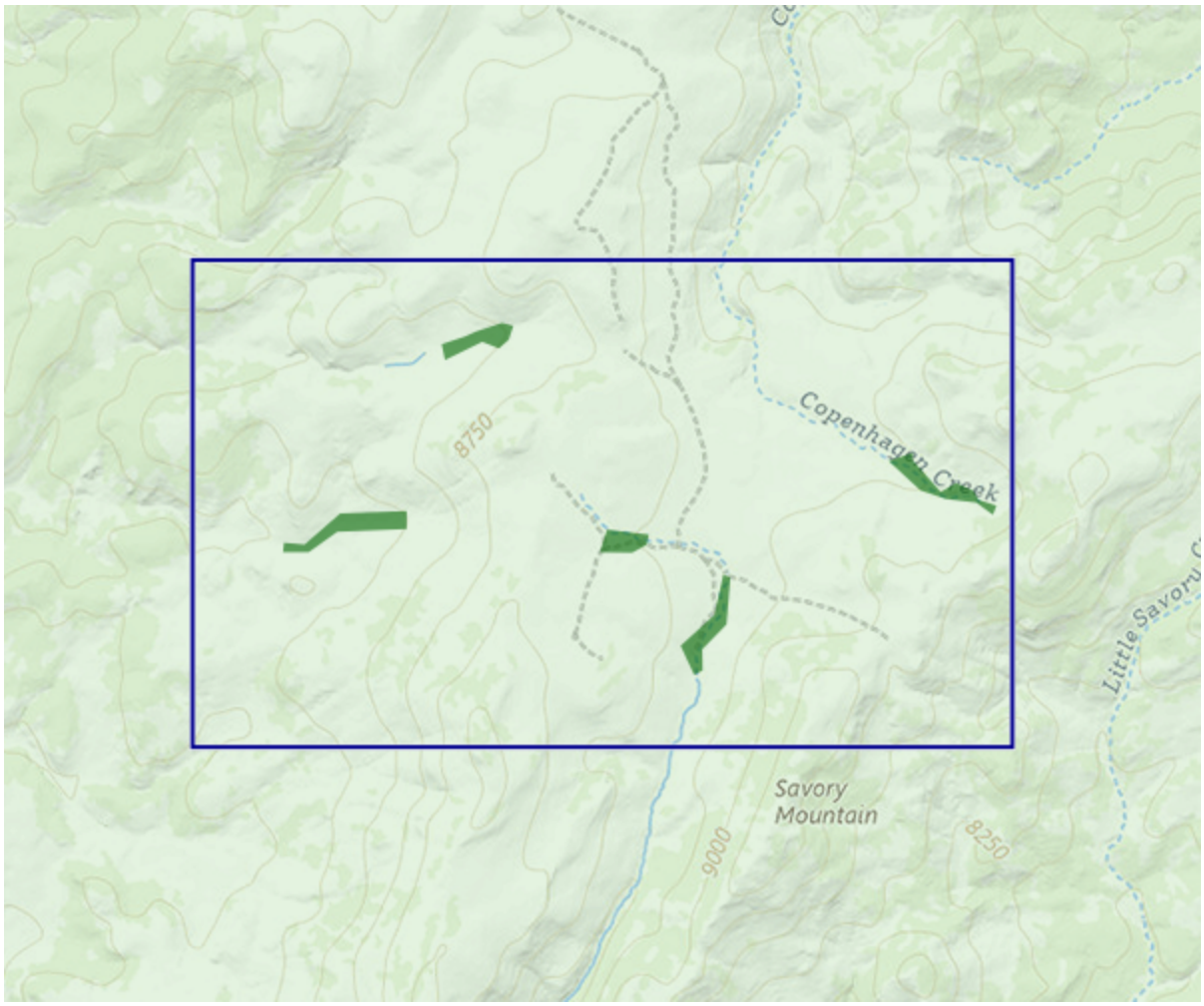
Project Monitoring

Monitoring Plan:

NDOW will contract the work and have contract monitors onsite while the project is being implemented. NDOW will also document habitat improvements through photographic monitoring and/or vegetation monitoring. We plan to have vegetation monitoring crews collect vegetation data in years 1, 3, and 5 to capture pre- and post-treatment results to document changes in the vegetation community. We will provide pre- and post-project pictures and vegetation findings in at least one annual report to the RAC additional to internal and partner reporting requirements.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2023	Forest Service RAC	$0	$
2023	Navy REPI	$0	$
2023	NDOW Habitat Conservation Fee	$0	$
2023	NDOW Heritage Trust Account	$150000	$
2023	NDOW Upland Game Stamp	$40000	$
2023	Nevada Dream Tag	$0	$
2023	USFWS Grant - Sage Grouse Conservation	$0	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Butler Basin Fences

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: Bullwhack Habitat Restoration **Project ID:** 803

Lead Agency: Nevada Department of Wildlife

Project Manager: Moira Kolada Nevada Department of Wildlife

Phone Number: (775) 289-1655

Email: mkolada@ndow.org

Project Partners

Name	Agency	Role
Not Specified	Bureau of Land Management	Agency Cooperator

Project Schedule

Project Start Date: 07/29/2022 **State Fiscal Year:** 2023

Projected Completion Date: 06/30/2024 **State Fiscal Year:** 2024

Actual Completion Date: 09/15/2023

Project Location and Land Status

Location Narrative:

White Pine County, Cave Valley

NDOW Region: Eastern

NDOW Management Units: 221, 222

Nevada Sage Grouse Population Management Unit: Steptoe/Cave

County: White Pine

Land Status

Land Status	Acres	Percent of Project
Bureau of Land Management	12141	95.6
Private	195	1.5

Bureau of Land Management Office: N/A

US Forest Service Ranger District: N/A

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Conifer removal

Project Objectives:

- To remove pinyon and juniper trees as a restorative measure to reduce expansion, restore degraded sagebrush habitat, increase hydrologic function, improve forage and cover for wildlife, and/or increase connectivity of sagebrush habitat.
- To remove pinyon and juniper trees as a preventative measure against uncharacteristic wildfire and prevent loss of positive ecological conditions.

NDOW Initiative Addressed:

- Mule Deer Enhancement Program (NDOW)

Strategic Habitats Addressed: Aspen woodland, High-elevation sagebrush dominated shrubland, Linear riparian: perennial and ephemeral rivers and streams, Low-elevation sagebrush dominated shrubland, Other habitats (grassland and meadows, playa, sand dunes and badlands, alpine and tundra), Other riparian: meadow, marsh, spring, seep, and lakeshore, Pinyon-juniper woodland (not encroachment), Salt desert shrub, Upper montane coniferous forest and woodland

Priority Resource Impacted: Big Game

Priority Species Impacted: Mule deer

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Rationale:

Vegetation attributes in North Cave Valley have been altered from their desired (historic) range and now include uncharacteristically high densities of trees and below normal levels of perennial grasses and forbs. Current conditions indicate that appropriate management actions (i.e. vegetation treatments) could prevent these areas from further departure from the desired condition and instead move towards a more ecologically sound condition.

The areas proposed for treatment in North Cave Valley were selected because of the habitat values that they provide, specifically mule deer and sage grouse. However, these treatments and their designs will be designed to benefit a variety of game and non-game wildlife species. This area was also prioritized because of the lack of feral horse pressure. In addition, the proposed treatments in North Cave Valley will allow for a seamless transition of treatments from North Cave Valley to the treatments underway in South Steptoe Valley

Date Work Completed: 09/15/2023

Completion Effectiveness Rating:

Effort is already effective

Completion Effectiveness Statement:

Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.

Completion Monitoring Plan:

Photo points will continue to be monitored.

Project Treatments and Actions

Treatment Name: Bullwhack Handthining

Acres: 3,094.2

Action: Phase 1 Hand Thinning or Lop-Scatter
Date Completed: 09/15/2023
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

Hand thinning was completed Fall 2023. Site will be monitored using photos points.

Action: Phase 2 Hand Thinning or Lop-Scatter
Date Completed: 09/15/2023
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

Hand thinning was completed Fall 2023. Site will be monitored using photos points.

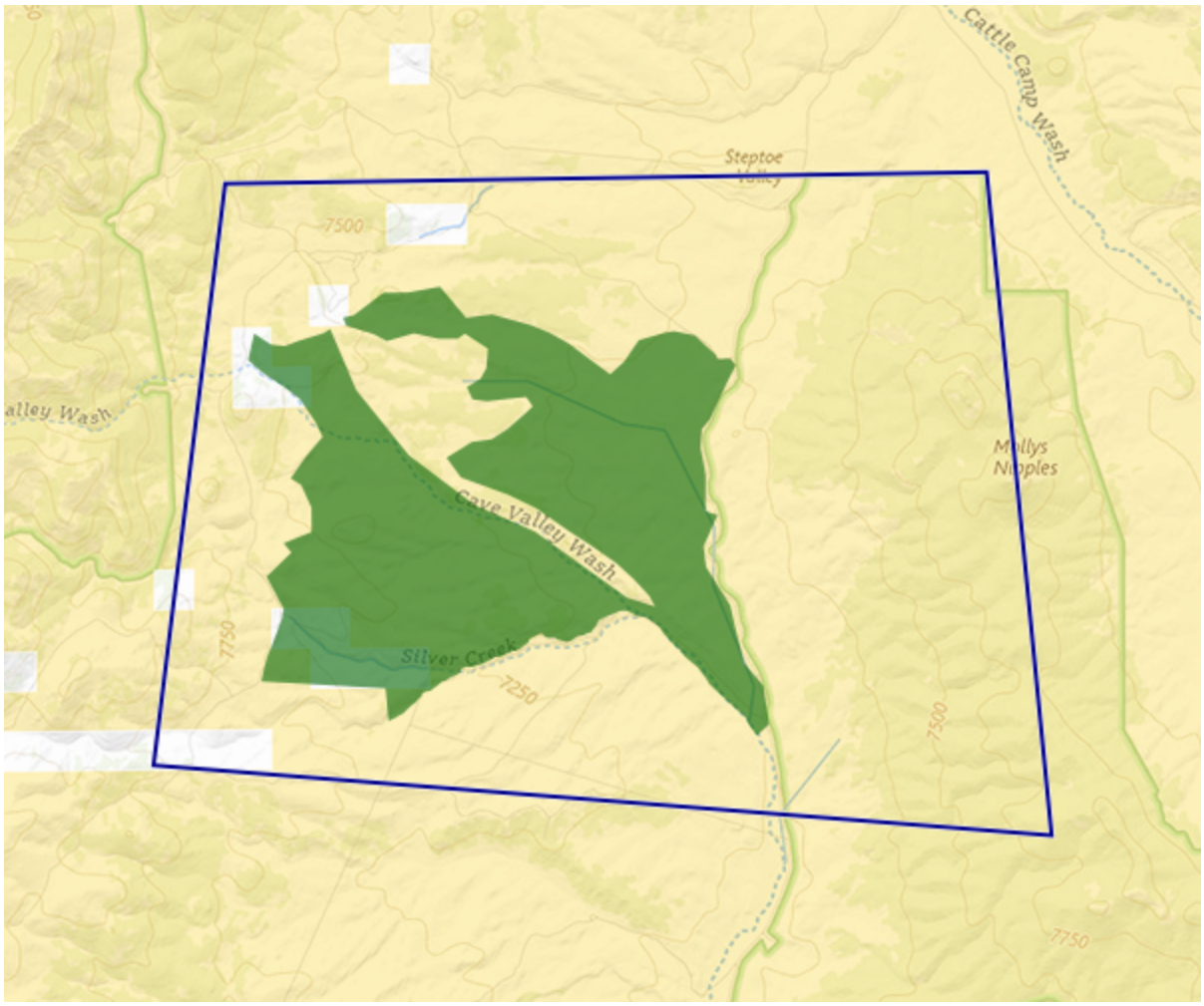
Project Monitoring

Monitoring Plan:

Photo monitoring will be used to monitor this project.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2023	Bureau of Land Management	$0	$
2023	NDOW Heritage Trust Account	$75000	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Bullwhack Handthining

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: Corta Fire Habitat Improvement **Project ID:** 802

Lead Agency: Nevada Department of Wildlife

Project Manager: Matt Glenn Nevada Department of Wildlife

Phone Number: (775) 777-2369

Email: mglenn@ndow.org

Project Partners

Name	Agency	Role
Not Specified	US Forest Service	Agency Cooperator

Project Schedule

Project Start Date: 11/01/2022 **State Fiscal Year:** 2023

Projected Completion Date: 04/26/2024 **State Fiscal Year:** 2024

Actual Completion Date: 11/30/2023

Project Location and Land Status

Location Narrative:

Harrison Pass, Ruby Mountains Elko County Nevada

NDOW Region: Eastern

NDOW Management Units: 102, 103

Nevada Sage Grouse Population Management Unit: South Fork

County: Elko

Land Status

Land Status	Acres	Percent of Project
Forest Service	15834.1	95.8
Private	511	3.1

Bureau of Land Management Office: N/A

US Forest Service Ranger District: Humboldt-Toiyabe National Forest - Mountain City-Ruby Mountains-Jarbidge Ranger District

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Wildland fire rehabilitation

Project Objectives:

- To measurably increase wildlife populations, wildlife use, or habitat for the benefit of public use and hunter success.
- To plant seedlings on habitat impacted by wildfire to improve ecological conditions, prevent expansion of invasive annual grasses, and rehabilitate wildlife habitat.

NDOW Initiative Addressed:

- Mule Deer Enhancement Program (NDOW)
- Shared Stewardship (USFS)

Strategic Habitats Addressed: Aspen woodland, High-elevation sagebrush dominated shrubland, Linear riparian: perennial and ephemeral rivers and streams, Low-elevation sagebrush dominated shrubland, Other habitats (grassland and meadows, playa, sand dunes and badlands, alpine and tundra), Other riparian: meadow, marsh, spring, seep, and lakeshore, Pinyon-juniper woodland (not encroachment), Salt desert shrub, Upper montane coniferous forest and woodland

Priority Resource Impacted: Big Game, Upland Game

Priority Species Impacted: Greater sage-grouse, Mule deer

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Rationale:

The treatment prescription necessary to restore brush species at this site just requires a single step in planting brush species seedlings. In this project approximately 75,000 antelope bitterbrush and sagebrush species seedlings would be grown out from seed at a nursery for 1-2 years, transported to the site, then planted by both contract and volunteer labor. Seed would be provided by the Nevada Department of Wildlife to the nursery in the fall of 2022 to be grown out for approximately one calendar year, seedlings will then either be planted in fall of 2023 or cold stored and planted in spring of 2024. Due to the high use of this area by migrating deer, seedlings will require protective mesh to protect the young plants and allow time to mature sufficiently to handle herbivory.

A desktop analysis of the site has been completed to determine species composition and soil profiles to help increase likeliness of success of the project. Sagebrush composition is largely low and mountain sage with antelope bitterbush as a higher density component of the composition. When considering the logistics of the nursery grow out process, and the time it takes to grow out low sage (in most cases two-years), antelope bitterbrush and mountain sage stand out as the best candidates for our purposes. Timing of the planting portion of the project is planned for fall, after the soil at the site has likely received some moisture and the young plants can take advantage the higher soil moisture throughout the winter and spring months.

Date Work Completed: 11/30/2023

Completion Effectiveness Rating:

Effort is reasonably certain to be effective given adequate time.

Completion Effectiveness Statement:

Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.

Completion Monitoring Plan:

N/A

Project Treatments and Actions

Treatment Name: Corta Fire Seedling Planting 1

Acres: 4,451.8

Action: Planting (container stock)
Date Completed: 11/30/2023
Effectiveness Rating: Effort is reasonably certain to be effective given adequate time.
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

Please see attached completion report.

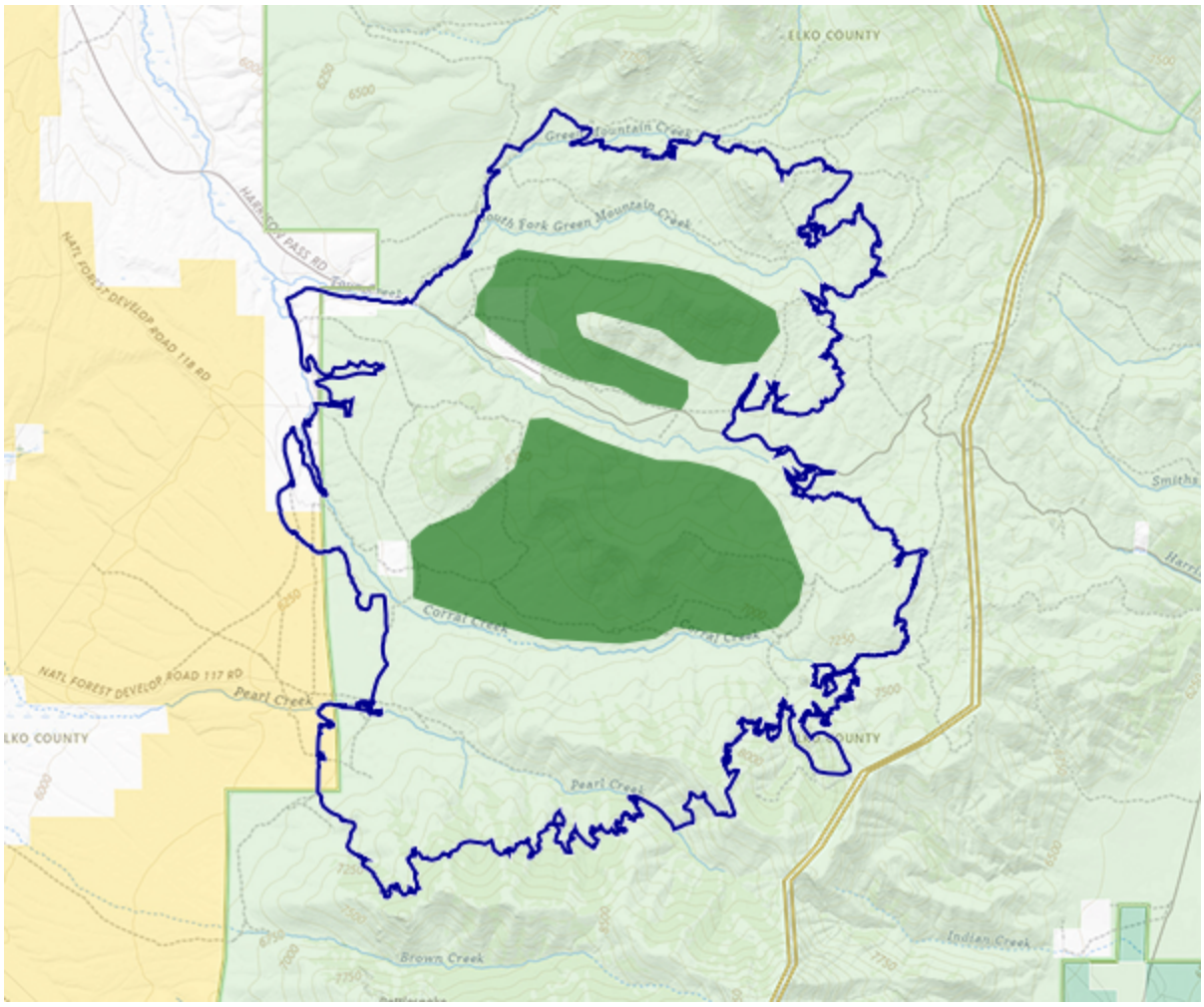
Project Monitoring

Monitoring Plan:

Photo points will be established and retaken on a 5-year interval.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2023	NDOW Heritage Trust Account	$40000	$40000
2024	NDOW Habitat Conservation Fee	$17250	$17250
2024	NDOW Upland Game Stamp	$17250	$817
2024	Other NDOW Funds	$0	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Corta Fire Seedling Planting 1

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: Toner Spring Mastication **Project ID:** 805

Lead Agency: Nevada Department of Wildlife

Project Manager: Moira Kolada Nevada Department of Wildlife

Phone Number: (775) 289-1655

Email: mkolada@ndow.org

Project Partners

Name	Agency	Role
Not Specified	Bureau of Land Management	Agency Cooperator

Project Schedule

Project Start Date: 07/29/2022 **State Fiscal Year:** 2023

Projected Completion Date: 06/30/2024 **State Fiscal Year:** 2024

Actual Completion Date: 04/19/2024

Project Location and Land Status

Location Narrative:

Smith Valley, White Pine County

NDOW Region: Eastern

NDOW Management Units: 121

Nevada Sage Grouse Population Management Unit: Butte/Buck/White Pine

County: White Pine

Land Status

Land Status	Acres	Percent of Project
Private	1168.3	12.5
Bureau of Land Management	8133.8	87

Bureau of Land Management Office: N/A

US Forest Service Ranger District: N/A

Special Land Designations: DOI - BLM|Bristlecone|Designated Wilderness

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Conifer removal

Project Objectives:

- To remove pinyon and juniper trees as a restorative measure to reduce expansion, restore degraded sagebrush habitat, increase hydrologic function, improve forage and cover for wildlife, and/or increase connectivity of sagebrush habitat.
- To remove pinyon and juniper trees as a preventative measure against uncharacteristic wildfire and prevent loss of positive ecological conditions.
- To apply seed in conjuction with conifer removal to improve ecological conditions, prevent expansion of invasive annual grasses, and restore wildlife habitat.

NDOW Initiative Addressed:

- Mule Deer Enhancement Program (NDOW)

Strategic Habitats Addressed: Aspen woodland, High-elevation sagebrush dominated shrubland, Linear riparian: perennial and ephemeral rivers and streams, Low-elevation sagebrush dominated shrubland, Other habitats (grassland and meadows, playa, sand dunes and badlands, alpine and tundra), Other riparian: meadow, marsh, spring, seep, and lakeshore, Pinyon-juniper woodland (not encroachment), Salt desert shrub, Upper montane coniferous forest and woodland

Priority Resource Impacted: Big Game

Priority Species Impacted: Mule deer

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Rationale:

Vegetation attributes in within the Toner Spring Habitat Restoration area have been altered from their desired (historic) range and now include uncharacteristically high densities of trees and below normal levels of perennial grasses and forbs. Current conditions indicate that appropriate management actions (i.e. vegetation treatments) could prevent these areas from further departure from the desired condition and instead move towards a more ecologically sound condition.

The areas proposed for treatment were selected because of the importance of the area for the Area 12 mule deer and habitat values that they provide, specifically for wintering mule deer, However, these treatments and their designs will be designed to benefit a variety of game and non-game wildlife species. This area was also prioritized because of the lack of feral horse pressure. In addition, the proposed treatments are adjacent to the Smith Valley Habitat Restoration.

The Bureau of Land Management (BLM) Ely District, in coordination with the Nevada Department of Wildlife has identified approximately 10,000 acres of being affected by pinyon and juniper encroachment. The Bristlecone Field Office is currently processing a CX for these treatments. The CX and necessary cultural clearances will be completed by July 2023. Treatment will consist of complete removal of pinyon and juniper within the treatment area. Islands and stringers would be designed to benefit big game, upland game, and nongame species.

Tree removal would be done primarily by mastication, however in some areas hand crews may be more appropriate to achieve the desired outcome. Biomass created from mastication or mulching equipment would be left on-site to naturally degrade. When masticating or mulching, biomass material depth would be restricted to six inches or less. Aerial seeding would occur to help bolster the understory species. Shrub species such as bitterbrush would be seeded utilizing seeders mounted on the masticators.

Date Work Completed: 04/19/2024

Completion Effectiveness Rating:

Effort has a high likelihood of being effective given adequate time

Completion Effectiveness Statement:

Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.

Completion Monitoring Plan:

Photos points will continue to be monitored.

Project Treatments and Actions

Treatment Name: TonerMastication

Acres: 950

Action: Seeding (aerial)
Date Completed: 02/06/2023
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. No futher monitoring is planned or needed.
Completion Narrative:

Seeded species were seen in the Spring 2023 and in the Spring 2024.

Action: Phase 2 Mastication
Date Completed: 04/19/2024
Effectiveness Rating: Effort is reasonably certain to be effective given adequate time.
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

Mastication was completed over the course of 2 winters. The first round of mastication took place in 2023 but was delayed by heavy snow fall which created access issues. The remaining acres were completed in Winter 2024. Initial the remaining acres were to scheduled to start late summer of 2024 but the contractor delayed implementation due to concerns that the machines would damage newly emerging vegetation.

Action: Phase 3 Mastication
Date Completed: 04/19/2024
Effectiveness Rating: Effort is reasonably certain to be effective given adequate time.
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

Mastication was completed over the course of 2 winters. The first round of mastication took place in 2023 but was delayed by heavy snow fall which created access issues. The remaining acres were completed in

Winter 2024. Initial the remaining acres were to scheduled to start late summer of 2024 but the contractor delayed implementation due to concerns that the machines would damage newly emerging vegetation.

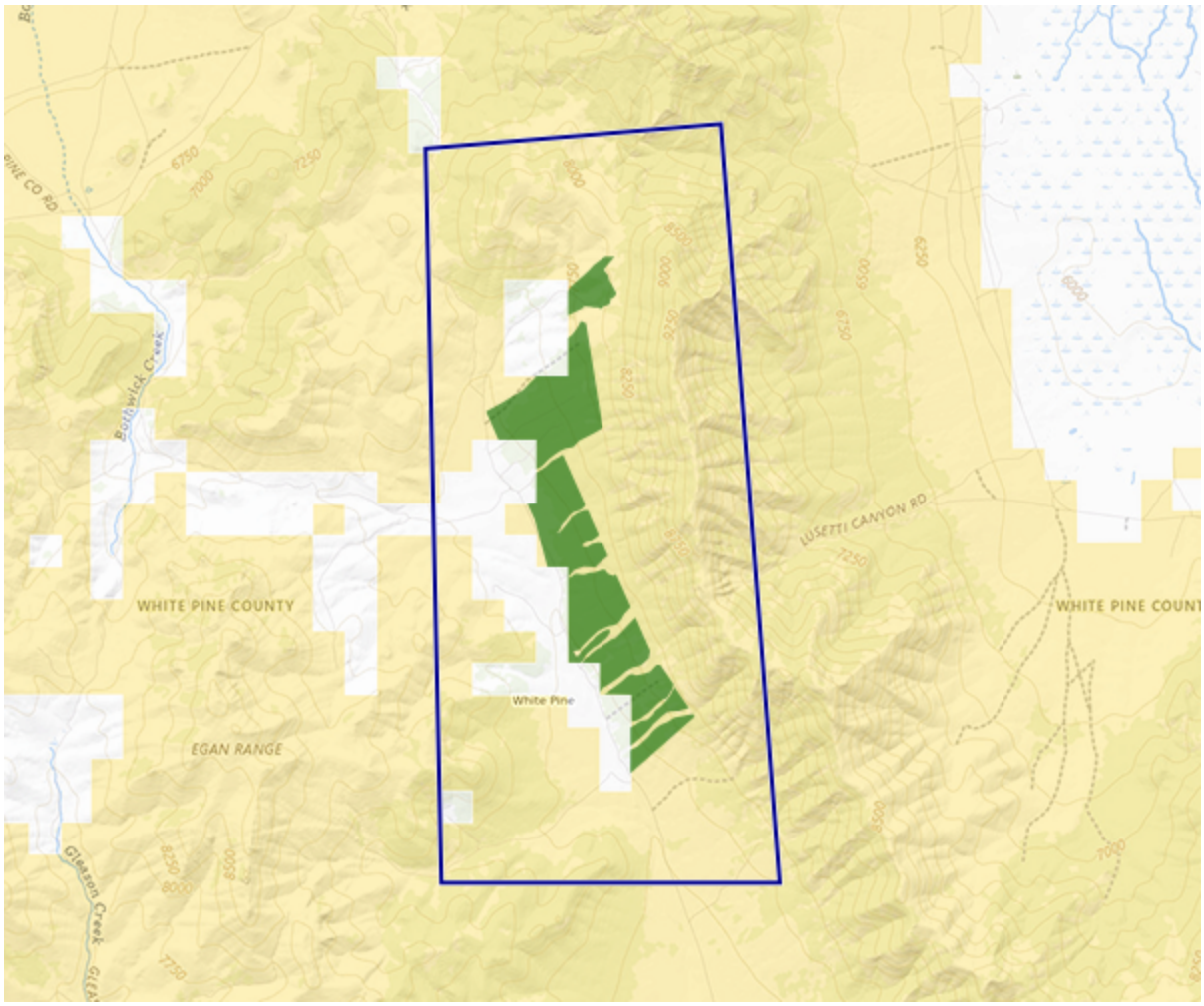
Project Monitoring

Monitoring Plan:

Photo monitoring will be used to monitor this project.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2023	NDOW Heritage Trust Account	$75000	$
2023	Other/Not Specified	$0	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: TonerMastication

Wildlife Heritage Project 30 Day Completion Report

Name of Project: Cave Valley Ranch Mastication

Project Manager (PM): Lauren Williams

Organization/Agency: DCNR, Conservation Districts Program

PM Email Address: lawilliams@dcnr.nv.gov

PM Phone Number: 775-461-6469

Heritage Award Amount: $41, 339.69

Heritage Project Number: 23-17

NDOW Monitor (if the project was managed by someone other than a NDOW employee): Moira Kolada

State Fiscal Year Project was Approved For: 2023

Date this Report was Submitted to NDOW: 3/26/24

Project Start Date: August 2023

Project Completion Date: March 2024

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee: March 2024

Lauren Williams inspected tree removal activities during and after the project. George Hall's property was last checked in August of 2023 after pinyon and juniper piles were masticated. In October 2023, a few volunteers with some extra rangeland seed mix, dispersed seed on the property before snow started to fall. Jacob Carter's property was last checked in October of 2023 after mastication and rabbitbrush treatments were completed. Seed has been purchased for acres that were not seeded with the masticator. Project specifications were met, and work was approved.

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.): This project included 4 acres of masticated pinyon and juniper piles on George Hall's property, 58.65 acres or rabbit brush treatments, and 70 acres of pinyon and juniper mastication. Mastication included seeding and a dryland custom mix was purchased with the remining $1,800.

Summary of the Project's Accomplishments and Wildlife Species that Will Benefit:

Thinning of pinyon and juniper assists in reducing encroachment into the valley bottom, with rabbit brush treatments completing the beginning of wet meadow restoration. Greater Sage-grouse (GRSG) will benefit from decreased predator perch points and increased water availability from PJ removal. Forage for GRSG as well as other wildlife is also expected to increase as existing understory recovers and seed will enhance understory re-growth. This will also benefit deer and elk as they utilize Cave Valley year-round for forage and seasonal habit.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Travel		
Equipment (specify)		
Materials	$1,800 for seed purchase	
Miscellaneous incl. Contractors (specify)	$33,000 for PJ mastication (Carter and Hall) $6,524.35 for Rabbitbrush treatments	
Sub-totals	$41,324.35	
Total $41,324.35		
*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source):		

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

The only significant issue the arised was finding a contractor able to masticate a small acreage property (George Hall) for a reasonable price. Pairing a small property with a larger project is ideal, but that wasn't an option in this case.

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc



Jake Carter's property prior to rabbitbrush treatments



Jake Carter's property during/post rabbitbrush treatment #1





Part of Jake Carter’s property after mastication



Post mastication regrowth



George Hall’s property prior to tree removal and mastication



George Hall’s property post mastication

Wildlife Heritage Project 30 Day Completion Report

Name of Project:

Project Manager (PM): Mike Cox	Organization/Agency: NDOW
PM Email Address: mcox@ndow.org	PM Phone Number: 775-688-1556
Heritage Award Amount: $110,000	Heritage Project Number: 97

NDOW Monitor (if the project was managed by someone other than a NDOW employee):

State Fiscal Year Project was Approved For: 2024	Date this Report was Submitted to NDOW: 5/31/24
Project Start Date:	Project Completion Date:

Date NDOW Monitor Inspected Your Completed Project (if the project was managed by someone other than a NDOW employee):

Type of Work Completed with Measurable Metrics (Associated Acreages, Linear Feet, Number of Animals, etc.): **Animals captured, sampled, tested, and/or collared**

Summary of the Project's Accomplishments and Wildlife Species that Will Benefit:

August 2023 – multiple objectives. 20 California Bighorn Sheep, primarily ewes with a few rams collared and tested to help evaluate population performance, new habitat use areas, mountain lion predation and any recent new exposure to Mycoplasma ovipneumoniae in Virginia Mountains, Granite Range, Calico Hills, Sheldon National Wildllife Refuge, and Double H Mountains.

August 2023 – continued Test and Remove efforts in the Snowstorm Mtns and Santa Rosa Range. Snowstorms – 7 sampled (1 ewe and 6 rams) – 1 ram PCR+. Santa Rosa Range (Martin Creek, Calico Mtn, and Eight Mile area) – 20 sampled (18 ewes and 2 rams); 2 PCR+; 1 previously detected chronic carrier euthanized

February 2024 - continued Test and Remove efforts in the Snowstorm Mtns and Santa Rosa Range. Snowstorms – 6 sampled, 0 PCR+. Santa Rosa Range (12 sampled, 3 PCR+, 2 euthanized from previous testing). Initial Test and Remove effort on Lone Mountain desert bighorn herd – 11 ewes and 7 rams sampled and collared and tested – all were PCR negative for Movi). Five mountain goats capture, sampled and collared in East Humboldt Range as precursor to hopeful fall 2024 mountain goat augmentation to assess Movi status and more focal nannies for summer kid surveys. Four additional bighorn sheep captured, sampled and collared in Virgin Creek on SNWR to help assess need and opportunity for augmentation and level of mountain lion predation.

March 2024 –

- Snowstorms – 2 sampled and collared – 0 PCR+. Santa Rosa Range (2 euthanized from previous testing)
- 15 ewes and 3 young rams captured and collared from the Sheep Creek Range translocated to the Montana Mountains to reestablish the bighorn herd there.

Summary of Project Costs and Funding Sources

Types of Costs Incurred	*Amount of Heritage Funds Used*	*Amount of Funds Used from Other Sources (*define the sources used at the bottom of table below)*
Travel		

Equipment (specify)		
Materials		
Miscellaneous incl. Contractors (specify)	105,219	$227,620
Sub-totals		
	Total	$322,840
*List Each Source Used in Addition to Heritage Funds (please define what types of costs were covered by each source and the total amount used by source):		

Any Unanticipated Events, or Lessons Learned that Could Help Future Project Managers?

Please attach project photos (including before and after photos if it is a habitat restoration or enhancement project), and include references to any project-related technical reports, media postings, journal articles, etc.

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: FY24 Wildfire-Related Restoration and Seed Purchase **Project ID:** 856

Lead Agency: Nevada Department of Wildlife

Project Manager: Mark Freese Nevada Department of Wildlife

Phone Number: (775) 688-1542

Email: markfreese@ndow.org

Project Partners

Name	Agency	Role
Not Specified	Bureau of Land Management	Agency Cooperator
Amanda Gearhart	Nevada Department of Wildlife	Implementation Lead

Project Schedule

Project Start Date: 07/01/2023 **State Fiscal Year:** 2024

Projected Completion Date: 06/30/2024 **State Fiscal Year:** 2024

Actual Completion Date: 05/31/2024

Project Location and Land Status

Location Narrative:

Statewide

NDOW Region: Not Applicable – Statewide Project

NDOW Management Units: Not Applicable – Statewide Project

Nevada Sage Grouse Population Management Unit: Not Applicable – Statewide Project

County: Not Applicable – Statewide Project

Land Status

Land Status	Acres	Percent of Project
No results		

Bureau of Land Management Office: Not Applicable – Statewide Project

US Forest Service Ranger District: Not Applicable – Statewide Project

Special Land Designations: Not Applicable – Statewide Project

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Wildland fire rehabilitation

Project Objectives:

- To control cheatgrass and other non-native annual grasses with herbicide application.
- To control noxious weeds with herbicide application.
- To apply seed on habitat impacted by wildfire to improve ecological conditions, prevent expansion of invasive annual grasses, and rehabilitate wildlife habitat.
- To re-apply seed on habitat impacted by wildfire to improve ecological conditions, prevent expansion of invasive annual grasses, and rehabilitate wildlife habitat.
- To plant seedlings on habitat impacted by wildfire to improve ecological conditions, prevent expansion of invasive annual grasses, and rehabilitate wildlife habitat.

NDOW Initiative Addressed:

- Sagebrush Habitat Plan (NDOW)

Strategic Habitats Addressed: Not Applicable – Statewide Project

Priority Resource Impacted: Not Applicable – Statewide Project

Priority Species Impacted: Not Applicable – Statewide Project

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Rationale:

The primary goal of this project is to work with the Nevada BLM, FS, and private landowners to supplement and conduct fire rehabilitation efforts. Approximately 1,700,937 acres of habitat have burned in Nevada during the 2018-2022 period. Emergency Stabilization and Rehabilitation (ESR) funding granted to BLM covers only a portion of the acres burned. BLM has requested that NDOW assist with securing additional funding to purchase seeds, apply seeds and conduct seedbed preparation to the remaining acreage and to partner with the BLM to leverage funding and contracting abilities so that the largest acreage and most effective treatments can be applied. Similar to BLM, the FS and private landowners also need assistance. Funds awarded for this project will be used to purchase seeds, apply seed, and conduct other seed bed preparation during the rehabilitation of fires across high priority sage grouse, mule deer and other habitat across the state of Nevada. The seeding and other activities will augment the amount and diversity of plant species that will be applied to key burned habitats on public and private lands across Nevada. Treatment effectiveness monitoring will be conducted to inform project success and inform the need for future management actions.

Date Work Completed: 05/31/2024

Completion Effectiveness Rating:

Effort is already effective

Completion Effectiveness Statement:

Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.

Completion Monitoring Plan:

Monitoring will occur on a fire by fire basis.

Project Treatments and Actions

Treatment Name: Statewide Fire Rehabilitation

Acres: 70,739,191.5

Action: Herbicide application (aerial)
Date Completed: 05/31/2024
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

See individual fire projects for further details.

Action: Seeding (aerial)
Date Completed: 05/31/2024
Effectiveness Rating: Effort is reasonably certain to be effective given adequate time.
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

See individual fire projects for further details.

Project Monitoring

Monitoring Plan:

Fire rehabilitation projects will be monitored and assessed for project effectiveness and knowledge gained will be applied towards future projects in an adaptive management framework. At a minimum, projects will be visited by NDOW biologist to monitor and assess project outcomes. Products may include repeat photograph points, density measurements, field trip reports, etc. Projects may also be monitored with vegetation survey crews to collect vegetation community structure and composition data (Line-Point-Intercept, density and belt transects, soil assessment, etc.) on large and/or important projects. Monitoring products for the more extensive survey efforts include producing reports with photographs, statistical analysis, project summaries of what worked or didn't work well, etc.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2024	Bureau of Land Management	$0	$
2024	NDOW Heritage Trust Account	$150000	$
2024	NDOW Industrial Development Fund	$0	$
2024	Nevada Dream Tag	$0	$
2024	NGO Donations	$0	$

Fiscal Year	Funding Source	Budget	Amount Spent
2024	USFWS Grant - Statewide Habitat Restoration	$0	$
	Total:	$0	$0



Boundaries

County Boundary USFS Office Boundaries BLM Office Boundaries NDOW Region Boundary

Land Status

Bureau of Indian Affairs Bureau of Land Management Bureau of Reclamation

Department of Defense Department of Energy Fish and Wildlife Service US Forest Service

National Park Service Nevada State Lands Nevada Park Service Private Other

Project Geometry

Project Boundary Treatment Area: Statewide Fire Rehabilitation

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: FY24 Gilbert Creek Fencing and Habitat Restoration Phase I **Project ID:** 855

Lead Agency: Nevada Department of Wildlife

Project Manager: Katie Andrle Nevada Department of Wildlife

Phone Number: (775) 688-1145

Email: kmandrle@ndow.org

Project Partners

Name	Agency	Role
Tori Cernoch	Nevada Department of Wildlife	Implementation Lead
Jeremy Lutz	Nevada Department of Wildlife	Implementation Lead

Project Schedule

Project Start Date: 07/01/2023 **State Fiscal Year:** 2024

Projected Completion Date: 06/30/2024 **State Fiscal Year:** 2024

Actual Completion Date: 10/23/2023

Project Location and Land Status

Location Narrative:

The Gilbert Creek property is approximately 477 acres located within the New Pass Mountains, Lander County.

NDOW Region: Eastern

NDOW Management Units: 183

Nevada Sage Grouse Population Management Unit: Desatoya

County: Lander

Land Status

Land Status	Acres	Percent of Project
Private	480.4	99.8

Bureau of Land Management Office: N/A

US Forest Service Ranger District: N/A

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Riparian, Meadow, Spring Restoration

Project Objectives:

- To measurably increase wildlife populations, wildlife use, or habitat for the benefit of public use and hunter success.
- To control cheatgrass and other non-native annual grasses with herbicide application.
- To install fencing that excludes livestock or wild horses/burros and prevents grazing and enhances spring and riparian habitat conditions.
- To install fencing that allows for improved management of livestock or wild horse/burro grazing and enhances spring and riparian habitat conditions.
- To install spring development features that improve water management and allows for providing water outside exclusionary fencing.
- To install fencing that allows for protection and recovery of natural water sources to increase water availability for wildlife.
- To control noxious weeds with herbicide application.
- To apply seed on riparian areas to improve ecological conditions, prevent expansion of invasive annual grasses, and rehabilitate wildlife habitat.

NDOW Initiative Addressed:

- Sagebrush Habitat Plan (NDOW)

Strategic Habitats Addressed: Aspen woodland, Linear riparian: perennial and ephemeral rivers and streams, Other habitats (grassland and meadows, playa, sand dunes and badlands, alpine and tundra), Other riparian: meadow, marsh, spring, seep, and lakeshore, Pinyon-juniper woodland (not encroachment), Upper montane coniferous forest and woodland

Priority Resource Impacted: Big Game, Upland Game

Priority Species Impacted: Greater sage-grouse, Mule deer, Pronghorn antelope

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Rationale:

Approximately 477 acres of land surrounding Gilbert Creek in the New Pass Mountains was acquired by Lander County in 2022. NDOW has been coordinating with the County to plan, design, and implement habitat restoration projects on the property. Proposed projects include property perimeter barbed wire fencing, which may include drill stem fencing in sections expected to experience increased pressure from snow pack, livestock, or feral horses. Additional drill stem pipe rail fencing is proposed to exclude feral horses and livestock from three spring sites and associated riparian areas within the property; it is reasonable to assume at some point the perimeter barbed wire fence may fail temporarily, enabling access by horses or cattle. Therefore it is important that drill stem fencing be constructed surrounding the most critical riparian resources to permanently exclude feral horses and cattle from these valuable resources.

In addition to fencing, we propose riparian and stream restoration projects along the ~2-mile stretch of perennial stream within the Gilbert Creek property boundary. Gilbert Creek and associated springs are heavily overutilized, which has resulted in degraded vegetation, large amounts of bare ground, negligible riparian vegetation, impaction, and non-functioning riparian systems. Beaver Dam Analogs, rock structures, willow or other shrub staking or planting, as well as seeding will be

planned and implemented along Gilbert Creek. Currently, there is little streambank incision and no major headcuts along Gilbert Creek, which presents an ideal opportunity to quickly improve riparian vegetation, soils, and maintain streambank stability with minimal effort that will result in meaningful and immediate uplift. The goal of any stream restoration will be to maintain bank stability and to spread water out across the floodplain, reducing erosive velocity and activating the "soil as a sponge" to keep water on the land for longer periods, especially into the hot season. If this system is not protected and continues to be overutilized by livestock and feral horses, cost of restoration efforts will only increase over time and lengthen the recovery timeline. Additional potential habitat treatments we hope to implement in the future pending available funding sources includes herbicide treatments and re-seeding efforts along the springs, creek, and uplands. In addition, Lander County obtained all water rights associated with these waters as part of their acquisition.

The Gilbert Creek property occurs within Hunt Unit 183, containing mapped mule deer, antelope and sage-grouse habitat. Field visits to the site have determined that big game species regularly and heavily use this site. Sage-grouse sign was also commonly seen, despite the site's degraded condition. Gilbert Creek is the only perennial water source on the east side of the New Pass Range, which appears to result in wildlife concentrating use on this riparian system. Improving the riparian and stream systems along Gilbert Creek, and excluding livestock and feral horses, will allow upland and riparian vegetation to improve and provide forage and cover for wildlife, including small mammals, passerines, and bats. Proposed riparian improvements will increase water quality, retention, and availability longer into the hot season. This parcel presents an important opportunity to improve habitat conditions in a fire-affected region where overall rangeland conditions are in a degraded state, and therefore significant uplift is expected.

Since 2020, in cooperation with the Battle Mountain BLM and local private landowners, NDOW has initiated several habitat projects immediately adjacent to this property including the treatment of ~2,000 acres with pre-emergent herbicide to control invasive non-native annuals, followed by seeding with a mix that included a variety of grasses, forbs and several different shrub species desirable by wildlife. In the spring of 2021, tens of thousands of sagebrush and bitterbrush seedlings were hand planted north of Gilbert Creek towards Water Canyon to help establish critical forage for sagebrush obligate species. Currently, work is underway to fence off another privately-owned parcel that contains several important springs and seeps critical for wildlife in Water Canyon (north of Gilbert Creek).

Date Work Completed: 10/23/2023

Completion Effectiveness Rating:

Effort is already effective

Completion Effectiveness Statement:

Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.

Completion Monitoring Plan:

Photo monitoring will be conducted over the next several years to document success and improvement as a result of the fencing.

Project Treatments and Actions

Treatment Name: Spring Exclosures

Acres: 1.1

Action: Intall or maintain pipe-rail fence
Date Completed: 10/23/2023
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

Photo monitoring will be conducted over the next several years to document success and improvement as a result of the fencing.

Treatment Name: Gilbert Creek Perimeter Fence

Acres: 481.3

Action: Other - please specify
Date Completed: 12/01/2023
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Other. Enter effectiveness rationale in text box.
Completion Narrative:

Range fence has been planned and the contract is awarded. Project updates will be provided in FY25 Gilbert Creek Restoration Project.

Project Monitoring

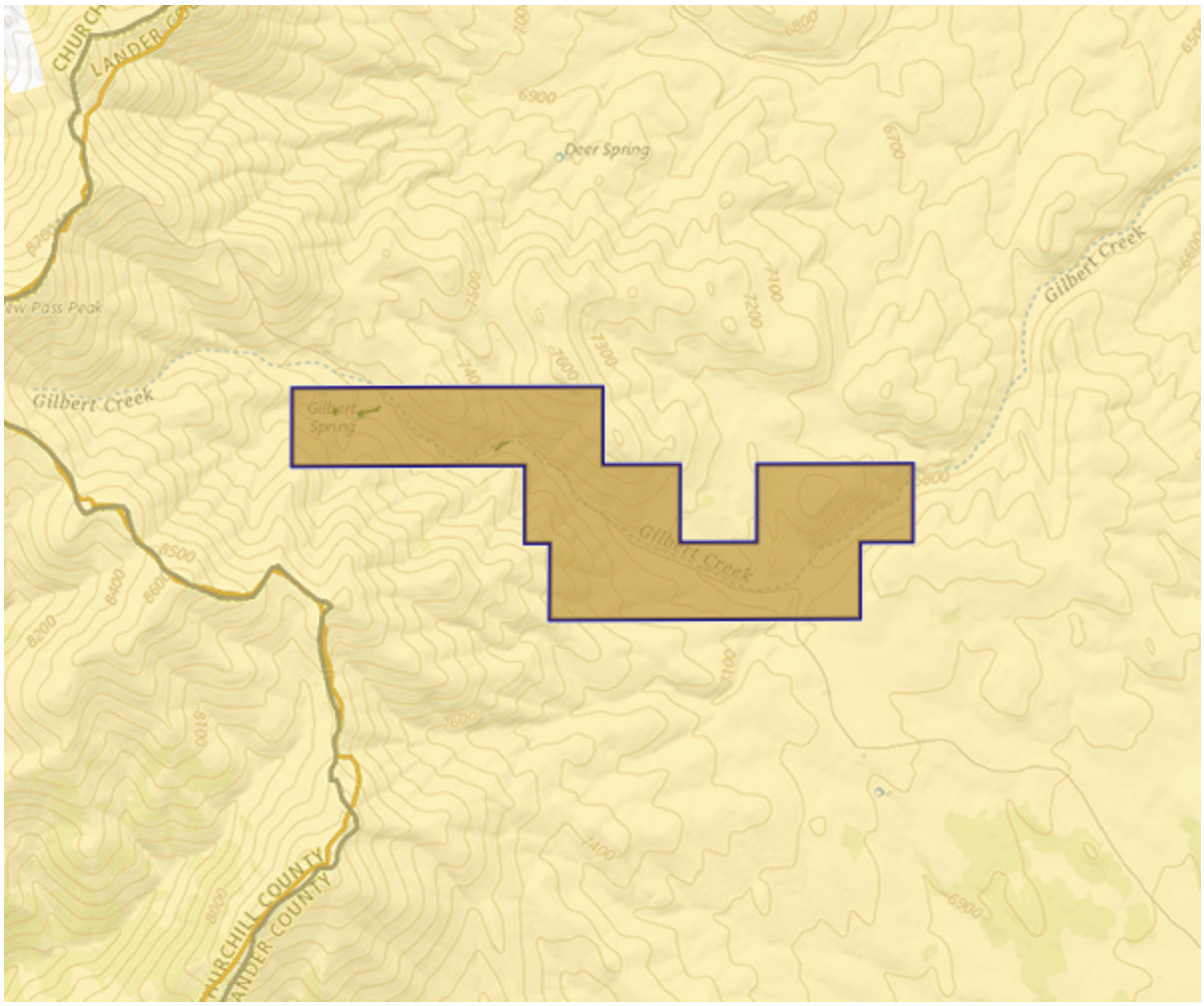
Monitoring Plan:

We plan to monitor habitat improvements when fencing and habitat restoration projects are implemented, starting in 2024 following fence installing in summer/fall 2023.

Summer 2024-2028: Annual monitoring, which may include photos and vegetation transects or measurements.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2024	Lander Conservation District	$0	$
2024	NDOW Heritage Trust Account	$50000	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Spring Exclosures · Treatment Area: Gilbert Creek Perimeter Fence

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: FY24 Wildcat Fire Mule Deer Migration Corridor Bitterbrush Planting **Project ID:** 831

Lead Agency: Nevada Department of Wildlife

Project Manager: Brittany Trimble Nevada Department of Wildlife

Phone Number: (775) 777-2393

Email: btrimble@ndow.org

Project Partners

Name	Agency	Role
US FOREST SERVICE	US Forest Service	Agency Cooperator
Kari Huebner	Nevada Department of Wildlife	Implementation Lead
Brittany Trimble	Nevada Department of Wildlife	Implementation Lead

Project Schedule

Project Start Date: 10/01/2023 **State Fiscal Year:** 2024

Projected Completion Date: 04/30/2024 **State Fiscal Year:** 2024

Actual Completion Date: 11/30/2023

Project Location and Land Status

Location Narrative:

Planting will occur on approximately 1,000 acres of the USFS HTNF Jarbidge Ranger District portion of the 2022 Wildcat Fire in Elko County.

NDOW Region: Eastern

NDOW Management Units: 075, 072

Nevada Sage Grouse Population Management Unit: O'Neil Basin

County: Elko

Land Status

Land Status	Acres	Percent of Project
Forest Service	3059.8	48.3
Bureau of Land Management	3273.4	51.6

Bureau of Land Management Office: N/A

US Forest Service Ranger District: Humboldt-Toiyabe National Forest - Mountain City-Ruby Mountains-Jarbidge Ranger District

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Wildland fire rehabilitation

Project Objectives:

- To measurably increase wildlife populations, wildlife use, or habitat for the benefit of public use and hunter success.
- To plant seedlings on habitat impacted by wildfire to improve ecological conditions, prevent expansion of invasive annual grasses, and rehabilitate wildlife habitat.

NDOW Initiative Addressed:

- Mule Deer Enhancement Program (NDOW)
- Shared Stewardship (USFS)

Strategic Habitats Addressed: Aspen woodland, High-elevation sagebrush dominated shrubland, Linear riparian: perennial and ephemeral rivers and streams, Low-elevation sagebrush dominated shrubland, Other habitats (grassland and meadows, playa, sand dunes and badlands, alpine and tundra), Pinyon-juniper woodland (not encroachment), Salt desert shrub, Upper montane coniferous forest and woodland, Other riparian: meadow, marsh, spring, seep, and lakeshore

Priority Resource Impacted: Big Game, Diversity/Non-game, Upland Game

Priority Species Impacted: Dark Kangaroo Mouse, Greater sage-grouse, Mule deer, Pronghorn antelope

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Rationale:

The 2022 Wildcat Fire burned 21,423 acres total with 17,353 acres occurring on BLM land, 3,075 acres occurring on Forest Service land, and 955 acres on private land. The burned area is classified as crucial stop over habitat, migration corridor, and summer range for the Area 7 mule deer herd, as well as year-round pronghorn antelope, elk, Greater Sage-grouse, Lahontan cutthroat trout, and dark kangaroo mouse habitat. Elko BLM seeded the entire BLM-managed burned area with upland grasses, forbs, and shrubs in fall 2022-early 2023 and is also planning to plant up to 1 million bitterbrush seedlings throughout burned BLM land over subsequent years. Forest Service is unsure how much funding they will receive to be able to reseed or plant seedlings on their portion of the burn, so in collaboration with the HTNF Jarbidge Ranger District, NDOW seeded a sagebrush and watershed mix on 1,550 acres of Forest Service land in January 2023 and the Area 7 MDEP subcommittee proposed bitterbrush seedling planting for fall 2023 to supplement the seeding in restoring the mountain brush community so relied upon by the diverse wildlife community in the area. The HTNF Jarbidge Ranger District is supportive of this effort and has committed to completing any NEPA/SHPO clearance required before planting is scheduled to occur in fall 2023. This project will also be a Shared Stewardship project, which may lead to additional funding availability for this project.

The proposed project area has experienced severe drought in the years previous to the Wildcat Fire and, in combination with the decadent age of the mountain brush community, was in an extremely stressed state at the time of the wildfire. These conditions have been shown to reduce bitterbrush resprouting post-fire and, given the reluctance to drill-seed on Forest Service land, the near-zero establishment of bitterbrush from aerial seeding, and the importance of bitterbrush to the Area 7 mule deer herd during their migration through this burned area, planting of bitterbrush seedlings was determined to be a

priority to help re-establish the habitat values in the burned area. Of the 3,075 acres of Forest Service land that burned in the Wildcat Fire, 1,000 acres will be targeted for planting 74,000 antelope bitterbrush seedlings in "shrub islands" with biodegradable caging to protect the seedlings from overutilization in the first couple years vital for establishment.

Date Work Completed: 11/30/2023

Completion Effectiveness Rating:

Effort has a high likelihood of being effective given adequate time

Completion Effectiveness Statement:

Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.

Completion Monitoring Plan:

Repeated monitoring of photo points established prior to treatment implementation.

Project Treatments and Actions

Treatment Name: Wildcat Fire Migration Corridor FS Seedling Planting

Acres: 3,074.9

Action: Planting (container stock)
Date Completed: 11/08/2023
Effectiveness Rating: Effort has a high likelihood of being effective given adequate time
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

Bitterbrush seedlings were grown at USFS Lucky Peak Nursery and were contracted for planting on the USFS portion of the burn in November 2023. Even though 74,000 bitterbrush plants were ordered for this project (34,000 container + 40,000 bareroot), poor growing conditions at the Lucky Peak Nursery during summer 2023 resulted in only 56,260 seedlings surviving and being available for planting (22,800 container + 33,460 bareroot). Eight-thousand Wyoming sagebrush seedlings were grown by the local Wells High School FFA program during the summer 2023 and were also planted on the Wildcat burned area under the same contract. Overall, 64,260 plants were planted across 253 acres under this NDOW contract using Heritage project funds. Elko BLM planted an additional 150,000 Wyoming sagebrush on the BLM portion of the burn in November 2023 and 120,000 antelope bitterbrush seedlings in spring 2024.

Action: Planting (root stock)
Date Completed: 11/08/2023
Effectiveness Rating: Effort has a high likelihood of being effective given adequate time
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

Bitterbrush seedlings were grown at USFS Lucky Peak Nursery and were contracted for planting on the USFS portion of the burn in November 2023. Even though 74,000 bitterbrush plants were ordered for this project (34,000 container + 40,000 bareroot), poor growing conditions at the Lucky Peak Nursery during summer 2023 resulted in only 56,260 seedlings surviving and being available for planting (22,800 container + 33,460 bareroot). Eight-thousand Wyoming sagebrush seedlings were grown by the local Wells High School FFA program during the summer 2023 and were also planted on the Wildcat burned area under the same contract. Overall, 64,260 plants were planted across 253 acres under this NDOW contract using

Heritage project funds. Elko BLM planted an additional 150,000 Wyoming sagebrush on the BLM portion of the burn in November 2023 and 120,000 antelope bitterbrush seedlings in spring 2024.

Treatment Name: BitterbrushPlanting_implemented

Acres: 272.8

Action: Planting (container stock)
Date Completed: 11/08/2023
Effectiveness Rating: Effort has a high likelihood of being effective given adequate time
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

Bitterbrush seedlings were grown at USFS Lucky Peak Nursery and were contracted for planting on the USFS portion of the burn in November 2023. Even though 74,000 bitterbrush plants were ordered for this project (34,000 container + 40,000 bareroot), poor growing conditions at the Lucky Peak Nursery during summer 2023 resulted in only 56,260 seedlings surviving and being available for planting (22,800 container + 33,460 bareroot). Eight-thousand Wyoming sagebrush seedlings were grown by the local Wells High School FFA program during the summer 2023 and were also planted on the Wildcat burned area under the same contract. Overall, 64,260 plants were planted across 253 acres under this NDOW contract using Heritage project funds. Elko BLM planted an additional 150,000 Wyoming sagebrush on the BLM portion of the burn in November 2023 and 120,000 antelope bitterbrush seedlings in spring 2024.

Action: Planting (root stock)
Date Completed: 11/08/2023
Effectiveness Rating: Effort has a high likelihood of being effective given adequate time
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

Bitterbrush seedlings were grown at USFS Lucky Peak Nursery and were contracted for planting on the USFS portion of the burn in November 2023. Even though 74,000 bitterbrush plants were ordered for this project (34,000 container + 40,000 bareroot), poor growing conditions at the Lucky Peak Nursery during summer 2023 resulted in only 56,260 seedlings surviving and being available for planting (22,800 container + 33,460 bareroot). Eight-thousand Wyoming sagebrush seedlings were grown by the local Wells High School FFA program during the summer 2023 and were also planted on the Wildcat burned area under the same contract. Overall, 64,260 plants were planted across 253 acres under this NDOW contract using Heritage project funds. Elko BLM planted an additional 150,000 Wyoming sagebrush on the BLM portion of the burn in November 2023 and 120,000 antelope bitterbrush seedlings in spring 2024.

Treatment Name: Pre-emergent Herbicide

Acres: 6,338.2

Action: Herbicide application (aerial)
Date Completed: 09/15/2023
Effectiveness Rating: Effort is reasonably certain to be effective given adequate time.
Effectiveness Statement: Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.
Completion Narrative:

In fall 2023, the presence of cheatgrass along the roads throughout the fire became apparent and NDOW and project partners alike were concerned about the spread of cheatgrass from roadsides further into the burned areas that are in recovery. After reaching out to Dream Tag and RMEF about the available

funds with the changes in the bitterbrush planting project, we received permission from both project sponsors to use their respective funds for the application of pre-emergent herbicide over 3,561 acres along roads through the BLM and privately owned burned areas to prevent the spread further into the burn from the roads. Pre-emergent application was completed in September 2023.

Project Monitoring

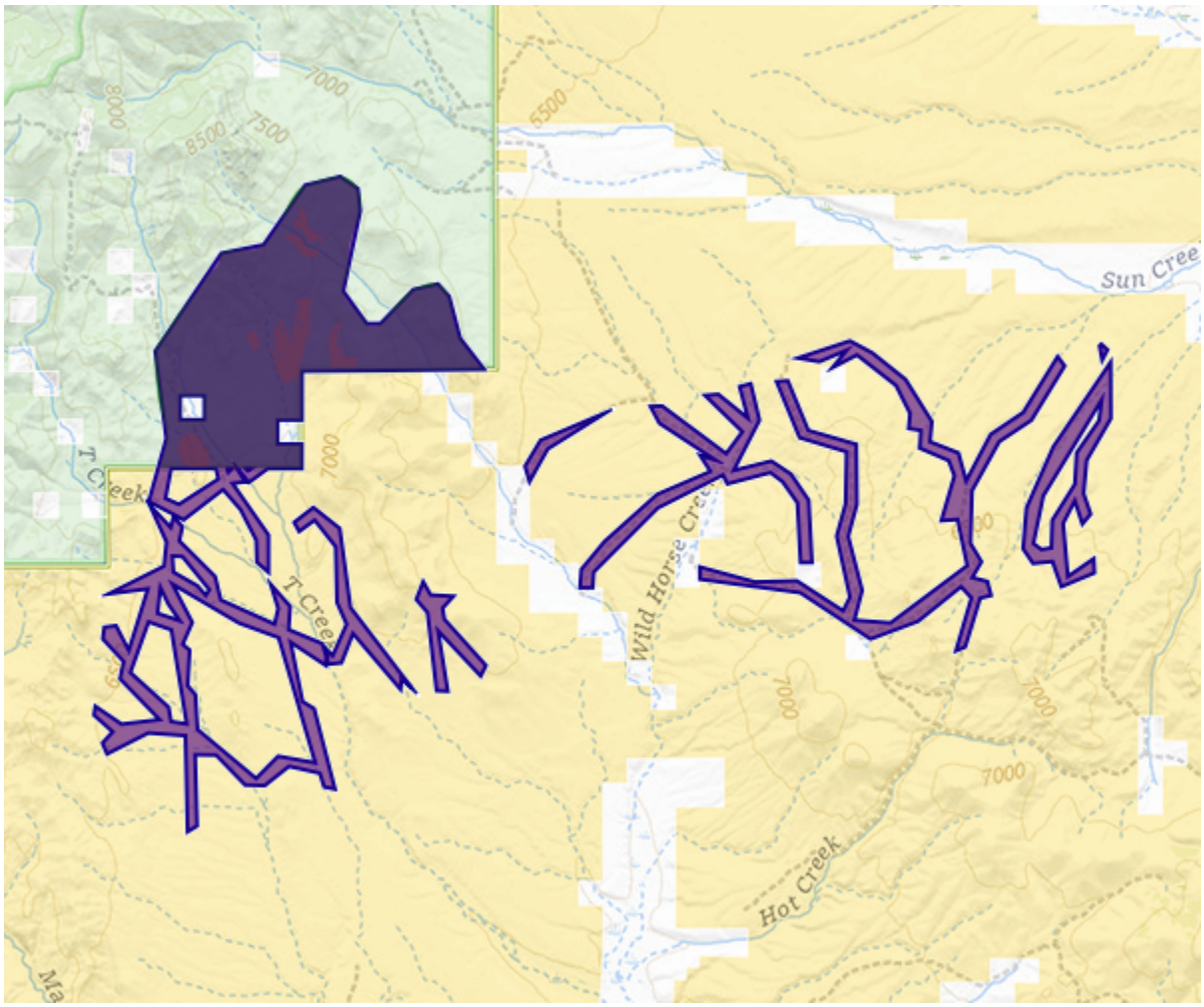
Monitoring Plan:

Monitoring will include repeated photo points that will be established in summer 2023 before project implementation and revisited annually to assess habitat changes over time, as well as ocular estimates of bitterbrush establishment from planting. Photo points will be shared with all project cooperators so everyone has the opportunity to revisit and contribute to project monitoring.

Implementation of planting will be inspected throughout the period of performance and upon completion of implementation to ensure the Scope of Work was adhered to appropriately.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2024	NDOW Heritage Trust Account	$82000	$81524.42
2024	Nevada Dream Tag	$0	$
2024	Rocky Mountain Elk Foundation	$0	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Wildcat Fire Migration Corridor FS Seedling Planting

Treatment Area: BitterbrushPlanting_implemented · Treatment Area: Pre-emergent Herbicide

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: Steptoe Valley Wildlife Management Area Water Enhancements **Project ID:** 842

Lead Agency: Nevada Department of Wildlife

Project Manager: Adam Henriod Nevada Department of Wildlife

Phone Number: (775) 289-1690

Email: ahenriod@ndow.org

Project Partners

Name	Agency	Role
No results		

Project Schedule

Project Start Date: 07/01/2023 **State Fiscal Year:** 2024

Projected Completion Date: 09/30/2024 **State Fiscal Year:** 2025

Actual Completion Date: 06/06/2024

Project Location and Land Status

Location Narrative:

This test well will be located on the Steptoe Valley Wildlife Management Area in White Pine County.

NDOW Region: Eastern

NDOW Management Units: 111, 222

Nevada Sage Grouse Population Management Unit: Steptoe/Cave

County: White Pine

Land Status

Land Status	Acres	Percent of Project
Bureau of Land Management	6297.9	49.2
Private	6508.2	50.8

Bureau of Land Management Office: N/A

US Forest Service Ranger District: N/A

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT IMPROVEMENT or MANAGEMENT: Management of Wildlife Management Areas (WMA)

Project Objectives:

- Other - please specify

NDOW Initiative Addressed: No initiatives

Strategic Habitats Addressed: High-elevation sagebrush dominated shrubland, Lakes and reservoirs, Linear riparian: perennial and ephemeral rivers and streams, Low-elevation sagebrush dominated shrubland, Mixed desert scrub, Other habitats (grassland and meadows, playa, sand dunes and badlands, alpine and tundra), Pinyon-juniper woodland (not encroachment), Salt desert shrub, Upper montane coniferous forest and woodland

Priority Resource Impacted: Big Game, Diversity/Non-game, Fish, Upland Game, Waterfowl

Priority Species Impacted: Dabbling duck species, Diving duck species, Elk, Geese, Greater sage-grouse, Migratory songbirds (multiple species), Mule deer, Pronghorn antelope, Rainbow trout, Relict dace, Shorebirds

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Rationale:

Project Objectives-Other

1. Perform research and field reconnaissance to evaluate existing infrastructure and determine best place for test well location.

2. Design and construct test well.

3. Pump test well to evaluate aquifer properties.

4. Prepare hydrogeologic report.

5. Develop production well site plan.

6. Prepare engineer’s estimate to design and construct production well capable of producing 2,875 acre-feet of water annually.

This project seeks funding for the installation of a well and appropriate pumping, delivery, and power infrastructure on Steptoe Valley Wildlife Management Area (SVWMA). After a test well has been completed a system will be designed that will allow NDOW to use ground water for wildlife benefits on SVWMA. NDOW will enter into a Memorandum of Agreement (MOA) with White Pine County Nevada to utilize approximately 2,875 acre feet of water annually. The value of this water will count as State matching dollars for Federal grants.

The addition of 2,875 acre feet or water yearly will benefit wildlife in multiple ways. Comins Lake is one of the top fisheries in Nevada. It is know for producing large rainbow trout. In addition anglers can also catch brown trout, tiger trout, largemouth

bass and bluegill. Comins lake is also desirable nesting and foraging habitat for many waterfowl and shorebird species. Currently Comins lake can have drastic seasonal shifts in water elevation. This is particularly noticeable in drought years. Water from the well will allow Comins Lake levels to be more appropriately managed to provide better fishing and hunting opportunities as well as more desired habitat for wildlife.

Well water will also allow the creation of food plots on the management area. Food plots will be designed to benefit big game found on the property (elk, mule deer, pronghorn) as well as game birds (dove, waterfowl, sage-grouse). Additionally they will benefit many songbirds, wading birds, and small mammals.

This water will also be used to supplement the WMA pond system. The transport of water in earthen ditch systems and water storage in ponds on the WMA will benefit many species. During drought years as many as seven of the properties thirteen ponds can go dry. Big game, upland game, waterfowl, and shorebirds use these ponds and ditches as water and food sources. Relict Dace live within the spring systems found on the WMA. All species mentioned will benefit with the ability to better maintain pond levels through the installation of the well.

Date Work Completed: 06/06/2024

Completion Effectiveness Rating:

Effort is uncertain or unlikely to be effective

Completion Effectiveness Statement:

Project actions were implemented as planned, but events occurred that undermined project effectiveness

Completion Monitoring Plan:

N/A

Project Treatments and Actions

Treatment Name: Steptoe WMA

Acres: 12,806.5

Action: Create, modify, or maintain diversion canals, headgates, or water pipelines
Date Completed: 06/06/2024
Effectiveness Rating: Effort is uncertain or unlikely to be effective
Effectiveness Statement: Project actions were implemented as planned, but events occurred that undermined project effectiveness
Completion Narrative:

Heritage funds were used to design and drill a test well on the SVWMA to determine if there was sufficient water to take advantage of an opportunity offered by White Pine County to utilize their water rights. The test well produced about 400 gallons per minute which was only a small portion of the water that was offered. Due to the lack of water and the anticipated price to obtain additional water, NDOW decided that it did not make sense from an economical standpoint to continue with the project.

Action: Other - please specify
Date Completed: 06/06/2024
Effectiveness Rating: Effort is uncertain or unlikely to be effective
Effectiveness Statement: Project actions were implemented as planned, but events occurred that undermined project effectiveness
Completion Narrative:

Heritage funds were used to design and drill a test well on the SVWMA to determine if there was sufficient water to take advantage of an opportunity offered by White Pine County to utilize their water rights. The test well produced about 400 gallons per minute which was only a small portion of the water that was offered. Due to the lack of water and the anticipated price to obtain additional water, NDOW decided that it did not make sense from an economical standpoint to continue with the project.

Project Monitoring

Monitoring Plan:

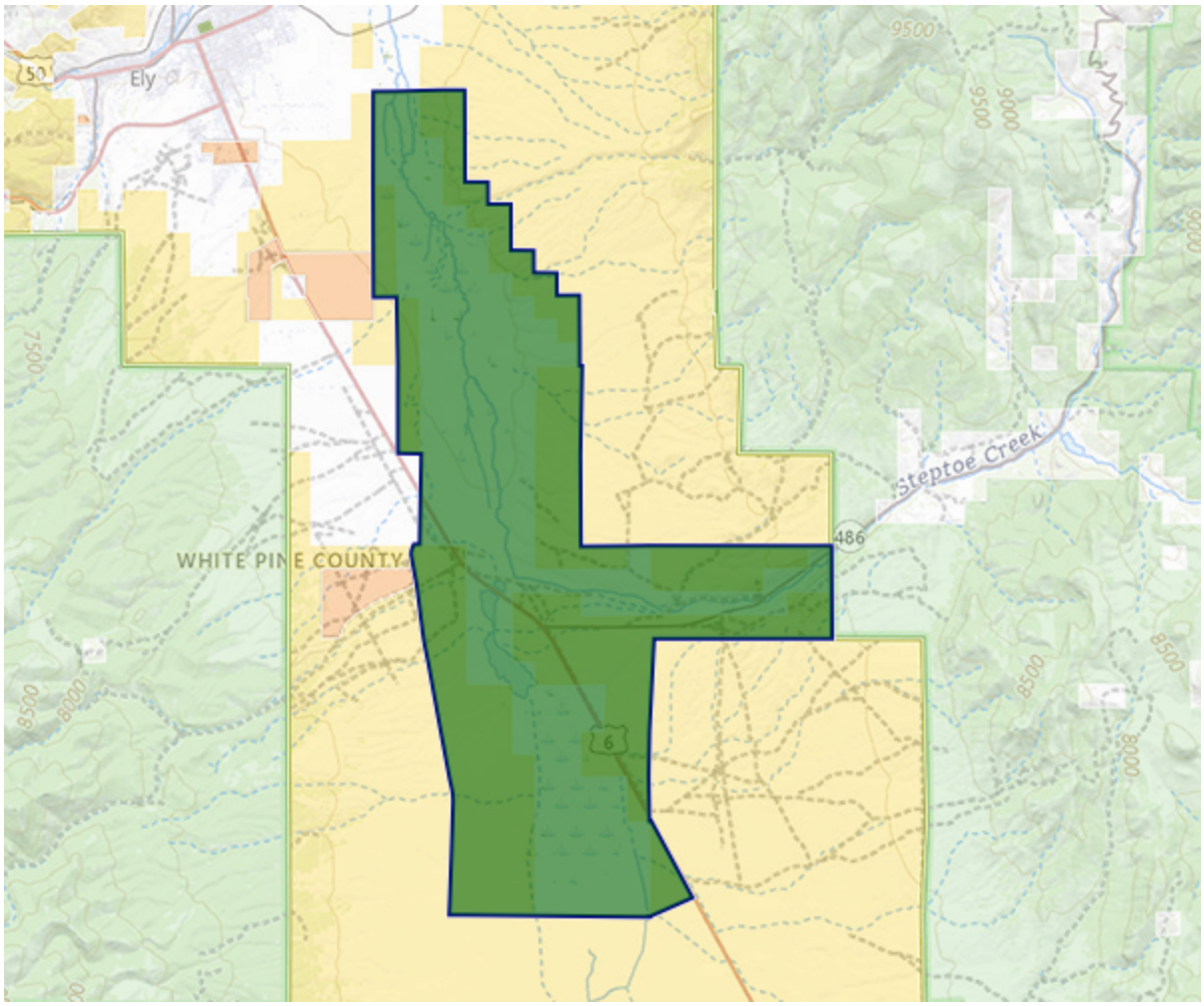
NDOW WMA and Fisheries staff will utilize the Steptoe WMA Water Management Plan to manage Comins Lake levels.

Food plots will be planted annually and planted species will be evaluated for effectiveness.

Ponds will be regularly checked and flows adjusted to provide the most ideal habitat conditions.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2024	AB84 - Conservation Bond Initiative	$0	$
2024	NDOW Heritage Trust Account	$117277.58	$
2024	USFWS Grant - Wildlife Management Areas	$0	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Steptoe WMA

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: Pole Canyon Fence **Project ID:** 851

Lead Agency: Nevada Department of Wildlife

Project Manager: Madi Stout Nevada Department of Wildlife

Phone Number: (775) 777-2392

Email: mstout@ndow.org

Project Partners

Name	Agency	Role
RMEF	RMEF- Aaron Swift	Non-Agency Cooperator
Elko Bighorns Unlimited	Elko Bighorns Unlimited	Non-Agency Cooperator

Project Schedule

Project Start Date: 07/01/2023 **State Fiscal Year:** 2024

Projected Completion Date: 10/31/2023 **State Fiscal Year:** 2024

Actual Completion Date: 01/22/2024

Project Location and Land Status

Location Narrative:

The Project is located approximately 30 miles east of Elko, Nevada, in the northern portion of the East Humboldt Range in Elko County, Nevada. The Figure 1(attached) shows the vicinity of proposed Project location. The Project Area is located on private lands surrounded by National Forest System (NFS) land in the Ruby Mountain Ranger District.

NDOW Region: Eastern

NDOW Management Units: 105, 101, 102

Nevada Sage Grouse Population Management Unit: South Fork, Ruby Valley

County: Elko

Land Status

Land Status	Acres	Percent of Project
Bureau of Land Management	8199.6	16.4
Forest Service	18788.4	37.5
Private	22032.5	44

Bureau of Land Management Office: N/A

US Forest Service Ranger District: Humboldt-Toiyabe National Forest - Mountain City-Ruby Mountains-Jarbidge Ranger District

Special Land Designations: USDA Forest Service|East Humboldts Wilderness|Designated Wilderness

Project Summary and Justification

Project Activity and Sub-activity: INFRASTRUCTURE and LAND: Direct infrastructure purchase, construction, or maintenance

Project Objectives:

- To purchase new equipment or facilities.
- To measurably increase access for wildlife-dependent recreation.

NDOW Initiative Addressed: No initiatives

Strategic Habitats Addressed: Aspen woodland, High-elevation sagebrush dominated shrubland, Linear riparian: perennial and ephemeral rivers and streams, Low-elevation sagebrush dominated shrubland, Other habitats (grassland and meadows, playa, sand dunes and badlands, alpine and tundra), Other riparian: meadow, marsh, spring, seep, and lakeshore, Pinyon-juniper woodland (not encroachment), Salt desert shrub, Upper montane coniferous forest and woodland

Priority Resource Impacted: Big Game, Diversity/Non-game, Upland Game

Priority Species Impacted: American Pika, Greater sage-grouse, Migratory songbirds (multiple species), Mountain Goat, Mule deer, Northern goshawk, Rocky Mountain Bighorn Sheep

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: no

Project Rationale:

The Pole Canyon Conservation Easement will permanently protect 12,122.43 acres of private rangeland along the base of the East Humboldt mountains in northern Nevada. The proposed conservation easement will conserve habitat along a critical migratory corridor for the largest population of mule deer in Nevada and will serve as important sagebrush, grassland and riparian habitat for mule deer, bighorn sheep, mountain goat, and several species of conservation priority, including the greater sage-grouse. The proposed conservation easement will also improve habitat connectivity to neighboring U.S. Forest Service administered lands for game and non-game species movement across the landscape. The Pole Canyon public access easement, a complementary document to the conservation easement, allows public access onto 4,600-acres of property as well as to United States Forest Service (USFS) lands beyond. As part of the access easement, the NDOW committed to building a roughly 4000-ft welded drill steel fence and parking area that will inform the public of where access is permitted. The construction of this fence/parking area is a crucial piece to continuing what has thus far been a very successful partnership.

Date Work Completed: 01/22/2024

Completion Effectiveness Rating:

Effort is reasonably certain to be effective given adequate time.

Completion Effectiveness Statement:

Project actions were implemented as planned and methods used have demonstrated success in similar projects or are supported by current literature and technical guidance. Additional monitoring is needed to ensure objectives are met.

Completion Monitoring Plan:

N/A

Project Treatments and Actions

Treatment Name: Pole Canyon Fence

Linear Feet: 17877

Action: Purchase/install new equipment
Date Completed: 08/07/2023
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

In July of 2023, the fence was constructed by Gold Standard Fence; the project was completed on August 7th, 2023. This report serves as NDOW's documentation of meeting the signage and fencing obligations within the Access Easement. Additionally, in January of 2024, the NDOW seeded the disturbed area that was created along the fence line and parking lot during construction, per the request of the private landowner. Species composition was derived according to environmental site descriptions for the area as well as a mixture of highly desirable species for pollinators.

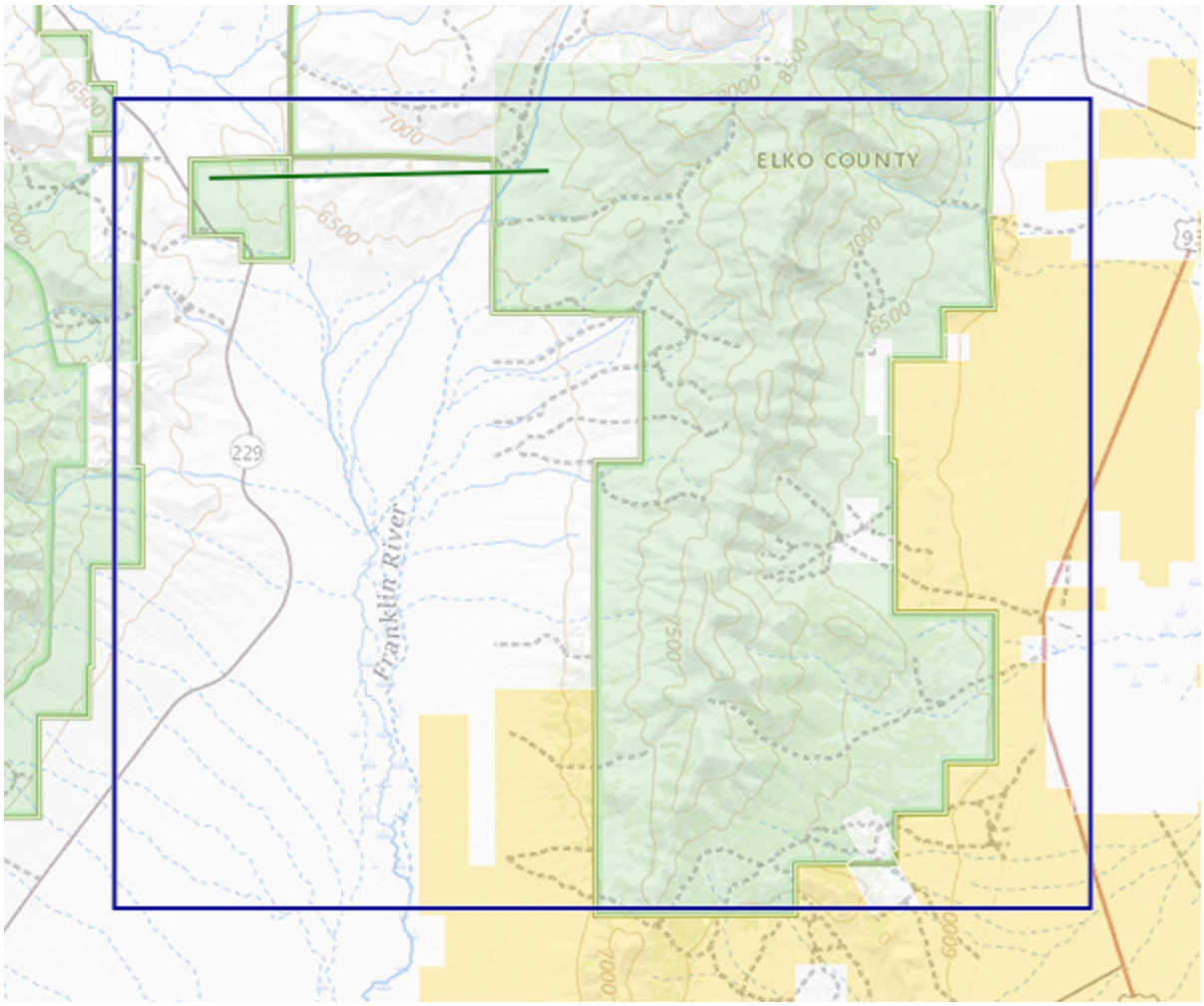
Project Monitoring

Monitoring Plan:

A monitoring plan is not applicable to this project.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2024	NDOW Heritage Trust Account	$100000	$
2024	Nevada Dream Tag	$0	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Pole Canyon Fence

NEVADA DEPARTMENT OF WILDLIFE

Project Completion Report

Project Name: FY24 MA13 Mule Deer Collaring **Project ID:** 852

Lead Agency: Nevada Department of Wildlife

Project Manager: Josh Kirk Nevada Department of Wildlife

Phone Number: (775) 777-2342

Email: joshua.kirk@ndow.org

Project Partners

Name	Agency	Role
Josh Kirk	Nevada Department of Wildlife	Implementation Lead

Project Schedule

Project Start Date: 07/01/2023 **State Fiscal Year:** 2024

Projected Completion Date: 06/30/2024 **State Fiscal Year:** 2024

Actual Completion Date: 02/22/2024

Project Location and Land Status

Location Narrative:

White Pine, Lincoln and Nye Counties, Nevada, MA 13, Mule Deer Winter Range (HU 131: Currant Hills, Ellison Knobs – HU 132: Douglas Hills, E. Horse Range, Scofield Bench – HU 133: Golden Gate Range)

NDOW Region: Eastern, Southern

NDOW Management Units: 132, 134, 131, 133

Nevada Sage Grouse Population Management Unit: Diamond, Butte/Buck/White Pine, Quinn

County: Nye, Lincoln, White Pine

Land Status

Land Status	Acres	Percent of Project
No results		

Bureau of Land Management Office: N/A

US Forest Service Ranger District: Humboldt-Toiyabe National Forest - Ely Ranger District

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: POPULATION MANAGEMENT, MONITORING, and RESEARCH: Terrestrial Wildlife

Project Objectives:

- To measurably increase wildlife populations, wildlife use, or habitat for the benefit of public use and hunter success.
- To conduct population surveys or research that informs management or monitoring needs.

NDOW Initiative Addressed:

- Mule Deer Enhancement Program (NDOW)

Strategic Habitats Addressed: N/A

Priority Resource Impacted: Big Game

Priority Species Impacted: Mule deer

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: no

Project Rationale:

MA13 has had very few collaring efforts in the past and currently, there are no existing projects in place monitoring the declining status and trends of the mule deer herd. There has been multiple habitat enhancement and water development projects over the years but little to no collar data to support their success. Recruitment rates in MA13 are one of the lowest in the state and population size has been steadily decreasing over the last few years. During the 2021-2022 survey season, the number of adults observed, as well as number of fawns observed and recruited into the population, were all significantly below the 5-year average. Additionally, buck ratios are significantly below the management objective, resulting in lower quota recommendations and reduced hunting opportunities for the public. Mule deer are also experiencing additional pressures resulting from unfavorable environmental conditions in the last five years. Extreme and persistent drought conditions, interspersed with extreme winter conditions combined with competition with wild horses for resource availability have resulted in additional additive mortality year to year. Without funding from the Wildlife Heritage Account, the project would likely be delayed or would not occur, limiting the critical data that these collars would provide. A delay in collaring mule deer in MA13 would likely result in continued herd contractions with little to no knowledge on the limiting factors causing the decline.

We would like to deploy 30 Satellite Global Positioning System (GPS) collars in the targeted mule deer wintering areas of MA13. We are asking that 20 of the collars and capture cost be funded through Wildlife Heritage Account, while the remaining 10 collars will be funded through the USFW Grant - Statewide Game Management account. We are asking for $60,000 from the Wildlife Heritage Fund account and $30,000 from the USFWS Grant, totaling $90,000 for the project's entirety. Captures will take place during winter 2023-2024 and will be conducted by a professional contractor. The capture crew will use a net-gun to capture female mule deer and will physically restrain individuals with hobbles and blindfolds while outfitting them with the collars. Collars will remain on deer for a specific amount of time before a locking mechanism releases and allow collars to drop-off. Upon release, collars will transmit signals to notify mangers who will retrieve them from the field. In the event of a mortality or slipped collar, the collar will be redeployed the following capture season to continue to gather data. Data from collars will regularly upload to a database and will be accessible to managers online for seasonal space use, survival, and migration corridor analyses.

Understanding mule deer movements will aid the subcommittee in identifying future habitat projects through the Mule Deer Enhancement Program (MDEP). Radio-collaring mule deer will provide data on MA13 mule deer movements, space use, and resource selection in relation to their migration. Biologists will also be able to quantify survival rates and identify causes of mortality. A large enough sample size of radio-collars to properly analyze data has never been deployed in this management area. Mule deer will be captured throughout the winter range of MA13 in order to encompass potential variation in large scale movements. We are expecting that spatiotemporal movement data from radio-collared deer will further inform us on the most impactful locations for effective habitat management efforts. These data are vital in the decision-making process for future habitat projects and will ultimately greatly benefit the herd. This project will also allow NDOW to provide the BLM and USFS with valuable data during the EIS/NEPA process to inform sound mitigation decisions to best protect mule deer habitats while simultaneously protecting and enhancing other species habitats (i.e., Greater Sage-grouse, elk, pronghorn, and a variety of non-game species).

This project would also be in conjunction with the Pancake HMA 2022 horse gather conducted by the BLM (https://www.blm.gov/programs/wild-horse-and-burro/herd-management/gathers-and-removals/nevada/2022-pancake-complex-wild). In 2021, the Pancake Complex was estimated to be at a level of approximately 3,244 wild horses, 450%+ over the Appropriate Management Level of 361-638 wild horses. In February 2022, 2,054 wild horses were gathered by the BLM. The current wild horse population is estimated to be at about 700 individuals, which is still over the AML, but the density has been significantly reduced. The negative influence of wild horse overpopulation on mule deer populations and wildlife habitat (water and food resource availability) is well known, and following the gather the population is sure to increase over time without regular and frequent gathers. This presents a unique opportunity that will allow for inference on how changes in horse densities over time influence mule deer behavior on the greater landscape. Taking advantage of this scenario surrounding horse-deer interspecific interactions may also assist in management of mule deer in other areas of the state where wild horse populations are over AML.

Date Work Completed: 02/22/2024

Completion Effectiveness Rating:

Effort is already effective

Completion Effectiveness Statement:

Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.

Completion Monitoring Plan:

The outcome of this project was a huge success. The number of collars that were purchased were hung on mule deer throughout the prime winter ranges of Area 13. The collar data that will be analyzed from this project will be undoubtably beneficial. Close monitoring of the collared mule deer will be continued until the battery life of the collar ends or the fate of an individual has succumbed. The collar data will then be analyzed comprehensively to determine seasonal habitat use, migration corridors, as well as other limiting factors to this mule deer herd.

Project Treatments and Actions

Treatment Name: Currant Hills

Acres: 22,608.8

Action: Deploy GPS/VHF collars on big game species
Date Completed: 02/22/2024
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

A total of 4 collars (2 adult does and 2 doe fawns) were deployed in the Currant Hills winter range in Area 13.

Action: Collect, analyze, or model big game population or habitat use data
Date Completed: 02/22/2024

Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

A total of 4 collars (2 adult does and 2 doe fawns) were deployed in the Currant Hills winter range in Area 13.

Treatment Name: East Horse Range

Acres: 46,792.4

Action: Deploy GPS/VHF collars on big game species
Date Completed: 02/22/2024
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

A total of 8 collars (4 adult does, 3 doe fawns, and 1 buck fawn) were deployed in the East Horse Range in Area 13.

Action: Collect, analyze, or model big game population or habitat use data
Date Completed: 02/22/2024
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

A total of 8 collars (4 adult does, 3 doe fawns, and 1 buck fawn) were deployed in the East Horse Range in Area 13.

Treatment Name: Ellison Knobs and Douglas Hills

Acres: 31,965.4

Action: Deploy GPS/VHF collars on big game species
Date Completed: 02/22/2024
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

A total of 7 collars (3 adult does, 2 buck fawns, and 2 doe fawns) were deployed in the Ellison Knobs and Douglas Hills winter range in Area 13.

Action: Collect, analyze, or model big game population or habitat use data
Date Completed: 02/22/2024
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

A total of 7 collars (3 adult does, 2 buck fawns, and 2 doe fawns) were deployed in the Ellison Knobs and Douglas Hills winter range in Area 13.

Treatment Name: Golden Gate Range

Acres: 46,009.1

Action: Collect, analyze, or model big game population or habitat use data
Date Completed: 02/22/2024
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

A total of 11 collars (6 adult does and 5 doe fawns) were deployed in the Golden Gate Range in southern Area 13.

Action: Deploy GPS/VHF collars on big game species
Date Completed: 02/22/2024
Effectiveness Rating: Effort is already effective
Effectiveness Statement: Project actions were implemented as planned and monitoring demonstrated that objectives were met. Additional monitoring is needed to ensure objectives continue to be met.
Completion Narrative:

A total of 11 collars (6 adult does and 5 doe fawns) were deployed in the Golden Gate Range in southern Area 13.

Treatment Name: Scofield Bench

Acres: 38,491.7

Action: Collect, analyze, or model big game population or habitat use data
Date Completed: 02/22/2024
Effectiveness Rating: Effort is uncertain or unlikely to be effective
Effectiveness Statement: Project actions were implemented as planned, but events occurred that undermined project effectiveness
Completion Narrative:

Due to the excessive snow loads on Scofield Bench during the time of the capture, no deer were present and were heavily consolidated in the Golden Gate Range just due east. In terms of the overall project effectiveness, it was a success. The total number of collars purchased were deployed elsewhere with little to no issues.

Action: Deploy GPS/VHF collars on big game species
Date Completed: 02/22/2024
Effectiveness Rating: Effort is uncertain or unlikely to be effective
Effectiveness Statement: Project actions were implemented as planned, but events occurred that undermined project effectiveness
Completion Narrative:

Due to the excessive snow loads on Scofield Bench during the time of the capture, no deer were present and were heavily consolidated in the Golden Gate Range just due east. In terms of the overall project effectiveness, it was a success. The total number of collars purchased were deployed elsewhere with little to no issues.

Project Monitoring

Monitoring Plan:

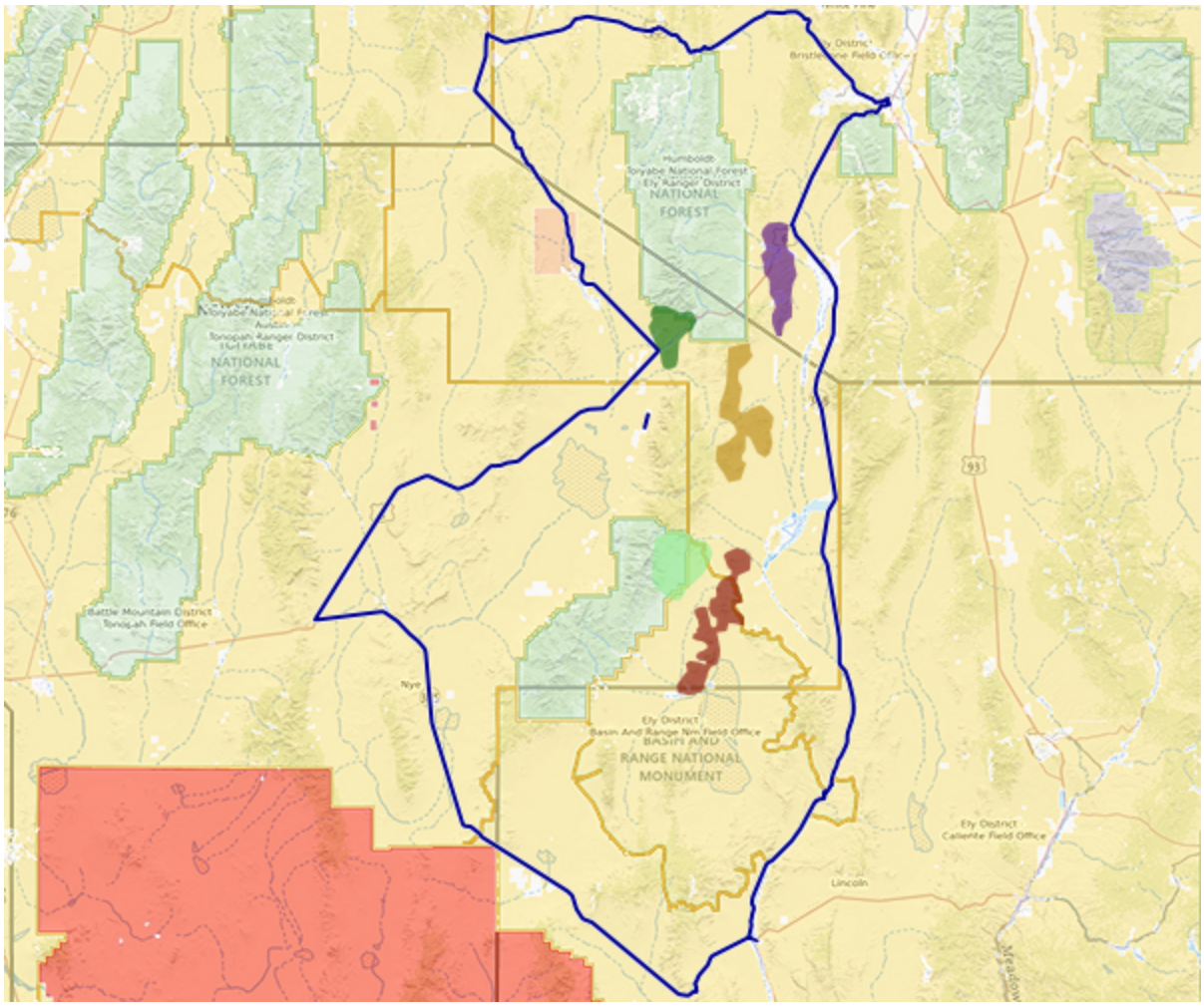
1) Monitor seasonal habitat use data, movement corridors, and survival rates post collar drop-off.

2) Analyze these data using home range size analysis, conduct known-fate survival incorporating exposure metrics, and analyze movement and space use data through resource and step selection functions.

3) Use these data to implement adaptive management decisions and propose projects to mitigate factors that are limiting this mule deer herd.

Project Budget and Expenditure Summary

Fiscal Year	Funding Source	Budget	Amount Spent
2024	NDOW Heritage Trust Account	$30000	$
2024	USFWS Grant - Statewide Game Management	$0	$
	Total:	$0	$0



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Currant Hills · Treatment Area: East Horse Range

Treatment Area: Ellison Knobs and Douglas Hills · Treatment Area: Golden Gate Range

Treatment Area: Scofield Bench

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **FISCAL YEAR 2025 HERITAGE PROJECT PROPOSALS** – At the June 28, 2024 meeting of the Nevada Board of Wildlife Commissioners, the Commission will hear recommendations from the Committee and may take action to approve up to $1,840,130.76 for projects submitted for Fiscal Year 2025 from the annual year project funds. In addition, the Commission may take action to approve up to $98,548.64 for projects submitted for Fiscal Year 2025 from the principal balance for a total of $1,938,679.40. Funding requests are listed below and may be approved by the Commission.

• Memory Ranch Conservation Easement ($200,000)
• FY25 Bighorn Sheep and Mountain Goat Restoration and Management ($110,600)
• FY25 Wildfire-related Restoration and Seed Purchase ($150,000)
• FY25 Nevada Spring Protection Project ($100,000)
• FY25 Nevada Water Development Maintenance ($50,000)
• FY25 Clover Valley Wildlife Passage Improvement Project ($50,000)
• FY25 Cave Lake Habitat Improvement and Erosion Control ($98.538.40)
• FY25 Rosencrans Habitat Restoration ($50,000)
• FY25 Currant Summit PJ Removal ($75,000)
• FY25 Warmwater Fisheries Enhancement ($133,000)
• FY25 Lake Tahoe Fish Management Structure Phase 2 ($100,000)
• FY25 Shoshone Bench Habitat Restoration ($50,000)
• FY25 Corta Fire Habitat Improvement Phase III ($75,000)
• FY25 Sheep Creek Mountains Habitat Improvement Project ($72,500)
• FY25 Mule Deer Enhancement Project ($100,000)
• FY25 Toe Jam Mountain Habitat Improvement Project ($50,000)
• FY25 Statewide Elk Trace Mineral Profile and Population Demographics ($149,999)
• FY25 Granite Range Bitterbrush Planting ($45,000)
• FY25 Supplemental Oxygen for Gallagher Hatchery ($25,000)
• FY25 Black Bear Monitoring ($50,000)
• Leafy Spurge Eradication ($70,652)
• Evaluation and Improvement of Springbox Restoration in the Sheldon National Wildlife Refuge,
Nevada ($73,690)
• Mountain Lion Predation on Native and Feral Ungulates in Southeast Nevada ($59,700)

Agenda Action: Formal Action / Motion **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
Late Material_Heritage FY25 Projects (002).pdf

Motion: _____	1) _____	Aye/Nay
	2) _____	_____
		_____
		_____
		_____
		_____

_____
(Vote Recorded By)

Wildlife Heritage Proposals Submitted for FY 25 Funding

(Total Wildlife Heritage funds available for FY25 projects: $1,840,130.76)

Proposals Submitted by NDOW Staff

Heritage Proposal Number	Project Number	Project Title	Submitted By	FY25 Heritage Request	Other Funding Sources
H25-01	945	Memory Ranch Conservation Easement	Madi Stout	200,000.00	NFWF ($1,000,000) NRCS ($4,500,000) NDOW Other ($80,000) TNC ($1,500,000)
H25-02	925	FY25 Bighorn Sheep and Mountain Goat Restoration and Management	Mike Cox	110,600.00	Elko Bighorns Unlimited ($20,000) In-Kind Contributions (Volunteers) ($55,600) Meadow Valley Wildlife Unlimited ($10,000) Nevada Bighorns Unlimited Fallon ($15,000) Nevada Bighorns Unlimited Midas ($5,000) Nevada Bighorns Unlimited Reno ($20,000) Nevada Muleys ($4,000) NGO Donations ($43,000) Other NDOW Funds ($25,240)
H25-03	926	FY25 Wildfire-related Restoration and Seed Purchase	Amanda Gearhart	150,000.00	Bureau of Land Management ($1,000,000) NDOW Industrial Development Fund ($120,000) Nevada Dream Tag ($250,000) NGO Donations ($225,000) USFWS Grant - Statewide Habitat Restoration ($400,000)
H25-04	951	FY25 Nevada Spring Protection Project	Matt Maples	100,000.00	NDOW Industrial Development Fund ($50,000) USFWS Grant - Water Development and Maintenance ($100,000)
H25-05	952	FY25 Nevada Water Development Maintenance	Matt Maples	50,000.00	USFWS Grant - Water Development and Maintenance ($1,266,000)
H25-06	947	FY25 Clover Valley Wildlife Passage Improvement Project	Matt Glenn	50,000.00	NDOW Habitat Conservation Fee ($50,000)
H25-07	944	FY25 Cave Lake Habitat Improvement and Erosion Control	Heath Korell	98,538.40	In-Kind Contributions (Other) ($105,007) NDOW Habitat Conservation Fee ($31,883) USFWS Grant - Sport Fish Management ($24,573)
H25-08	942	FY25 Rosencrans Habitat Restoration	Moira Kolada	50,000.00	Meadow Valley Wildlife Unlimited ($75,000) Rocky Mountain Elk Foundation ($35,000)
H25-09	941	FY25 Currant Summit PJ Removal*	Moira Kolada	75,000.00	Rocky Mountain Elk Foundation ($35,000)
H25-10	924	FY25 Warmwater Fisheries Enhancement	Travis Hawks	133,000.00	NGO Donations ($12,000)
H25-11	932	FY25 Lake Tahoe Fish Management Structure Phase 2	Sam Sedillo	100,000.00	NDOW Heritage FY24 ($80,000) NDOW Habitat Conservatin Fee FY23 (50,000) Other ($60,000)
H25-12	949	FY25 Shoshone Bench Habitat Restoration*	Moira Kolada	50,000.00	Rocky Mountain Elk Foundation ($30,000) Spring Valley Wind Mitigation Fund ($20,000)
H25-13	930	FY 25 Corta Fire Habitat Improvement Phase III*	Matt Glenn	75,000.00	NDOW Habitat Conservation Fee ($25,000) US Forest Service ($100,000)
H25-14	940	FY25 Sheep Creek Mountains Habitat Improvement Project	Matt Glenn	72,500.00	Nevada Dream Tag ($50,000)
H25-15	946	FY25 Mule Deer Enhancement Project*	Cody Schroeder	100,000.00	
H25-16	934	FY25 Toe Jam Mountain Habitat Improvement Project	Matt Glenn	50,000.00	NDOW Habitat Conservation Fee ($12,500) NDOW Upland Game Stamp ($12,500)

H25-17	933	FY25 Statewide Elk Trace Mineral Profile and Population Demographics	Cody McKee	149,999.00	Rocky Mountain Elk Foundation ($49,990) USFWS Grant - Statewide Game Management ($165,012)
H25-18	929	FY25 Granite Range Bitterbrush Planting*	Tori Cernoch	45,000.00	Bureau of Land Management ($18,750) Nevada Dream Tag ($75,000) USFWS Grant - Statewide Habitat Restoration ($210,000)
H25-19	953	FY25 Supplemental Oxygen for Gallagher Hatchery	Pat Kelly	25,000.00	
H25-20	948	FY25 Black Bear Monitoring	Becca Carniello	50,000.00	
		NDOW Request Subtotal		**1,734,637.40**	**$11,991,055**
Proposals Submitted by Others					
		Leafy Spurge Eradication	Lauren Williams	70,652.00	In Kind Services ($21,890)
		Evaluation and improvement of springbox restoration in the Sheldon National Wildlife Refuge, Nevada	Steve Petersen	73,690.00	
		Mt Lion Predation on native and feral ungulates in SE NV	David Stoner	59,700.00	USGS ($78,000)
		Other Request Subtotal		**204,042.00**	**$99,890**
		Total Heritage Funding Requests		**1,938,679.40**	**$12,115,945**

*mule deer enhancment project

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **BIENNIAL SMALL GAME RELEASE PLAN FOR FISCAL YEARS 2024 AND 2025 AMENDMENT #1** – At the June 29, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will review and may take action to approve an amendment to the Department's proposed biennial upland game release plan for fiscal years 2024 and 2025.

Agenda Action: Formal Action / Motion **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
Biennial_Release_Plan_FY2425_Amendment1.pdf

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
_____
_____
_____
_____

_____
(Vote Recorded By)

Nevada Department of Wildlife

Small Game Release Plan

For

State Fiscal Years 2024 & 2025



Mountain quail seeking cover in Hendry's Creek – photo by Heath Korell (NDOW)

Adopted - June 2023

Amendment Proposal - June 2024
(proposed changes are represented in *blue italics*)

STATE OF NEVADA

Joe Lombardo, Governor

DEPARTMENT OF WILDLIFE

Alan Jenne, Director

GAME DIVISION

Shawn Espinosa, Administrator

Staff

Justin Small, Upland Game Staff Specialist

Western Region	Southern Region	Eastern Region
	Regional Supervisors	
Cooper Munson	Joe Bennett Jr.	Scott Roberts
	Game Division Field Biologists	
Jon Ewanyk	Hunter Burkett	Travis Allen
Clint Garrett	Kade Lazenby	Matthew Shanks
Carl Lackey	Erin Wood	Ridge Ricketts
Kyle Neill		Matt Jeffress
Ed Partee		Joshua Kirk
Jason Salisbury		Kody Menghini
Becca Carniello		CJ Ellingwood

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US Fish and Wildlife Service
Division of Federal Assistance
4401 North Fairfax Drive, Mailstop: MBSP-4020
Arlington, VA 22203

or

Director
Nevada Department of Wildlife
6980 Sierra Center Parkway, Suite 120
Reno, NV 89511

Individuals with hearing impairments may contact the Department via telecommunications device at our Headquarters at 775-688-1500, or teletype to following State Relay number at 1-800-326-6868.

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Fiscal Years 2024 and 2025

SUMMARY OF PROPOSED PROJECTS		
Species	**# Proposed Introductions**	**# Proposed Augmentations**
California quail	TBD	TBD
Chukar Partridge	TBD	TBD
Mountain Quail	1	-
Rio Grande Turkey	-	7
Merriam's Turkey	2	1
Gray Partridge	1	-
Ruffed Grouse	1	*1*
Columbia Sharp-tail Grouse	***-***	***1***
American Beaver	-	TBD
Total:	**5**	**10**

Proposed Releases

Columbia Sharp-tail Grouse

Location	Co.	Type
Introductions – priority for first available donor stock		
Augmentations – priority after introductions		
Bull Run Basin (Elko County)	*EL*	*A*

Small Game
Release Site Planning and Approval Summary

5-2021

Date: 5/30/24 **Region:** ER

Name: Scott Roberts, Matt Jeffress and Justin Small **Office:** Elko

Species or Subspecies: Columbian Sharp-tailed grouse

Introduction: ☐ **or** **Augmentation:** ■

Fiscal Year of Planned Release: 2024, 2025 & 2026

Release Site **Site Name:** Bull Run Basin Eastern Region

County: Elko

(Proposed) **Transplant Stock:** Transplant stock will come from eastern Idaho Upper Snake Region and Pocatello Valley.

Cooperating Land Management Agencies: BLM

Land Management Agency Approval Document: CATEX

Habitat Evaluation *(Quantity and quality)*:

Columbian Sharp-tail Grouse will be released within the Bull Run Basin. Habitat is representative of mountain shrub communities with overstory species composition made up of mountain big sagebrush, serviceberry, bitterbrush and snowbrush. The understory composition is represented by bluebunch wheatgrass, basin wildrye, Idaho fescue, Sandberg's bluegrass, indian ricegrass, etc., and a host of native forbs.

Notification of User Groups *(include methods and dates)*:

Cooperators will be notified prior to release and will be provided with a post release narrative for their records.

Predator Evaluation *(Common ravens, raptors, small mammals, mesocarnivores)*:

No predator control is recommended. However, raven control by Wildlife Services during greater sage-grouse nesting and brood rearing seasons may overlap with the release site and surrounding habitat.

Comments:

This augmentation effort is targeted for increasing genetic diversity among the resident CSTG that was introduced between 2013-2017. The main goal is to prevent genetic drift and increase population viability and fitness.

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **BIENNIAL BIG GAME RELEASE PLAN FOR FISCAL YEARS 2024 AND 2025, AMENDMENT #1** – At the June 29,2024 of the Nevada Board of Wildlife Commissioners, the Commission will review and may take action to approve an amendment to the Department's Biennial Big Game Release Plan for fiscal years 2024 and 2025.

Agenda Action: Formal Action / Motion **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
Biennial-Big-Game-Release-Plan-for-FY-24-and-25.pdf

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
_____
_____
_____
_____

_____
(Vote Recorded By)

STATE OF NEVADA
DEPARTMENT OF WILDLIFE
Game Division
6980 Sierra Center Parkway, Ste. 120 · Reno, Nevada 89511
(775) 688-1500 Fax (775) 688-1987

MEMORANDUM **JUNE 11, 2024**

To: Nevada Board of Wildlife Commissioners, County Advisory Boards to Manage Wildlife, and Interested Publics

From: Shawn Espinosa, Game Division Administrator and Staff including:
Cody Schroeder – Antelope and Mule Deer Staff Specialist

Title: **Commission Agenda Item #22, Amendment #1 to the 2024-2025 Big Game Release Plan**

Purpose: The Commission will review a proposed amendment by the Game Division to the 2024-2025 Big Game Release Plan.

Brief Explanation

After several years of above-average precipitation and favorable range conditions in portions of Elko, Lander, and Pershing Counties, antelope populations in several key herds have experienced significant population growth and near-record observations in post-season surveys. This is particularly true in Management Areas 6, 14-15, and Area 4. However, some antelope populations continue to struggle with low fawn-to-doe ratios and population declines, especially in the southern portions of Management Area 10, and in Management Areas 13 and 16. It is believed that some of these herds have declined significantly and may have a skewed age structure due to multiple years of poor fawn recruitment and low adult survival. We are proposing an augmentation of up to 200 animals from thriving herds to those in lower productivity areas, which could help stimulate growth and production in these struggling herds.

Antelope Capture and Release Sites:

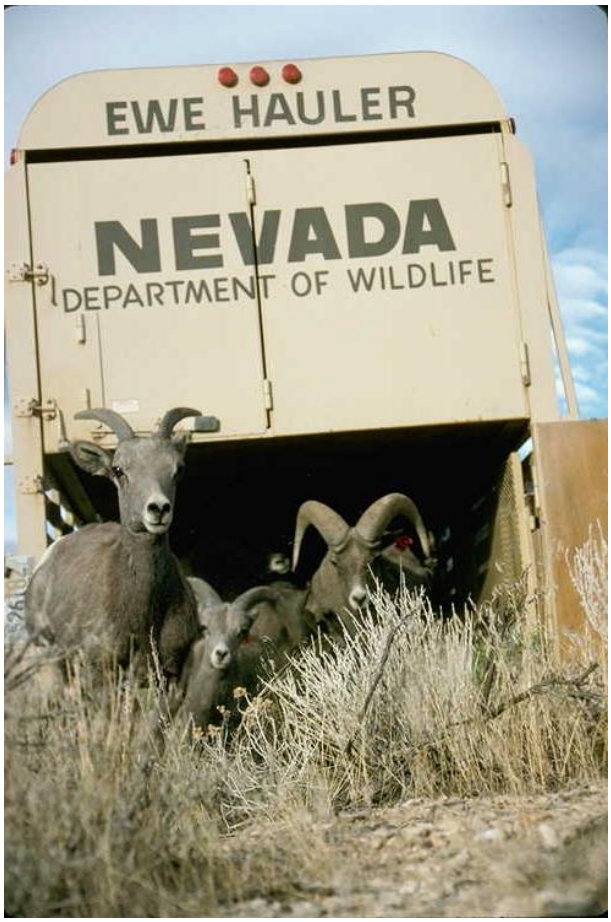
The Game Division proposes capturing up to 200 antelope from Management Area 6 and Area 4 to augment existing populations in the Calico Mountains (Hunt Unit 012), Long Valley, South Ruby Valley, and Butte Valley (Hunt Units 102, 104, 108), and possibly Jakes and Railroad Valleys (Hunt Units 131-134). Not all captures may occur in 2024-2025 due to funding limitations and the Game Division's capacity to conduct these captures. However, we aim to capture as many antelope as possible (up to 200 total) within the next Biennial Release Plan schedule to provide a boost to struggling populations.

Recommendation

The Department recommends that the Commission review and adopt the proposed amendment #1 to the 2024-2025 Big Game Release Plan as presented.

Nevada Department of Wildlife
Biennial
Big Game Release Plan

Fiscal Years 2024 and 2025
(March 2024 – June 2025)



January 2024

Wildlife Commission approved January 27, 2024

Amendment #1 June 2024

Recommended changes indicated in bold italicized blue font

STATE OF NEVADA

Joe Lombardo, Governor

DEPARTMENT OF WILDLIFE

Alan Jenne, Director

GAME DIVISION

Shawn Espinosa, Administrator

Staff

Mike Cox, Bighorn and Mountain Goat Staff Specialist
Cody McKee, Elk and Moose Staff Specialist
Cody Schroeder, Antelope and Mule Deer Staff Specialist

Western Region	Southern Region	Eastern Region
	Regional Supervisors	
Cooper Munson	Joe Bennett Jr.	Scott Roberts
	Game Division Field Biologists	
Jon Ewanyk	Hunter Burkett	Travis Allen
Clint Garrett	Kade Lazenby	Mathew Shanks
Carl Lackey	Erin Wood	C.J. Ellingwood
Kyle Neill		Matt Jeffress
Ed Partee		Joshua Kirk
Jason Salisbury		Kody Menghini
		Ridge Ricketts

This publication will be made available in an alternative format upon request.

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US Fish and Wildlife Service
Division of Federal Assistance
4401 North Fairfax Drive, Mailstop: MBSP-4020
Arlington, VA 22203

or

Director
Nevada Department of Wildlife
6980 Sierra Center Parkway, Suite 120
Reno, NV 89511

Individuals with hearing impairments may contact the Department via telecommunications device at our Headquarters at 775-688-1500, or teletype to following State Relay number at 1-800-326-6868.

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DESERT BIGHORN CORTEZ MOUNTAINS

RELEASE TYPE: Reintroduction **MOUNTAIN RANGE/AREA:** Cortez Mountains
UNIT: 141 **SITE NAME(S):** Release Site not yet identified **COUNTY:** Eureka

APPROXIMATE NUMBER TO BE RELEASED: 20-25

COOPERATING LAND MANAGEMENT AGENCY:
Bureau of Land Management, Elko District, Tuscarora Field Office

AGENCY APPROVAL DOCUMENT AND STATUS:
Initiating appropriate NEPA process with Tuscarora Field Office Staff associated with their existing Habitat Management Plan (HMP) to release bighorn on BLM lands. If BLM is unable to complete NEPA documentation and the decision process, bighorn may be released on the extensive private land across the Cortez Mountains with approval from the private landowner.

OTHER DOCUMENTS AND THEIR STATUS:
Summary of Cortez "Range" Proposed Bighorn Release by Mike Podborny – 8/13/2008

NOTIFICATION OF USER GROUPS:
The Eureka and Elko County Wildlife Advisory Boards, local bighorn conservation groups, and livestock permittees will be notified to participate in the release. The bighorn release is contingent on NDOW coordination with the 2 major private landowners, Dean Ranch owned by Nevada Gold Mine and the Tomera Ranch that involve checkerboard private land to discuss current/future domestic sheep presence and access to the mountain.

HABITAT ASSESSMENT (be specific; include any limiting factors both short- and long-term):
Cortez Mountains was historic bighorn habitat and bighorn were extirpated prior to 1950. It ranks very high for suitable bighorn habitat and low risk to domestic sheep interaction. NDOW would not request any new or additional stipulations regarding mine pit design or reclamation or alterations to other alternative energy facilities. Past bighorn sheep releases near mine sites west wide have actually seen high use by bighorn sheep of the man-made high-wall terrain created from the mining activity.

PREDATOR MANAGEMENT NEEDS:
Predator surveys and control by USDA/APHIS Wildlife Services (WS) will be initiated in the bighorn terrain surrounding the release site prior to the bighorn release. Close coordination will occur with NDOW biologists and WS during the first 3 years post release to respond to bighorn mortalities. GPS collared bighorn will be intensively monitored, and WS predator control efforts will be targeted in response to lion-caused bighorn mortalities

COMMENTS: The capture and translocation will likely occur during the summer months. Various desert bighorn herds, both high elevation and Mojave Desert sites are being evaluated as source stock for the Cortez Mountains translocation taking into account bighorn ability to adapt to considerable differences in climate, topography, forage species, and natural predators. Source herd population demographics will also be considered for the appropriate source of bighorn to use for this translocation. Many prior desert bighorn translocations have been highly successful from the Mojave Desert to high elevation Great Basin habitats.

NDOW REGION: Eastern **DATE PREPARED:** October 2023; revised 1/29/24 as per Wildlife Commission

DESERT BIGHORN STILLWATER RANGE

RELEASE TYPE: Augmentation **MOUNTAIN RANGE/AREA:** Stillwater Range
UNIT: 182 **SITE NAME(S):** Release Site not yet identified **COUNTY:** Churchill

APPROXIMATE NUMBER TO BE RELEASED: 20-25

COOPERATING LAND MANAGEMENT AGENCY:
Bureau of Land Management, Carson City District, Stillwater Field Office

AGENCY APPROVAL DOCUMENT AND STATUS:
It is likely that a Categorical Exclusion (CX) for this proposed bighorn sheep release will be the appropriate level of NEPA by the Stillwater Field Office Staff in concert with the Carson City District Resource Management Plan (RMP). Coordination will soon be initiated with the Stillwater Field Office to discuss approval process and NEPA documentation.

OTHER DOCUMENTS AND THEIR STATUS:
Click or tap here to enter text.

NOTIFICATION OF USER GROUPS:
The Churchill County Wildlife Advisory Board, local bighorn conservation groups, and livestock permittees will be notified to participate in the release.

HABITAT AND POPULATION ASSESSMENT (be specific; include any limiting factors both short- and long-term):
The Stillwater and East Ranges are excellent bighorn habitat. Bighorns were extirpated from the combined mountain ranges in the early 1900s and the first bighorn reintroduction occurred in 1981. The mountain range is over 80 miles long and through several augmentations scattered from north to south, the population eventually reached a sustainable level in the 2000s. Subherds were well distributed across the entire range, and likely surpassed a population-level threshold that was able to grow even with moderate predation rates. It is likely that experienced ewe groups were finally well versed in escape terrain use and availability/distribution of key resources to reduce predation rates. Then in 2019, the population experienced a pneumonia die-off starting on the south end of the range which eventually spread to the north end with a 30% decline in the entire population. We believe certain subherds have fallen below a population threshold where predation rates will prolong their inability to recover from the dieoff event. Therefore, we recommend augmenting certain subherds, along with short-term predation management to assist the herds in reaching a population level that can once again allow herd growth under moderate predation rates.

PREDATOR MANAGEMENT NEEDS:
Predator surveys and control by USDA/APHIS Wildlife Services (WS) with assistance from private contractor will be initiated in the bighorn terrain surrounding the release site prior to the bighorn release. Close coordination will occur with NDOW biologists and predation management specialists during the first 3 years post release to respond to bighorn mortalities. GPS collared bighorn will be intensively monitored by NDOW and predator control efforts will be targeted in response to lion-caused bighorn mortalities

COMMENTS:

NDOW REGION: Western **DATE PREPARED:** October 2023 and revised 1/29/24

CALIFORNIA BIGHORN MONTANA MOUNTAINS

RELEASE TYPE: Augmentation **MOUNTAIN RANGE/AREA:** Montana Mountains
UNIT: 031 **SITE NAME(S):** Garden Creek, Calavera Canyon, or Pole Canyon **COUNTY:** Humboldt

APPROXIMATE NUMBER TO BE RELEASED: 20-25

COOPERATING LAND MANAGEMENT AGENCY:
Bureau of Land Management, Winnemucca District, Humboldt River Field Office

AGENCY APPROVAL DOCUMENT AND STATUS:
Categorical Exclusion (CX) written by the Humboldt River Field Office Staff in concert with the Winnemucca District Resource Management Plan (RMP) was recently completed.

OTHER DOCUMENTS AND THEIR STATUS:
Extensive coordination has occurred with John Olagaray, woolgrower, who is currently grazing his domestic sheep lambs on private irrigated alfalfa fields in Kings River Valley at the base of the Montana Mountains (grazing domestic sheep here since 2014). Mr. Olagaray respectfully declined to sign a cooperative agreement to limit his domestic sheep grazing on private lands in Kings River Valley. Mr. Olagaray has agreed to cooperate with NDOW to have his herders, guard dogs, and the use of electric fencing to keep his domestic sheep confined to the private fields. In addition, NDOW personnel in cooperation with volunteers during the weeks the domestic sheep are on the fields in Kings River Valley, will maintain vigilance for bighorn sheep that may attempt to contact the domestic sheep. All these efforts and more must be maintained every year to ensure every reasonable effort will be made to maintain separation between bighorn and domestic sheep in Kings River Valley and the Montana Mountains.

NOTIFICATION OF USER GROUPS:
The Humboldt County Wildlife Advisory Boards, local bighorn conservation groups, and livestock permittees will be notified to participate in the release.

HABITAT ASSESSMENT (be specific; include any limiting factors both short- and long-term):
Montana Mountains was historic bighorn habitat and bighorn were extirpated prior to 1950. NDOW reintroduced bighorn sheep here in 1991. The bighorn population flourished and became a self-sustaining and productive wild sheep herd providing source stock for other bighorn translocations and 18 years of ram hunting. The bighorn herd experienced a severe die-off in late 2014 and early 2015 and the few remaining survivors were lethally removed to prevent the spread of disease to adjacent healthy bighorn herds. Mr. Olagaray first brought his entire domestic sheep flock to graze on private irrigated alfalfa fields in Kings River Valley in the Fall 2014 to graze and breed his ewes. Since then, he has each fall only brought his lambs to graze on the fields.

PREDATOR MANAGEMENT NEEDS:
Predator surveys and control by USDA/APHIS Wildlife Services (WS) will be initiated in the bighorn terrain surrounding the release site prior to the bighorn release. Close coordination will occur with NDOW biologists and WS during the first 3 years post release to respond to bighorn mortalities. GPS collared bighorn will be intensively monitored and WS predator control efforts will be targeted in response to lion-caused bighorn mortalities

COMMENTS:

NDOW REGION: Western **DATE PREPARED:** October 2023; revised 1/29/24 as per Wildlife Commission

MOUNTAIN GOAT EAST HUMBOLDT RANGE

RELEASE TYPE: Augmentation **MOUNTAIN RANGE/AREA:** East Humboldt Range
UNIT: 101 **SITE NAME(S):** Leach Creek outside of wilderness area or Pole Canyon on private land
COUNTY: Elko

APPROXIMATE NUMBER TO BE RELEASED: 15-20

COOPERATING LAND MANAGEMENT AGENCY:
United States Forest Service, Humboldt Toiyabe National Forest (USFS HT), Mountain City-Ruby Mountains-Jarbidge Ranger District

AGENCY APPROVAL DOCUMENT AND STATUS:
Initiating coordination with USFS HT staff to discuss their support of the augmentation and what appropriate level of NEPA analyses and documentation is necessary to release on USFS HT lands. If USFS HT is unable to complete NEPA documentation and the decision process, the mountain goat release may be conducted on the large tract of private land in Pole Canyon.

OTHER DOCUMENTS AND THEIR STATUS:

NOTIFICATION OF USER GROUPS:
The Elko County Wildlife Advisory Board, local wildlife conservation groups, and livestock permittees will be notified to participate in the release.

HABITAT AND POPULATION ASSESSMENT (be specific; include any limiting factors both short- and long-term):
Mountain Goats are nonnative to the Great Basin and Nevada, though they existed prehistorically in the Pleistocene epoch (Ice Age) before going extinct. As with other western states, Nevada introduced mountain goats to high subalpine precipitous habitats in the Ruby Mountains and East Humboldt Range (EHs), in 1964 and 1981, respectively. The single release into the EHs, accounting for initial capture/transport mortalities, was 8 animals. The population reached 160 adults in 2009 and then experienced a pneumonia die-off in 2009-2010 with severe kid mortality for over a decade. The population may have dropped as low as 40 adults in 2020. Though the last chronic carrier mountain goat of the deadly pathogens likely died a few years ago and kid recruitment the last 2 years has been strong, the population may have experienced a genetic bottleneck/drift and likely reduced genetic diversity. Even more concerning is that the current age structure of the nannies is extremely old where a large percentage of them may die in the next 2 years dropping the population below a viable level. We have had discussions with Utah Department of Wildlife Resources, and they are willing to provide mountain goat source stock for this augmentation.

PREDATOR MANAGEMENT NEEDS:
Predation on past collared mountain goats has not been detected in either the EHs or Ruby Mountains and we don't believe predation management is necessary as part of this augmentation effort.

COMMENTS:

NDOW REGION: Eastern **DATE PREPARED:** December 2023; revised 1/29/24 as per Wildlife Commission

ANTELOPE *CALICO MOUNTAINS*

RELEASE TYPE: Augmentation **MOUNTAIN RANGE/AREA:** Calico Mountains/Black Rock
UNIT: 012 **SITE NAME(S):** Release Site not yet identified **COUNTY:** Washoe County
APPROXIMATE NUMBER TO BE RELEASED: 50-75

COOPERATING LAND MANAGEMENT AGENCY:
Bureau of Land Management, Winnemucca District and Carson City District (source)

AGENCY APPROVAL DOCUMENT AND STATUS:
The BLM will be notified and consulted prior to any release but since this is an augmentation to an existing herd no additional clearance should be necessary.

OTHER DOCUMENTS AND THEIR STATUS:
Click or tap here to enter text.

NOTIFICATION OF USER GROUPS:
The Washoe County, Pershing County, and Humboldt County Wildlife Advisory Boards, and local wildlife conservation groups, and livestock permittees will be notified.

HABITAT AND POPULATION ASSESSMENT (be specific; include any limiting factors both short- and long-term):
Habitat is suitable. Pronghorn currently reside in the project area. For the upcoming 2024, there are five spring protection projects slated for Units 012, 013, and 015 to help mitigate the impacts of heavy grazing around springs. These spring fencing projects are in prime antelope habitat and should benefit both mule deer and antelope in future years. In 2023, NDOW and Nevada Bighorns Unlimited built a big game guzzler near Division Peak in Unit 012 for the benefit of bighorn sheep and pronghorn. In 2024, NDOW plans to build another big game guzzler in the northern part of Unit 012 which will benefit bighorn sheep, and antelope. Historically, these ranges supported abundant population of antelope although recent drought, wildfires, and rangeland degradation have reduced antelope populations in the area. NDOW biologists believe an augmentation from nearby herds in Pershing County may help improve the age structure of prime-aged breeding females in the population and stimulate herd growth over time with improving habitat conditions.

PREDATOR MANAGEMENT NEEDS:
Predator control by USDA/APHIS Wildlife Services (WS) will be initiated in the antelope release site and immediate area before the augmentation and possibly be maintained for several years, if necessary. Close coordination will occur with NDOW biologists and predation management specialists during the first 2-3 years post release to respond to any antelope mortalities. Some translocated animals will be released with GPS collars to monitor survival and movement patterns to assess any additional needs for predation management.

COMMENTS:

NDOW REGION: Western **DATE PREPARED:** 6/6/2024

ANTELOPE *HUNT UNITS 102, 104, 108, 131*

RELEASE TYPE: Augmentation **MOUNTAIN RANGE/AREA:** Long Valley, Butte Valley, So. Ruby Valley, Jakes Valley, and possibly Railroad Valley

UNIT's: 102, 104, 108, 131, 134 **SITE NAME(S):** Release Sites not yet identified

COUNTIES: Elko; White Pine, portions of Lander for capture and release

APPROXIMATE NUMBER TO BE RELEASED: **up to** 100

COOPERATING LAND MANAGEMENT AGENCY:
Bureau of Land Management, Elko and Ely Districts

AGENCY APPROVAL DOCUMENT AND STATUS:
The BLM will be notified and consulted prior to any release but since this is an augmentation to an existing herd no additional clearance should be necessary.

OTHER DOCUMENTS AND THEIR STATUS:
Click or tap here to enter text.

NOTIFICATION OF USER GROUPS:
The Elko County and White Pine County Wildlife Advisory Boards, and local wildlife conservation groups, and livestock permittees will be notified.

HABITAT AND POPULATION ASSESSMENT (be specific; include any limiting factors both short- and long-term):
Habitat is suitable. Pronghorn currently reside in the project area. Historically, these ranges supported abundant population of antelope although recent drought, wildfires, over abundant feral horse populations, and rangeland degradation have reduced antelope populations in the area. NDOW biologists believe an augmentation from nearby herds in Area 6 (061, 062, 064) may help improve the age structure of prime-aged breeding females in the population and stimulate herd growth over time with improving habitat conditions.

PREDATOR MANAGEMENT NEEDS:
Predator control by USDA/APHIS Wildlife Services (WS) will be initiated in the antelope release site and immediate area before the augmentation and possibly be maintained for several years, if necessary. Close coordination will occur with NDOW biologists and predation management specialists during the first 2-3 years post release to respond to any antelope mortalities. Some translocated animals will be released with GPS collars to monitor survival and movement patterns to assess any additional needs for predation management.

COMMENTS:

NDOW REGION: Eastern **DATE PREPARED:** 6/6/2024

RELEASE TYPE: Augmentation **MOUNTAIN RANGE/AREA:** Stone Cabin, Little Fish Lake, Monitor Valleys
UNIT: 161-162 **SITE NAME(S):** Release Site not yet identified **COUNTY:** Nye
APPROXIMATE NUMBER TO BE RELEASED: 50-75

COOPERATING LAND MANAGEMENT AGENCY:
Bureau of Land Management, Battle Mtn District

AGENCY APPROVAL DOCUMENT AND STATUS:
The BLM will be notified and consulted prior to any release but since this is an augmentation to an existing herd no additional clearance should be necessary.

OTHER DOCUMENTS AND THEIR STATUS:
Click or tap here to enter text.

NOTIFICATION OF USER GROUPS:
The Nye County, Lander County, and Humboldt County Wildlife Advisory Boards, and local wildlife conservation groups, and livestock permittees will be notified.

HABITAT AND POPULATION ASSESSMENT (be specific; include any limiting factors both short- and long-term):
Habitat is suitable. Pronghorn currently reside in the project area. Depressed fawn recruitment observed in 2021 and 2022 decreased this population significantly. Fawn ratios classified in 2023 were higher, responding from the above average precipitation. Feral equid populations are well above AML (appropriate management level). Pinyon and juniper encroachment is negatively impacting this herd. Pinyon and juniper treatment projects are scheduled to be conducted in the next two to three years in Little Fish Lake and Monitor Valleys. Additionally, the appropriate NEPA adequacy documents have been completed for wild equid roundups on BLM administered lands. This population is estimated to be below long-term trends, but habitat conditions have considerably improved with increased availability of forbs and graminoids. NDOW biologists believe an augmentation from nearby herds in Elko may help improve the age structure of prime-aged breeding females in the population and stimulate herd growth over time with improving habitat conditions.

PREDATOR MANAGEMENT NEEDS:
Predator control by USDA/APHIS Wildlife Services (WS) will be initiated in the antelope release site and immediate area before the augmentation and possibly be maintained for several years, if necessary. Close coordination will occur with NDOW biologists and predation management specialists during the first 2-3 years post release to respond to any antelope mortalities. Some translocated animals will be released with GPS collars to monitor survival and movement patterns to assess any additional needs for predation management.

COMMENTS:

NDOW REGION: Southern **DATE PREPARED:** 6/6/2024

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **ENERGY AND SOLAR PROJECTS UPDATE** – At the June 29, 2024, meeting of the Nevada Board of Wildlife Commissioners, a presentation will be provided on the Bureau of Land Management's (BLM) Solar Programmatic Environmental Impact Statement. The Commission will discuss possibly providing a letter of comment on this project, as well as an overview of renewable energy across Nevada.

Agenda Action: Formal Action / Motion **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
_____
_____
_____
_____

_____
(Vote Recorded By)

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **ENERGY AND SOLAR PROJECTS UPDATE** – At the June 29, 2024, meeting of the Nevada Board of Wildlife Commission, a presentation will be provided on the Bureau of Land Management's (BLM) Solar Programmatic Environmental Impact Statement. The Commission will discuss possibly providing a letter of comment on this project, as well as an overview of renewable energy across Nevada.

Agenda Action: Formal Action / Motion **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
_____
_____
_____
_____

_____
(Vote Recorded By)

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **DUCK STAMP REQUEST** – At the June 29, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will review and may take action to approve up to $90,750 for projects submitted for Fiscal Year 2025 funding from the Duck Stamp Account. The specific Duck Stamp projects that may be approved are listed below.
• FY25 Argenta WMA Improvement Project ($15,000)
• FY25 Ducks Unlimited Wetlands Conservation Support ($35,000)
• Carson Lake WMA Noxious Weed Treatment ($25,000)
• FY25 Purchase Support for Airboat ($13,750)
• FY25 Full Lifecycle Conservation of International Migratory Waterfowl and Other Avian Species
($2,000)

Agenda Action: Formal Action / Motion **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
Duck-Stamp-Request.pdf

Motion: _____	1) _____	Aye/Nay
	2) _____	_____
		_____
		_____
		_____
		_____

_____
(Vote Recorded By)

STATE OF NEVADA
DEPARTMENT OF WILDLIFE
Habitat Division
6980 Sierra Center Parkway, Ste. 120 · Reno, Nevada 89511
(775) 688-1500 Fax (775) 688-1987

MEMORANDUM **MAY 30, 2024**

To: Nevada Board of Wildlife Commissioners, County Advisory Boards to Manage Wildlife, and Interested Publics

From: Mark Freese, Habitat Division Administrator, Habitat Division

Title: **Fiscal Year 2025 Duck Stamp Funding Requests**

Purpose: The Commission will review and may take action to approve up to $90,750 for projects submitted for FY 2025 funding from the Duck Stamp Account.

Summary

The Department presents Duck Stamp Fiscal Year 2025 funding applications to the Commission for review and possible approval.

Brief Explanation of the Proposed Funding

The Department has completed its annual project application period for Duck Stamp and presents applications for possible approval by the Commission for the protection, propagation and management of waterfowl and for the acquisition, development and preservation of wetlands in Nevada.

Recommendation

The Department recommends that the Commission review and adopt the FY 2025 Duck Stamp project applications as presented.

Duck Stamp Program Report

Nevada Department of Wildlife

June 2024



American Widgeon, NDOW

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Progress Reports for Duck Stamp Projects Funded in FY 2024

Ducks Unlimited Wetlands Conservation Support

The Nevada Department of Wildlife (NDOW) donated $35,000 to Ducks Unlimited (DU) during FY23 to help them implement the migratory bird projects that were developed as a result of the North American Waterfowl Management Plan. The projects primarily consist of wetland restoration, forage establishment and production, and the purchase of conservation easements in the prairie potholes regions of Saskatchewan and Alberta. Band return data show that these two Canadian provinces are the sources of a significant number of waterfowl that pass-through Nevada each year. The prairie potholes region has the highest density of breeding ducks in all of North America.

Carson Valley Conservation District – Carson River Bank Stabilization

The purpose of this project was to strategically stabilize the banks of the East Fork of the Carson River and re-establish riparian vegetation that has been degraded or eliminated in some sections by three years of drought followed by a catastrophic runoff event that occurred in spring 2023. Re-establishing the riparian corridor has and will benefit a host of species: migratory bird species that rely on floodplains, bird species that use cottonwood galleries as nesting habitat, game animals that use the corridor to move safely through developed areas, and it will benefit fish species by keeping massive sediment loads from being deposited into the system during significant runoff events. Nevada Department of Wildlife funds were used to support the completion of the Cradelbuagh project, which mainly consisted of augmenting the riparian vegetation community through seeding and bioengineering using willows.

Fernley WMA Dam Repair and Wetland Habitat Design Plan

The project is in the planning stage. A contract has been established with Ducks Unlimited to provide support for engineering and contracting.

Mason Valley WMA Wildlife Seed

The project is in the planning stage. Funds are likely to be used in FY2025.

Proposed Duck Stamp Projects Proposed for State Fiscal Year 25

Project Number	Project Title	FY25 DS Fund Request	Submitted By	Other Funding Sources
928	FY25 Argenta WMA Improvement Project	$15,000	Jermy Lutz	NDOW Upland Game Stamp ($20,000)
931	FY25 Ducks Unlimited Wetlands Conservation Support	$35,000	Mike Zahradka	
950	FY25 Carson Lake WMA Noxious Weed Treatment	$25,000	Jacob Ward	
956	FY25 Purchase Support for Airboat	$13,750	Russell Woolstenhulme	Nevada Waterfowl Association ($5,000) USFWS Grant - Statewide Game Management ($56,250)
969	FY25 Full Lifecycle Conservation of International Migratory Waterfowl and Other Avian Species	$2,000	Jon Young	
	Total	**$90,750**		**$81,250**

Duck Stamp Account Budget Status

Balance in the account at start of FY2024	$	493,113.04
Plus estimated revenue accrued during FY2024	$	102,911.02
Less FY2024 expenditures to date and remaining project balances	$	(201,707.76)
Less estimated administrative costs (10% of revenue)	$	(10,291.10)
Estimated balance at end of FY2024/start of FY2025	$	384,025.20
Plus estimated revenue to be accrued during FY2025	$	102,911.02
Less estimated administrative costs (10% of revenue)	$	(10,291.10)
Less proposed new project FY2025 expenditures	$	(90,750.00)
Estimated balance at end of FY2025	$	385,895.12

Note: The budget information in this table is preliminary and subject to change. The amount of account revenue accrued during FY2024 was not available when this report was prepared; therefore, the FY2024 revenue number was used for both FY2024 and 2025.

NEVADA DEPARTMENT OF WILDLIFE

Project Proposal Report

Project Name: FY25 Argenta WMA Improvement Project **Project ID:** 928

Lead Agency: Nevada Department of Wildlife

Project Manager: Jeremy Lutz Nevada Department of Wildlife

Phone Number: (775) 635-5070

Email: jlutz@ndow.org

Project Partners

Name	Agency	Role
Jeremy Lutz	Nevada Department of Wildlife	Implementation Lead

Project Schedule

Project Start Date: 07/01/2024 (FY 2025)

Projected Completion Date: 06/30/2027 (FY 2027)

Multi-year Project: yes

Project Schedule:

As soon as funding becomes available.

Project Location and Land Status

Location Narrative:

Restoration and enhancement work will occur entirely on the Argenta WMA.

NDOW Region: Eastern

NDOW Management Units: 152

Nevada Sage Grouse Population Management Unit: Project not within a sage-grouse PMU

County: Lander

Land Status

Land Status	Acres	Percent of Project
Bureau of Reclamation	50.5	3.2
Private	1539.2	96.7

Bureau of Land Management Office: Elko District - Tuscarora Field Office

US Forest Service Ranger District: N/A

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT IMPROVEMENT or MANAGEMENT: Management of Wildlife Management Areas (WMA)

Project Objectives:

- To measurably increase wildlife populations, wildlife use, or habitat for the benefit of public use and hunter success.
- To use water management or physical alterations in managed wetland and/or moist-soil habitats to increase production of preferred waterfowl food or cover.
- To use water management or physical alterations in managed wetland and/or moist-soil habitats to improve water management.
- To use food plots or plantings in managed wetland and/or moist-soil habitats to increased production of preferred waterfowl food or cover.
- To use food plots on actively managed upland habitats to increase production of preferred wildlife food or cover.
- To use food plots on actively managed agricultural habitats to increase production of preferred wildlife food or cover.
- To control cheatgrass and other non-native annual grasses with herbicide application.
- To control noxious weeds with herbicide application.
- To use prescribed fire to thin or remove undesirable vegetation.

NDOW Initiative Addressed:

- Nevada Biodiversity Initiative (USFWS)
- Wildlife Connectivity Plan (NDOW)

Strategic Habitats and Threats Addressed:

Priority Resource Impacted: Big Game, Diversity/Non-game, Fish, Upland Game, Waterfowl

Priority Species Impacted: Bats, Dabbling duck species, Diving duck species, Geese, Migratory songbirds (multiple species), Mule deer, Raptor species, Rio Grande turkey, Shorebirds, Valley quail, Warmwater sport fish

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: no

Project Clearance or Authorization Status: Not Applicable

Project Rationale:

In order to address and manage yearly maintenance with noxious weeds, maintenance of existing infrastructure (fences, buildings, bridges, etc.), and maintaining and enhancing crucial riparian and meadow habitats and corridors, we are requesting funding to perform a variety of habitat and maintenance restoration efforts on the newly acquired Argenta WMA. The primary purpose for the funding would be to restore and improve existing wildlife habitat and perform infrastructure maintenance and replacement on the Argenta WMA. These projects include ground based or aerial application of herbicide, drill or aerial seeding, tree and shrub plantings, and riparian and meadow habitat restoration and enhancement practices including meadow dragging, cutting, haying and seeding with wildlife desirable seed mixes. In some instances, specialized equipment will be necessary to rent or purchase in order to perform work with skid steers and associated attachments, tractors, excavators, etc. Infrastructure such as fences, gates, cattle guards, culverts and existing building upgrades to 2 pump houses, Sterritt Field Well upgrade Weaner Field Well upgrade, the ranch shop re-tinning project, 3 major water delivery irrigation devices, and the 3 bridges are in need of repair or maintenance on the Argenta WMA.

These projects would help improve and maintain the intrinsic values of this property for wildlife, its associated habitat and to help promote, encourage and engage the involvement of our constituents to Nevada's wildlife on the Argenta WMA.

Awarded funds would be used to purchase herbicide, equipment, tools, seed, trees, shrubs, building materials, and/or contract labor to maintain and enhance the Argenta WMA. Additional monies would be used to significantly bolster current capital improvement efforts including replacing and repairing 3 large water diversion structures as is being required by the Division of Water Resources , fence and gate modification and replacement, infrastructure maintenance on WMA shop, equipment facilities and 2 pump houses, maintenance and replacement of electrical wiring systems on all breaker boxes associated with the ranch shop, 3 pump well houses, picnic area, and annual road maintenance and repairs as and where needed. This funding would also facilitate the replacement of electrical and control panels on Welch's irrigation well. Once operational this well will be used to irrigate and grow wildlife food plots on the Argenta WMA.

These projects would help maintain and enhance habitat for all wildlife associated with the Humboldt River Floodplain including the 105 birds species that have been documented on the Argenta WMA. Maintaining and enhancing the large, irrigated meadows and its associated willow lined river corridors creates a unique wetland type habitat for tens of thousands of migratory bird species as they migrate along the Pacific Flyway. These meadows, slews, canals and river corridors are all extremely important habitat for mule deer, elk and a variety of upland game birds including Rio Grande turkeys, California quail and pheasants.

Project Treatments and Actions

Treatment Name: Argenta WMA

Acres: 1,592

Action: Install or maintain range fence
Approach Narrative:

Perform annual maintenance on all pasture and perimeter fences annually as well as contact larger fence modifications or replacements.

Planned Start: 07/2024

Action: Create, modify, or maintain diversion canals, headgates, or water pipelines
Approach Narrative:

Clean, repair and replace water diversion and water deliver structures annually to facilitate proper irrigation practices on ranch.

Planned Start: 07/2024

Action: Complete or support WMA crop farming practices
Approach Narrative:

Protect, manage and enhance meadow and riparian habitat on Argenta WMA by irrigating, dragging, seeding, cutting and haying meadows and pastures.

Planned Start: 07/2024

Action: Herbicide application (truck or atv)
Approach Narrative:

Actively target noxious weeds throughout Argenta WMA with the use of a truck or an atv spray application.

Planned Start: 07/2024

Action: Intall or maintain pipe-rail fence
Approach Narrative:

Perform annual maintenance on existing pip-rail infrastructure as well as contract new pipe-rail construction on access points throughout Argenta WMA.

Planned Start: 07/2024

Action: Non-PJ tree or shrub removal (physical removal)
Approach Narrative:

Contract removal of noxious shrubs and trees as well as cut and pile dead or down trees throughout Argenta WMA that pose a risk to human safety, WMA infrastructure or direct competition with desirable trees and shrubs.

Planned Start: 07/2024

Action: Plant upland or dry-land food plot
Approach Narrative:

Utilize appropriate seeding methodology, rates and timing to complete seeding to enhance forage for wildlife and livestock throughout Argenta WMA.

Planned Start: 07/2024

Action: Lake, reservoir, or pond dredging
Approach Narrative:

Contract dredging practices to clean and enhance wetland and fishery habitat throughout Argenta WMA.

Planned Start: 07/2024

Action: Herbicide application (backpack/hand spraying)
Approach Narrative:

Actively target noxious weeds throughout Argenta WMA with the use of backpack or hand spray applications.

Planned Start: 07/2024

Action: Plant or manage cover plots
Approach Narrative:

Utilize appropriate seeding methodology, rates and timing to complete seeding to enhance forage for wildlife and livestock throughout Argenta WMA.

Planned Start: 07/2024

Action: Plant wetland or moist-soil food plot
Approach Narrative:

Utilize appropriate seeding methodology, rates and timing to complete seeding to enhance forage for wildlife and livestock throughout Argenta WMA.

Planned Start: 07/2024

Project Monitoring

Monitoring Plan:

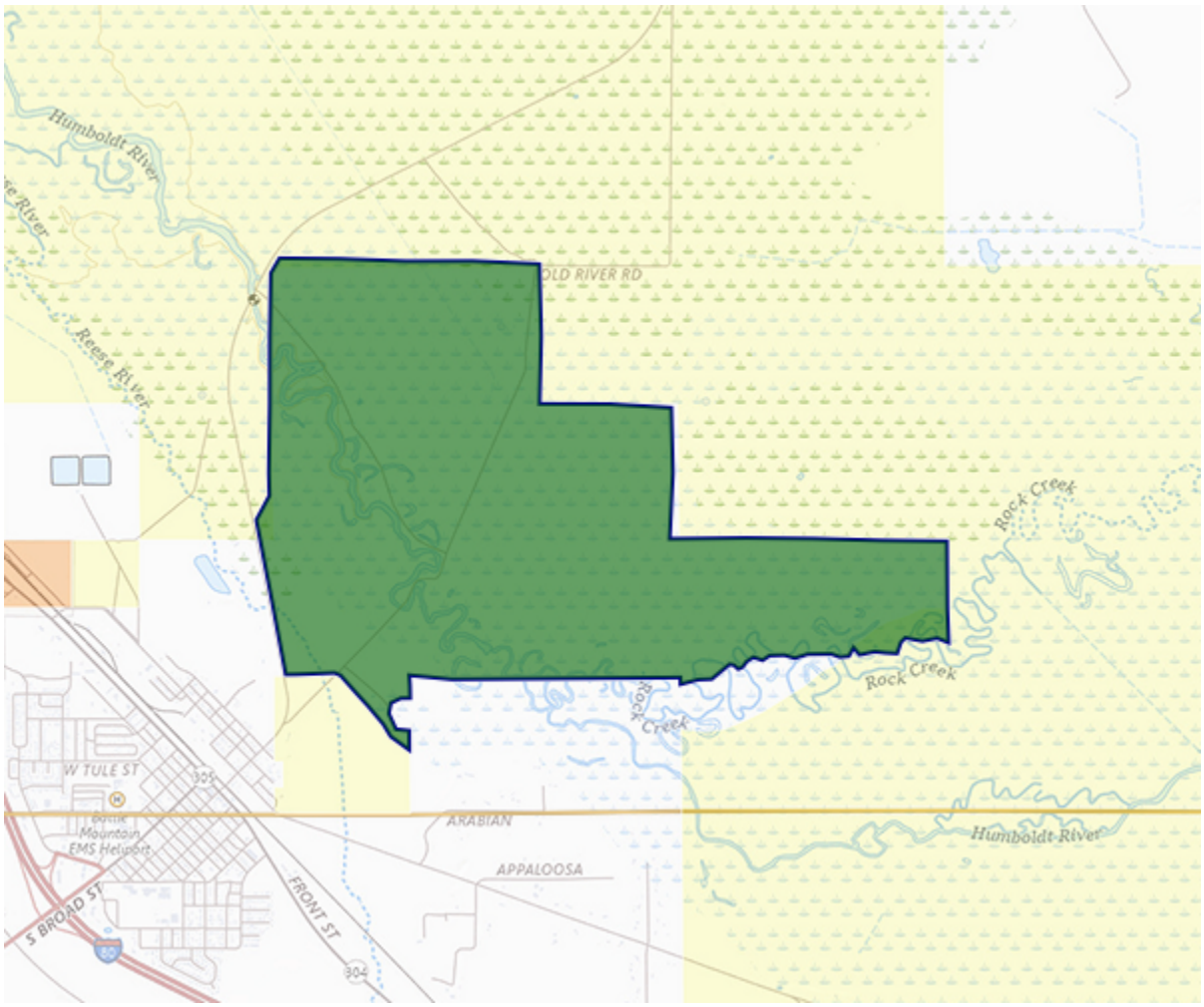
Monitoring plan consists of annual inspections on the Argenta WMA that include initiating projects based on seasonal timelines that include infrastructures maintenance and repair needs, weed inventories and treatments, seasonal irritation deliveries and meadow enhancement practices including dragging, cutting, haying and seeding.

Project Funding and Budget

Budget Item	NDOW Duck Stamp 2025	NDOW Upland Game Stamp 2025	Subtotal
Contracts			
Contract labor for weed, seed cost and application, meadow enhancement and well contractors.	$15,000	$0	$15,000
Materials Purchase			
Infrastructure and maintenance repair.	$0	$20,000	$20,000
Total Costs:	**$15,000**	**$20,000**	**$35,000**

Budget Narrative:

Awarded funds would be used to purchase herbicide, desirable wildlife seed mixes including both upland and wetland mixes, equipment, tools, trees and shrubs, building materials, and or contract labor to maintain and enhance the Argenta WMA. Additional monies would be used to significantly bolster current capital improvement efforts including replacing and repairing 3 large water diversion structures as ordered by the Nevada Division of Water Resources, replacing several miles of old, dilapidated, wildlife unfriendly barb wire fence, multiple gate modifications and replacements, infrastructure maintenance on shop including re-tinning lower section with new metal, replacement and maintenance on 2 pump houses, replacement of all outdated and unsafe electrical wiring systems on all major outbuildings, shops, pump houses, wells and other infrastructure essential to the Argenta WMA, Sterritt Field and Weaner Field stock wells maintenance and solar upgrades, Welches Well irrigation upgrade and all associated material, annual road maintenance and repairs as and where needed along the "Lane Nature Path" and the "Ancho Picnic Area" . All contracts would be administered and inspected by the project manager.



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Argenta WMA

NEVADA DEPARTMENT OF WILDLIFE

Project Proposal Report

Project Name: FY25 Ducks Unlimited Wetlands Conservation Support **Project ID:** 931

Lead Agency: Nevada Department of Wildlife

Project Manager: Mike Zahradka Nevada Department of Wildlife

Phone Number: (775) 688-1563

Email: mzahradka@ndow.org

Project Partners

Name	Agency	Role
Amelia Raquel	Ducks Unlimited	Implementation Lead

Project Schedule

Project Start Date: 07/01/2024 (FY 2025)

Projected Completion Date: 06/30/2025 (FY 2025)

Multi-year Project: no

Project Schedule:

This is an annual contribution to DU that uses the funds over the next year.

Project Location and Land Status

Location Narrative:

Waterfowl hunting benefits from this project are found statewide.

NDOW Region: Not Applicable – Statewide Project

NDOW Management Units: Not Applicable – Statewide Project

Nevada Sage Grouse Population Management Unit: Not Applicable – Statewide Project

County: Not Applicable – Statewide Project

Land Status

Land Status	Acres	Percent of Project
No results		

Bureau of Land Management Office: Not Applicable – Statewide Project

US Forest Service Ranger District: Not Applicable – Statewide Project

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Other habitat management (non-WMA land)

Project Objectives:

- To measurably increase wildlife populations, wildlife use, or habitat for the benefit of public use and hunter success.

NDOW Initiative Addressed: No initiatives

Priority Resource Impacted: Not Applicable – Statewide Project

Priority Species Impacted: Not Applicable – Statewide Project

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: no

Project Clearance or Authorization Status: Not Applicable

Project Rationale:

To help Ducks Unlimited (DU) protect, restore and enhance waterfowl habitat in the prairie potholes region of Alberta, Canada. This is very important breeding and nesting habitat for many of the waterfowl that travel to Nevada. DU has agreed to NDOW's request that the funds we donate be used on wetland enhancement projects in Alberta since banding data indicates that a fairly high percentage of waterfowl harvested in Nevada originate from that province. DU and its partners use the donations from NDOW and others to protect, restore and enhance wetlands in the prairie potholes region of Alberta. DU's partners in this region includes the Nature Conservancy of Canada, Wildlife Habitat Canada, the Alberta provincial government and the federal government of Canada. This work is part of the ongoing implementation of the North American Waterfowl Management Plan. Funds donated to DU are used to restore, enhance and protect waterfowl habitat in Alberta. In addition to directly benefiting waterfowl, this also indirectly benefits Nevada hunters by increasing or maintaining waterfowl populations in Nevada.

Project Treatments and Actions

Treatment Name: Statewide Waterfowl Benefits

Acres: 70,739,228.1

Action: Other - please specify
Approach Narrative:

Statewide Waterfowl Benefits

Planned Start: 07/2024

Project Monitoring

Monitoring Plan:

DU monitors the results of their efforts to purchase conservation easements and restore wetlands. They also submit annual reports to NDOW that summarize the results of their work.

Project Funding and Budget

Budget Item	NDOW Duck Stamp 2025	Subtotal
Contracts		
	$35,000	$35,000
Total Costs:	**$35,000**	**$35,000**

Budget Narrative:

Annual contribution to DU-Canada.

NEVADA DEPARTMENT OF WILDLIFE

Project Proposal Report

Project Name: FY25 Carson Lake WMA Noxious Weed Treatment **Project ID:** 950

Lead Agency: Nevada Department of Wildlife

Project Manager: Jacob Ward Nevada Department of Wildlife

Phone Number: (775) 423-3171

Email: jacob.ward@ndow.org

Project Partners

Name	Agency	Role
No results		

Project Schedule

Project Start Date: 07/01/2024 (FY 2025)

Projected Completion Date: 06/30/2025 (FY 2025)

Multi-year Project: yes

Project Schedule:

This noxious weed treatment will primarily focus on the treatment of saltcedar (tamarisx spp) in the late-summer and early fall months as weather and flood conditions allow.

Project Location and Land Status

Location Narrative:

Carson Lake Wildlife Management Area

NDOW Region: Western

NDOW Management Units: 181

Nevada Sage Grouse Population Management Unit: Project not within a sage-grouse PMU

County: Churchill

Land Status

Land Status	Acres	Percent of Project
Bureau of Reclamation	30007.4	99.7

Bureau of Land Management Office: Carson City District - Stillwater Field Office

US Forest Service Ranger District: N/A

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT IMPROVEMENT or MANAGEMENT: Management of Wildlife Management Areas (WMA)

Project Objectives:

- To control noxious weeds with herbicide application.

NDOW Initiative Addressed: No initiatives

Strategic Habitats and Threats Addressed:

- Salt desert shrub: Nonnative invasive species

Priority Resource Impacted: Big Game, Waterfowl

Priority Species Impacted: Dabbling duck species, Geese, Pronghorn antelope

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: no

Project Clearance or Authorization Status: Not Applicable

Project Rationale:

Salt cedar (Tamarix spp) is a category "c" noxious weed in the state of Nevada. As a result of major flooding to Carson Lake WMA in 2017 and 2023, salt cedar has begun to seed and germinate on many parts of the area that it did not exist prior to these events. It is now found atop levees/dikes, throughout parts of the wetlands and pasture areas across the WMA. If not controlled, salt cedar can have major negative effects on the wetland and pasture habitat(s) that are found on the WMA. Salt cedar uses more water than native species and can diminish native plant communities. If not controlled, it can increase fire danger, and diminish the quality of habitat at Carson Lake WMA. In addition to habitat effects, as stated above, the germinated plants have also begun to establish on dikes, which serve as roads, resulting in more difficult travel for users.

The goal is to treat salt cedar to protect the native habitat at Carson Lake WMA to serve the various waterfowl species, shorebirds, geese, and pronghorn antelope that rely on this resource. The previously listed migratory species rely on Carson Lake WMA as critical refugia as a stopover point during migration. To achieve this treatment goal, we will complete a cut stump treatment. The mowing work will be contracted out and Carson Lake WMA staff will treat the fresh cut salt cedar with an herbicide mixture which will kill the plant and eliminate resprouting.

The wildlife benefiting from these treatments will be waterfowl, shorebirds, geese, and pronghorn antelope. The habitat benefiting from these treatments will be the native grasses, obligate wetland species, and upland vegetation found on the area by decreasing stress and competition with an invasive species.

Project Treatments and Actions

Treatment Name: Noxious Weed Treatment

Acres: 30,101.5

Action: Herbicide application (backpack/hand spraying)
Approach Narrative:

A mixture of herbicide(s) and surfactant will be used to treat salt cedar at Carson Lake WMA by backpack/hand spraying in areas where the UTV cannot access.

Planned Start: 07/2024

Action: Other - please specify
Approach Narrative:

Heavy equipment/hand equipment will be used to mow/cut salt cedar at Carson Lake WMA.

Planned Start: 07/2024

Action: Herbicide application (truck or atv)
Approach Narrative:

A UTV will be used to treat salt cedar at Carson Lake WMA after mowing/cutting of the plants has occurred.

Planned Start: 07/2024

Project Monitoring

Monitoring Plan:

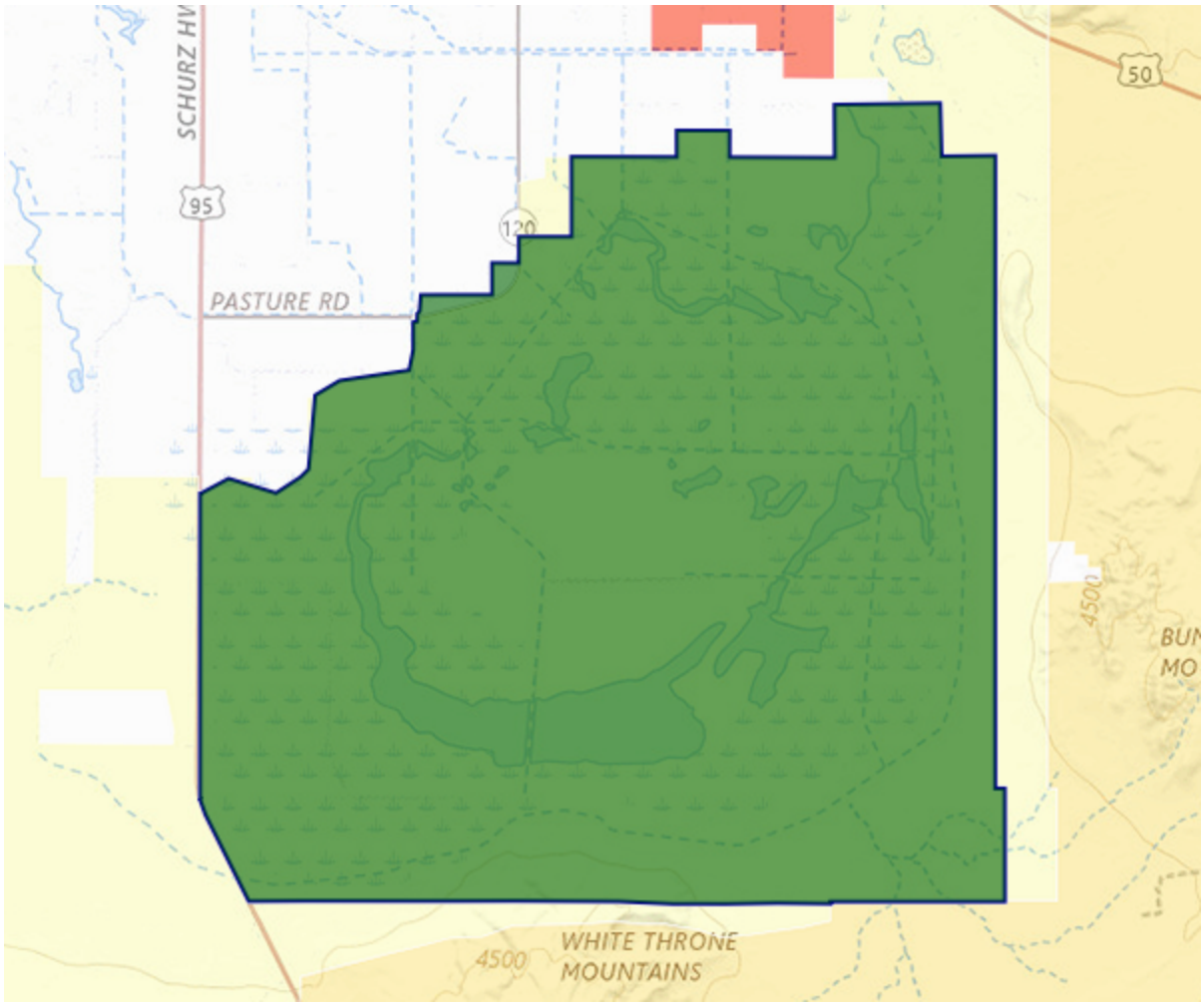
Through the treatment process, photos will be taken before and after to determine success of the mowing and herbicide treatment.

Project Funding and Budget

Budget Item	NDOW Duck Stamp 2025	Subtotal
Contracts		
Mowing/cutting	$25,000	$25,000
Total Costs:	**$25,000**	**$25,000**

Budget Narrative:

Pricing for this project from a state contracted fuel and fire reduction vendor for mowing/cutting will be $11,798 to $12,097 for a 40-hour working week. Two weeks of mowing would be $23,596 to $24,194, I would like to achieve two weeks of mowing for the first year of this project. The primary funding source would be the NDOW Habitat Conservation Fee.



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Noxious Weed Treatment

NEVADA DEPARTMENT OF WILDLIFE

Project Proposal Report

Project Name: FY25 Purchase Support for Airboat **Project ID:** 956

Lead Agency: Nevada Department of Wildlife

Project Manager: Russell Woolstenhulme Nevada Department of Wildlife

Phone Number: (775) 688-1914

Email: russellw@ndow.org

Project Partners

Name	Agency	Role
Nevada Waterfowl Association	Nevada Waterfowl Association	Non-Agency Cooperator

Project Schedule

Project Start Date: 07/01/2024 (FY 2025)

Projected Completion Date: 06/30/2025 (FY 2025)

Multi-year Project: no

Project Schedule:

FY25 - Acquisition of Airboat for waterfowl disease monitoring, and mediation of morbidity and mortality events

Project Location and Land Status

Location Narrative:

Statewide

NDOW Region: Not Applicable – Statewide Project

NDOW Management Units: Not Applicable – Statewide Project

Nevada Sage Grouse Population Management Unit: Not Applicable – Statewide Project

County: Not Applicable – Statewide Project

Land Status

Land Status	Acres	Percent of Project
No results		

Bureau of Land Management Office: Not Applicable – Statewide Project

US Forest Service Ranger District: Not Applicable – Statewide Project

Project Summary and Justification

Project Activity and Sub-activity: POPULATION MANAGEMENT, MONITORING, and RESEARCH: Terrestrial Wildlife

Project Objectives:

- To conduct surveys or research that informs disease management or monitoring needs.

NDOW Initiative Addressed: No initiatives

Priority Resource Impacted: Not Applicable – Statewide Project

Priority Species Impacted: Not Applicable – Statewide Project

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: no

Project Clearance or Authorization Status: Not Applicable

Project Rationale:

Avian botulism outbreaks are a permanent and frequent condition within waterfowl and waterbird habitats within the Great Basin. The most recent major botulism outbreak in Nevada (Carson Lake WMA, 2018) resulted in the death of over 11,000 birds with an additional 3,700 effected birds being treated (largest botulism disease event in US in 2018). During that event, NDOW was supported by USFWS office of Migratory Bids and USFWS Stillwater NWR in mediation measures. Those partners either no longer have local staff or do not have adequate manpower and training to assist in mediation efforts. We are seeking funds to assist in purchasing an airboat to support the Department's need to conduct proactive, coordinated, and sustained monitoring and surveillance for health status on targeted populations of migratory birds. This monitoring is a primary component of the Department's federal aid grant. Habitat and water conditions need to be monitored weekly from July through October to provide information to biologists to help avoid and plan for remediation of outbreaks of avian botulism, avian cholera, and other waterbird disease outbreaks. In the event of disease outbreaks, an airboat is also needed for morbidity and mortality clean-up and rescue on any of the Department's Wildlife Management Areas where waterfowl and waterbirds are the primary management focus.

Project Treatments and Actions

Treatment Name: Primary Airboat Use Area

Acres: 121,623.8

Action: Disease monitoring, treatment, or research
Approach Narrative:

Purchase airboat

Planned Start: 07/2024

Project Monitoring

Monitoring Plan:

Success can be realized by the acquisition and use of an airboat. Successful utilization of an airboat for disease monitoring and use in mediation of morbidity and mortality events.

Project Funding and Budget

Budget Item	NDOW Duck Stamp 2025	Nevada Waterfowl Association 2025	USFWS Grant - Statewide Game Management 2025	Subtotal
Equipment Purchase				
Airboat acquisition	$13,750	$5,000	$56,250	$75,000
Total Costs:	**$13,750**	**$5,000**	**$56,250**	**$75,000**

Budget Narrative:

The acquisition of an airboat suitable for expected disease monitoring needs and the accompanying trailer are estimated to be $75,000. The proposed FY25 federal statewide game grant requests 75% of the purchase price ($56,250). The remaining 25% ($18,750) in order to both meet match requirements as well as provide a show of support and need to state budget process. The Nevada Waterfowl association has committed to funding $5,000 towards the airboat purchase. we are seeking the remaining $13,750 from Nevada Duck stamp funding.

NEVADA DEPARTMENT OF WILDLIFE

Project Proposal Report

Project Name: FY25 Full Lifecycle Conservation of International Migratory Waterfowl and Other Avian Species **Project ID:** 969

Lead Agency: Nevada Department of Wildlife

Project Manager: Jon Young Nevada Department of Wildlife

Phone Number: 775-688-1404

Email: jonathan.young@ndow.org

Project Partners

Name	Agency	Role
Russell Woolstenhulme	Nevada Department of Wildlife	Agency Cooperator

Project Schedule

Project Start Date: 07/01/2024 (FY 2025)

Projected Completion Date: 06/30/2025 (FY 2025)

Multi-year Project: no

Project Schedule:

Funds will be transferred to Southern Wings during the Pacific Flyway winter meeting. Project proposals will be reviewed, assessed, and selected by western state Pacific Flyway representatives during the fiscal year.

Project Location and Land Status

Location Narrative:

Will benefit state-wide migratory avian species

NDOW Region: Western

NDOW Management Units: 195

Nevada Sage Grouse Population Management Unit: Project not within a sage-grouse PMU

County: Washoe

Land Status

Land Status	Acres	Percent of Project
Private	2	100

Bureau of Land Management Office: Carson City District - Sierra Front Field Office

US Forest Service Ranger District: N/A

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Other habitat management (non-WMA land)

Project Objectives:

- To measurably increase wildlife populations, wildlife use, or habitat for the benefit of public use and hunter success.

NDOW Initiative Addressed: No initiatives

Strategic Habitats and Threats Addressed:

Priority Resource Impacted: Diversity/Non-game, Waterfowl

Priority Species Impacted: Dabbling duck species, Diving duck species, Migratory songbirds (multiple species), Raptor species, Shorebirds

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: no

Project Clearance or Authorization Status: Not Applicable

Project Rationale:

The conservation of migratory birds requires much larger scale actions that an individual state cannot achieve alone. Many of Nevada's avian species of interest (e.g. Species of Greatest Conservation Need, and migratory game birds such as waterfowl and dove species) migrate outside of the United States for parts of their lifecycle. Southern Wings is a part of the Association of Fish and Wildlife Agencies (AFWA) programs that facilitates state fish and wildlife agency participation in the conservation of priority migratory birds across their annual lifecycle, specifically focused on countries south of the United States border. This program provides an effective and efficient way to engage in successful conservation partnerships and the Neotropical Migratory Bird Conservation Act (NMBCA) and the North American Wetlands Conservation Act (NAWCA). Funding supports various full lifecycle programs across a number of countries from wetland protection and restoration to community engagement and conservation education. Current Southern Wings projects promote the restoration and preservation of important river deltas, marshes, lagoons, estuaries, and wetlands. Including the Marismas Nacionales, one of the most important energy resupply sites for waterfowl on the Mexican portion of the Pacific Flyway. In addition to directly benefiting waterfowl and other migratory species, this work will benefit Nevada hunters and birders by promoting, maintaining, and increasing migratory populations that reside in Nevada for part of their annual migration cycle. NDOW has been supporting a similar program for northern migratory species in Canada (Fall Flights) via Ducks Unlimited for more than 25 years and has also been supporting Southern Wings for 10 years, but on a significantly smaller scale ($1000 annually). This proposal seeks to increase NDOWs support of migratory bird habitat restoration and preservation in the southern portions of their range by an additional $2000 annually.

Project Treatments and Actions

Treatment Name: Migratory Species Funding

Acres: 2

Action: Other - please specify
Approach Narrative:

funding provided to Southern Wings for habitat conservation actions south of the US border.

Planned Start: 07/2024

Project Monitoring

Monitoring Plan:

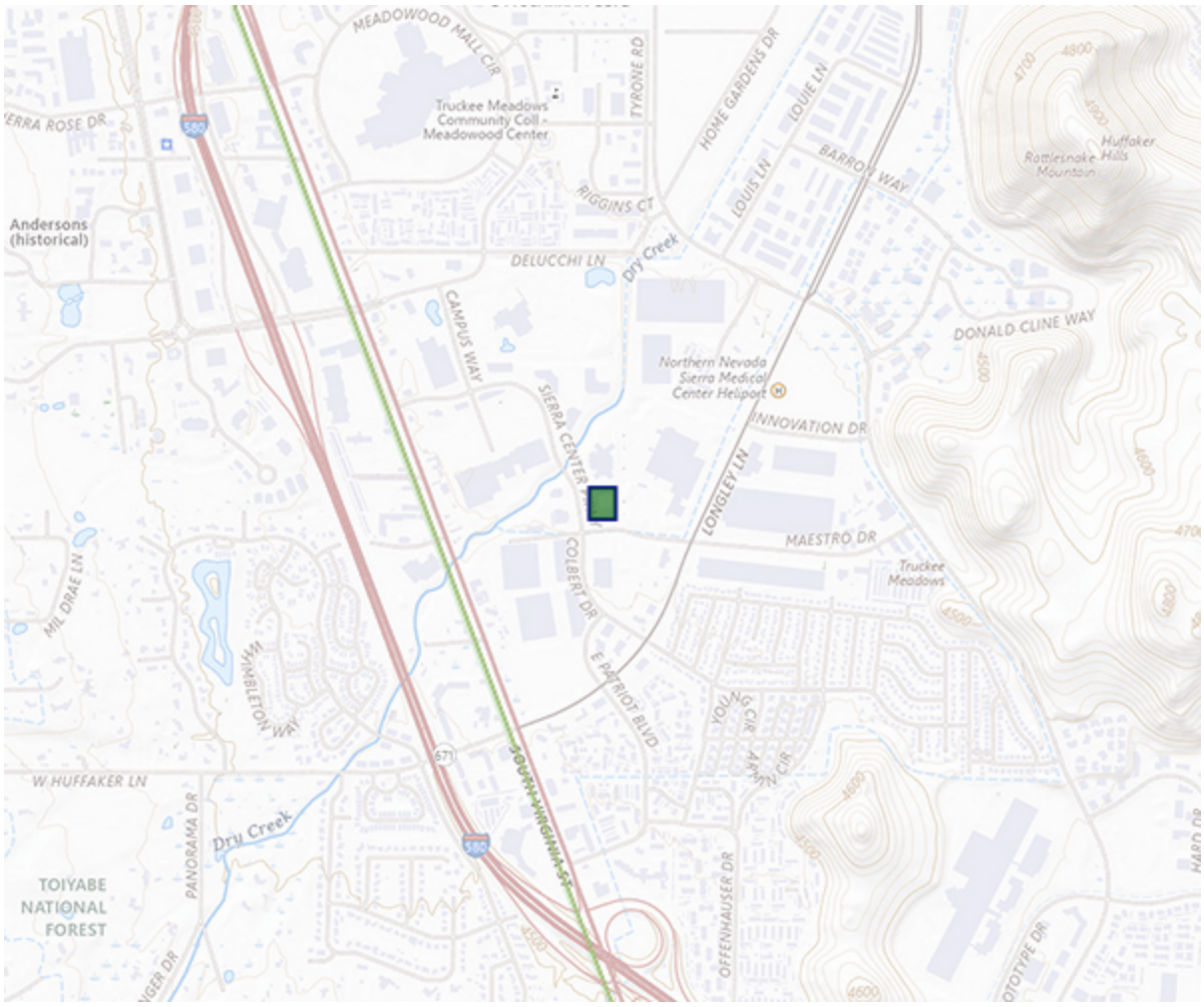
Project proposals are developed between Southern Wings representatives and international program managers. Proposals are reviewed, assessed, and selected via the Pacific Flyway Committees. Southern Wings tracks and reports on the progress of various funded projects on their webpage, newsletter, and at each Pacific Flyway bi-annual meetings.

Project Funding and Budget

Budget Item	NDOW Duck Stamp 2025	Subtotal
Other		
Southern Wings	$2,000	$2,000
Total Costs:	**$2,000**	**$2,000**

Budget Narrative:

These funds will be transferred to Southern Wings, who's administrator is part of the Pacific Flyway Non-Technical Committee. All western states involved with the Pacific Flyway will review, assess, and select project proposals during the winter flyway meeting. Funds can be broken up amongst various projects.



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Migratory Species Funding

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **UPLAND GAME BIRD STAMP REQUEST** – At the June 29, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will review and may take action to approve up to $262,230 for projects submitted for Fiscal Year 2025 funding from the Upland Game Bird Stamp Account. The specific Upland Game Bird Stamp projects that may be approved are listed below.

- FY25 Gilbert Creek Habitat Restoration Project Phase II ($15,000)
- FY25 Argenta WMA Improvement Project ($20,000)
- FY25 Toe Jam Mountain Habitat Improvement Project ($12,500)
- FY25 Greater Sage-grouse Monitoring ($46,330)
- FY25 Mineral Development Effects on Greater Sage-grouse ($60,000)
- FY25 Upland Game Translocation and Monitoring ($13,400)
- FY25 Bi-State Sage-grouse Coordinator ($10,000)
- FY25 Bi-State Sage-grouse Monitoring ($30,000)
- FY25 Petersen Mountains Bitterbush Planting ($15,000)
- FY25 Common Raven Modeling ($40,000)

Agenda Action: Formal Action / Motion **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
Upland-Game-Bird-Stamp-Request.pdf

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
_____
_____
_____
_____

_____
(Vote Recorded By)

STATE OF NEVADA
DEPARTMENT OF WILDLIFE
Habitat Division
6980 Sierra Center Parkway, Ste. 120 · Reno, Nevada 89511
(775) 688-1500 Fax (775) 688-1987

MEMORANDUM **MAY 30, 2024**

To: Nevada Board of Wildlife Commissioners, County Advisory Boards to Manage Wildlife, and Interested Publics

From: Mark Freese, Habitat Division Administrator, Habitat Division

Title: **Fiscal Year 2025 Upland Game Bird Stamp Funding Requests**

Purpose: The Commission will review and may take action to approve up to $262,230 for projects submitted for FY 2025 funding from the Upland Game Bird Stamp Account.

Summary

The Department presents Upland Game Bird Stamp Fiscal Year 2025 funding applications to the Commission for review and possible approval.

Brief Explanation of the Proposed Funding

The Department has completed its annual project application period for Upland Game Bird Stamp and presents applications for possible approval 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.

Recommendation

The Department recommends that the Commission review and adopt the FY 2025 Upland Game Bird Stamp project applications as presented.

Upland Game Bird Stamp Program Report

Nevada Department of Wildlife

June 2024

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Proposed FY 2025 Upland Game Bird Stamp Projects ……..8

Progress Report for Upland Game Bird Stamp Projects Funded in FY 2024

Corta Fire Habitat Improvement North (Phase 1)

In November of 2023, approximately 74,000 antelope bitterbrush seedlings were planted within the 250-acre project area. The seedlings were planted by Silhouette Farms using 12-foot spacing with a full-coverage distribution. Prior to implementation, the project site had experienced significant precipitation providing excellent planting conditions.

Corta Fire Habitat Improvement South (Phase 2)

In the fall of 2023 seed was delivered to Lucky Peak Nursery where seedlings will be grown out and planted in the fall of 2024.

Area 6 Toe Jam Mountain Mule Deer Corridor Fence Modification

The design phase of this project is delayed. Field visits have recently occurred and the final design is expected soon. A scope of work and contract should be issued by June 30, 2024 with a contractor expected to complete the work by the end of FY2025.

Bruneau WMA Habitat Improvement

The project is in the planning stage with implementation expected late summer/early fall 2024.

Argenta WMA Improvement

The project is in the planning stage with implementation expected late summer/early fall 2024. Flooding resulted in project delays.

Eastern WMA Complex Weed Control

Ongoing weed treatments are occurring using the WMA grant with no funding being spent on this project to date. We anticipate using funding late in FY2024 or in FY2025.

Greater Sage Grouse Monitoring

This project supports various NDOW specific monitoring efforts throughout the range of Greater Sage-grouse in Nevada. Monitoring activities include ground surveys to conduct lek-related work (e.g., counts, routes and searches) using seasonal technicians, fixed-wing aircraft outfitted with infrared telephoto capabilities, and fixed-wing telemetry (VHF) follow-up surveys.

Lek Count Technicians

Part-time lek technicians were hired for spring 2024, which allows us to achieve our objectives of surveying at least 40% of known lek locations throughout Nevada (n=796). The use of part time technicians dedicated solely to lek surveys alleviates some of the workload on agency field biologists at a time of the year when surveys for other species (e.g., big game animals) are taking place and big game quota recommendations are being made. We anticipate hiring 2 seasonal part time technicians to work approximately 6-8 weeks to assist with lek counts.

Fixed Wing Infrared Surveys
For 2024, no infrared surveys were conducted.

Aerial Telemetry Surveys
In addition to the lek survey work described above, this project will also cover fixed wing aerial telemetry surveys to follow-up on radio-marked grouse in several project areas. These flights will largely occur once each month from October through February in various study areas and roughly involve approximately 32 hours of work. These surveys not only provide locations of birds, but are also able to document mortality, which is important for estimating monthly, seasonal and annual survival rates. Additionally, telemetry information obtained from sage-grouse throughout Nevada has been utilized to inform a statewide resource selection function model (RSF) and mapping product for the species.

Bi-State Sage Grouse Coordinator

The Bi-State Communication and Data Coordinator position has increased our effectiveness and efficiency in meeting reporting and accountability requirements. It has allowed for broadened and focused outreach to more of the Bi-State community and has freed up precious time for professionals to allow them to focus on their primary job of getting conservation done on the ground. Also, because much of this work is happening across agency, private and nonprofit ownership boundaries, having a person who is not tied to a specific agency has helped improve the seamlessness of the communication effort.

The major accomplishment in FY2024 is a draft version of the 2024 Bi-State Sage-Grouse Action Plan. The development of the 2024 Action Plan relied on information provided by the public, expert opinion from local biologists and technical experts, and the best available science. As with the 2012 Plan, actions in the 2024 Plan are devised to 1) promote a coordinated interagency approach 2) improve regulatory mechanisms, 3) manage habitat and subpopulations based on specific threats, 4) address research and monitoring needs to ensure that management of the Bi-State DPS is science-based and adaptive, and 5) advance communication among Bi-State partners and the public. Effective and efficient coordination within and among the Bi-State Action Plan signatories is key to successful implementation of the Action Plan. To this end, actions in the 2024 Action plan direct partners, when possible, to leverage available staff and funding to facilitate implementation of actions designed to avoid or minimize the loss of sage-grouse habitat in the Bi-State area. Actions in the action plan also aim to improve inter-organizational policies to ensure the effectiveness and consistency of discretionary agency actions that may impact the Bi-State DPS and its habitats.

The Bi-State area is ecologically and topographically diverse and the extent to which threats are impacting sage-grouse across the Bi-State vary locally. Therefore, the 2024 Action Plan addresses risks and threats at local scales within the Bi-State area and the actions consider the health of multiple ecosystems (e.g. pinyon-juniper woodland and meadow ecosystems) and species (e.g. pinyon jay). Threats to sage-grouse and their habitats in the Bi-State area that are addressed in this Action Plan include:
Wildfire, Small-scale infrastructure, Large-scale infrastructure, Urbanization, Motorized recreation, Non-motorized recreation, Wild horse overpopulation and range expansion,

Predation, Small population sizes, Invasive plant species, Conifer expansion, Climate change, Mesic habitat availability, Permitted livestock grazing, Disease and parasites.

Bi-State Sage Grouse Monitoring

Working in conjunction with the USGS Western Ecological Research Center and Great Basin Bird Observatory (GBBO), NDOW is proposing to conduct radio-marking and follow-up work to more clearly understand habitat use and demographic parameters within the Desert Creek and Mount Grant Population Management Units (PMUs) in Nevada. The current emphasis for 2024 will be the Desert Creek PMU. Successful trapping efforts have concluded for spring 2024.

For the Desert Creek PMU, the goal was met for 1) marking at least 5 to 10 female sage-grouse with GPS/Satellite transmitters to determine seasonal movement patterns and determine home range, and 2) mark approximately 10-15 females sage-grouse and place VHF radio transmitters to augment the GPS/Satellite marked sample.
USGS is currently working on determining the following:

- adult survival rates (monthly and annual).
- identification of nest sites and nest success.
- examination of nest-site vegetative characteristics and if differences exist between successful and unsuccessful nest sites.
- determination of nest survival rates.
- brood rearing habitat selection.
- vital rate associations with habitat co-variates.
- overall distribution and seasonal movement patterns.

Currently, USGS is also marking to mark up to 7 individual sage-grouse to determine the same population metrics for the Pine Nut PMU as these two populations do overlap.

Mineral Development Effects on Greater Sage Grouse

For FY2024, we are collaborating with USGS in monitoring two study sites proposed for significant mineral development (gold mining) to gain a better understanding of the specific effects of mine development on various life stages of Greater Sage-grouse at various spatial scales (e.g., site scale, fine scale (seasonal habitat), and mid-scale or population level). We will measure vital rates such as nest initiation rates, clutch size, nest survival rates, brood survival rates and adult and juvenile survival of males and females within and adjacent to mine Plan of Operations areas and areas influenced by mine development. The study sites currently include the Cortez Range located in Eureka County and the Pinion Range located in Elko County, Nevada.

USGS is currently maintaining, through fall and spring trapping, 20 to 30 female and up to 10 male sage-grouse to better understand the effect and impact of mining activities (both direct and indirect) to life history stages, demographic rates, movement and habitat selection. The results have not been reported for 2024 as female sage-grouse are still nesting, but for 2023 across both sites, annual survival probabilities were estimated to be 0.53 (95% CRI = 0.35 - 0.72) in 2023; nest survival was estimated to be 0.48 (95% CRI = 0.22 - 0.75); and chick survival was estimated to be 0.21 (95% CRI = 0.1 - 0.35). Interestingly, chick survival in the Cortez Range was nearly twice that

of the Pinion Range, with an estimated chick survival probability at Cortez of 0.28 (95% CRI 0.14 - 0.48) compared with a chick survival estimate of 0.15 (95% CRI = 0.04 - 0.33) in Pinion.

Note: For 2024, the Raven Removal Authority was raised to 12,500. This gives NDOW through USDA Wildlife Services more ability to manage ravens in critical habitat areas (i.e., mainly PHMA) and dampen the effects of anthropogenic subsidization sites for ravens.

Mason & Smith Valley Conservation Districts Walker River Region Noxious Weed and PJ Restoration Treatments

Currently, $8,900 has been spent on this project implementing a fall 2023 herbicide treatment of medusahead at Desert Creek Ranch for the benefit of Bi-State sage-grouse. Recently, additional task orders were established to complete this project. Upcoming work includes retreatment of the Buckskin PJ Removal project, fall 2024 treatment of medusahead at Desert Creek Ranch, and noxious weed treatment along the Walker River Corridor.

Upland Game Translocation and Monitoring

The overall goal of this project is to increase population redundancy and resiliency of certain upland game species, particularly ruffed grouse, wild turkey, Columbia Sharp-tailed Grouse, California quail and potentially gray partridge within suitable and appropriate habitats. In addition, this project is proposed to assist with monitoring of existing upland gamebird populations to help determine the efficacy of previous translocations (particularly Columbian Sharp-tailed Grouse restoration efforts), availability of source stock (gray partridge) and to help develop forecasts for the upcoming season. Monitoring would likely be focused on chukar, gray partridge, California Quail, and Mountain Quail, with the use of trail cameras placed at various spring sources during the mid-summer months.

To Date:

Columbian Sharp-Tailed Grouse

Twenty female CSTG were captured from eastern Idaho Upper Snake Region in April 2024. Possible translocation efforts may last up to 3 years if deemed necessary by IDFG and NDOW staff to ensure long-term population stability. We are anticipating that eventually the Bull Run Basin population will link up with Idaho Shoshone Basin sharp-tails and create a genetic corridor. Females will be marked with leg bands (year specific) before release. The Bull Run Basin leks are closely monitored each season by NDOW staff and being able to identify translocated females attending leks the following breeding season will give some interpretation to translocation success and population viability.

California Quail

We translocated ~ 500 quail to pre-selected distinct locations across Nevada. Birds will be released in groups of 75+ in ordered to prevent a demographic trap scenario from occurring. Most capture efforts will continue around Reno urban interface and surrounding areas. Only observational monitoring will occur at this time post release. However, there is potential to develop a research monitoring project to obtain higher resolution and insight to post release success and determination of certain demographic rates. Walker River State Park has potential

to be a site for accommodating a research project due to accessible and trackability of marked individuals. In collaboration with Northern Nevada Quail Forever, trail cameras will be used in FY2024 to determine post release occupancy and success.

Rio Grande Turkey
We captured 39 turkeys from Paradise Valley in 2024 as the turkey population has expanded recently and there are congregations of over 200 birds that have been reported in the community of Paradise Valley. Trap and translocation of up to 50 individuals may be necessary in early 2025 to remove excess birds.

We are coordinating with the Utah Division of Wildlife Resources to determine source stock availability from portions of northern and central Utah. In the past, we have obtained several hundred birds from Utah for release into Lincoln County, which has been considered a success. Walker River State Park will be a target release site for late 2024 and 2025.

Corta Fire Habitat Improvement

Progress is being made on the Corta Fire Habitat Improvement Project and all treatments remain on schedule. The logistics of seedling planting can be complicated and the plants themselves take approximately one-year to grow out. As such, the manager of projects like this must secure funding, deliver seed to the nursery that fall, wait one year for the plants to grow out, then contract the planting nearly a year and a half to two years from the time funding is secured.

At present, seed has been delivered to the Lucky Peak Nursery in Idaho where approximately 50,000 antelope bitterbrush seedlings will be grown out and ready for pick up/planting this fall. However, because the window for planting is incredibly variable and also critical to seedling success, the actual planting may not be implemented until the spring of 2025.

Mosquito Valley Range Improvements

In fall of 2023, we received significant late summer precipitation in several events during August and September. One event was a result of a tropical storm that reached the West coast, which is a very rare occurrence. This resulted in significant precipitation and caused germination, or green-up, of cheatgrass much earlier than normal. We conducted a field visit in September which confirmed green-up within the project area. However, we decided to set up two small experimental plots to test a 6oz (167 acres) and an 8oz (316 acres) per acre rate to see if either of those rates cause cheatgrass death after germination. Traditionally, as soon as we observe green-up, all pre-emergent treatments are halted due to lack of effectiveness beyond this stage. There is anecdotal evidence that up to 8oz per acre rate of imazapic may be enough to kill cheatgrass in the fall that has already germinated. This provides a good opportunity to test this theory and determine if there may be different management implications for future projects where germination may have already occurred. All awarded HCF funds ($15,000) have been expended. This was a multiple year project, while we did not treat as many acres as intended in fall of 2023, we are on schedule to spend the remaining UGBS awarded funds by December of 2024.

Proposed Upland Game Bird Stamp Projects Proposed for State Fiscal Year 25

Project Number	Project Title	FY25 UGBS Fund Request	Submitted By	Other Funding Sources
927	FY25 Gilbert Creek Habitat Restoration Project Phase II	$15,000	Jeremy Lutz	NDOW Habitat Conservation Fee ($10,000)
928	FY25 Argenta WMA Improvement Project	$20,000	Jeremy Lutz	NDOW Duck Stamp ($15,000)
934	FY25 Toe Jam Mountain Habitat Improvement Project	$12,500	Matt Glenn	NDOW Habitat Conservation Fee ($12,500) NDOW Heritage Trust Account ($50,000)
963	FY25 Greater Sage-grouse Monitoring	$46,330	Justin Small	US Fish and Wildlife Service ($175,245)
964	FY25 Mineral Development Effects on Greater Sage-grouse	$60,000	Justin Small	US Fish and Wildlife Service ($180,000)
965	FY25 Upland Game Translocation and Monitoring	$13,400	Justin Small	US Fish and Wildlife Service ($30,000)
966	FY25 Bi-State Sage-grouse Coordinator	$10,000	Justin Small	Bureau of Land Management ($10,000) Intermountain West Joint Venture ($42,775) US Forest Service ($10,000)
967	FY25 Bi-State Sage-grouse Monitoring	$30,000	Justin Small	US Fish and Wildlife Service ($90,000)
972	FY25 Petersen Mountains Shrub Planting	$15,000	Katie Andrle	Muley Fanatics Foundation ($15,976) NDOW Habitat Conservation Fee ($15,000)
973	FY25 Common Raven Modeling	$40,000	Pat Jackson	NDOW Predator Management ($145,000)
	Total	**$262,230**		**$831,496**

Upland Game Bird Stamp Account Budget Status

Balance in the account at start of FY2024	$	557,677.53
Plus estimated revenue accrued during FY2024	$	360,188.58
Less FY2024 expenditures to date and remaining project balances	$	(632,300.30)
Less estimated administrative costs (10% of revenue)	$	(36,018.86)
Estimated balance at end of FY2024/start of FY2025	$	249,546.95
Plus estimated revenue to be accrued during FY2025	$	360,188.58
Less estimated administrative costs (10% of revenue)	$	(36,018.86)
Less proposed new project FY2025 expenditures	$	(262,230.00)
Estimated balance at end of FY2025	$	311,486.67

Note: The budget information in this table is preliminary and subject to change. The amount of account revenue accrued during FY2024 was not available when this report was prepared; therefore, the FY2024 revenue number was used for both FY2024 and 2025.

NEVADA DEPARTMENT OF WILDLIFE

Project Proposal Report

Project Name: FY25 Gilbert Creek Habitat Restoration Project Phase II **Project ID:** 927

Lead Agency: Nevada Department of Wildlife

Project Manager: Jeremy Lutz Nevada Department of Wildlife

Phone Number: (775) 635-5070

Email: jlutz@ndow.org

Project Partners

Name	Agency	Role
Katie Andrle	Nevada Department of Wildlife	Implementation Lead
Not Specified	Lander County	Non-Agency Cooperator

Project Schedule

Project Start Date: 07/01/2024 (FY 2025)

Projected Completion Date: 06/30/2027 (FY 2027)

Multi-year Project: yes

Project Schedule:

Summer/Fall 2024-2026: Plan and construct ~5.5 miles of rangeland fence around the Gilbert Creek property.

Summer/Fall 2024-2026: Plan and implement riparian and stream restoration techniques and project; including BDA's, rock structures, willow/shrub staking, herbicide and seeding, and others as developed.

Summer/Fall 2024-2028: Project monitoring, which may include photos, vegetation surveys or measurements, fence and other project maintenance.

Project Location and Land Status

Location Narrative:

The Gilbert Creek property is approximately 477 acres located in the New Pass Mountains, Lander County.

NDOW Region: Eastern

NDOW Management Units: 183

Nevada Sage Grouse Population Management Unit: Desatoya

County: Lander

Land Status

Land Status	Acres	Percent of Project
Private	473.6	99.6

Bureau of Land Management Office: Battle Mountain District - Mount Lewis Field Office

US Forest Service Ranger District: N/A

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Riparian, Meadow, Spring Restoration

Project Objectives:

- To measurably increase wildlife populations, wildlife use, or habitat for the benefit of public use and hunter success.
- To control cheatgrass and other non-native annual grasses with herbicide application.
- To control noxious weeds with herbicide application.
- To install fencing that excludes livestock or wild horses/burros and prevents grazing and enhances spring and riparian habitat conditions.
- To install fencing that allows for improved management of livestock or wild horse/burro grazing and enhances spring and riparian habitat conditions.
- To install spring development features that improve water management and allows for providing water outside exclusionary fencing.
- To install fencing that allows for protection and recovery of natural water sources to increase water availability for wildlife.
- To apply seed on riparian areas to improve ecological conditions, prevent expansion of invasive annual grasses, and rehabilitate wildlife habitat.

NDOW Initiative Addressed:

- Sagebrush Habitat Plan (NDOW)

Strategic Habitats and Threats Addressed:

- Linear riparian: perennial and ephemeral rivers and streams: Over-utilization, Downcutting
- Other riparian: meadow, marsh, spring, seep, and lakeshore: Over-utilization, Downcutting

Priority Resource Impacted: Big Game, Upland Game

Priority Species Impacted: Greater sage-grouse, Mule deer, Pronghorn antelope

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Clearance or Authorization Status: Not Applicable

Project Rationale:

This years funding request is to help secure funds for the continuation of habitat projects within Gilbert Creek as outlined below. Previous funding (FY24) in the amount of $300,000 was secured through FY24 Heritage ($50,000), and Lander County ($250,000) to construct three riparian exclosure fences and a perimeter range fence.

Project Background and Rationale:

Approximately 477 acres of land surrounding Gilbert Creek in the New Pass Mountains was acquired by Lander County in 2022. NDOW has been coordinating with Lander County to plan, design, and implement habitat restoration projects on the property. The property perimeter barbed wire fencing is currently under contract, expected to be completed in summer 2024 as weather and ground conditions permit. Additionally, 2,300 linear feet of drill stem pipe rail fencing was completed in 2023 surrounding three spring sites and associated riparian areas within the property to protect the most critical riparian resources and to permanently exclude feral horses and cattle.

In addition to the completed or contracted fencing projects, we propose riparian and stream restoration projects along the ~2-mile stretch of perennial stream within the Gilbert Creek property boundary. Gilbert Creek and associated springs are heavily overutilized, which has resulted in degraded vegetation, large amounts of bare ground, negligible riparian vegetation, impaction, and non-functioning riparian systems. Beaver Dam Analogs, rock structures, willow or other shrub staking or planting, as well as seeding will be planned and implemented along Gilbert Creek. Additionally, we propose pre-emergent herbicide application and rangeland seeding of perennial bunchgrasses, forbs, and shrubs. Currently, there is little streambank incision and no major headcuts along Gilbert Creek, which presents an ideal opportunity to quickly improve riparian vegetation, soils, and maintain streambank stability with minimal effort that will result in meaningful and immediate uplift. The goal of any stream restoration will be to maintain bank stability and to spread water out across the floodplain, reducing erosive velocity and activating the "soil as a sponge" to keep water on the land for longer periods, especially into the hot season. If this system is not protected and continues to be overutilized by livestock and feral horses, cost of restoration efforts will only increase over time and lengthen the recovery timeline. Additional potential habitat treatments we hope to implement in the future pending available funding sources includes herbicide treatments and re-seeding efforts along the springs, creek, and uplands. In addition, Lander County obtained all water rights associated with these waters as part of their acquisition.

The Gilbert Creek property occurs within Hunt Unit 183, containing mapped mule deer, antelope and sage-grouse habitat. Field visits to the site have determined that big game species regularly and heavily use this site. Sage-grouse have been documented (2023) in Gilbert Creek, despite the site's degraded condition. Gilbert Creek is the only perennial water source on the east side of the New Pass Range, which appears to result in wildlife concentrating use on this riparian system. Improving the riparian and stream systems along Gilbert Creek, and excluding livestock and feral horses, will allow upland and riparian vegetation to improve and provide forage and cover for wildlife, including small mammals, passerines, and bats. Proposed riparian improvements will increase water quality, retention, and availability longer into the hot season. This parcel presents an important opportunity to improve habitat conditions in a fire-affected region where overall rangeland conditions are in a degraded state, and therefore significant uplift is expected.

Since 2020, in cooperation with the Battle Mountain BLM and local private landowners, NDOW has initiated several habitat projects immediately adjacent to this property including the treatment of ~2,000 acres with pre-emergent herbicide to control invasive non-native annuals, followed by seeding with a mix that included a variety of grasses, forbs and several different shrub species desirable by wildlife. In the spring of 2021, tens of thousands of sagebrush and bitterbrush seedlings were hand planted north of Gilbert Creek towards Water Canyon to help establish critical forage for sagebrush obligate species. Currently, work is underway to fence off another privately-owned parcel that contains several important springs and seeps critical for wildlife in Water Canyon (north of Gilbert Creek).

Project Treatments and Actions

Treatment Name: Perimeter fence

Acres: 475.3

Action: Install or maintain range fence
Planned Start: 05/2024

Action: Herbicide application (aerial)
Planned Start: 09/2024

Action: Herbicide application (truck or atv)
Planned Start: 08/2024

Action: Install gates or cattle guards
Planned Start: 06/2024

Action: Stabilize headcut
Planned Start: 06/2024

Action: Install or maintain post-assisted log or beaver dam analogs
Planned Start: 06/2024

Action: Seeding (broadcast)
Planned Start: 11/2025

Project Monitoring

Monitoring Plan:

We plan to monitor habitat improvements when fencing and habitat restoration projects are implemented, starting in the fall of 2023 and into the summer of 2024 with the installation of both the pipe rail exclosures (2023) and the perimeter barbwire fence (2024).

Summer 2024-2028: Annual monitoring, which may include photos and vegetation transects or measurements.

Project Funding and Budget

Budget Item	NDOW Habitat Conservation Fee 2025	NDOW Upland Game Stamp 2025	Subtotal
Contracts			
Aerial herbicide and seeding application costs.	$0	$10,000	$10,000
Equipment/Vehicle Rental			
Mini Excavator rental on an as needed basis to help complete riparian projects, including BDA and check/rock dam installations.	$0	$5,000	$5,000
Materials Purchase			
Herbicide, seed, tree and shrub seedlings and BDA materials.	$10,000	$0	$10,000
Total Costs:	**$10,000**	**$15,000**	**$25,000**

Budget Narrative:

Total project costs are approximately $325,000, which have included the construction of 3 pipe rail exclosures totaling 2,300 linear feet, all the material and labor to build a 5.5 mile perimeter fence around 477 acres, plus the cost to aerial apply herbicide and seed and all costs associated for riparian and stream restoration projects.

FY25 funding request:

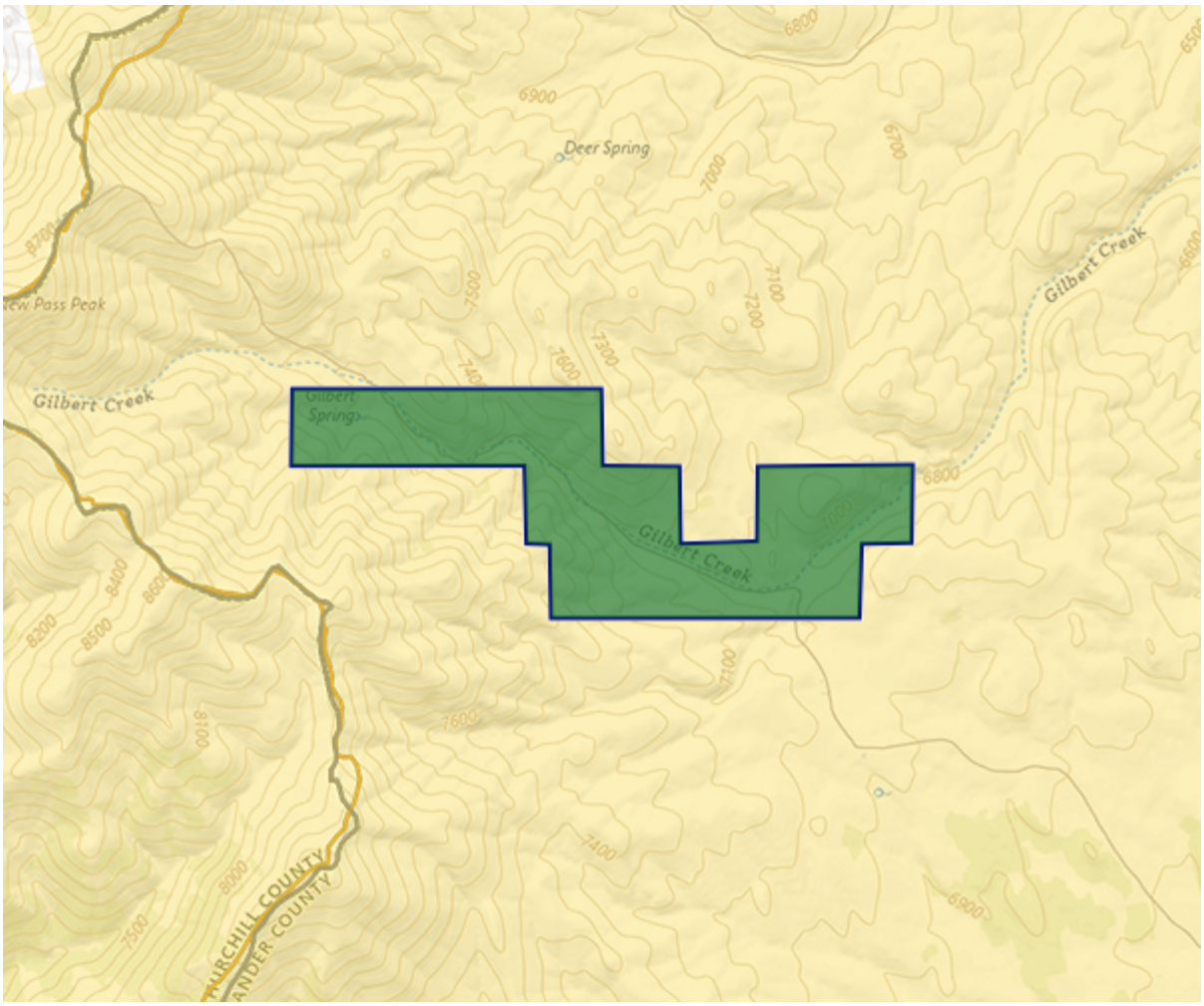
Riparian/stream restoration materials (herbicide, seed, seedlings, BDA materials). $10,000.00 (HCF)

Spray and seed application and BDA construction (Rental equipment costs, contract with Lander County CD): $15,000.00 (UGBS)

FY24 funding secured as project match:

Barbed wire perimeter fence: Lander County. $200,000.00 (Lander County)

Welded Drill Stem fence: Lander County/Heritage. $50,000.00 Lander County and $50,000 Heritage



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Perimeter fence

NEVADA DEPARTMENT OF WILDLIFE

Project Proposal Report

Project Name: FY25 Argenta WMA Improvement Project **Project ID:** 928

Lead Agency: Nevada Department of Wildlife

Project Manager: Jeremy Lutz Nevada Department of Wildlife

Phone Number: (775) 635-5070

Email: jlutz@ndow.org

Project Partners

Name	Agency	Role
Jeremy Lutz	Nevada Department of Wildlife	Implementation Lead

Project Schedule

Project Start Date: 07/01/2024 (FY 2025)

Projected Completion Date: 06/30/2027 (FY 2027)

Multi-year Project: yes

Project Schedule:

As soon as funding becomes available.

Project Location and Land Status

Location Narrative:

Restoration and enhancement work will occur entirely on the Argenta WMA.

NDOW Region: Eastern

NDOW Management Units: 152

Nevada Sage Grouse Population Management Unit: Project not within a sage-grouse PMU

County: Lander

Land Status

Land Status	Acres	Percent of Project
Bureau of Reclamation	50.5	3.2
Private	1539.2	96.7

Bureau of Land Management Office: Elko District - Tuscarora Field Office

US Forest Service Ranger District: N/A

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT IMPROVEMENT or MANAGEMENT: Management of Wildlife Management Areas (WMA)

Project Objectives:

- To measurably increase wildlife populations, wildlife use, or habitat for the benefit of public use and hunter success.
- To use water management or physical alterations in managed wetland and/or moist-soil habitats to increase production of preferred waterfowl food or cover.
- To use water management or physical alterations in managed wetland and/or moist-soil habitats to improve water management.
- To use food plots or plantings in managed wetland and/or moist-soil habitats to increased production of preferred waterfowl food or cover.
- To use food plots on actively managed upland habitats to increase production of preferred wildlife food or cover.
- To use food plots on actively managed agricultural habitats to increase production of preferred wildlife food or cover.
- To control cheatgrass and other non-native annual grasses with herbicide application.
- To control noxious weeds with herbicide application.
- To use prescribed fire to thin or remove undesirable vegetation.

NDOW Initiative Addressed:

- Nevada Biodiversity Initiative (USFWS)
- Wildlife Connectivity Plan (NDOW)

Strategic Habitats and Threats Addressed:

Priority Resource Impacted: Big Game, Diversity/Non-game, Fish, Upland Game, Waterfowl

Priority Species Impacted: Bats, Dabbling duck species, Diving duck species, Geese, Migratory songbirds (multiple species), Mule deer, Raptor species, Rio Grande turkey, Shorebirds, Valley quail, Warmwater sport fish

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: no

Project Clearance or Authorization Status: Not Applicable

Project Rationale:

In order to address and manage yearly maintenance with noxious weeds, maintenance of existing infrastructure (fences, buildings, bridges, etc.), and maintaining and enhancing crucial riparian and meadow habitats and corridors, we are requesting funding to perform a variety of habitat and maintenance restoration efforts on the newly acquired Argenta WMA. The primary purpose for the funding would be to restore and improve existing wildlife habitat and perform infrastructure maintenance and replacement on the Argenta WMA. These projects include ground based or aerial application of herbicide, drill or aerial seeding, tree and shrub plantings, and riparian and meadow habitat restoration and enhancement practices including meadow dragging, cutting, haying and seeding with wildlife desirable seed mixes. In some instances, specialized equipment will be necessary to rent or purchase in order to perform work with skid steers and associated attachments, tractors, excavators, etc. Infrastructure such as fences, gates, cattle guards, culverts and existing building upgrades to 2 pump houses, Sterritt Field Well upgrade Weaner Field Well upgrade, the ranch shop re-tinning project, 3 major water delivery irrigation devices, and the 3 bridges are in need of repair or maintenance on the Argenta WMA.

These projects would help improve and maintain the intrinsic values of this property for wildlife, its associated habitat and to help promote, encourage and engage the involvement of our constituents to Nevada's wildlife on the Argenta WMA.

Awarded funds would be used to purchase herbicide, equipment, tools, seed, trees, shrubs, building materials, and/or contract labor to maintain and enhance the Argenta WMA. Additional monies would be used to significantly bolster current capital improvement efforts including replacing and repairing 3 large water diversion structures as is being required by the Division of Water Resources , fence and gate modification and replacement, infrastructure maintenance on WMA shop, equipment facilities and 2 pump houses, maintenance and replacement of electrical wiring systems on all breaker boxes associated with the ranch shop, 3 pump well houses, picnic area, and annual road maintenance and repairs as and where needed. This funding would also facilitate the replacement of electrical and control panels on Welch's irrigation well. Once operational this well will be used to irrigate and grow wildlife food plots on the Argenta WMA.

These projects would help maintain and enhance habitat for all wildlife associated with the Humboldt River Floodplain including the 105 birds species that have been documented on the Argenta WMA. Maintaining and enhancing the large, irrigated meadows and its associated willow lined river corridors creates a unique wetland type habitat for tens of thousands of migratory bird species as they migrate along the Pacific Flyway. These meadows, slews, canals and river corridors are all extremely important habitat for mule deer, elk and a variety of upland game birds including Rio Grande turkeys, California quail and pheasants.

Project Treatments and Actions

Treatment Name: Argenta WMA

Acres: 1,592

Action: Install or maintain range fence
Approach Narrative:

Perform annual maintenance on all pasture and perimeter fences annually as well as contact larger fence modifications or replacements.

Planned Start: 07/2024

Action: Create, modify, or maintain diversion canals, headgates, or water pipelines
Approach Narrative:

Clean, repair and replace water diversion and water deliver structures annually to facilitate proper irrigation practices on ranch.

Planned Start: 07/2024

Action: Complete or support WMA crop farming practices
Approach Narrative:

Protect, manage and enhance meadow and riparian habitat on Argenta WMA by irrigating, dragging, seeding, cutting and haying meadows and pastures.

Planned Start: 07/2024

Action: Herbicide application (truck or atv)
Approach Narrative:

Actively target noxious weeds throughout Argenta WMA with the use of a truck or an atv spray application.

Planned Start: 07/2024

Action: Intall or maintain pipe-rail fence
Approach Narrative:

Perform annual maintenance on existing pip-rail infrastructure as well as contract new pipe-rail construction on access points throughout Argenta WMA.

Planned Start: 07/2024

Action: Non-PJ tree or shrub removal (physical removal)
Approach Narrative:

Contract removal of noxious shrubs and trees as well as cut and pile dead or down trees throughout Argenta WMA that pose a risk to human safety, WMA infrastructure or direct competition with desirable trees and shrubs.

Planned Start: 07/2024

Action: Plant upland or dry-land food plot
Approach Narrative:

Utilize appropriate seeding methodology, rates and timing to complete seeding to enhance forage for wildlife and livestock throughout Argenta WMA.

Planned Start: 07/2024

Action: Lake, reservoir, or pond dredging
Approach Narrative:

Contract dredging practices to clean and enhance wetland and fishery habitat throughout Argenta WMA.

Planned Start: 07/2024

Action: Herbicide application (backpack/hand spraying)
Approach Narrative:

Actively target noxious weeds throughout Argenta WMA with the use of backpack or hand spray applications.

Planned Start: 07/2024

Action: Plant or manage cover plots
Approach Narrative:

Utilize appropriate seeding methodology, rates and timing to complete seeding to enhance forage for wildlife and livestock throughout Argenta WMA.

Planned Start: 07/2024

Action: Plant wetland or moist-soil food plot
Approach Narrative:

Utilize appropriate seeding methodology, rates and timing to complete seeding to enhance forage for wildlife and livestock throughout Argenta WMA.

Planned Start: 07/2024

Project Monitoring

Monitoring Plan:

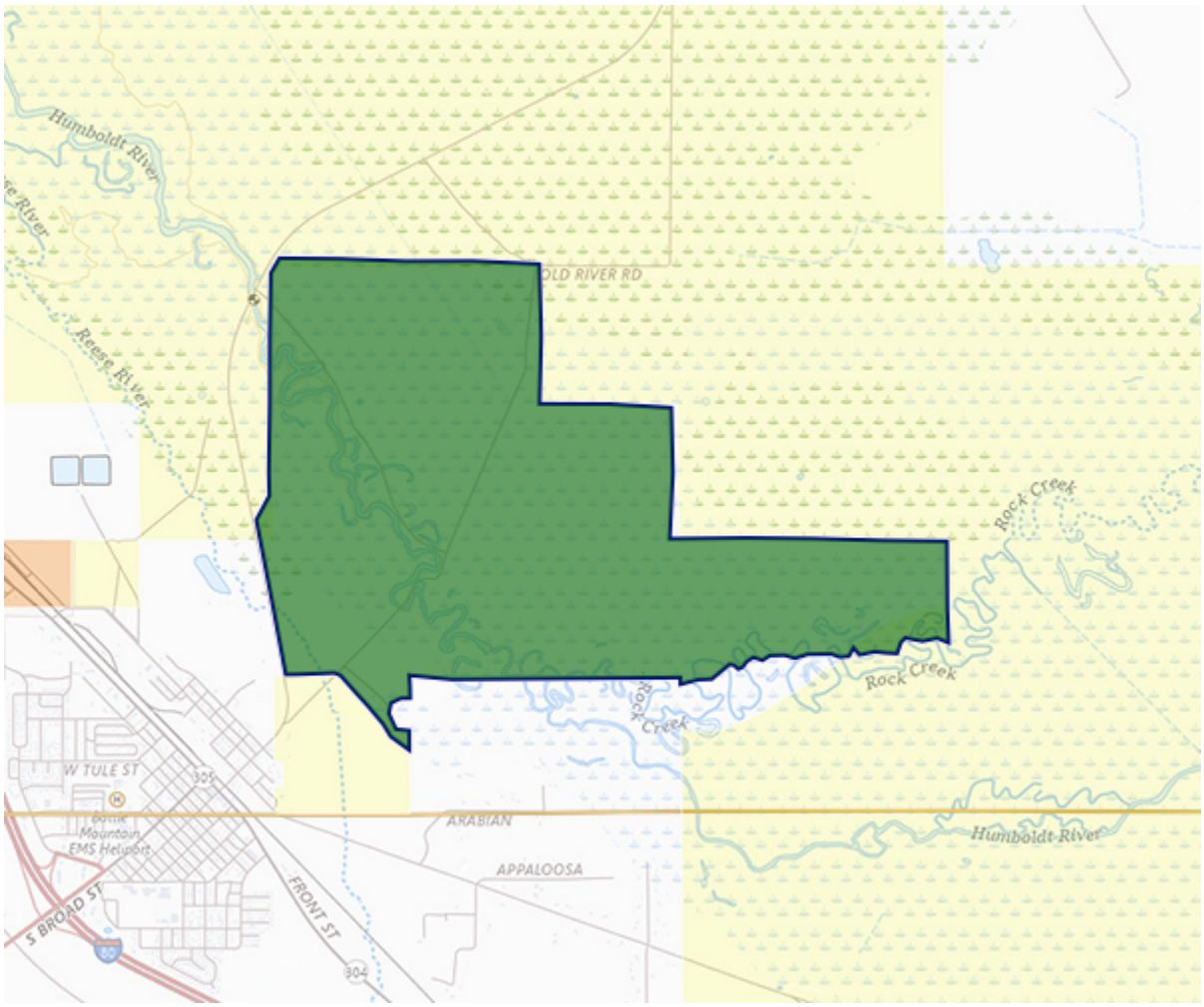
Monitoring plan consists of annual inspections on the Argenta WMA that include initiating projects based on seasonal timelines that include infrastructures maintenance and repair needs, weed inventories and treatments, seasonal irritation deliveries and meadow enhancement practices including dragging, cutting, haying and seeding.

Project Funding and Budget

Budget Item	NDOW Duck Stamp 2025	NDOW Upland Game Stamp 2025	Subtotal
Contracts			
Contract labor for weed, seed cost and application, meadow enhancement and well contractors.	$15,000	$0	$15,000
Materials Purchase			
Infrastructure and maintenance repair.	$0	$20,000	$20,000
Total Costs:	**$15,000**	**$20,000**	**$35,000**

Budget Narrative:

Awarded funds would be used to purchase herbicide, desirable wildlife seed mixes including both upland and wetland mixes, equipment, tools, trees and shrubs, building materials, and or contract labor to maintain and enhance the Argenta WMA. Additional monies would be used to significantly bolster current capital improvement efforts including replacing and repairing 3 large water diversion structures as ordered by the Nevada Division of Water Resources, replacing several miles of old, dilapidated, wildlife unfriendly barb wire fence, multiple gate modifications and replacements, infrastructure maintenance on shop including re-tinning lower section with new metal, replacement and maintenance on 2 pump houses, replacement of all outdated and unsafe electrical wiring systems on all major outbuildings, shops, pump houses, wells and other infrastructure essential to the Argenta WMA, Sterritt Field and Weaner Field stock wells maintenance and solar upgrades, Welches Well irrigation upgrade and all associated material, annual road maintenance and repairs as and where needed along the "Lane Nature Path" and the "Ancho Picnic Area" . All contracts would be administered and inspected by the project manager.



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Argenta WMA

NEVADA DEPARTMENT OF WILDLIFE

Project Proposal Report

Project Name: FY25 Toe Jam Mountain Habitat Improvement Project **Project ID:** 934

Lead Agency: Nevada Department of Wildlife

Project Manager: Matt Glenn Nevada Department of Wildlife

Phone Number: (775) 777-2369

Email: mglenn@ndow.org

Project Partners

Name	Agency	Role
No results		

Project Schedule

Project Start Date: 12/01/2024 (FY 2025)

Projected Completion Date: 05/01/2026 (FY 2026)

Multi-year Project: yes

Project Schedule:

- Fall 2024 Seed purchased and delivered to Lucky Peak Nursery for grow out at Lucky Peak Nursery

- Fall 2025 Approximately 55,000 antelope bitterbrush seedlings will be contracted for planting

- Spring 2026 if seedlings cannot be planted in the fall of 2025, they will be planted in the spring of 2026

Project Location and Land Status

Location Narrative:

Toe Jam Mountain, North Tuscarora Mountains, Elko County, Nevada

NDOW Region: Eastern

NDOW Management Units: 067

Nevada Sage Grouse Population Management Unit: Tuscarora

County: Elko

Land Status

Land Status	Acres	Percent of Project
Private	3842.3	93.1
Bureau of Land Management	283	6.9

Bureau of Land Management Office: Elko District - Tuscarora Field Office

US Forest Service Ranger District: N/A

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Wildland fire rehabilitation

Project Objectives:

- To measurably increase wildlife populations, wildlife use, or habitat for the benefit of public use and hunter success.
- To plant seedlings on habitat impacted by wildfire to improve ecological conditions, prevent expansion of invasive annual grasses, and rehabilitate wildlife habitat.

NDOW Initiative Addressed: No initiatives

Strategic Habitats and Threats Addressed:

- Aspen woodland: Wildfire or lack of fire
- High-elevation sagebrush dominated shrubland: Nonnative invasive species, Wildfire or lack of fire

Priority Resource Impacted: Big Game, Upland Game

Priority Species Impacted: Greater sage-grouse, Mule deer

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Clearance or Authorization Status: Not Applicable

Project Rationale:

The 2012 Willow Wildfire burned approximately 42,000-acres of the North Tuscarora Mountain Range which provides important habitat for multiple wildlife species but perhaps most notable is summer and crucial winter migration habitat for mule deer. Like many other areas stricken by wildfire in Nevada, the years following the fire were severely impacted by drought leading to variable range condition and poor brush species response.

As a result of the poor post-fire response, and the regions continued importance for mule deer, the NDOW began partnering with Nevada Gold Mines and the Squaw Valley Ranch in restoring privately held lands within the burn scar of the Willow Fire in 2019. These efforts have continued, and the polygon identified in this proposal was treated aerially in 2022 using the preemergent herbicide indaziflam to reduce winter annual densities in preparation for seedling planting component of the project. The site was selected because of its existing native herbaceous composition and its relatively high site potential that required only minimal input to improve the site to a better functioning state for wildlife. Eliminating winter annuals within the project area is a critical step in preparing the site for seedling planting to ensure that seedlings are provided the available resources that the winter annual component would otherwise utilize. Post-herbicide application monitoring suggests that the preemergent treatment has been successful and the site ready for seedling planting.

In considering seedling species for the site, both a desktop and field verification exercise were completed to analyze for species suitability and likelihood for success. Based on ecological site description (ESD) data and the sites present condition, antelope bitterbrush was selected as the most suitable candidate for the site where approximately 55,000 seedlings will be planted as part of this proposal in the fall of 2025.

Project Treatments and Actions

Treatment Name: Toe jam Seedling Planting

Acres: 488.9

Action: Planting (container stock)
Approach Narrative:

Seedlings will be grown out for one year and then planted by contract labor.

Planned Start: 10/2025

Action: Herbicide application (aerial)
Approach Narrative:

The preemergent herbicide used for this project was indaziflam which is most effective in controlling winter annuals after year 3-4 which then provides the best competetive advantage for seedling planting.

Planned Start: 09/2022

Project Monitoring

Monitoring Plan:

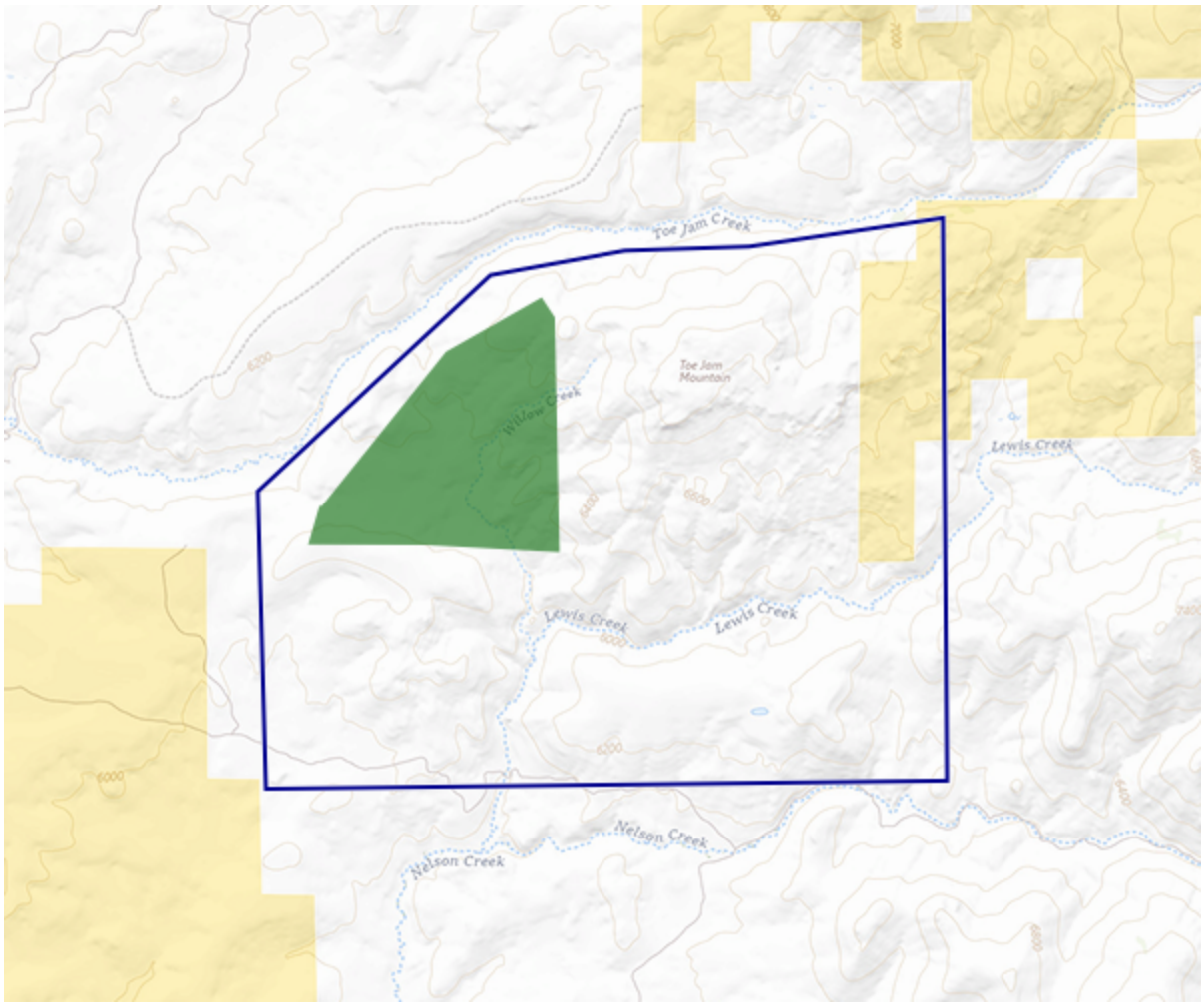
Photo points will be established and repeated to monitor for project success and/or trend.

Project Funding and Budget

Budget Item	NDOW Habitat Conservation Fee 2025	NDOW Heritage Trust Account 2025	NDOW Upland Game Stamp 2025	Subtotal
Contracts				
Seedling Planting	$0	$31,500	$0	$31,500
Materials Purchase				
Seedling	$12,500	$18,500	$12,500	$43,500
Total Costs:	**$12,500**	**$50,000**	**$12,500**	**$75,000**

Budget Narrative:

All funding would be utilized to purchase seed, contracting Lucky Peak Nursery to grow the seed out for one year, then contracting the planting if approximately 55,000 antelope bitterbrush seedlings.



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Toe jam Seedling Planting

NEVADA DEPARTMENT OF WILDLIFE

Project Proposal Report

Project Name: FY25 Greater Sage-grouse Monitoring **Project ID:** 963

Lead Agency: Nevada Department of Wildlife

Project Manager: Justin Small Nevada Department of Wildlife

Phone Number: (77)-688-1523

Email: justin.small@ndow.org

Project Partners

Name	Agency	Role
U.S. Fish and Wildlife Service	US Fish and Wildlife Service	Agency Cooperator
US FOREST SERVICE	US Forest Service	Agency Cooperator

Project Schedule

Project Start Date: 07/01/2024 (FY 2025)

Projected Completion Date: 06/30/2025 (FY 2025)

Multi-year Project: yes

Project Schedule:

Lek count work conducted via ground/vehicle surveys would take place during the spring breeding season which is typically defined as March 1 – May 15 of each year.

Fixed wing infrared search and survey work would be conducted during the winter or spring breeding season depending on the purpose of the survey.

Project Location and Land Status

Location Narrative:

Range of Greater sage-grouse in Nevada.

NDOW Region: Not Applicable – Statewide Project

NDOW Management Units: Not Applicable – Statewide Project

Nevada Sage Grouse Population Management Unit: Not Applicable – Statewide Project

County: Not Applicable – Statewide Project

Land Status

Land Status	Acres	Percent of Project
No results		

Bureau of Land Management Office: Not Applicable – Statewide Project

US Forest Service Ranger District: Not Applicable – Statewide Project

Project Summary and Justification

Project Activity and Sub-activity: POPULATION MANAGEMENT, MONITORING, and RESEARCH: Terrestrial Wildlife

Project Objectives:

- To conduct population surveys or research that informs management or monitoring needs.

NDOW Initiative Addressed:

- Sagebrush Habitat Plan (NDOW)

Priority Resource Impacted: Not Applicable – Statewide Project

Priority Species Impacted: Not Applicable – Statewide Project

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: no

Project Clearance or Authorization Status: Not Started

Project Rationale:

This project supports various NDOW specific monitoring efforts throughout the range of Greater Sage-grouse in Nevada. Monitoring activities include ground surveys to conduct lek-related work (e.g., counts, routes and searches) using seasonal technicians, fixed-wing aircraft outfitted with infrared telephoto capabilities, and fixed-wing telemetry (VHF) follow-up surveys. As of 2022, there were 1,995 known lek locations identified in the Nevada Statewide Sage-grouse Database (Nevada portion only), of which 599 were considered active (defined as 2 or more males observed during 2 years in a 5 year period), 299 were considered “pending active”, meaning that an additional year of observing 2 or more males is necessary to be considered an active lek, 394 were considered “inactive” status, 770 were considered “unknown” status leks and 211 were classified as “historic” status leks. This volume of lek locations requires that some part-time seasonal, volunteer and aerial resources are dedicated to support on the ground efforts.

Project Treatments and Actions

Treatment Name: Sage-grouse Monitoring

Acres: 70,739,228.1

Action: Collect, analyze, or model big game population or habitat use data
Approach Narrative:

Lek Count Technicians

Assistance with lek counts, in the form of part-time technicians, allows us to achieve our objectives of surveying at least 40% of known lek locations throughout Nevada (n=796). This is a somewhat lofty objective considering the number of field biologists in each region (n=16 with sage-grouse responsibilities)

and the availability of volunteers and federal agency personnel available to conduct lek survey work. The use of part time technicians dedicated solely to lek surveys alleviates some of the workload on agency field biologists at a time of the year when surveys for other species (e.g., big game animals) are taking place and big game quota recommendations are being made. We anticipate hiring 2 seasonal part time technicians to work approximately 6-8 weeks to assist with lek counts.

Fixed Wing Infrared Surveys

This modern survey technique has proven to be effective over the last six years given advancements in the system and the use of sage-grouse lek habitat modeling using maximum entropy (MaxEnt) methods. These surveys contributed a great deal of data during 2020, as the pandemic severely limited monitoring efforts. The technique allows for documenting presence or absence of birds at known leks, numbers of males and females, and has been effective at detecting undiscovered lek locations without disturbing birds as the elevation of the aircraft is generally about 1,000 above ground level. This technology may 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. We estimate approximately 32 hours (approximately 8 mornings) of aerial fixed wing survey to be conducted during the spring of 2024.

Aerial Telemetry Surveys

In addition to the lek survey work described above, this project will also cover fixed wing aerial telemetry surveys to follow-up on radio-marked grouse in several project areas. These flights will largely occur once each month from October through February in various study areas and roughly involve approximately 32 hours of work. These surveys not only provide locations of birds, but are also able to document mortality, which is important for estimating monthly, seasonal and annual survival rates. Additionally, telemetry information obtained from sage-grouse throughout Nevada has been utilized to inform a statewide resource selection function model (RSF) and mapping product for the species.

Planned Start: 07/2024

Project Monitoring

Monitoring Plan:

Lek Count Technicians

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Project Funding and Budget

Budget Item	NDOW Upland Game Stamp 2025	US Fish and Wildlife Service 2025	Subtotal
Land Acquisitions/Easements			
	$0.01	$0	$0.01
Materials Purchase			
Supplies	$0	$4,000	$4,000
Other			
Infrared Imagery Flights (Lek Search and Survey - 32 hours @ $1,075/hr. + $115/day for post processing of imagery)	$35,320	$13,245	$48,565
Fixed-wing Telemetry Surveys (15 hrs. @ $350/hr.)	$5,250	$10,000	$15,250
Personnel			
Lek Count Technician (1 @ $18.00/hour for approx. 40 days)	$5,760	$132,200	$137,960
Travel			
Mileage	$0	$12,000	$12,000
Per Diem	$0	$3,800	$3,800
Total Costs:	**$46,330.01**	**$175,245**	**$221,575.01**

Budget Narrative:

Costs associated with this project involve personnel time for one technician and partial funding for a contract with Owyhee Air LLC for aerial fixed wing services. The technician will most likely be hired through a temporary service provider for a period of approximately 40 days at a rate of $18.00/hour. This equates to $5,760. Services requested of Owyhee Air consist of aerial infrared imagery services to conduct lek counts and searches for previously undiscovered leks. The hourly rate for these surveys is $1,075/hour and the anticipated number of hours of survey is approximately 32, or about 8 mornings of flight time including ferry time. In addition to these costs, there is a post-processing and reporting fee of $115/day. The total estimated costs for these surveys is $35,320. In addition to these surveys, we also have budgeted time for Owyhee Air to conduct some aerial telemetry survey time to locate VHF radio-marked sage-grouse, most likely during the fall and winter month. The hourly rate for conducting these surveys is $350/hour and we have estimated 15 hours of survey time for a total cost of $5,250.

NEVADA DEPARTMENT OF WILDLIFE

Project Proposal Report

Project Name: FY25 Mineral Development Effects on Greater Sage-grouse **Project ID:** 964

Lead Agency: Nevada Department of Wildlife

Project Manager: Justin Small Nevada Department of Wildlife

Phone Number: (77)-688-1523

Email: justin.small@ndow.org

Project Partners

Name	Agency	Role
Great Basin Bird Observatory	Great Basin Bird Observatory	Agency Cooperator
Justin Small	Nevada Department of Wildlife	Implementation Lead

Project Schedule

Project Start Date: 07/01/2024 (FY 2025)

Projected Completion Date: 06/30/2025 (FY 2025)

Multi-year Project: yes

Project Schedule:

Year 3 period of performance is July 1, 2024 – June 30, 2025

Fall 2024

• September – October 2024: Capture and marking of sage-grouse;

• November – December 2024: Report writing and development of annual data summary.

Winter 2025

• January – February 2025: Prepare for upcoming field season (hire and train technicians)

Spring 2025

• Capture and mark additional sage-grouse to compensate for mortalities over-winter;

• Ground monitoring of radio collared grouse and nest locations;

• Habitat measurements at nests and random locations.

Summer 2025

• Ground monitoring of sage-grouse broods;

• Habitat measurements at brood locations and random locations.

Project Location and Land Status

Location Narrative:

The fieldwork will take place in two separate locations (described below) encompassing portions of Eureka County in central Nevada and Elko County in northeastern Nevada:

1) Cortez Range – located in central Nevada between the towns of Eureka and Carlin, Nevada and likely site of proposed Goldrush Mine in Horse Canyon.

2) Pinion Range – located in western Elko County and southwest of the town of Elko and likely site of the proposed South Railroad Mine near Bunker Hill.

NDOW Region: Eastern

NDOW Management Units: 065, 141

Nevada Sage Grouse Population Management Unit: Three Bar, Cortez, South Fork, Shoshone

County: Elko, Eureka

Land Status

Land Status	Acres	Percent of Project
No results		

Bureau of Land Management Office: Battle Mountain District - Mount Lewis Field Office, Elko District - Tuscarora Field Office

US Forest Service Ranger District: N/A

Project Summary and Justification

Project Activity and Sub-activity: POPULATION MANAGEMENT, MONITORING, and RESEARCH: Terrestrial Wildlife

Project Objectives:

- To conduct population surveys or research that informs management or monitoring needs.

NDOW Initiative Addressed:

- Sagebrush Habitat Plan (NDOW)

Priority Resource Impacted: Upland Game

Priority Species Impacted: Greater sage-grouse

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: no

Project Clearance or Authorization Status: Not Applicable

Project Rationale:

Nevada has a diverse array of natural commodities including gold, silver, copper, lithium geothermal energy, barite, gypsum and aggregate material and leads the nation in the value of non-fuel mineral that it produces ($8.5 billion in 2017). Nevada ranks fourth in the world in terms of gold production, producing 5.6 million ounces in 2017, which was 6% of the worlds production. Mineral production includes exploration, mine development and operations as well as an assortment of infrastructure associated with the mine including transmission lines, pipelines, roads and outbuildings for storage and maintenance of equipment. Although there is a general understanding and body of research indicating that these features can have negative effects on Greater Sage-grouse populations, there is a paucity of research that has specifically been conducted on the effects of mining activities on this species throughout its range.

We propose to conduct a five-year (2022-2026) monitoring program at two study sites proposed for significant mineral development (gold mining) to gain a better understanding of the specific effects of mine development on various life stages of Greater Sage-grouse at various spatial scales (e.g., site scale, fine scale (seasonal habitat), and mid-scale or population level). We will measure vital rates such as nest initiation rates, clutch size, nest survival rates, brood survival rates and adult and juvenile survival of males and females within and adjacent to mine Plan of Operations areas and areas influenced by mine development. The study sites currently include the Cortez Range located in Eureka County and the Pinion Range located in Elko County, Nevada.

Project Treatments and Actions

Treatment Name: Cortez - Pinion Research Area

Acres: 608,613.2

Action: Collect, analyze, or model sage grouse population or habitat use data
Approach Narrative:

Field work for this project will be conducted by the Great Basin Bird Observatory working in cooperation with the USGS - Western Ecological Research Center located in Dixon, California.

This project is intended to determine the ultimate effects of mineral development on Greater sage-grouse at two study areas located in central Nevada. Areas that have been selected for research and monitoring include the proposed Goldrush Mine Project in the Cortez Range in Eureka County and the South Railroad Mine Project in the Pinon Range of Elko County. Both areas have existing sage-grouse populations and proposed mine Plans of Operation areas are located within Sage-grouse Priority Habitat Management Areas. At each study site, we propose to

1. Capture approximately 20-30 female sage-grouse and place VHF radio transmitters and leg bands on the birds. At a minimum, maintain that number of radio-marked females annually through additional capture work;

2. Capture at least 5 female sage-grouse and attach GPS/Satellite transmitters to determine daily, monthly and seasonal movement patterns and determine home range.

This work will assist with determining the following:

a) identification of nest sites and nest initiation rates;

b) determination of nest survival rates;

c) examination of nest-site vegetative characteristics and if differences exist between successful and unsuccessful nest sites;

d) determination of brood habitat characteristics;

e) determination of brood survival rates;

f) determination of survival rates of adults and juveniles (both male and female);

g) determination of differences of seasonal survival rates; and

h) determine movement patterns, seasonal distribution and key habitats.

Radio-Telemetry. We are proposing to capture approximately 20-30 female and up to 10 male sage-grouse annually over an eight year period and maintain at least 20 live females during each reproductive season. Sage grouse movement, survivorship, and reproduction will be monitored following release. Portable receivers (Communication Specialist Inc., Orange, CA; Advanced Telemetry Systems Inc., Isanti, MN) will be 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 attempted to locate female grouse ≥2 times per week.

Space-Use. Relocation coordinates will be 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.

Nests and vegetation. 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 nest fate, 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 will be compared for strength of evidence. Researchers will 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 will be used to develop resource selection functions.

Brood-rearing and vegetation. 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, transects 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 are conducted for Common Ravens (Corvus corax; hereafter ravens) and raptors during nesting and following nest fate. Surveys are 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 will provide valuable information on factors that influence raven and raptor numbers before and after energy development throughout the study area.

Fall and winter location. During the fall and winter months (September – February), flights will be conducted every 3-4 weeks to determine location and survivorship. Attempts will be made to locate each individual radio-marked sage-grouse and determine its status (alive or dead).

These approaches are subject to change based on improved data collection techniques and improved technologies.

Planned Start: 07/2025

Project Monitoring

Monitoring Plan:

Field work for this project will be conducted by the Great Basin Bird Observatory working in cooperation with the USGS - Western Ecological Research Center located in Dixon, California.

This project is intended to determine the ultimate effects of mineral development on Greater sage-grouse at two study areas located in central Nevada. Areas that have been selected for research and monitoring include the proposed Goldrush Mine Project in the Cortez Range in Eureka County and the South Railroad Mine Project in the Pinon Range of Elko County. Both areas have existing sage-grouse populations and proposed mine Plans of Operation areas are located within Sage-grouse Priority Habitat Management Areas. At each study site, we propose to

1. Capture approximately 20-30 female sage-grouse and place VHF radio transmitters and leg bands on the birds. At a minimum, maintain that number of radio-marked females annually through additional capture work;

2. Capture at least 5 female sage-grouse and attach GPS/Satellite transmitters to determine daily, monthly and seasonal movement patterns and determine home range.

This work will assist with determining the following:

a) identification of nest sites and nest initiation rates;

b) determination of nest survival rates;

c) examination of nest-site vegetative characteristics and if differences exist between successful and unsuccessful nest sites;

d) determination of brood habitat characteristics;

e) determination of brood survival rates;

f) determination of survival rates of adults and juveniles (both male and female);

g) determination of differences of seasonal survival rates; and

h) determine movement patterns, seasonal distribution and key habitats.

Radio-Telemetry. We are proposing to capture approximately 20-30 female and up to 10 male sage-grouse annually over an eight year period and maintain at least 20 live females during each reproductive season. Sage grouse movement, survivorship, and reproduction will be monitored following release. Portable receivers (Communication Specialist Inc., Orange, CA; Advanced Telemetry Systems Inc., Isanti, MN) will be 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 attempted to locate female grouse ≥2 times per week.

Space-Use. Relocation coordinates will be 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.

Nests and vegetation. 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 nest fate, 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 will be compared for strength of evidence. Researchers will 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 will be used to develop resource selection functions.

Brood-rearing and vegetation. 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, transects 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 are conducted for Common Ravens (Corvus corax; hereafter ravens) and raptors during nesting and following nest fate. Surveys are 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 will provide valuable information on factors that influence raven and raptor numbers before and after energy development throughout the study area.

Fall and winter location. During the fall and winter months (September – February), flights will be conducted every 3-4 weeks to determine location and survivorship. Attempts will be made to locate each individual radio-marked sage-grouse and determine its status (alive or dead).

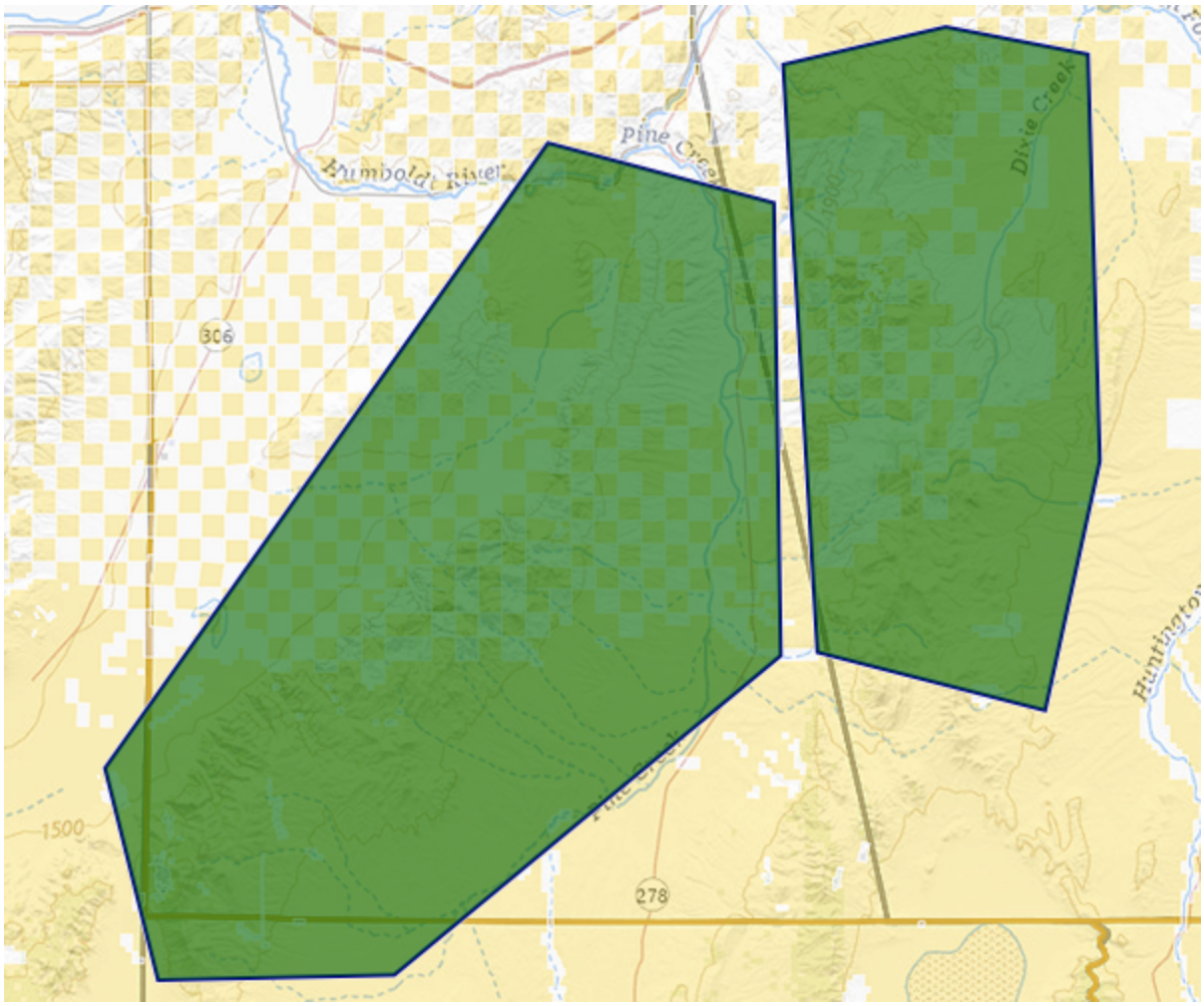
These approaches are subject to change based on improved data collection techniques and improved technologies.

Project Funding and Budget

Budget Item	NDOW Upland Game Stamp 2025	US Fish and Wildlife Service 2025	Subtotal
Equipment Purchase			
VHF Transmitters (60 units @ 225/ea.)	$3,450	$10,350	$13,800
Equipment/Vehicle Rental			
Vehicle Rental (4WD truck lease: 4 @ $12,000 ea.)	$12,000	$36,000	$48,000
ATV Rental (2 ATVs @ $2,000 ea.)	$1,000	$3,000	$4,000
Materials Purchase			
Capture supplies (nets, spotlights, tools, etc.)	$800	$2,400	$3,200
Other			
Field Housing	$500	$1,500	$2,000
ATV Fuel and Maintenance	$750	$2,250	$3,000
Personnel			
Research Wildlife Biologists and Technician TIme	$41,500	$124,500	$166,000
Total Costs:	**$60,000**	**$180,000**	**$240,000**

Budget Narrative:

The estimated costs identified in the budget table cover two separate research areas including the Cortez Range in Eureka County and the Pinion Range in Elko County.



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Cortez - Pinion Research Area

NEVADA DEPARTMENT OF WILDLIFE

Project Proposal Report

Project Name: FY25 Upland Game Translocation and Monitoring **Project ID:** 965

Lead Agency: Nevada Department of Wildlife

Project Manager: Justin Small Nevada Department of Wildlife

Phone Number: (77)-688-1523

Email: justin.small@ndow.org

Project Partners

Name	Agency	Role
Justin Small	Nevada Department of Wildlife	Implementation Lead
Matt Jeffress	Nevada Department of Wildlife	Agency Cooperator

Project Schedule

Project Start Date: 07/01/2024 (FY 2025)

Projected Completion Date: 06/30/2025 (FY 2025)

Multi-year Project: no

Project Schedule:

Ruffed grouse capture efforts would commence in late summer or early fall of 2025 (August/September) if habitat conditions and bird numbers are deemed appropriate. This type of effort normally takes approximately 10-14 days to complete. However, this is highly dependent on habitat conditions and productivity of ruffed grouse populations from potential source stock areas.

The Columbian Sharp-tailed Grouse translocation will begin Spring 2024 and potential carry through to Spring 2027. Capture efforts will be scheduled over a two-week window in order to intersect peak lek attendance and meet capture objectives. However, capture efforts can also be largely determined by weather events and access to lek sites.

California Quail captures, testing, and translocation efforts will take place in the winter of FY2024 and FY2025. Birds will be held at avian holding facilities in the western regional. Quail will be trapped up an adequate number of birds are capture to support introduction or augmentation efforts.

Merriam's turkey capture efforts normally begin in December or January of each year. Capture work would likely begin in December of 2024 or January of 2025 and releases would take place immediately after that. As in years past, two or three capture efforts and bird translocations are necessary to achieve the release complement objective of between 50 and 100 birds.

Like Merriam's turkey, efforts to capture Rio Grande turkey would take place in December of 2024 or January of 2025, with subsequent translocations occurring after disease testing requirement have been met.

Project Location and Land Status

Location Narrative:

Ruffed Grouse

The Pine Forest Range, located in northwestern Humboldt County, is a priority for augmentation following the initial release conducted in 2014. Subsequent monitoring continues to document the presence of birds in low numbers; however, an augmentation is recommended for this population to help achieve sustainability and expanded distribution. We hope to capture approximately 20 ruffed grouse from the Santa Rosa mountains and translocate them to this location; however, this depends on ruffed grouse population numbers in the Santa Rosa mountains.

Columbian Sharp-Tailed Grouse

The Bull Run Basin Columbia Sharp-tailed Grouse (CSTG) population is currently in self-sustaining status but in need of a population augmentation to prevent genetic drift, unpredictable environmental and demographic stochastic events, and strengthen heterozygosity. To alleviate the scenario above from occurring, the Idaho Fish and Game has agreed to give NDOW 20 female CSTG for spring 2024, with the possibility of translocations for successive years if deemed necessary to maintain population viability and ensure population success. The original source of this population (n = 215) was from southeastern Idaho's Arbon and Pocatello Valleys and was translocated from Idaho to Nevada from 2013 – 2017. However, for the FY2024 translocation – augmentation effort, birds will be captured from eastern Idaho's Upper Snake Region.

California Quail

Multiple locations across Nevada have been identified as potential translocation sites for California quail. All sites have been pre-determined to represent the necessary habitat characteristics to meet life history requirements and maintain self-sustaining populations. Most of these sites reside in western Nevada; however, several sites in central and eastern Nevada have been identified as suitable habitat. The southern extent of the Toiyabe Range in Hunt Unit 173 is considered a priority release site for FY2025. One hundred and thirteen California quail was trapped from urbanized areas in the greater Reno area in FY2024 and translocated to a unique site in Hunt Unit 173. We hope to augment this population in FY2025 with an additional 70 to 100 individuals and improve the chance of permanent establishment.

Ring-necked Pheasant

Nevada's ring-necked pheasant (hereafter pheasant) habitat is limited but is more than adequate in distinct locations to accommodate a self-sustaining population. Walker River State Park in Hunt Unit 202 and 203 and Mason Valley Wildlife Management Area in Hunt Unit 203, are two that locations being considered. Both locations provide more than adequate habitat to successfully maintain a wild pheasant population. Based off past literature, wild pheasants are a requirement to successful introduce birds into unoccupied habitats. Staff is currently investigating options to obtain wild stock pheasants from other states.

Merriam's Turkey

The northern portion of the Snake Range located in Hunt Unit 114 in White Pine County is considered a priority release site for release of Merriam's turkeys for FY2024 and FY2025. Two release sites are being considered within this mountain range including Hendry's Creek on the eastern side of the range and Negro Creek on the western side. These are both extensive drainage systems with perennial water sources, associated springs and diverse habitats. Given the success of Merriam's turkeys in neighboring Hunt Unit 115 and similarity of habitat, Merriam's turkeys will likely do well in the northern Snake Range.

Rio Grande Turkey

With the recent acquisition of private parcels along the Walker River by the Walker Basin Conservancy and subsequent transfer to Nevada State Parks, some significant opportunities have arisen for the expansion of the Rio Grande turkey population along the Walker River system. Working in conjunction with Nevada State Parks, our objective is to release approximately 50-100 turkeys spread between two units of the Walker River Recreation Area including the Pitchfork and Rafter 7 Ranch Units. It is anticipated that this translocation will take place in January or February of 2025.

Chukar and Gray Partridge Monitoring

The majority of this work will be conducted by surveying established routes by vehicle or on foot and will also employ the use of trail cameras to help estimate brood sizes during the mid to late summer months. The majority of this work will occur in Churchill, Elko, Humboldt, Pershing and Washoe County. Trail camera work in Elko County will place particular emphasis on gray partridge populations to determine opportunities for a source stock to be able to augment or establish population in other areas of northern Nevada.

Disease Testing of Upland Game Species

All capture individual upland game species capture for translocation or population augmentation projects, will be disease surveillance tested before moved to release sites by WAFWA guidelines (WAFWA Wildlife Health Committee 2018). NDOW has followed and will continue to follow these guidelines in the future to prevent disease transmission or introduction among conspecifics or other upland game bird species.

NDOW Region: Not Applicable – Statewide Project

NDOW Management Units: Not Applicable – Statewide Project

Nevada Sage Grouse Population Management Unit: Not Applicable – Statewide Project

County: Not Applicable – Statewide Project

Land Status

Land Status	Acres	Percent of Project
No results		

Bureau of Land Management Office: Not Applicable – Statewide Project

US Forest Service Ranger District: Not Applicable – Statewide Project

Project Summary and Justification

Project Activity and Sub-activity: POPULATION MANAGEMENT, MONITORING, and RESEARCH: Terrestrial Wildlife

Project Objectives:

- To measurably increase wildlife populations, wildlife use, or habitat for the benefit of public use and hunter success.
- To conduct population surveys or research that informs management or monitoring needs.
- To conduct surveys or research that informs disease management or monitoring needs.
- To reintroduce species to promote wildlife-dependent recreation.
- To reintroduce species to promote species recovery or expansion.

NDOW Initiative Addressed: No initiatives

Priority Resource Impacted: Not Applicable – Statewide Project

Priority Species Impacted: Not Applicable – Statewide Project

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: no

Project Clearance or Authorization Status: Not Applicable

Project Rationale:

The overall goal of this project is to increase population redundancy and resiliency of certain upland game species, particularly ruffed grouse, wild turkey, Columbia Sharp-tailed Grouse, California quail and potentially gray (Hungarian) partridge within suitable and appropriate habitats across Nevada's landscape. In addition, this project is proposed to assist with monitoring of existing upland gamebird populations to help determine the efficacy of previous translocations (particularly mountain quail restoration efforts), availability of source stock (gray partridge) and to help develop forecasts for the upcoming season. Intensive monitoring would likely be focused on chukar and gray partridge with the use of trail cameras placed at various spring sources during the mid-summer months.

Since 2008, the Nevada Department of Wildlife has released approximately 1,200 mountain quail (Churchill, Humboldt, Lander, Washoe and White Pine Counties), 203 ruffed grouse (Elko, Humboldt, Lander and Nye Counties), 251 Rio Grande turkeys (Douglas, Lander and Lincoln Counties) and 246 Merriam's turkeys (Lander and Elko Counties). These translocations, and subsequent augmentations, are conducted to fulfill the objective of expanding certain upland game species distribution and abundance within Nevada as stated in the Nevada Upland Game Species Management Plan developed in 2008. These efforts have also led to increased sportsmen opportunity and have contributed to non-consumptive uses as well (e.g., wildlife watching and photography).

The capture and translocation of species is highly dependent on habitat conditions, both at the capture site and the proposed release site. If adequate habitat conditions are not experienced, it is likely that these efforts will be re-scheduled.

Ruffed Grouse

We propose to capture 20-30 ruffed grouse, likely from the Santa Rosa Range to augment a prior release in the Pine Forest Range of Humboldt County. If the existing population in the Santa Rosa Range is not capable of providing a reliable source stock, alternative sites could be selected such as the Merritt Mountain area of northern Elko County.

A subset of captured and translocated birds (up to 10) may be radio-marked with VHF telemetry units to help determine habitat usage and survival rates. Fixed wing telemetry surveys will be conducted intermittently for the life of the individual or the units to monitor for survival and dispersal from the release site. Drumming counts will take place at specific locations during May and early June to document presence and density of birds.

Columbian Sharp-Tailed Grouse

Twenty female CSTG will be captured from eastern Idaho's Upper Snake Region in April 2025. Possible translocation efforts may last up to 3 years if deemed necessary by IDFG and NDOW staff to ensure long-term population stability. We are anticipating that eventually the Bull Run Basin population will link up with Idaho's Shoshone Basin sharp-tails and create a genetic corridor.

Females will be marked with colored (year specific) leg bands before released. The Bull Run Basin leks are closely monitored each season by NDOW staff and being able to identify translocated females attending leks the following breeding season will give some interpretation to translocation success and population viability.

California Quail

We propose to translocate ~ 200-300 quail to pre-selected distinct locations across Nevada. Birds will be released in groups of 75+ in ordered to prevent a demographic trap scenario from occurring. Most capture efforts will continue around Reno's urban interface and surrounding areas.

Only observational monitoring will occur at this time post release. However, there is potential to develop a research monitoring project to obtain higher resolution and insight to post release success and determination of certain demographic rates. Walker River State Park has potential to be a site for accommodating a research project due to accessible and trackability of marked individuals. In collaboration with Quail Forever, trail cameras could be used in FY2025 to determine post release occupancy and success.

Ring-necked Pheasant

Currently, no wild ring-necked pheasants have been obtained. Staff is looking into the potential of trapping the Fort McDermitt Indian Reservation's wild pheasant population. This pheasant population would be ideal to obtain introduction stock from due to these birds already being locally adapted to Great Basin vegetation communities and climatic conditions, and would likely have higher site fidelity at release sites than birds from mid-western novel habitat types.

Merriam's Turkey

Source stock of Merriam's turkeys was obtained (January 2020) via the Idaho Department of Fish and Game working in conjunction with private landowners in southeastern Idaho. Additionally, Merriam's turkeys have also been made available to Nevada through the Colville Confederated Tribe located in eastern Washington. In this instance, capture work was conducted by the Colville Confederated Tribal personnel with partial transportation of birds to a "halfway point" in eastern Oregon.

Monitoring activities will include aerial telemetry surveys of radio-marked birds within the northern Snake Range. In addition, intermittent ground follow-up monitoring will take place following flights, especially during the nesting season to determine nest location and habitat selection.

Rio Grande Turkey

We will coordinate with the Utah Division of Wildlife Resources to determine source stock availability for this species from portions of central and southern Utah. In the past, we have obtained several hundred birds from Utah for release into Lincoln County, which has been considered a success. We intend to release approximately 100 of these birds within the Walker River Recreation Area in January of 2025.

There may also be an opportunity to capture birds from Paradise Valley in 2025 as the turkey population here has expanded recently and there are congregations of over 200 birds that have been reported in the community of Paradise Valley. Trap and translocation of up to 50 individuals may be necessary in 2025.

Chukar and Gray Partridge Surveys

We will deploy 20 camera stations at various springs and water sources where congregations of chukar and gray partridge are expected. This will be conducted to serve two purposes: 1) evaluate brood sizes for these species during the summer months to help develop forecasts and 2) evaluate population of gray partridge to determine whether they are of suitable size to serve as a source stock for translocations.

Disease Testing of Upland Game Species

Wildlife health staff will sample 33% of the anticipated number to be translocated or a minimum of 30 individuals on an annual basis. Any positive detections of disease from the required sample will result in none of the capture individuals from that population being translocated and introduced into unoccupied habitat.

Project Treatments and Actions

Treatment Name: Upland Game Expansion and Monitoring

Acres: 70,739,228.1

Action: Collect, analyze, or model small game population or habitat use data
Approach Narrative:

This project is proposed to assist with monitoring of existing upland gamebird populations to help determine the efficacy of previous translocations (particularly mountain quail restoration efforts), availability of source stock (gray partridge) and to help develop forecasts for the upcoming season. Intensive monitoring would likely be focused on California quail, chukar and gray partridge with the use of trail cameras placed at various spring sources during the mid-summer months.

Population surveys of dusky grouse is difficult to achieve, primarily due to spring snow loads and access. We propose a pilot project using autonomous recording units (ARUs) to monitor spring breeding vocalizations of dusky grouse in northeastern Nevada. If we have success with the pilot project, we plan to use ARUs to monitor population trends of dusky grouse statewide.

Planned Start: 07/2025

Action: Trap and transplant small game species
Approach Narrative:

The overall goal of this project is to increase population redundancy and resiliency of certain upland game species, particularly ruffed grouse, California valley quail, mountain quail, columnian sharp-tailed grouse, ringed-necked pheasant, wild turkey and potentially gray (Hungarian) partridge within suitable and appropriate habitats across Nevada's landscape.

Planned Start: 07/2025

Action: Disease monitoring, treatment, or research
Approach Narrative:

WAFWA upland game translocation guidelines call for disease sampling of 30 birds or 33% of the total catch, whichever is greater. Cost for sampling average $50/ bird. In addition to disease sampling, we

cannot release birds until we receive negative disease results. Often test results take 1 week or greater, requiring NDOW to hold birds in holding pens for extended periods of time.

Planned Start: 07/2025

Project Monitoring

Monitoring Plan:

Expanding the distribution of ruffed grouse populations addresses concerns of population decline and loss of redundancy (numbers of populations) across the range of the species. This provides assurances that populations will persist over the long-term and enable resiliency in case of stochastic events. Ultimately, if successful, the establishment of these populations also increases recreational opportunities for sportsmen and wildlife watchers.

Population augmentation of the Bull Run Basin CSTG population will help dampen down the effects of genetic drift and both demographic and environmental stochastic events that can limit small populations of galliforms. Across northern Nevada, sharp-tails were once prevalent, and the hope is that continued efforts will permanently establish this once native galliform back to Nevada landscapes.

Introducing and establishing California quail into unoccupied but suitable habitat will help provide additional source stock for future regional transplants, and furthermore, provide increased recreational opportunities for sportsmen and wildlife watchers for this species.

Likewise, expanding wild turkey populations in Nevada meets sportsman demand for this species. Only 166 turkey tags were issued for the spring 2020 hunt and the number of applicants far exceeds availability of tags. Providing sportsmen with alternative hunt areas to choose from and expanded opportunity would help alleviate the demand deficit.

Turkey translocation monitoring will be conducted with the use of VHF transmitters place on released hens to help determine monthly and annual survival and seasonal use areas. Flights will be conducted to locate birds throughout the life of the radio-marked bird or the transmitter.

Project Funding and Budget

Budget Item	NDOW Upland Game Stamp 2025	US Fish and Wildlife Service 2025	Subtotal
Equipment Purchase			
VHF Radio Transmitters (20 @ $230/ea.)	$4,600	$0	$4,600
Materials Purchase			
Capture Materials (Ruffed Grouse)	$1,000	$1,000	$2,000
Other			
Telemetry Flights (20 hrs @ $350/hr.)	$7,000	$0	$7,000
Disease Testing Kits and Lab Costs (for approx. 30 turkey sample)	$800	$0	$800
Personnel			
	$0	$25,416	$25,416
Travel			
	$0	$3,584	$3,584

Budget Item	NDOW Upland Game Stamp 2025	US Fish and Wildlife Service 2025	Subtotal
Total Costs:	**$13,400**	**$30,000**	**$43,400**

Budget Narrative:

Trail cameras are needed for monitoring water sources for summer trapping opportunities (quail, gray partridge, ruffed grouse) as well as winter trapping for quail to assess trap efficacy. Trap materials are needed to construct walk in turkey traps and ruffed grouse ground intercept traps. We are in need of regional transport crates to cut down on excessive travel to shuttle the limited number of transport crates between regions.

Autonomous recording units are needed to monitor spring breeding vocalizations of dusky grouse in northeastern Nevada.

As a result of new disease testing guidelines, sampling costs have increased and we now need to hold upland game birds in quarantine while we wait for disease test results. Some existing pens on WMAs are dilapidated and need to be upgraded. New pens need to be constructed in the Eastern Region.

NEVADA DEPARTMENT OF WILDLIFE

Project Proposal Report

Project Name: FY25 Bi-State Sage-grouse Coordinator **Project ID:** 966

Lead Agency: Nevada Department of Wildlife

Project Manager: Justin Small Nevada Department of Wildlife

Phone Number: (77)-688-1523

Email: justin.small@ndow.org

Project Partners

Name	Agency	Role
Justin Small	Nevada Department of Wildlife	Implementation Lead
Bureau of Land Management	Bureau of Land Management	Agency Cooperator

Project Schedule

Project Start Date: 07/01/2024 (FY 2025)

Projected Completion Date: 06/30/2025 (FY 2025)

Multi-year Project: no

Project Schedule:

Initially, this is expected to be a 3-year position; however, given the output and value added, the position term is likely to persist beyond the three-year horizon.

Project Location and Land Status

Location Narrative:

The Bi-State Sage-grouse Conservation Area covers an area approximately 170-miles long and up to 60 miles wide. It includes portions of five counties in western Nevada: Douglas, Lyon, Carson City, Mineral, and Esmeralda; and three counties in eastern California: Alpine, Mono, and Inyo.

NDOW Region: Western, Southern

NDOW Management Units: 195, 205, 181, 201, 208, 204, 213, 192, 203, 291, 207, 206, 211, 212, 202

Nevada Sage Grouse Population Management Unit: Pine Nut, Bodie/Mount Grant, White Mountains, Desert Creek/Fales

County: Lyon, Esmeralda, Douglas, Mineral, Carson City

Land Status

Land Status	Acres	Percent of Project
No results		

Bureau of Land Management Office: Battle Mountain District - Tonopah Field Office, Carson City District - Stillwater Field Office, Carson City District - Sierra Front Field Office

US Forest Service Ranger District: Humboldt-Toiyabe National Forest - Carson Ranger District, Humboldt-Toiyabe National Forest - Bridgeport Ranger District, Inyo National Forest - White Mountain Ranger District

Project Summary and Justification

Project Activity and Sub-activity: PLANNING, PARTNERSHIPS and COLLABORATION

Project Objectives:

- To establish partnerships and collaboration on landscape-scale initiatives.
- To provide technical assistance to a private landowner working on improving wildlife habitat or populations.

NDOW Initiative Addressed:

- Sagebrush Habitat Plan (NDOW)

Priority Resource Impacted: Upland Game

Priority Species Impacted: Bi-state sage-grouse

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: no

Project Clearance or Authorization Status: Not Started

Project Rationale:

The Bi-State Communication and Data Coordinator position has increased our effectiveness and efficiency in meeting reporting and accountability requirements. It has allowed for broadened and focused outreach to more of the Bi-State community and has freed up precious time for professionals to allow them to focus on their primary job of getting conservation done on the ground. Also, because much of this work is happening across agency, private and nonprofit ownership boundaries, having a person who is not tied to a specific agency has helped improve the seamlessness of the communication effort.

Project Treatments and Actions

Treatment Name: Bi-State Conservation Area

Acres: 6,597,434.7

Action: Landscape scale conservation planning
Approach Narrative:

The Bi-State Sage-grouse Executive Oversight Committee has agreed that the communication and outreach coordinator could be responsible for the following duties:

• Development and completion of annual and 5-year accomplishment reports.

o Develop template for reports.

o Compile information and data from LAWG members, and write and editing of reports.

o Coordinate the annual data call.

o QA/QC of data.

• Facilitate and schedule LAWG meetings and Conferences (e.g., conifer workshop, Traditional Ecological Knowledge (TEK) Forum).

• Create and manage files related to the Bi-State such as meeting notes, agendas, research, news etc.

• Manage the Bi-State Website

• Communicate to LAWG and public about BSSG accomplishments and ongoing work

o Website posts and updates.

o Newsletter/mailchimp for relevant projects.

o Leading and coordinating volunteer projects and field trips;

o Writing success stories and developing outreach products (brochures, videos, merchandise, posters, giveaways, etc.);

o Giving or scheduling for others presentations about sage-grouse/sagebrush systems

o Staffing booths at local events such as Earth Day;

o Photographic projects, events and gatherings.

The position would facilitate the reporting on all the actions identified in the Bi-State Action Plan (BSAP) and through reducing these outreach and communication tasks for agency staff, would increase completion of on the ground accomplishments. Specific actions this position would help achieve in the action plan are:

• Action CIA1-1: Implement a “Sage-Grouse Service Team” approach to support sage-grouse conservation and management in Bi-State area. Provide cross-jurisdictional staff support to facilitate coordinated interagency effort to conserve Bi-State DPS and its habitat.

• Action CIA1-2: Provide multi-jurisdictional funding to support sage-grouse conservation and management in Bi-State area. Establish process to identify and support cross-jurisdictional funding opportunities to facilitate coordinated interagency effort to conserve Bi-State DPS and its habitat.

• Action CIA1-3: Annually engage Bi-State Local Area Working Group (LAWG) via Technical Advisory Committee (TAC) to develop proposed program of work for upcoming calendar year based on available staff and funding. Proposed annual program of work should be completed by January 31 each calendar year.

• Action MSI1-3: Conduct Bi-State LAWG planning meetings on semi-annual basis to review status of greater sage-grouse populations and habitats in Bi-State area and to identify, prioritize, and coordinate implementation of annual conservation actions. Continue University of NV Cooperative Extension facilitation of Bi- State LAWG meeting.

• Action MSI2-1: Conduct workshops to provide information about programs available to assist ranchers/ private landowners that may be interested in implementation of sage-grouse conservation projects and to explore opportunities for cooperative conservation of sage-grouse in Bi-State area.

• Action MSI2-2: Develop and publish a Bi-State LAWG sage-grouse conservation newsletter.

• Action MSI2-3: Develop and implement a publicaly accessible Bi-State LAWG Sage- Grouse Conservation webpage to facilitate the sharing and distribution of information specific to greater sage-grouse conservation efforts in Bi-State area.

Planned Start: 07/2025

Project Monitoring

Monitoring Plan:

The Bi-State Sage-grouse Executive Oversight Committee has agreed that the communication and outreach coordinator could be responsible for the following duties:

• Development and completion of annual and 5-year accomplishment reports.

o Develop template for reports.

o Compile information and data from LAWG members, and write and editing of reports.

o Coordinate the annual data call.

o QA/QC of data.

• Facilitate and schedule LAWG meetings and Conferences (e.g., conifer workshop, Traditional Ecological Knowledge (TEK) Forum).

• Create and manage files related to the Bi-State such as meeting notes, agendas, research, news etc.

• Manage the Bi-State Website

• Communicate to LAWG and public about BSSG accomplishments and ongoing work

o Website posts and updates.

o Newsletter/mailchimp for relevant projects.

o Leading and coordinating volunteer projects and field trips;

o Writing success stories and developing outreach products (brochures, videos, merchandise, posters, giveaways, etc.);

o Giving or scheduling for others presentations about sage-grouse/sagebrush systems

o Staffing booths at local events such as Earth Day;

o Photographic projects, events and gatherings.

The position would facilitate the reporting on all the actions identified in the Bi-State Action Plan (BSAP) and through reducing these outreach and communication tasks for agency staff, would increase completion of on the ground accomplishments. Specific actions this position would help achieve in the action plan are:

• Action CIA1-1: Implement a "Sage-Grouse Service Team" approach to support sage-grouse conservation and management in Bi-State area. Provide cross-jurisdictional staff support to facilitate coordinated interagency effort to conserve Bi-State DPS and its habitat.

• Action CIA1-2: Provide multi-jurisdictional funding to support sage-grouse conservation and management in Bi-State area. Establish process to identify and support cross-jurisdictional funding opportunities to facilitate coordinated interagency effort to conserve Bi-State DPS and its habitat.

• Action CIA1-3: Annually engage Bi-State Local Area Working Group (LAWG) via Technical Advisory Committee (TAC) to develop proposed program of work for upcoming calendar year based on available staff and funding. Proposed annual program of work should be completed by January 31 each calendar year.

• Action MSI1-3: Conduct Bi-State LAWG planning meetings on semi-annual basis to review status of greater sage-grouse populations and habitats in Bi-State area and to identify, prioritize, and coordinate implementation of annual conservation actions. Continue University of NV Cooperative Extension facilitation of Bi- State LAWG meeting.

• Action MSI2-1: Conduct workshops to provide information about programs available to assist ranchers/ private landowners that may be interested in implementation of sage-grouse conservation projects and to explore opportunities for cooperative

conservation of sage-grouse in Bi-State area.

• Action MSI2-2: Develop and publish a Bi-State LAWG sage-grouse conservation newsletter.

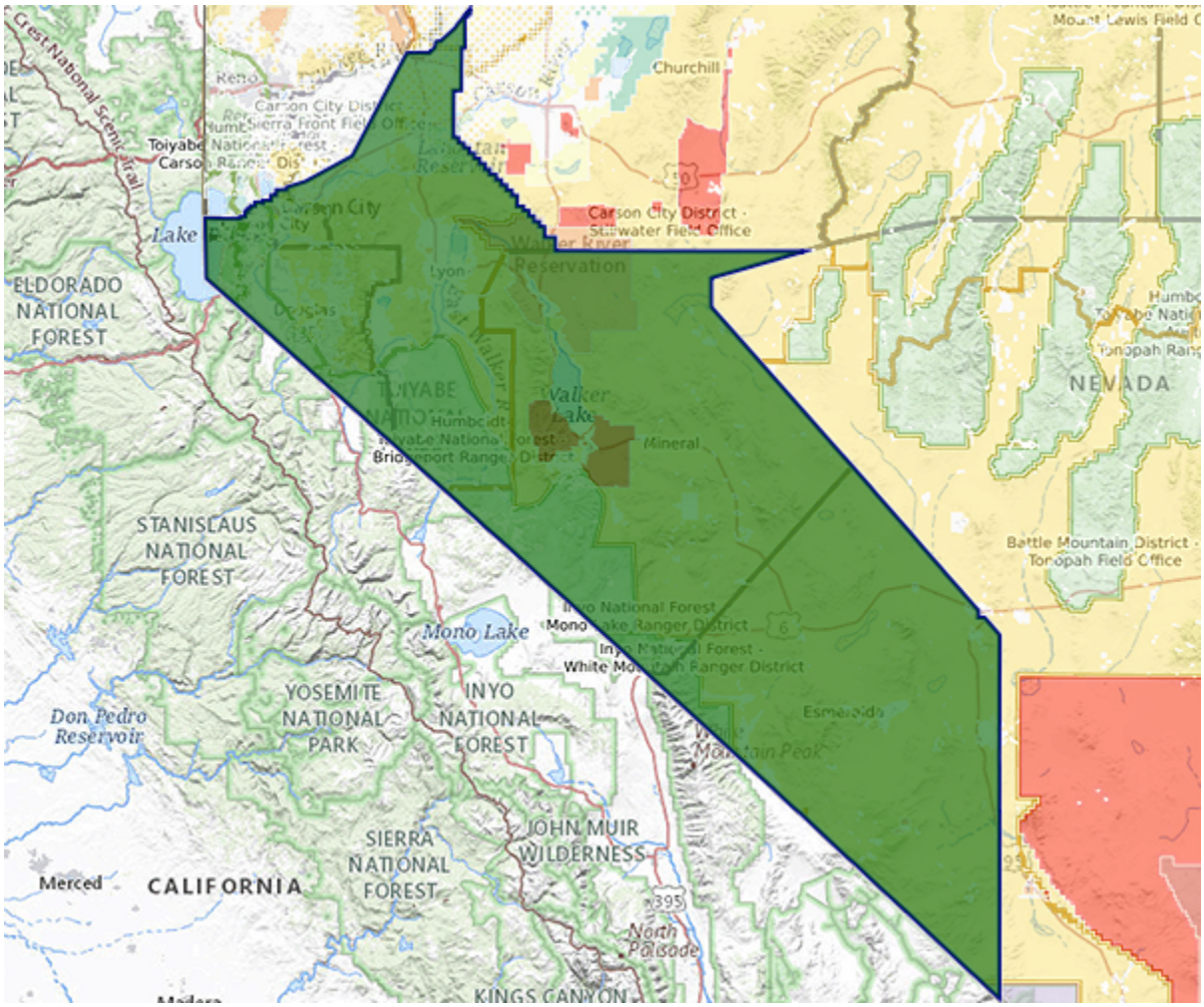
• Action MSI2-3: Develop and implement a publicly accessible Bi-State LAWG Sage- Grouse Conservation webpage to facilitate the sharing and distribution of information specific to greater sage-grouse conservation efforts in Bi-State area.

Project Funding and Budget

Budget Item	Bureau of Land Management 2025	Intermountain West Joint Venture 2025	NDOW Upland Game Stamp 2025	US Forest Service 2025	Subtotal
Other					
Training	$0	$750	$0	$0	$750
Personnel					
Match Funding for Coordinator	$10,000	$0	$10,000	$10,000	$30,000
IWJV Funding	$0	$38,138	$0	$0	$38,138
Travel					
Per Diem	$0	$3,887	$0	$0	$3,887
Total Costs:	**$10,000**	**$42,775**	**$10,000**	**$10,000**	**$72,775**

Budget Narrative:

The anticipated cost to fund this position for one year of full time employment is $72,775.



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Bi-State Conservation Area

NEVADA DEPARTMENT OF WILDLIFE

Project Proposal Report

Project Name: FY25 Bi-State Sage-grouse Monitoring **Project ID:** 967

Lead Agency: Nevada Department of Wildlife

Project Manager: Justin Small Nevada Department of Wildlife

Phone Number: (77)-688-1523

Email: justin.small@ndow.org

Project Partners

Name	Agency	Role
Great Basin Bird Observatory	USGS	Agency Cooperator
US Fish and Wildlife	US Fish and Wildlife Service	Agency Cooperator

Project Schedule

Project Start Date: 07/01/2024 (FY 2025)

Projected Completion Date: 06/30/2025 (FY 2025)

Multi-year Project: yes

Project Schedule:

State Fiscal Year 2022 initiated the second phase of planned monitoring within the Mount Grant and Desert Creek Population Management Units of the Bi-State Sage-grouse Conservation Area. Per the 2012 Bi-State Action Plan, initial capture and monitoring work took place during the fall of 2015 and concluded in 2018. This second phase of monitoring will begin during the fall of 2021 and will conclude in 2027.

Project Location and Land Status

Location Narrative:

This work will take place within the Bi-State Sage-grouse Distinct Population Segment within the Desert Creek and Mount Grant Population Management Units (PMUs). Capture sites will focus on the lower Desert Creek area and Sweetwater Flat within the Desert Creek PMU and Nine-mile Flat and Mount Grant proper within the Mount Grant PMU.

NDOW Region: Western, Southern

NDOW Management Units: 208, 195, 213, 202, 204, 192, 203, 291, 206, 211, 212, 207, 205, 181, 201

Nevada Sage Grouse Population Management Unit: Bodie/Mount Grant, White Mountains, Desert Creek/Fales, Pine Nut

County: Lyon, Mineral, Carson City, Esmeralda, Douglas

Land Status

Land Status	Acres	Percent of Project
No results		

Bureau of Land Management Office: Battle Mountain District - Tonopah Field Office, Carson City District - Stillwater Field Office, Carson City District - Sierra Front Field Office

US Forest Service Ranger District: Humboldt-Toiyabe National Forest - Bridgeport Ranger District, Inyo National Forest - White Mountain Ranger District, Humboldt-Toiyabe National Forest - Carson Ranger District

Project Summary and Justification

Project Activity and Sub-activity: POPULATION MANAGEMENT, MONITORING, and RESEARCH: Terrestrial Wildlife

Project Objectives:

- To conduct population surveys or research that informs management or monitoring needs.

NDOW Initiative Addressed: No initiatives

Priority Resource Impacted: N/A

Priority Species Impacted: N/A

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Clearance or Authorization Status: Not Started

Project Rationale:

Since 2000, a substantial amount of information has been collected on Greater sage-grouse within the Bi-State Distinct Population Segment; however, most research and intensive monitoring work has taken place within the California portion of this population. Working in conjunction with the USGS – Western Ecological Research Center and Great Basin Bird Observatory (GBBO), The Nevada Department of Wildlife is proposing to conduct radio-marking and follow-up work to more clearly understand habitat use and demographic parameters within the Desert Creek and Mount Grant Population Management Units in Nevada. In addition, vegetative measurements will also be collected at used and random sites during various life stages. This information will also help to further refine the resource selection function model for the Bi-State DPS. We propose to conduct this monitoring over a three-year period from 2021 through 2024. The information collected will also help assess the effects of various habitat improvement projects, as identified within the Bi-State Action Plan, that have taken place within this portion of the Bi-State DPS and will continue to occur.

This project is intended to better understand habitat utilization, identify key habitats and determine movement patterns of sage-grouse as well as determine vital rates within the Desert Creek and Mount Grant Population Management Units. The greatest threats to these populations of sage-grouse are pinyon and juniper encroachment, suburban development, wildfire and the degradation of small meadows and spring complexes over time that serve as late-brood rearing habitat. Initial objectives include the following:

1) Capture at least 10 female sage-grouse and place GPS/Satellite transmitters to determine seasonal movement patterns and determine home range.

2) Capture approximately 20 females sage-grouse and place VHF radio transmitters to augment the GPS/Satellite marked sample; and

3) Maintain approximately 20-30 VHF radio-marked females for two subsequent years after year 1 of the study through year 3.

This work will assist with determining the following:

a) adult survival rates (monthly and annual).

b) identification of nest sites and nest success.

c) examination of nest-site vegetative characteristics and if differences exist between successful and unsuccessful nest sites.

d) determination of nest survival rates.

e) brood rearing habitat selection.

f) vital rate associations with habitat co-variates.

g) overall distribution and seasonal movement patterns

Project Treatments and Actions

Treatment Name: Bi-State

Acres: 6,597,434.7

Action: Collect, analyze, or model sage grouse population or habitat use data
Approach Narrative:

Sage grouse movement, survivorship, and reproduction will 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 attempted 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 nest fate, 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 will be compared for strength of evidence. Researchers will 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 will 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, transects maximum extent is 25 m for broods 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.

Planned Start: 07/2025

Project Monitoring

Monitoring Plan:

Sage grouse movement, survivorship, and reproduction will 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 attempted to locate female grouse ≥2 times per week.

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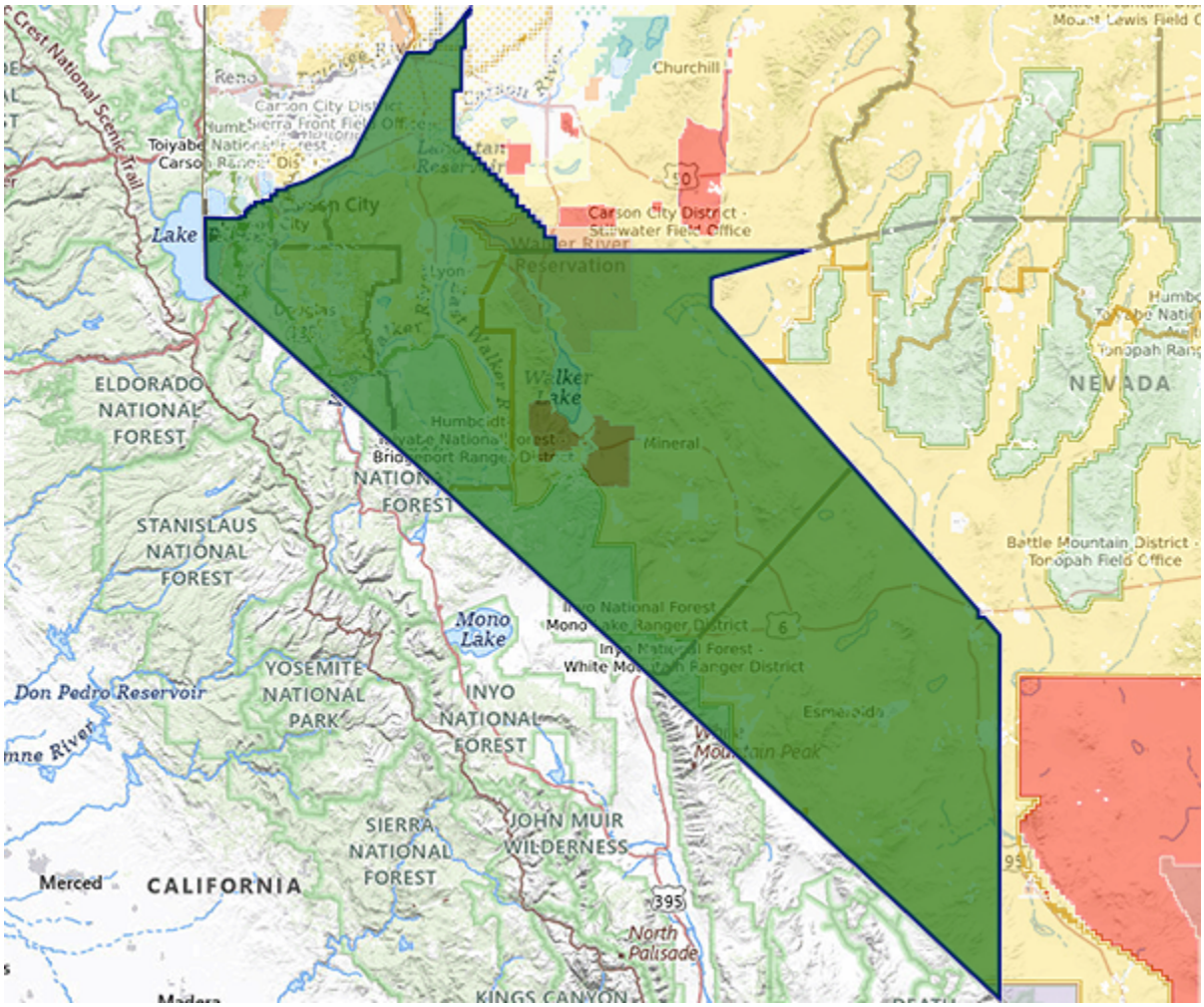
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Project Funding and Budget

Budget Item	NDOW Upland Game Stamp 2025	US Fish and Wildlife Service 2025	Subtotal
Equipment/Vehicle Rental			
2 vehicles @ $12,000/6 mo.	$6,000	$18,000	$24,000
30 VHF transmitters @ $225/ea.	$1,688	$5,062	$6,750
Other			
Field Housing	$500	$1,500	$2,000
Repair and Maintenance	$500	$1,500	$2,000
Personnel			
Technicians + Research Wildlife Biologist	$21,312	$63,938	$85,250
Total Costs:	**$30,000**	**$90,000**	**$120,000**

Budget Narrative:

Match funding covers the costs of Research Wildlife Biologists, technicians, field housing, repair and maintenance of motor vehicles and equipment, VHF transmitters and rental vehicles over the course of one-year of research and monitoring activities. Total project costs are expected to be $120,000.



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Bi-State

NEVADA DEPARTMENT OF WILDLIFE

Project Proposal Report

Project Name: FY25 Petersen Mountains Shrub Planting **Project ID:** 972

Lead Agency: Nevada Department of Wildlife

Project Manager: Katie Andrle Nevada Department of Wildlife

Phone Number: (775) 688-1145

Email: kmandrle@ndow.org

Project Partners

Name	Agency	Role
Tori Cernoch	Nevada Department of Wildlife	Agency Cooperator
Muley Fanatics Foundation	Muley Fanatics Foundation	Non-Agency Cooperator

Project Schedule

Project Start Date: 07/01/2024 (FY 2025)

Projected Completion Date: 06/30/2025 (FY 2025)

Multi-year Project: no

Project Schedule:

Spring 2024 - order bitterbrush, desert peach, and saltbush seedlings

Fall 2024 - contract seedling plantings

Summer 2025-2026 - monitor project effectiveness

Project Location and Land Status

Location Narrative:

Petersen Mountains, Unit 021, Washoe County, north of Reno, NV.

NDOW Region: Western

NDOW Management Units: 021

Nevada Sage Grouse Population Management Unit: Virginia/Pahrah

County: Washoe

Land Status

Land Status	Acres	Percent of Project
Bureau of Land Management	129.2	100

Bureau of Land Management Office: Carson City District - Sierra Front Field Office

US Forest Service Ranger District: N/A

Special Land Designations: N/A

Project Summary and Justification

Project Activity and Sub-activity: HABITAT RESTORATION and REHABILITATION: Wildland fire rehabilitation

Project Objectives:

- To measurably increase wildlife populations, wildlife use, or habitat for the benefit of public use and hunter success.
- To plant seedlings on habitat impacted by wildfire to improve ecological conditions, prevent expansion of invasive annual grasses, and rehabilitate wildlife habitat.

NDOW Initiative Addressed:

- Sagebrush Habitat Plan (NDOW)
- Mule Deer Enhancement Program (NDOW)

Strategic Habitats and Threats Addressed:

- High-elevation sagebrush dominated shrubland: Nonnative invasive species, OHV Recreation, Wildfire or lack of fire

Priority Resource Impacted: Big Game, Diversity/Non-game, Upland Game

Priority Species Impacted: Chukar, Migratory songbirds (multiple species), Mountain quail, Mule deer, Pronghorn antelope

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: no

Project Clearance or Authorization Status: Complete

Project Rationale:

We are working to improve rangeland conditions for wildlife and other resource values in previous burn perimeters (North and Baccarat Fires - 2020) within the Petersen Mountains and surrounding areas by implementing a variety of habitat restoration techniques. Restoration techniques include aerial herbicide application, aerial or broadcast seeding, and seedling plantings. Encroachment by annual invasive grasses (i.e. cheatgrass and medusahead) and noxious weeds, especially close to heavily utilized urban and recreational areas, has increased in rate of spread and density in these previously burned areas, resulting in degraded systems and perpetuates the positive feedback loop of increasing wildfires in the Great Basin. Additionally, the Petersen Mountains are an important region for mule deer. Much of the range is classified as critical winter habitat, however forage conditions have declined significantly due to wildfires and conversion of native vegetation to cheatgrass. The goal of this project is to start rehabilitating habitat within these burn perimeters that have high value for mule deer, upland game birds, as well as for pronghorn.

NDOW is proposing to plant approximately 30,000 bitterbrush, desert peach, and fourwing saltbush seedlings across approximately 100 acres within these project areas. The 30,000 seedlings are currently being grown out by Lucky Peak Nursey, using match NGO funding from the Muley Fanatics Foundation, Sierra Front Chapter. Planting is expected to occur in fall of 2024 providing a successful seedling grow out. We are seeking additional funding to contract the seedling planting. This is complementing other habitat restoration efforts within the North and Baccarat Fires, including aerial herbicide application (completed September 2023), which will be followed by aerial seeding in winter of 2024.

Project Treatments and Actions

Treatment Name: Seedling Planting

Acres: 129.3

Action: Planting (container stock)
Planned Start: 10/2024

Project Monitoring

Monitoring Plan:

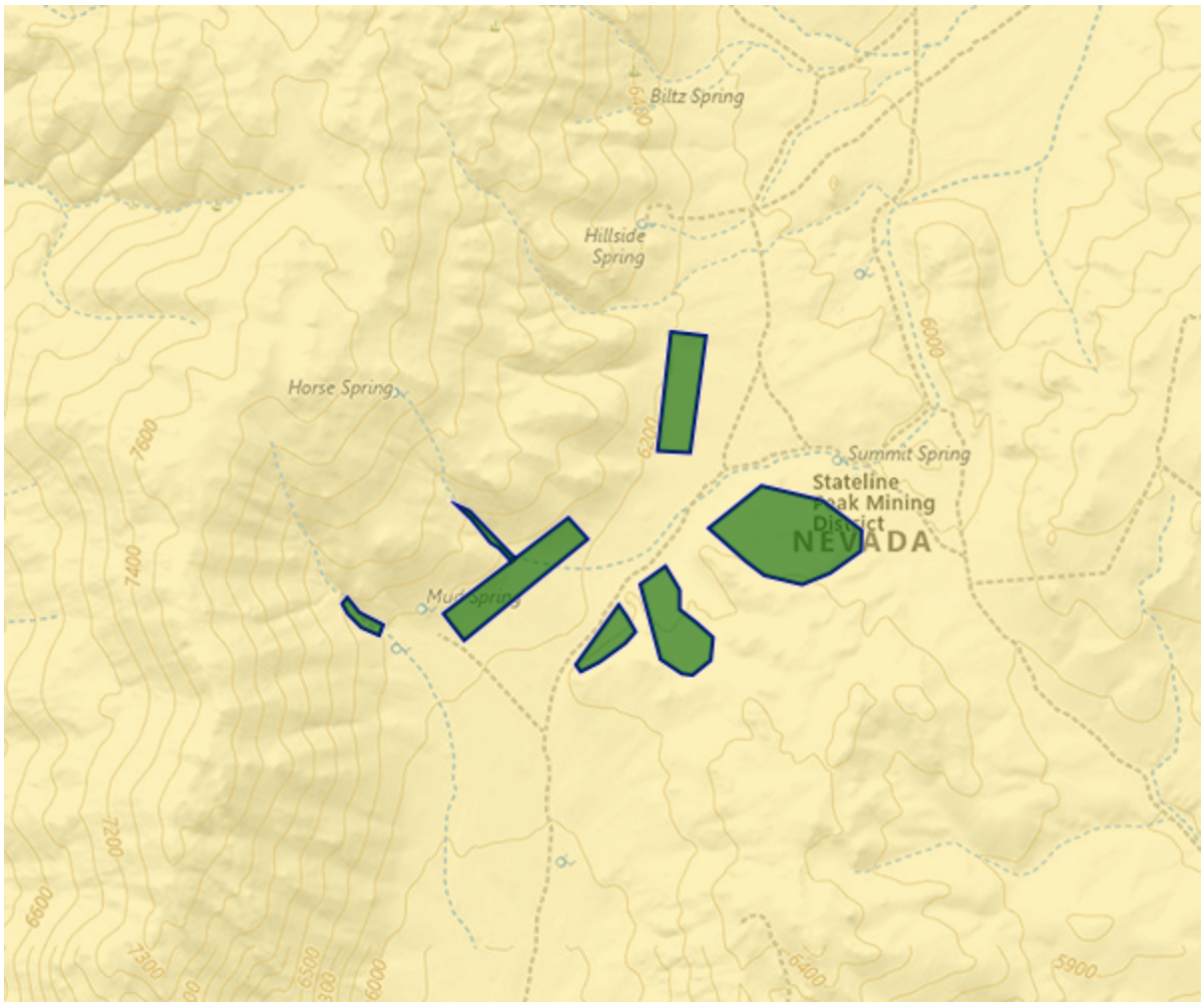
NDOW will monitor seedling planting effectiveness over at least two years in summer of 2025 and 2026.

Project Funding and Budget

Budget Item	Muley Fanatics Foundation 2024	NDOW Habitat Conservation Fee 2025	NDOW Upland Game Stamp 2025	Subtotal
Contracts				
MFF donation to purchase 30,000 seedlings and the cost to grow them out.	$15,976.1	$15,000	$15,000	$45,976.1
Total Costs:	**$15,976.1**	**$15,000**	**$15,000**	**$45,976.1**

Budget Narrative:

NDOW has secured $15,976.10 from the Muley Fanatics Foundation, Sierra Front Chapter, to purchase and grow out 30,000 bitterbrush, desert peach, and fourwing saltbush seedlings. We are requesting $15,000 from HCF and $15,000 from UGBS to support the contracting costs to plant the seedlings.



Boundaries

County Boundary · USFS Office Boundaries · BLM Office Boundaries · NDOW Region Boundary

Land Status

Bureau of Indian Affairs · Bureau of Land Management · Bureau of Reclamation

Department of Defense · Department of Energy · Fish and Wildlife Service · US Forest Service

National Park Service · Nevada State Lands · Nevada Park Service · Private · Other

Project Geometry

Project Boundary · Treatment Area: Seedling Planting

NEVADA DEPARTMENT OF WILDLIFE

Project Proposal Report

Project Name: FY25 Common Raven Modeling **Project ID:** 973

Lead Agency: Nevada Department of Wildlife

Project Manager: Pat Jackson Nevada Department of Wildlife

Phone Number: (775) 688-1676

Email: pjackson@ndow.org

Project Partners

Name	Agency	Role
Dr. Peter Coates	USGS	Non-Agency Cooperator

Project Schedule

Project Start Date: 07/01/2024 (FY 2025)

Projected Completion Date: 06/30/2025 (FY 2025)

Multi-year Project: no

Project Schedule:

This project will involve statistical modeling; and will occur throughout fiscal year 2025.

Project Location and Land Status

Location Narrative:

Statewide, as common ravens occupy all counties of Nevada in some capacity.

NDOW Region: Not Applicable – Statewide Project

NDOW Management Units: Not Applicable – Statewide Project

Nevada Sage Grouse Population Management Unit: Not Applicable – Statewide Project

County: Not Applicable – Statewide Project

Land Status

Land Status	Acres	Percent of Project
No results		

Bureau of Land Management Office: Not Applicable – Statewide Project

US Forest Service Ranger District: Not Applicable – Statewide Project

Project Summary and Justification

Project Activity and Sub-activity: POPULATION MANAGEMENT, MONITORING, and RESEARCH: Terrestrial Wildlife

Project Objectives:

- To conduct population surveys or research that informs management or monitoring needs.
- To conduct surveys or research that informs disease management or monitoring needs.
- To reintroduce species to promote species recovery or expansion.

NDOW Initiative Addressed: No initiatives

Priority Resource Impacted: Not Applicable – Statewide Project

Priority Species Impacted: Not Applicable – Statewide Project

Does this project benefit Greater Sage-grouse or Greater Sage-grouse habitat: yes

Project Clearance or Authorization Status: Not Applicable

Project Rationale:

Common raven (Corvus corax) populations are experiencing near-exponential population growth and exerting excessively strong negative effects on numerous sensitive, threatened, and endangered species across the western United States. The species is a long-lived, incredibly intelligent, generalist omnivore that lives in close association with human-altered landscapes. These qualities allow ravens to exploit many human-caused subsidies, including large and small food subsidies (e.g., transfer stations, individual trash cans, respectively), road kill, various agriculture and livestock production locations, artificial water sources, and artificial perch structures that have drastically increase suitable nesting habitat and allow for more efficient foraging (Howe et al. 2014, Coates et al. 2016). These subsidies have allowed ravens populations to double in size across the western United States in over the last 50 years, increasing both their geographic footprint and densities (Dinkins et al. 2021, Harju et al. 2021).

The USGS has developed a Science-based Management of Ravens Tool (SMaRT). This tool currently can estimate raven densities with some management recommendations. The next version of this tool will incorporate Adaptive Management, simulate management actions at tiers 2 and 3, calculate credit values and availability for subsidy reduction, and incorporate a wider array of datasets (Breeding Bird Survey data, eBird observations) into density estimations.

Project Treatments and Actions

Treatment Name: Entire State

Acres: 70,739,228.1

Action: Collect, analyze, or model sage grouse population or habitat use data
Approach Narrative:

statistical modeling for common raven densities

Planned Start: 07/2024

Project Monitoring

Monitoring Plan:

This project is a modeling plan; it will build upon the USGS developed SMaRT tool, a monitoring tool.

Project Funding and Budget

Budget Item	NDOW Predator Management 2025	NDOW Upland Game Stamp 2025	Subtotal
Contracts			
	$0	$40,000	$40,000
Personnel			
	$145,000	$0	$145,000
Total Costs:	**$145,000**	**$40,000**	**$185,000**

Budget Narrative:

Currently the FY2025 Predation Management Plan will fund $145,000 to collect common raven data. These additional funds will allow for further development of the SMaRT tool

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **COMMISSION REGULATION 23-15 AMENDMENT #1, FISHING SEASONS AND REGULATIONS FOR JANUARY 1, 2024, THROUGH DECEMBER 31, 2025** – At the June 29, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will consider amending CR 23-15 to designate Smith Creek Reservoir as a closed water in Lander County.

Agenda Action: Formal Action / Motion **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
CR-23-15-Amendment-1.pdf

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
_____
_____
_____
_____

_____
(Vote Recorded By)

STATE OF NEVADA

DEPARTMENT OF WILDLIFE

Fisheries Division

6980 Sierra Center Parkway, Ste 120 • Reno, Nevada 89511

(775) 688-1500 Fax (775) 688-1697

MEMORANDUM

June 7, 2024

To: Nevada Board of Wildlife Commissioners, County Advisory Boards to Manage Wildlife, and Interested Publics

From: Chris Crookshanks, Administrator, Fisheries Division

Title: **Commission Regulation 23-15 Amendment 1, Fishing Seasons and Regulations for the Two-Year Period January 1, 2024, through December 31, 2025 – Fisheries Division Administrator Chris Crookshanks – For Possible Action**

Description: The Commission will consider an amendment to Commission Regulation 23-15 to designate Smith Creek Reservoir as a "Closed Water" in Lander County.

Presenter: Western Region Supervising Fisheries Biologist Travis Hawks

Summary:

The Commission will consider an amendment to Commission Regulation 23-15 to designate Smith Creek Reservoir as a "Closed Water" in Lander County.

Background:

The majority of Smith Creek Reservoir is privately owned, although the southern shoreline is on BLM land. Currently, the reservoir falls under the general fishing regulations for Lander County, which is 5 trout, any legal tackle.

In 2009, when the Smith Creek Ranch was under a different management direction, the owners of the ranch approached NDOW with the proposal to develop the reservoir into a fishery which meets the needs of the fishing public while not placing a burden on the ranch operations. At the time, the ranch owner held a commercial license from NDOW to culture and sell live trout, and they wanted to use those fish to cooperatively work with NDOW to improve the recreational fishery and requested that NDOW propose more restrictive regulations on the reservoir to limit the number of fish taken by the public. It was understood at that time anglers would be allowed access to the reservoir via BLM lands and that future meetings would be held to discuss the possibility of the landowner securing funding to repair the dam. In 2009, upon the recommendations of the Fisheries Division, the NBWC approved the proposal to adopt a season that runs from April 1 through

November 15, any hour of the day or night, and artificial lures only with single barbless hooks.

Unfortunately, since that time, it has been realized that development of a fishery in the reservoir is challenging due to a number of factors and negotiations to work jointly with the landowner failed. Further, a change in management direction and operations on the Smith Creek Ranch resulted in the fishery not being a priority, so in September 2023, again by recommendation by the Fisheries Division, the NBWC approved the proposal to remove all special regulations from the Smith Creek Reservoir and place it under Lander County General Regulations, effective January 1, 2024.

LANDER COUNTY

All regulations in Lander County are proposed to remain the same with the exception of the following (changes are delineated in ~~red~~ ~~strike-out~~ text or **green bold** text):

Proposed Regulation:

CLOSED WATERS:	**Smith Creek Reservoir**

Description and Rationale:

The Department is proposing to designate Smith Creek Reservoir as a Closed Water in the Lander County fishing regulation (CR23-15). With renewed focus on Smith Creek Reservoir due to the recent regulation change and fishery management actions, ranch managers have again approached NDOW with ongoing frustration about the impacts to ranch operations including continual trespassing by the public attempting to drive through the ranch property to access the reservoir, as well as the public crossing from BLM land to posted private property to fish the reservoir. The reservoir is no longer stocked by the owner or NDOW. And although the reservoir is connected to Smith Creek which does hold trout in the upper watershed, the current water management (i.e., annual irrigation drawdowns) does not allow for any substantive establishment of a wild fishery in the reservoir and thus does not provide for a viable fishery for the public. Because the reservoir does not provide any real fishing opportunity, but continues to be problematic for the ranch, we are proposing to close Smith Creek Reservoir to fishing. If ranch management or the status of the fishery changes in the future, NDOW would consider removing this designation at that time.

STATE OF NEVADA
BOARD OF WILDLIFE COMMISSIONERS

FISHING SEASONS
CR 23-15 Amendment 1

The Board of Wildlife Commissioners, under the authority of 501.181 of the Nevada Revised Statutes, does hereby adopt the following regulation for the management of the fisheries resource:

2024/2025 FISHING SEASONS
JANUARY 1, 2024 THROUGH DECEMBER 31, 2025

LIMITS

"Daily Limit" means the maximum number of game fish that may be lawfully taken and reduced to possession by a person in one day. The "Possession Limit" is two times the daily limit for the water in which the fish were caught. A daily/possession limit includes fish caught in Nevada which have been processed or preserved and are stored at any location. Fish that are caught and immediately released back to the water alive are not considered to be reduced to possession or part of the limit.

A person shall not reduce game fish to possession if he already has the number of that fish in possession which equals or exceeds the possession limit of the water being fished.

General limits are listed by region. Exceptions to general limits are included as "special regulations" and are listed by individual water.

COUNTY	WATERS	SEASON	LIMITS	HOURS
CARSON CITY				
CLOSED WATERS:	None			
OPEN WATERS:	All waters. (Except as noted below)	Open year around	Daily: 5 trout, 5 mountain whitefish and 15 warmwater game fish of which not more than 5 may be black bass and 5 may be walleye Possession: 10 trout, 10 mountain whitefish and 30 warmwater gamefish of which 10 may be black bass and 10 may be walleye	Any hour of the day or night
	Lake Tahoe and tributaries	Open year around	Daily: 5 game fish Possession: 10 game fish	1 hour before sunrise to 2 hours after sunset
	Baily Fishing Pond	Open year around	Daily: 3 game fish Possession: 6 game fish	Hours park is open to public use
CHURCHILL COUNTY				
CLOSED WATERS:	Lahontan Dam spilling pool (bowl) on the Carson River below Lahontan Dam. All waters within the boundaries of the Stillwater National Wildlife Refuge.			
OPEN WATERS:	All waters. (Except as noted below)	Open year around	Daily: 5 trout, 5 mountain whitefish and 15 warmwater game fish of which not more than 5 may be black bass and 5 may be walleye Possession: 10 trout, 10 mountain whitefish and 30 warmwater gamefish of which 10 may be black bass and 10 may be walleye	Any hour of the day or night
	Lahontan Reservoir	Open year around	Daily: 15 game fish of which not more than 5 may be black bass, 5 may be walleye, and 2 may be white bass or white bass hybrids (wiper) 15 inches total length or longer. White bass or white bass hybrids (wiper) under 15 inches may be included in the 15 game fish limit. Possession: 30 game fish of which not more than 10 may be black bass, 10 may be walleye, and 4 may be white bass or white bass hybrids (wiper) 15 inches total length or longer	Any hour of the day or night
	Carson River, and all waters in Lahontan Valley	Open year around	Daily: 25 game fish of which not more than 5 may be black bass and 5 may be walleye Possession: 50 game fish of which not more than 10 may be black bass and 10 may be walleye	Any hour of the day or night
	Liberty Pond	Open year around	Daily: 3 game fish Possession: 6 game fish	Hours park is open to public use
CLARK COUNTY				
CLOSED WATERS;	Lakes Mead and Mohave and the Colorado River areas as posted immediately above and below Hoover and Davis dams; and except as otherwise posted by the National Park Service, those waters within the flat wake buoys at the following marinas and harbors: Overton Beach, Echo Bay Resort, Callville Bay Marina, Las Vegas Wash, Cottonwood Cove, Hemenway Harbor and Las Vegas Boat Harbor. Veterans Memorial Park, Boulder City, all waters except the Boulder City Urban Fishing Pond as posted. Spring Mountain Ranch State Park Pond. Las Vegas Wash, all waters within the Clark County Wetlands Park.			
OPEN WATERS:	All waters. (Except as noted below)	Open year around	Daily: 10 trout and 15 warmwater game fish of which not more than 10 may be black bass Possession: 20 trout and 30 warmwater game fish of which not more 20 may be black bass	Any hour of the day or night

COUNTY	WATERS	SEASON	LIMITS	HOURS
	Lake Mead	Open year around	Daily: 5 trout, 6 black bass, 25 catfish, 15 crappie. No limit on striped bass less than 20 inches total length (unlimited possession). The daily limit on striped bass 20 inches total length or longer is 20 fish. No limit on other game fish Possession: 10 trout, 12 black bass, 50 catfish, and 30 crappie. The possession limit on striped bass 20 inches in total length or longer is 40 fish	Any hour of the day or night
	Lake Mohave	Open year around	Daily: 5 trout, 6 black bass, 25 catfish, 15 crappie. No limit on striped bass less than 20 inches total length (unlimited possession). The daily limit on striped bass 20 inches total length or longer is 20 fish. No limit on other game fish Possession: 10 trout, 12 black bass, 50 catfish, and 30 crappie. The possession limit on striped bass 20 inches in total length or longer is 40 fish	Any hour of the day or night
	Colorado River below Davis Dam	Open year around	Daily: 5 trout, 6 black bass, 10 striped bass, and 25 catfish. Minimum size for black bass is 13 inches total length. No limit on other game fish Possession: 10 trout, 12 black bass, 20 striped bass, and 50 catfish	Any hour of the day or night
	Virgin River and Muddy (Moapa) River systems	Open year around	Daily: 5 trout, 6 black bass, 25 catfish, 15 crappie, and 20 striped bass. No limit on other game fish Possession: 10 trout, 12 black bass, 50 catfish, 30 crappie, and 40 striped bass	Any hour of the day or night
	Boulder City Pond, Sunset Park Pond, Floyd Lamb Park Ponds, Lorenzi Park Pond and Mesquite Urban Pond – Hafen Lane Pond	Open year around	Daily: 3 game fish Possession: 6 game fish	Hours parks are open to public use
	Cold Creek Pond and Cold Creek	Open year around	Daily: 3 game fish Possession: 6 game fish	Any hour of the day or night
	Carpenter Creek	Open year around	Daily: 2 trout Possession: 4 trout	Any hour of the day or night
DOUGLAS COUNTY				
CLOSED WATERS:	Topaz Lake within the jetties of Topaz Marina. Lake Tahoe within the boat launch area, inside the jetty at the Cave Rock boat ramp, north end. Glenbrook Creek from Lake Tahoe to Highway 50.			
OPEN WATERS:	All waters. (Except as noted below)	Open year around	Daily: 5 trout, 5 mountain whitefish and 15 warmwater game fish of which not more than 5 may be black bass and 5 may be walleye Possession: 10 trout, 10 mountain whitefish and 30 warmwater gamefish of which 10 may be black bass and 10 may be walleye	Any hour of the day or night
	Lake Tahoe and tributaries	Open year around	Daily: 5 game fish Possession: 10 game fish	1 hour before sunrise to 2 hours after sunset

COUNTY	WATERS	SEASON	LIMITS	HOURS
	Spooner Lake	Open year around	Daily: 5 trout Possession: 10 trout	1 hour before sunrise to 2 hours after sunset
	Topaz Lake	Open year around	Daily: 5 trout, 5 mountain whitefish, and 25 warmwater game fish of which not more than 5 may be black bass Possession: 10 trout, 10 mountain whitefish and 50 warmwater game fish of which not more than 10 may be black bass	1 hour before sunrise to 2 hours after sunset
	Mitch Park Pond, Lampe Park Pond, Martin Slough Ponds (on Gilman Avenue), Seeman Pond, Mountain View Park Pond	Open year around	Daily: 3 game fish Possession: 6 game fish	Hours parks are open to public use.
ELKO COUNTY				
CLOSED WATERS:	In Ruby Valley fishing is prohibited in hatchery, rearing, brood and spring ponds of Gallagher Hatchery; in Cave Creek west of the county road; and on Franklin Lake Wildlife Management Area.			
OPEN WATERS:	All waters (Except as noted below)	Open year around	Daily: 5 trout, 5 mountain whitefish, and 15 warmwater game fish of which not more than 10 may be black bass. No limit on northern pike or yellow perch (unlimited possession). Possession: 10 trout, 10 mountain whitefish, and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	Wildhorse Reservoir and all inlet and outlet streams including Penrod Creek up to the bridge below the Gold Creek Ranger Station	Open year around. Exception: March 1 through June 30, catch and release fishing only for black bass	Daily: 5 trout, 1 black bass, 1 white bass hybrid (wiper) and 5 channel catfish. No limit on yellow perch (unlimited possession). Minimum size for black bass and white bass hybrids (wiper) is 15 inches total length Possession: 10 trout, 2 black bass, 2 white bass hybrid (wiper) and 10 channel catfish	Any hour of the day or night
	Angel Lake and inlet and outlet streams Remove from Special Regulations. Will fall under Eastern Region General Regulations	Open year around	Daily: 5 trout, 5 mountain whitefish, and 15 warmwater game fish of which not more than 10 may be black bass. No limit on northern pike or yellow perch (unlimited possession) Possession: 10 trout, 10 mountain whitefish, and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	South Fork Reservoir and the South Fork of the Humboldt River from the Lucky Nugget Subdivision causeway downstream to its confluence with the Humboldt River	Open year around. Exception: March 1 through June 30, catch and release fishing only for black bass	Daily: 5 trout, 1 black bass, 1 white bass hybrid (wiper) and 5 channel catfish. Minimum size for black bass and white bass hybrids (wiper) is 15 inches total length Possession: 10 trout, 2 black bass, 2 white bass hybrid (wiper) and 10 channel catfish	Any hour of the day or night
	South Fork of the Humboldt River from the Lucky Nugget Subdivision causeway upstream to Lee	Open year around	Daily: 1 trout Possession: 2 trout	Any hour of the day or night

COUNTY	WATERS	SEASON	LIMITS	HOURS
	Wilson Sink Reservoir, its outlet and inlet stream up to State Route 11 Remove from Special Regulations. Will fall under Eastern Region General Regulations	Open year around	Daily: 5 trout, 5 mountain whitefish, and 15 warmwater game fish of which not more than 10 may be black bass. No limit on northern pike or yellow perch (unlimited possession) Possession: 10 trout, 10 mountain whitefish, and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	Ruby Lake National Wildlife Refuge	Open year around in all areas except as posted January 1 through June 14 June 15 through December 31	 Daily: 5 trout and 5 black bass. Minimum size for black bass is 10 inches total length Possession: 10 trout and 10 black bass Daily: 5 trout and 10 black bass. Minimum size for black bass is 10 inches total length Possession: 10 trout and 20 black bass	1 hour before sunrise to 1 hour after sunset
	Ruby Mountains and East Humboldt Range high lakes except Angel Lake Remove from Special Regulations. Will fall under Eastern Region General Regulations	Open year around	Daily: 5 trout, 5 mountain whitefish, and 15 warmwater game fish of which not more than 10 may be black bass. No limit on northern pike or yellow perch (unlimited possession) Possession: 10 trout, 10 mountain whitefish, and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	Dry Creek Reservoir Remove from Special Regulations. Will fall under Eastern Region General Regulations	Open year around	Daily: 5 trout, 5 mountain whitefish, and 15 warmwater game fish of which not more than 10 may be black bass. No limit on northern pike or yellow perch (unlimited possession) Possession: 10 trout, 10 mountain whitefish, and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	Willow Creek Reservoir Remove from Special Regulations. Will fall under Eastern Region General Regulations	Open year around	Daily: 5 trout, 5 mountain whitefish, and 15 warmwater game fish of which not more than 10 may be black bass. No limit on northern pike or yellow perch (unlimited possession) Possession: 10 trout, 10 mountain whitefish, and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	Jarbidge River, East Fork and West Fork and tributary streams	Open year around	Daily: 5 trout, 5 mountain whitefish, except possession of bull trout is prohibited. All captured bull trout must be released immediately. Possession: 10 trout and 10 mountain whitefish	Any hour of the day or night

COUNTY	WATERS	SEASON	LIMITS	HOURS
	Marys River and tributary streams Remove from Special Regulations. Will fall under Eastern Region General Regulations	Open year around	Daily: 5 trout, 5 mountain whitefish, and 15 warmwater game fish of which not more than 10 may be black bass. No limit on northern pike or yellow perch (unlimited possession) Possession: 10 trout, 10 mountain whitefish, and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	Bruneau River and tributary streams Remove from Special Regulations. Will fall under Eastern Region General Regulations	Open year around	Daily: 5 trout, 5 mountain whitefish, and 15 warmwater game fish of which not more than 10 may be black bass. No limit on northern pike or yellow perch (unlimited possession) Possession: 10 trout, 10 mountain whitefish, and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
ESMERALDA COUNTY				
CLOSED WATERS:	None			
OPEN WATERS:	All waters	Open year around	Daily: 10 trout and 15 warmwater game fish of which not more than 10 may be black bass Possession: 20 trout and 30 warmwater game fish of which not more 20 may be black bass	Any hour of the day or night
EUREKA COUNTY				
CLOSED WATERS:	Tonkin Springs Creek (Denay Creek) from origin to its confluence with Tonkin Springs Reservoir			
OPEN WATERS:	All waters (Except as noted below)	Open year around	Daily: 5 trout, 5 mountain whitefish, and 15 warmwater game fish of which not more than 10 may be black bass. No limit on northern pike or yellow perch (unlimited possession) Possession: 10 trout, 10 mountain whitefish, and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	Tonkin Springs Reservoir	Open year around	Daily: 5 trout Possession: 10 trout	Any hour of the day or night
HUMBOLDT COUNTY				
CLOSED WATERS:	All tributaries to Summit Lake. All waters of the Sheldon National Wildlife Refuge (within Humboldt County) except Big Springs Reservoir and Dufurrena Ponds. Crowley Creek in the Montana Mountains. Eightmile Creek in the Santa Rosa Range. Donnelly Creek in the Calico Range.			
OPEN WATERS:	All waters (Except as noted below)	Open year around	Daily: 5 trout, 5 mountain whitefish and 15 warmwater game fish of which not more than 5 may be black bass and 5 may be walleye Possession: 10 trout, 10 mountain whitefish and 30 warmwater gamefish of which 10 may be black bass and 10 may be walleye	Any hour of the day or night
	James Kinney Pond	Open year around	Daily: 3 game fish Possession: 6 game fish	Hours park is open to public use

COUNTY	WATERS	SEASON	LIMITS	HOURS
	Blue Lakes and Onion Valley Reservoir Remove from Special Regulations. Will fall under Western Region General Regulations	Open year around	Daily: 5 trout, 5 mountain whitefish and 15 warmwater game fish of which not more than 5 may be black bass and 5 may be walleye Possession: 10 trout, 10 mountain whitefish and 30 warmwater gamefish of which 10 may be black bass and 10 may be walleye	Any hour of the day or night
	Bilk Creek Reservoir	Open year around	Daily: 5 game fish Possession: 10 game fish	Any hour of the day or night
	Chimney Reservoir	Open year around	Daily: 15 game fish of which not more than 5 may be black bass, 5 may be walleye, 2 may be white bass hybrid (wiper), and zero may be tiger muskie (catch and release only). The minimum length for white bass hybrids is 15 inches total length Possession: 30 game fish of which not more than 10 may be black bass, 10 may be walleye, 4 may be white bass hybrid (wiper)	Any hour of the day or night
	Knott Creek Reservoir including inlet and outlet streams	Open year around	Daily: 1 trout Possession: 2 trout	Any hour of the day or night
	Big Springs Reservoir Remove from Special Regulations. Will fall under Western Region General Regulations	Open year around	Daily: 5 trout, 5 mountain whitefish and 15 warmwater game fish of which not more than 5 may be black bass and 5 may be walleye Possession: 10 trout, 10 mountain whitefish and 30 warmwater gamefish of which 10 may be black bass and 10 may be walleye	Any hour of the day or night
LANDER COUNTY				
CLOSED WATERS:	**Smith Creek Reservoir**			
	All waters (Except as noted below)	Open year around	Daily: 5 trout, 5 mountain whitefish, and 15 warmwater game fish of which not more than 10 may be black bass. No limit on northern pike or yellow perch (unlimited possession) Possession: 10 trout, 10 mountain whitefish, and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	Willow Creek Pond and Willow Creek Reservoir including inlet and outlet streams	Open year around	Daily: 5 trout and 5 black bass. Minimum size for black bass is 10 inches. No limit on yellow perch (unlimited possession) Possession: 10 trout and 10 black bass	1 hour before sunrise to 2 hours after sunset
	Groves Lake, Kingston Creek and Big Creek Remove from Special Regulations. Will fall under Eastern Region General Regulations	Open year around	Daily: 5 trout, 5 mountain whitefish, and 15 warmwater game fish of which not more than 10 may be black bass. No limit on northern pike or yellow perch (unlimited possession) Possession: 10 trout, 10 mountain whitefish, and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night

COUNTY	WATERS	SEASON	LIMITS	HOURS
LINCOLN COUNTY				
CLOSED WATERS:	Crystal Springs and outflow for one-half mile to beginning of concrete ditch. Ash Springs outflow through the River Ranch to beginning of concrete ditch.			
OPEN WATERS:	All waters (Except as noted below)	Open year around	Daily: 10 trout and 15 warmwater game fish of which not more than 10 may be black bass Possession: 20 trout and 30 warmwater game fish of which not more 20 may be black bass	Any hour of the day or night
	Nesbitt Lake (Key Pittman Wildlife Management Area)	Open year around except the portion above the old fence line as posted is closed to trespass February 15 through August 15 and closed to fishing during the waterfowl season	Daily: 15 warmwater game fish of which not more than 10 may be black bass. No limit on bullheads (unlimited possession) Possession: 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	Eagle Valley Reservoir and Meadow Valley Wash above the reservoir	Open year around	Daily: 5 trout and 15 warmwater game fish of which not more than 10 may be black bass. Possession: 10 trout and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	Echo Canyon Reservoir	Open year around	Daily: 5 trout and 15 warmwater game fish of which not more than 10 may be black bass Possession: 10 trout and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	Pahranagat National Wildlife Refuge	Open year around except North Marsh which is closed to fishing during the waterfowl season	Daily: 3 trout and 15 warmwater game fish of which not more than 5 may be black bass Possession: 6 trout and 30 warmwater game fish of which not more than 10 may be black bass	Any hour of the day or night
LYON COUNTY				
CLOSED WATERS:	All waters within the Mason Valley Wildlife Management Area except for those listed as open.			
OPEN WATERS:	All waters (Except as noted below)	Open year around	Daily: 5 trout, 5 mountain whitefish and 15 warmwater game fish of which not more than 5 may be black bass and 5 may be walleye Possession: 10 trout, 10 mountain whitefish and 30 warmwater gamefish of which 10 may be black bass and 10 may be walleye	Any hour of the day or night

COUNTY	WATERS	SEASON	LIMITS	HOURS
	East Walker River	Open year around	Daily: 5 trout, 5 mountain whitefish, 15 warmwater game fish of which not more than 5 may be black bass. Except in that portion of the East Walker River which is from one-quarter mile above the confluence of the East Walker River and Sweetwater Creek downstream to one-half mile below the confluence of the East Walker River and Red Wash Creek which is catch and release fishing only Possession: 10 trout, 10 mountain whitefish and 30 warmwater game fish of which not more than 10 may be black bass	Any hour of the day or night
	Fort Churchill Cooling Pond Cooperative Management Area, fishing prohibited from the center dike and posted areas	Second Saturday in February through September 30	Daily: 5 trout and 15 warmwater game fish of which not more than 2 may be black bass. Minimum size for black bass is 14 inches total length Possession: 10 trout and 30 warmwater game fish of which not more than 4 may be black bass	1 hour before sunrise to 2 hours after sunset
	Lahontan Reservoir	Open year around	Daily: 15 game fish of which not more than 5 may be black bass, 5 may be walleye, and 2 may be white bass or white bass hybrids (wiper) 15 inches total length or longer. White bass or white bass hybrids (wiper) under 15 inches may be included in the 15 game fish limit Possession: 30 game fish of which not more than 10 may be black bass, 10 may be walleye, and 4 may be white bass or white bass hybrids (wiper) 15 inches total length or longer	Any hour of the day or night

COUNTY	WATERS	SEASON	LIMITS	HOURS
	Mason Valley Wildlife Management Area:			
	Bass, Crappie, and North ponds, Beaver Slough and that portion of the Walker River within the Mason Valley Wildlife Management Area	Second Saturday in February through September 30	Daily: 5 trout and 15 warmwater game fish of which not more than 2 may be black bass. Minimum size for black bass is 14 inches total length Possession: 10 trout and 30 warmwater game fish of which not more than 4 may be black bass	Any hour of the day or night
	Hinkson Slough	Second Saturday in February through September 30	Daily: 2 trout and 15 warmwater game fish of which not more than 2 may be black bass. Minimum size for trout is 16 inches total length. Minimum size for black bass is 14 inches total length Possession: 4 trout and 30 warmwater game fish of which not more than 4 may be black bass	Any hour of the day or night
	Eastside Waterfowl Series Ponds	August 16 through September 30	Daily: 5 trout and 15 warmwater game fish of which not more than 2 may be black bass. Minimum size for black bass is 14 inches total length Possession: 10 trout and 30 warmwater game fish of which not more than 4 may be black bass	Any hour of the day or night
	Kuenzli Pond, Hatchery Outpond 1, Hatchery Outpond 2 and Hatchery Outpond 3	First Saturday in May	Daily: 3 game fish of which not more than 1 may be black bass Possession: 6 game fish of which not more than 2 may be black bass	8 AM to sunset
	Mountain View Park Pond	Open year around	Daily: 3 game fish Possession: 6 game fish	Hours park is open to public use
MINERAL COUNTY				
CLOSED WATERS:	The Rose Creek confluence from the diversion pipe downstream to Walker Lake and Walker Lake within a 100-yard radius of the inflow.			
OPEN WATERS:	All waters (Except as noted below)	Open year around	Daily: 5 trout, 5 mountain whitefish and 15 warmwater game fish of which not more than 5 may be black bass and 5 may be walleye Possession: 10 trout, 10 mountain whitefish and 30 warmwater gamefish of which 10 may be black bass and 10 may be walleye	Any hour of the day or night
	Rose Creek Reservoir	Open year around	Daily: 3 game fish Possession: 6 game fish	Any hour of the day or night
NYE COUNTY				
CLOSED WATERS:	Kirch Wildlife Management Area: Hot Creek to its confluence with Adams-McGill Reservoir. Sunnyside Creek above Sunnyside/Adavin County Road crossing in sec. 36, T 7 N R 61 E.			
OPEN WATERS:	All waters (Except as noted below)	Open year around	Daily: 10 trout, 15 warmwater game fish of which not more than 10 may be black bass Possession: 20 trout and 30 warmwater game fish of which not more 20 may be black bass	Any hour of the day or night

COUNTY	WATERS	SEASON	LIMITS	HOURS
	Beatty Urban Pond	Open year around	Daily: 3 game fish Possession: 6 game fish	Any hour of the day or night
	Sportsman's Park Pond	Open year around	Daily: 3 game fish Possession: 6 game fish	Hours park is open to public use
	Upper Reese River and tributaries from the Arc Dome wilderness boundary south of the Yomba Shoshone Tribe Reservation to its headwaters	Open year around	No limit on trout	Any hour of the day or night
	Stewart Creek from its confluence with the Reese River to its headwaters	Open year around	No limit on trout	Any hour of the day or night
	Kirch Wildlife Management Area: All other waters within the Kirch Wildlife Management Area	Open year around except the upper portions of Adams-McGill, Cold Springs and Haymeadow reservoirs closed to trespass February 15 through August 15 as posted. A 100-yard area as posted around the inflow from Hot Creek to Adams-McGill Reservoir is closed to fishing January 1 through April 1.	Daily: 5 trout and 15 warmwater game fish of which not more than 10 may be black bass. No limit on bullheads (unlimited possession) Limit is 5 black bass from April 1 through June 30. Possession: 10 trout and 30 warmwater game fish of which 20 may be black bass	Any hour of the day or night
	Tule Reservoir	Open August 16 through February 14	Daily: 5 trout and 15 warmwater game fish of which not more than 10 may be black bass. No limit on bullheads (unlimited possession) Possession: 10 trout and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	Dacey Reservoir	Open year around except the upper portions of Dacey Reservoir closed to trespass February 15 through August 15 as posted. A 100-yard area as posted around the inflow from Hot Creek to Dacey Reservoir is closed to fishing January 1 through April 1.	Daily: 1 trout~~,~~ and 15 warmwater game fish of which not more than 10 may be black bass. No limit on bullheads (unlimited possession) Limit is zero black bass (catch and release only) from April 1 through June 30. Possession: 2 trout and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
PERSHING COUNTY				
CLOSED WATERS:	None			
OPEN WATERS:	All waters (Except as noted below)	Open year around	Daily: 5 trout, 5 mountain whitefish and 15 warmwater game fish of which not more than 5 may be black bass and 5 may be walleye Possession: 10 trout, 10 mountain whitefish and 30 warmwater gamefish of which 10 may be black bass and 10 may be walleye	Any hour of the day or night

COUNTY	WATERS	SEASON	LIMITS	HOURS
	Rye Patch Reservoir and Humboldt River	Open year around	Daily: 25 game fish of which not more than 5 may be trout, 5 may be walleye, 5 may be black bass, and 2 may be white bass or white bass hybrids which are over 15 inches total length. White bass or white bass hybrids under 15 inches total length may be included in the 25 game fish limit Possession: 50 game fish of which not more than 10 may be trout, 10 may be walleye, 10 may be black bass, and 4 may be white bass or white bass hybrids which are over 15 inches total length	Any hour of the day or night
STOREY COUNTY				
CLOSED WATERS:	5 Mile Reservoir, Truckee River from Derby Dam downstream 1,000 feet.			
OPEN WATERS:	All waters (Except as noted below)	Open year around	Daily: 5 trout, 5 mountain whitefish and 15 warmwater game fish of which not more than 5 may be black bass and 5 may be walleye Possession: 10 trout, 10 mountain whitefish and 30 warmwater gamefish of which 10 may be black bass and 10 may be walleye	Any hour of the day or night
	Truckee River	Open year around except for closed areas	Daily: 3 game fish except in that section from E Mustang Road bridge (I-80 Exit 23) downstream to the Pyramid Lake Paiute Reservation boundary, limit is three game fish of which 1 may be trout. Possession: 6 game fish except in that section from E Mustang Road bridge (I-80 Exit 23) downstream to the Pyramid Lake Paiute Reservation boundary, limit is 6 game fish of which 2 may be trout.	Any hour of the day or night
WASHOE COUNTY				
CLOSED WATERS:	Third Creek and its tributaries from Lake Tahoe to the Mt. Rose Highway No. 431. Incline Creek and its tributaries from Lake Tahoe to Ski Way and the Mt. Rose Highway No. 431. Wood Creek from Lake Tahoe to the Mt. Rose Highway No. 431. Lake Tahoe within a 200-yard radius of the mouths of Third, Incline and Wood creeks. A 500-yard radius from Sand Harbor boat ramp. Truckee River from Derby Dam downstream 1,000 feet.			
OPEN WATERS:	All waters (Except as noted below)	Open year around	Daily: 5 trout, 5 mountain whitefish and 15 warmwater game fish of which not more than 5 may be black bass and 5 may be walleye Possession: 10 trout, 10 mountain whitefish and 30 warmwater gamefish of which 10 may be black bass and 10 may be walleye	Any hour of the day or night
	Catnip Reservoir, tributaries and outlet stream	Open year around	Daily: 1 trout Possession: 2 trout	Any hour of the day or night
	Washoe Lake	Open year around	Daily: 10 game fish of which not more than 5 may be catfish Possession: 20 game fish of which not more than 10 may be catfish	Any hour of the day or night

COUNTY	WATERS	SEASON	LIMITS	HOURS
	Hobart Reservoir and tributaries and Franktown Creek downstream from Hobart Reservoir to Red House	May 1 through October 31	Daily: 5 trout of which not more than 2 may be tiger trout Possession: 10 trout of which not more than 4 may be tiger trout	1 hour before sunrise to 2 hours after sunset
	Lake Tahoe and tributaries	Open year around except for closed areas	Daily: 5 game fish Possession: 10 game fish	1 hour before sunrise to 2 hours after sunset
	Marlette Lake, tributaries and outlet stream	July 15 through September 30	Daily: 0 trout, catch and release only	1 hour before sunrise to 2 hours after sunset
	Truckee River	Open year around except for closed areas	Daily: 3 game fish except in that section from E Mustang Road bridge (I-80 Exit 23) downstream to the Pyramid Lake Paiute Reservation boundary, limit is three game fish of which 1 may be trout. Possession: 6 game fish except in that section from E Mustang Road bridge (I-80 Exit 23) downstream to the Pyramid Lake Paiute Reservation boundary, limit is 6 game fish of which 2 may be trout.	Any hour of the day or night
	Twelvemile Creek	Open year around	Daily: 2 trout Possession: 4 trout	Any hour of the day or night
	Washoe County Urban Ponds: Battle Born Pond, Davis Creek Pond, Idlewild Ponds, Marilyn's Pond, Paradise Ponds, Rancho San Rafael Pond, Sparks Marina Pond, Verdi Pond, Virginia Lake and Wilson Common	Open year around	Daily: 3 game fish Possession: 6 game fish	Hours parks are open to public use
WHITE PINE COUNTY				
CLOSED WATERS:	Cold Creek Springs (Spring Pond) and creek above Cold Creek Reservoir in the Diamond Range			
OPEN WATERS:	All waters (Except as noted below)	Open year around	Daily: 5 trout, 5 mountain whitefish, and 15 warmwater game fish of which not more than 10 may be black bass. No limit on northern pike or yellow perch (unlimited possession). Possession: 10 trout, 10 mountain whitefish, and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	Ruby Lake National Wildlife Refuge	Open year around in all areas except as posted. January 1 through June 14 June 15 through December 31	 Daily: 5 trout and 5 black bass. Minimum size for black bass is 10 inches total length. Possession: 10 trout and 10 black bass Daily: 5 trout and 10 black bass. Minimum size for black bass is 10 inches total length. Possession: 10 trout and 20 black bass	1 hour before sunrise to 1 hour after sunset

COUNTY	WATERS	SEASON	LIMITS	HOURS
	Cave Lake, Steptoe Creek, and Cave Creek, Remove from Special Regulations. Will fall under Eastern Region General Regulations	Open year around	Daily: 5 trout, 5 mountain whitefish, and 15 warmwater game fish of which not more than 10 may be black bass. No limit on northern pike or yellow perch (unlimited possession). Possession: 10 trout, 10 mountain whitefish, and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	Tailings Creek, Cleve Creek, Silver Creek and White River. Remove from Special Regulations. Will fall under Eastern Region General Regulations	Open year around	Daily: 5 trout, 5 mountain whitefish, and 15 warmwater game fish of which not more than 10 may be black bass. No limit on northern pike or yellow perch (unlimited possession). Possession: 10 trout, 10 mountain whitefish, and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	Illipah Reservoir and Illipah Creek Remove from Special Regulations. Will fall under Eastern Region General Regulations	Open year around	Daily: 5 trout, 5 mountain whitefish, and 15 warmwater game fish of which not more than 10 may be black bass. No limit on northern pike or yellow perch (unlimited possession). Possession: 10 trout, 10 mountain whitefish, and 30 warmwater game fish of which not more than 20 may be black bass	Any hour of the day or night
	Cold Creek Reservoir	Open year around	Daily: 5 trout and 5 black bass. Minimum size for black bass is 10 inches. Possession: 10 trout and 10 black bass	Any hour of the day or night
	Comins Lake	Open year around	Daily: 5 trout and 5 black bass. No limit on northern pike (unlimited possession). Possession: 10 trout and 10 black bass.	Any hour of the day or night
	Snake Range High Lakes	Open year around	0 trout, catch and release only	Any hour of the day or night

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **COMMISSION REGULATION 24-05, AMENDMENT #1, 2025 HERITAGE TAG VENDORS** – At the June 29, 2024, meeting of the Nevada Board of Wildlife Commissioners, the Commission will review the Wildlife Heritage Committee's recommendations regarding Heritage Tag Vendor Proposals for 2025 and may take action on the proposals.

Agenda Action: Formal Action / Motion **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
CR24-05-2025-Heritage-Tag-Vendors.pdf

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
_____
_____
_____
_____

_____
(Vote Recorded By)

STATE OF NEVADA
DEPARTMENT OF WILDLIFE
Data and Technology Services Division
6980 Sierra Center Parkway, Ste. 120 • Reno, Nevada 89511
(775) 688-1500 Fax (775) 688-1987

MEMORANDUM: **MAY 21, 2024**

To: Nevada Board of Wildlife Commissioners, County Advisory Boards to Manage Wildlife, and Interested Publics

From: Management Analyst Megan Manfredi, Data and Technology Services Division

Title: **Commission Regulation 24-05 Amendment #1, 2025 Heritage Tag Vendors**

Description: The Commission will review, revise, and adopt recommendations from the Heritage Committee for the assignment of the 2025 Heritage Tags to proposed vendors for sale by auction.

Summary:

This regulation is to assign the 2025 Heritage Tags to auction vendors. The vendor proposal packets were received before the April 15, 2024, deadline and reviewed by the Heritage Committee at their May 3, 2024, meeting. The regulation amendment reflects the Committee's recommendations and decision to propose these recommendations to the County Advisory Boards and the Commission at the June meeting.

The Department also recommends adding a clause related to the return of the tag fees associated with the Heritage tags in the even one is returned to the Department for medical, military or death reasons.

Brief Explanation of the Proposed Regulation

All tags and quotas represented in the Commission Regulation were approved in the January 26-27, 2024, Commission meeting.

Recommendation:

The Department recommends that the Commission review and adopt the proposed vendor recommendations for the Heritage tags as provided by the Heritage Committee.

CR 24-05 2025 Wildlife Heritage Tag Amendment #1

The Nevada Board of Wildlife Commissioners, under the authority of Section 501.181, 502.140, 502.250 and 503.140 of the Nevada Revised Statutes (NRS), does hereby adopt the following regulation for the management of wildlife resources in the State of Nevada.

Wildlife Heritage Tags

Hunting Hours: Big game mammals and wild turkey may be hunted from one-half hour before sunrise to one-half hour after sunset as listed on government sunrise-sunset tables.

Take Limit: One animal allowed per tag.

Legal Weapon: Any legal firearm or bow as described in NRS 503.150 and Nevada Administrative Code (NAC) 503.141, 503.142, 503.143 and 503.144 may be used throughout the big game season. Additionally, any legal weapon or shotgun or bow as described in NAC 503.187 may be used throughout the wild turkey season.

Exclusions: Heritage Tags exclude the use of seasons, quotas and hunt units designated for depredation, management, and emergency hunts.

Unit Closures: The Tag Allocation and Application Hunt Committee and Commission directive on unit closures is associated with the setting of the annual bighorn sheep quotas and the following table that identifies the maximum number of specialty tags for every unit group that has an open season. Some unit groups may be set to zero (0) if they are not able to sustain additional ram harvest beyond the general draw's tag quota. Maximum Specialty Tag Quotas reflect the combination of the Heritage, Dream, Silver State, and Partnership in Wildlife tags.

BHS Unit Group Quota	Maximum Specialty Tag Quota
1-2	0
3-6	1
7-12	2
13-20	3
>20	4

As directed by the above table and in correlation with the general hunt quotas for Nelson (desert) bighorn sheep.

General hunt tag quotas for the corresponding year are approved during the May Commission meeting.

* Tag holders, or their licensed guide if applicable, must call the Bighorn Sheep Harvest Information Hotline prior to hunting daily to determine if any hunt units have been closed due to the harvest limits being reached. The number is 1-833-923-0754 and is accessible 24 hours a day. The Nevada Department of Wildlife phone number to call and report a harvested bighorn sheep is 775-688-2327. Sheep harvests must be reported by 9:00PM Pacific Time the day of harvest.

Species	Class	Unit Group	Season	Quota	Organization
Mule Deer	Any mule deer	Any hunt unit assigned an antlered mule deer season.	August 1, 2025 through December 31, 2025	2	**Mule Deer Foundation** **Wildlife & Habitat Improvement of Nevada (WHIN)**
Pronghorn Antelope	Any pronghorn antelope	Any hunt unit assigned a pronghorn antelope with horns longer than ears season.	August 1, 2025 through December 31, 2025	2	**Nevada Bighorns Unlimited (NBU) – Reno** **Wild Sheep Foundation &**

					Fraternity of the Desert Bighorn
Rocky Mountain Elk	Any elk with at least one antler	Any hunt unit assigned an antlered elk season except for unit 091.	August 1, 2025 through December 31, 2025	2	Meadow Valley Wildlife Unlimited Nevada Bighorns Unlimited (NBU) - Elko
Nelson (Desert) Bighorn Sheep*	Any ram	Any hunt unit assigned a Nelson (desert) bighorn sheep season.	July1, 2025 through December 31, 2025	2	Nevada Bighorns Unlimited (NBU) – Reno Wild Sheep Foundation & Fraternity of the Desert Bighorn
Wild Turkey	Any wild turkey	Any hunt unit assigned a wild turkey season.	March 21, 2025 through May 3, 2025	5	Nevada Bighorns Unlimited (NBU) - Elko Meadow Valley Wildlife Unlimited Pershing County Chukars Unlimited Safari Club International (SCI) – Las Vegas Muley Fanatic Foundation
Total				**13**	

In the instance that an approved Heritage Tag vendor is unable to hold an event **or finalize the full bid amount** where a Heritage Tag is scheduled to be sold, the Board of Wildlife Commission grants authority to the Department to allocate the tag(s) to a different Commission approved Heritage Tag vendor for the corresponding year who has the ability to hold their event and offer for auction the Heritage Tags.

In the event a Heritage tag holder requests a return of the purchased Heritage tag for medical, military, or death reasons pursuant to NAC 502.422, the Department may refund the corresponding tag fee for the species designated on the tag but will not refund the bid amount received through auction.

The Nevada Board of Wildlife Commissioners hereby delegates authority to the Nevada Department of Wildlife to adjust season dates to accommodate Department of Defense operations so long as there is no change to the overall length of the season.

Hunt units mentioned below reflect the general hunt seasons. If the hunt units mentioned below are closed to the general hunt season, they are also closed to specialty tags.

* There are portions of hunt unit 181 in Naval Air Station (NAS) Fallon where public access is restricted. To hunt Nelson (desert) bighorn sheep in the NAS portions of this unit, the tag holder is required to attend a NAS hunter safety briefing. Those portions of hunt unit 181 that do not fall within the boundaries of NAS Fallon are open to the public.

* Portions of Hunt Units 252, 280, 281, 282 are within the Nevada Test and Training Range (NTTR) where public access is restricted. Hunters and everyone in their respective hunting parties must comply with all Nevada hunting requirements and all NTTR safety and security requirements including the following: 1) consent to and pass a criminal history background check; 2) be at least 14 years old on opening day of the respective hunting season; 3) attend the Nellis Air Force Base hunter safety briefing; and 4) within the NTTR Hunt Units 252, 280, 281, 282

limit party size to 5 including tag holder. Additional party members may complete background check and safety briefing, but only maximum of 5 party members including tag holder may be present within the NTTR Hunt Units 252, 280, 281, 282 at any given time. Those portions of Hunt Units 252, 280, 281, 282 that do not fall within the boundaries of NTTR are open to the public.

* Hunters and members of their parties who fail to comply with these requirements may be denied access to the NTTR. Hunters and members of their parties may not access the NTTR after a tag is filled and animal has been removed and in possession of tag holder. No pets are allowed on NTTR. It is the hunter's responsibility to meet and/or comply with all NTTR eligibility requirements. In some units there may be adjustments to season dates to accommodate Department of Defense operations.

* Those areas within Units 192 and 194 are closed except those areas that are within the U.S. Forest Service Lake Tahoe Basin Management Unit (LTBMU) and those areas bounded on the west by the LTBMU boundary from the southern boundary of Township 16 North, Range 18 East, Section 13 to the Mount Rose Wilderness Area boundary (approximately located at the Relay Ridge Radio Tower), by the Mount Rose Wilderness Area boundary from the LTBMU boundary to the western boundary of Range 19 East, and by the western boundary of Range 19 East from the Mount Rose Wilderness Area boundary to USFS Road No. 41049 (Logan Meadow Lane/Thomas Creek), bounded on the north by USFS Road No. 41049 from the western boundary of Range 19 East to Timberline Drive, by Timberline Drive from its junction with USFS Road No. 41049 to State Highway 431 (Mount Rose Highway), and by State Highway 431 from its junction with Timberline Drive to its junction with U.S. Highway 395, bounded on the east by U.S. Highway 395 from its junction with State Highway 431 to the southern boundary of Township 16 North, Range 19 East, Section 14 (approximately located at the northbound Bellevue Interchange off-ramp), and bounded on the south by the southern edge of Township 16 North, Range 19 East, Sections 14 – 18, following the southern boundary of the University of Nevada, Reno Little Valley Study Area, and Township 16 North, Range 18 East, Section 13 to the LTBMU boundary.

NEVADA HERITAGE HISTORY - 5 YEARS

	2020 - SOME ONLINE AUCTIONS	2021 - ONLINE AUCTIONS	2022	2023	2024
ANTELOPE	2020	2021	2022	2023	2024
NV WATERFOWL ASSOCIATION	$ 27,500				
PERSHING CO. CHUKARS UNLIMITED	$ 10,000			$ 9,500	
SCI-LAS VEGAS		$ 28,500	$ 25,000		
WILD SHEEP FOUNDATION		$ 27,500	$ 32,500	$ 25,000	
NBU-RENO					$ 30,000
WILD SHEEP FOUNDATION/FRATERNITY OF DESERT BIGHORN					$ 55,000
CA BIGHORN SHEEP	2020	2021	2022	2023	2024
ELKO BIGHORNS UNLIMITED					
NBU-RENO	$ 100,000	$ 135,000		$ 180,000	
WILD SHEEP FOUNDATION					
NBU-FALLON			$ 55,000		
NELSON BIGHORN SHEEP	2020	2021	2022	2023	2024
NBU-RENO	$ 95,000	$ 160,000	$ 160,000	$ 155,000	$ 130,000
WILD SHEEP FOUNDATION	$ 100,000	$ 165,000			
WILD SHEEP FOUNDATION/FRATERNITY OF DESERT BIGHORN			$ 175,000	$ 145,000	$ 175,000
ELK	2020	2021	2022	2023	2024
ELKO BIGHORNS UNLIMITED		$ 180,000		$ 220,000	$ 280,000
MEADOW VALLEY WILDLIFE UNLIMITED	$ 100,000	$ 185,000	$ 200,000	$ 250,000	$ 275,000
NBU-RENO			$ 165,000		
ROCKY MOUNTAIN ELK FOUNDATION					
SCI-NORTHERN NEVADA CHAPTER	$ 130,000				
MULE DEER	2020	2021	2022	2023	2024
MULE DEER FOUNDATION	$ 170,000	$ 110,000	$ 140,000	$ 160,000	$ 165,000
NV SPORTSMAN UNLIMITED					
WILDLIFE HABITAT IMPROVEMENT OF NEVADA	$ 175,000	$ 142,000	$ 75,000	$ 165,000	$ 250,000
TURKEY	2020	2021	2022	2023	2024
CARSON VALLEY CHUKAR CLUB	$ 3,250				
LAS VEGAS WOODS AND WATER	$ 3,200	PACKAGE 1 - $4,000		$ 3,000	
MEADOW VALLEY WILDLIFE UNLIMITED		PACKAGE 1 - $4,000	$ 2,900	$ 2,500	$ 3,000
NV SPORTSMAN UNLIMITED					
PERSHING CO. CHUKARS UNLIMITED				$ 800	$ 1,100
SCI-LAS VEGAS		$ 3,250	$ 1,700	$ 3,400	$ 3,500
SCI-NORTHERN NEVADA CHAPTER	$ 2,000	PACKAGE 2 - $5,000			
WILDLIFE HABITAT IMPROVEMENT OF NEVADA	$ 2,800	PACKAGE 2 - $5,000	$ 3,000	$ 3,000	$ 5,000
MULEY FANATIC FOUNDATION SIERRA FRONT			PACKAGE 2 - $3,000		$1,800
	$ 918,750	$ 1,154,250	$ 1,038,100	$ 1,322,200	$ 1,374,400

RECORDS	YEAR	SPECIES	AMOUNT
WILDLIFE HABITAT IMPROVEMENT OF NEVADA	2024	Wild Turkey	$ 5,000
WILDLIFE HABITAT IMPROVEMENT OF NEVADA	2024	Mule Deer	$ 250,000
ELKO BIGHORNS UNLIMITED	2024	Rocky Mountain Elk	$ 280,000
WILD SHEEP FOUNDATION/FRATERNITY OF DESERT BIGHORN	2024	Nelson Bighorn	$ 175,000
NBU-RENO	2023	California Bighorn	$ 180,000
SCI-LAS VEGAS	2024	Pronghorn Antelope	$ 55,000

STAFF REPORT

Report To: **Meeting Date:** June 24, 2024

Staff Contact:

Agenda Title: **COMMISSION REGULATION 24-13, 2024-2025 & 2025-2026 UPLAND GAME AND FURBEARER SEASONS AND BAG LIMITS** – At the June 29, 2024, meeting of the Nevada Board of Wildlife Commissioners meeting, the Commission will establish and may vote to adopt regulations for upland game birds and mammals, furbearers, and wild turkey for the 2024-2025 and 2025-2026 seasons.

Agenda Action: Formal Action / Motion **Time Requested:**

Proposed Motion

Board's Strategic Goal

Previous Action

Background/Issues & Analysis

Applicable Statute, Code, Policy, Rule or Regulation

Financial Information
Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted? No

Explanation of Fiscal Impact:

Alternatives

Attachment(s):
CR24-13-2024-2024-2025-2026-Upland-Game-and-Furbearer-Seasons.pdf

LATE MATERIAL CR24-13

Motion: _____ 1) _____ Aye/Nay
2) _____ _____
_____

_____
_____
_____

_____
(Vote Recorded By)

STATE OF NEVADA

DEPARTMENT OF WILDLIFE

Game Division

6980 Sierra Center Parkway, Ste 120 • Reno, Nevada 89511
(775) 688-1500 Fax (775) 688-1987

MEMORANDUM

June 10, 2024

To: Nevada Board of Wildlife Commissioners, County Advisory Boards to Manage Wildlife, and Interested Publics

From: Shawn Espinosa, Administrator, Game Division

Title: **Commission Regulation CR24-13**

Description: The Commission will review and may take action to approve the Department's recommendations identified in CR24-13 Draft Review for upland game and furbearer seasons and limits for the 2024-2025 and 2025-2026 seasons.

Presenter: Wildlife Staff Specialist Justin Small and Russell Woolstenhulme

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Summary:

CR24-13
The Department's Game Division has prepared recommendations for Commission Regulation CR24-13 for upland game and furbearer seasons for the 2024-2025 and 2025-2026 seasons. Some notable changes compared to previous years include the following:

Youth Seasons

- Youth seasons will extend for their normal 9-day period (e.g., September 28 – October 6th, 2024); however, we have elected to split chukar and Hungarian (Gray) partridge seasons into their own species groups and limits will no longer be considered "in the aggregate". The daily and possession limit for chukar will remain at 6 and 18 respectively while the limits for Hungarian (Gray) partridge are recommended to be 4 and 12. These limits are also reflected in the normal general season as well.

Sage-grouse

- We are recommending a 9-day season in certain hunt units in Elko County (062, 064, 067, 071-076, 101 and 102) and in Eureka, Lander and Nye Counties (161, 162, 172 and 173), with a daily

limit of 2 and possession limit of 2.

- We are recommending a two-day season for hunt units 012 and 013 in western Nevada and hunt units 031 and 051 in north central Nevada, with a daily and possession limit of 2 sage-grouse.
    - These units, or groups of units, have sage-grouse populations estimated to exceed 1,000 birds and where harvest was estimated to be 5% or less of the estimated fall population.
- No special sage-grouse season is being recommended for the Sheldon National Wildlife Refuge.
- These recommended changes represent the additional opening of 3 hunt units compared to those that were open last season.

Dusky, Sooty and Ruffed Grouse

- No changes

Snowcock

- No changes

*Chukar**

- Recommend October 12, 2024 – February 2, 2025
- Recommend October 11, 2025 – February 1, 2026
- Daily limit of 6 with a possession limit of 18

*Hungarian (Gray) Partridge**

- Recommend October 12, 2024 – February 2, 2025
- Recommend October 11, 2025 – February 1, 2026
- Daily limit of 4 with a possession limit of 12

*Partridge species will no longer be considered “in the aggregate” as specific daily and possession limits are applied to each species.

California Quail

- No changes

Gambel’s Quail

- No changes

Mountain Quail

- No changes

Pheasant

- No changes

White-tailed Jackrabbits and Cottontail Rabbits

- No changes
- No hunting season for pygmy rabbit remains.

Junior Wild Turkey

- Recommendation to expand the junior season one additional week on the frontend of the season structure (e.g., March 22 – May 4, 2025).
- Tag numbers will be held constant with last season.

Wild Turkey Spring Limited Entry Hunt

- Some modifications to tag numbers are being recommended.
- We are recommending closing Hunt Unit 101 in Elko County due to low turkey populations and reducing the chance of a hunt season having an additive effect to population stability.

Falconry Seasons

- No changes

Furbearer Seasons

Bobcat

- Recommending change to bobcat sealing dates. Change would allow an individual to have a single bobcat per year for taxidermy or tanning purposes to be sealed at any of the NDOW Regional Offices (Elko, Las Vegas and Reno). Dates open for regional office sealing are from the Season Opener until the first regularly scheduled sealing date (mid-January).

Recommendation:

The Department recommends that the Commission **VOTE TO APPROVE THE RECOMMENDATIONS PROVIDED IN CR24-13 FOR THE 2024-2025 and 2025-2026 SEASONS AS PRESENTED.**

STATE OF NEVADA
BOARD OF WILDLIFE COMMISSIONERS

The Board of Wildlife Commissioners under the authority of Section 501.181, 503.090, 503.140 and 503.245 of the Nevada Revised Statutes, does hereby adopt the following regulations for the management of game birds, small game, and furbearing mammals.

CR 24-13

2024-2025 & 2025-2026

SEASONS, BAG LIMITS, AND SPECIAL REGULATIONS FOR UPLAND GAME BIRDS, RABBITS, WILD TURKEY, FURBEARERS, AMERICAN CROW, MOURNING AND WHITE-WINGED DOVE, AND FALCONRY SEASONS FOR UPLAND GAME BIRDS AND RABBITS.

UPLAND GAME

(Units referenced are Game Management Units)

YOUTH CHUKAR SEASON	
OPEN AREAS:	**Statewide***
SPECIES ALLOWED:	Chukar
SEASON DATES:	September 28 – October 6, 2024 September 27 – October 5, 2025
LIMITS:	Daily bag limit 6. Possession limit 18.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate. Open to hunters 17 years of age or younger only. Youth must be accompanied by an adult who is at least 18 years old. License requirements apply pursuant to NRS 502.010.

except per NAC 504.340

YOUTH HUNGARIAN (GRAY) PARTRIDGE SEASON	
OPEN AREAS:	**Statewide***
SPECIES ALLOWED:	Hungarian (Gray) Partridge
SEASON DATES:	September 28 – October 6, 2024 September 27 – October 5, 2025
LIMITS:	Daily bag limit 4. Possession Limit 12.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate. Open to hunters 17 years of age or younger only. Youth must be accompanied by an adult who is at least 18 years old. License requirements apply pursuant to NRS 502.010.

except per NAC 504.340

YOUTH CALIFORNIA QUAIL SEASON	
OPEN AREAS:	**Statewide***
SPECIES ALLOWED:	California quail
SEASON DATES:	September 28 – October 6, 2024 September 27 – October 5, 2025
LIMITS:	Daily bag limit 10. Possession Limit 30.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate. Open to hunters 17 years of age or younger only. Youth must be accompanied by an adult who is at least 18 years old. License requirements apply pursuant to NRS 502.010.

except per NAC 504.340

YOUTH GAMBEL'S QUAIL SEASON	
OPEN AREAS:	**Statewide***
SPECIES ALLOWED:	Gambel's quail
SEASON DATES:	September 28 – October 6, 2024 September 27 – October 5, 2025
LIMITS:	Daily bag limit 5. Possession Limit 15.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate. Open to hunters 17 years of age or younger only. Youth must be accompanied by an adult who is at least 18 years old. License requirements apply pursuant to NRS 502.010.

except per NAC 504.340

YOUTH RABBIT SEASON	
OPEN AREAS:	**Statewide***
SPECIES ALLOWED:	Cottontail and white-tailed jackrabbits
SEASON DATES:	September 28 – October 6, 2024 September 27 – October 5, 2025
LIMITS:	Daily bag limit 5. Possession Limit 15.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate. Open to hunters 17 years of age or younger only. Youth must be accompanied by an adult who is at least 18 years old. License requirements apply pursuant to NRS 502.010.

except per NAC 504.340

SAGE-GROUSE	
OPEN AREAS:	**Hunt Units 062, 064, 067, 071-076, 101 and 102 in Elko County** **Hunt Units, or those portions of Hunt Units, 161, 162, 172 and 173 in Eureka, Lander and Nye County**
SEASON DATES:	September 21 – September 29, 2024 September 20 – September 28, 2025
LIMITS:	Daily bag limit 2. Possession limit 2.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	**Closed to nonresidents.**

SAGE-GROUSE	
OPEN AREAS:	**Hunt Units, or those portions of Hunt Units, 012, 013 and 015 in Washoe County** **Hunt Unit, or that portion of Hunt Unit 012 in Humboldt County** **Hunt Units 031 and 051 in Humboldt County**
SEASON DATES:	September 21 – September 22, 2024 September 20 – September 21, 2025
LIMITS:	Daily bag limit 2. Possession limit 2.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	**Closed to nonresidents.**

SNOWCOCK	
OPEN AREAS:	**Elko and White Pine Counties**
SEASON DATES:	September 1 - November 30
LIMITS:	Daily bag limit 2. Possession limit 2.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Prior to hunting Himalayan snowcock, persons must obtain a snowcock hunting **free-use permit** available online at www.ndowlicensing.com after July 1st of each year.

BLUE (DUSKY AND SOOTY) AND RUFFED GROUSE	
OPEN AREAS:	**Carson City, Douglas, Elko, Eureka, Esmeralda, Humboldt, Lander, Lincoln, Lyon, Mineral, Nye, Washoe, White Pine**
SEASON DATES:	September 1 – December 31
LIMITS:	Daily bag limit 3. Possession limit 9.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate. Per NAC 503.185, the head or one fully feathered wing must be attached to all dusky, sooty and ruffed grouse until the carcass reaches the possessor's residence or a commercial facility for its preservation. Persons harvesting blue grouse (dusky or sooty) are requested to deposit one wing from each bird harvested at any Nevada Department of Wildlife office, check station, or with Department employees who contact you in the field.

except per NAC 504.340

CHUKAR PARTRIDGE	
OPEN AREAS:	**Statewide***
SEASON DATES:	October 12, 2024 – February 2, 2025 October 11, 2025 – February 1, 2026
LIMITS:	Daily bag limit 6. Possession limit 18.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate.

except per NAC 504.340

HUNGARIAN (GRAY) PARTRIDGE	
OPEN AREAS:	**Statewide***
SEASON DATES:	October 12, 2024 – February 2, 2025 October 11, 2025 – February 1, 2026
LIMITS:	Daily bag limit 4. Possession limit 12.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate.

except per NAC 504.340

CALIFORNIA QUAIL	
OPEN AREAS:	**Statewide***
SEASON DATES:	October 12, 2024 – February 2, 2025 October 11, 2025 – February 1, 2026
LIMITS:	Daily bag limit 10. Possession limit 30.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly.

except per NAC 504.340

GAMBEL'S QUAIL	
OPEN AREAS:	**Statewide***
SEASON DATES:	October 12, 2024 – February 2, 2025 October 11, 2025 – February 1, 2026
LIMITS:	Daily bag limit 5. Possession limit 15.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly.

except per NAC 504.340

MOUNTAIN QUAIL	
OPEN AREAS:	**Statewide***
SEASON DATES:	October 12, 2024 – February 2, 2025 October 11, 2025 – February 1, 2026
LIMITS:	Daily bag limit 2. Possession limit 6.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Persons who harvest mountain quail are requested to report their harvest to the Nevada Department of Wildlife, 6980 Sierra Center Parkway, Suite 120 Reno, NV 89511, phone (775) 688-1523.

except per NAC 504.340

PHEASANT	
OPEN AREAS:	***Statewide****
SEASON DATES:	November 1 – November 30.
LIMITS:	Daily bag limit 2. Possession limit 6.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Cocks only

except per NAC 504.340

WHITE-TAILED JACKRABBITS AND COTTONTAIL RABBITS	
OPEN AREAS:	***Statewide****
SEASON DATES:	November 1 – last day in February.
LIMITS:	Daily bag limit 5. Possession limit 15.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate. Pygmy Rabbit season is closed.

except per NAC 504.340

WILD TURKEY

JUNIOR WILD TURKEY 2025 & 2026 SPRING - HUNT 0138		
PHYSICAL CHARACTERISTICS:	Bearded Wild Turkey	
LIMIT:	1 by tag only.	
SHOOTING HOURS:	One half hour before sunrise to sunset daily	
SPECIAL REGULATIONS:	Youth must be 12 prior to the opening of the hunt season indicated and not attain their 18th birthday until after the last day of the hunt season indicated, pursuant to NAC 502.063. Applications for these tags or bonus points will only be accepted during the draw application periods. Remaining tags will not be issued. Closed to nonresidents.	
OPEN AREAS:	**Season Dates**	**Quota**
Mason Valley Wildlife Management Area	March 22 – May 4, 2025	2
	March 21 – May 3, 2026	2
Moapa Valley of Clark County*	March 15 – April 13, 2025	3
	March 21 – April 12, 2026	3
Hunt Units 102 & 065 within Elko County	March 22 – May 4, 2025	3
	March 21 – May 3, 2026	3
Hunt Unit 115 within White Pine County**	March 22 – May 4, 2025	1
	March 21 – May 3, 2026	1
Pershing County*	March 22 – May 4, 2025	2
	March 21 – May 3, 2026	2
Unit 151 and 152 of Lander County	March 22 – May 4, 2025	2
	March 21 – May 3, 2026	2
Unit 154 of Lander County*	March 22 – May 4, 2025	1
	March 21 – May 3, 2026	1
Lincoln County	March 22 – May 4, 2025	4
	March 21 – May 3, 2026	4

**** Applicants are advised that a significant portion of the turkey population occurs on private lands and permission should be obtained from a landowner before applying for this hunt.***

***** Applicants are advised that a significant portion of the turkey population occurs on Great Basin National Park lands. Hunting is not permitted within park boundaries.***

WILD TURKEY 2025 & 2026 SPRING – LIMITED ENTRY – HUNTS 0131 & 0132

PHYSICAL CHARACTERISTICS:	Bearded Wild Turkey
LIMIT:	1 by tag only
SHOOTING HOURS:	One half hour before sunrise to sunset daily

UNIT 091 of ELKO COUNTY*

	Seasons	Tag Quota	
		Resident Hunt 0131	Nonresident Hunt 0132
Hunt Period:	Last Saturday in March – first Sunday in May	2	-

UNIT 102 and 065 of ELKO COUNTY*

	Seasons	Tag Quota	
		Resident Hunt 0131	Nonresident Hunt 0132
Hunt Period	Last Saturday in March – first Sunday in May	10	1

UNITS 103 and 108 of ELKO COUNTY and WHITE PINE COUNTY

	Seasons	Tag Quota	
		Resident Hunt 0131	*Nonresident* Hunt 0132
Hunt Period:	Last Saturday in March – first Sunday in May	4	-

UNITS 151 and 152 of LANDER COUNTY

	Seasons	Tag Quota	
		Resident Hunt 0131	Nonresident Hunt 0132
Hunt Period:	Last Saturday in March – second Sunday in April	3	-
	Third Saturday in April – first Sunday in May	3	-

UNIT 154 of LANDER COUNTY*

	Seasons	Tag Quota	
		Resident Hunt 0131	Nonresident Hunt 0132
Hunt Period:	Last Saturday in March – first Sunday in May	4	-

UNITS 223 of 231 of LINCOLN COUNTY

	Seasons	Tag Quota	
		Resident Hunt 0131	Nonresident Hunt 0132
Hunt Period:	Last Saturday in March – first Sunday in May	4	-

241 and 242 of LINCOLN COUNTY

	Seasons	Tag Quota	
		Resident Hunt 0131	Nonresident Hunt 0132
Hunt Period:	Last Saturday in March – first Sunday in May	10	1

That portion of hunt Unit 202 in LYON COUNTY

	Seasons	Tag Quota	
		Resident Hunt 0131	Nonresident Hunt 0132
Hunt Period:	Last Saturday in March – first Sunday in May	2	-

Applicants are advised that a significant portion of the turkey population occurs on private lands and permission should be obtained from a landowner before applying for this hunt.

Wild Turkey Continued on Next Page

WILD TURKEY 2025 & 2026 SPRING – LIMITED ENTRY – HUNTS 0131 & 0132

PHYSICAL CHARACTERISTICS:	Bearded Wild Turkey
LIMIT:	1 by tag only
SHOOTING HOURS:	One half hour before sunrise to sunset daily

MASON VALLEY WILDLIFE MANAGEMENT AREA ONLY OF UNIT 203

	Seasons	Resident Hunt 0131	Nonresident Hunt 0132
Hunt Periods:	March 29 – April 6, 2025	3	-
	April 12 – April 20, 2025	3	-
	April 26 – May 4, 2025	3	-
	March 28 – April 5, 2026	3	-
	April 11 – April 19, 2026	3	-
	April 25 – May 3, 2026	3	-

MOAPA VALLEY PORTION OF CLARK COUNTY*

	Seasons	Tag Quota	
		Resident Hunt 0131	Nonresident Hunt 0132
Hunt Period:	March 22 – March 28, 2025	3	1
	March 29 – April 4, 2025	3	-
	April 5 – April 11, 2025	3	-
	March 21 – March 27, 2026	3	-
	March 28 – April 3, 2026	3	1
	April 4 – April 10, 2026	3	-

PERSHING COUNTY

	Seasons	Tag Quota	
		Resident Hunt 0131	Nonresident Hunt 0132
Hunt Period:	Last Saturday in March through first Sunday in May	10	1

UNIT 115 OF WHITE PINE COUNTY**

	Seasons	Tag Quota	
		Resident Hunt 0131	Nonresident Hunt 0132
Hunt Period:	Last Saturday in March through first Sunday in May	4	-

Applicants are advised that a significant portion of the turkey population occurs on private lands and permission should be obtained from a landowner before applying for this hunt.

****Applicants are advised that a significant portion of the turkey population occurs on Great Basin National Park lands. Hunting is not permitted within park boundaries.***

Wild Turkey Continued on Next Page

WILD TURKEY 2025 & 2026 SPRING HUNTS - 0135 & 0137 PARADISE VALLEY OF HUMBOLDT COUNTY		
PHYSICAL CHARACTERISTICS:	**Bearded Wild Turkey**	
LIMIT:	**1 by tag only.**	
SHOOTING HOURS:	**One half hour before sunrise to sunset daily.**	
SEASON DATES:	**Last Saturday in March – first Sunday in May**	
QUOTAS:	**Resident Hunt 0135**	**Nonresident Hunt 0137**
	Open	Open

SPECIAL REGULATIONS:

PARADISE VALLEY OF HUMBOLDT COUNTY APPLICATION REGULATIONS:
A Paradise Valley of Humboldt County Application Form is required. Hunters can obtain these forms from the participating landowners. A landowner must sign the application form. The form must be submitted through the mail or over the counter during business hours, M-F, 8 a.m. to 5 p.m. Contact NDOW at 775-688-1500 for more information. Tags will be available until the close of the season. Internet applications for the Paradise Valley of Humboldt County hunt will not be available.

Unless his or her privilege is limited or revoked pursuant to law, an eligible person may apply once for a type of hunt for Wild Turkey during a draw period.

Only one person may apply on an application.

Only one Wild Turkey tag per calendar year.

WILD TURKEY 2024 & 2025 FALL HUNTS - 0135 & 0137 PARADISE VALLEY OF HUMBOLDT COUNTY		
PHYSICAL CHARACTERISTICS:	**Either Sex Turkey**	
LIMIT:	**1 by tag only.**	
SHOOTING HOURS:	**One half hour before sunrise to sunset daily.**	
SEASON DATES:	**First Saturday in October through the last Sunday in October**	
QUOTAS:	**Resident Hunt 0135**	**Nonresident Hunt 0137**
	Open	Open

SPECIAL REGULATIONS:

PARADISE VALLEY OF HUMBOLDT COUNTY APPLICATION REGULATIONS:
A Paradise Valley of Humboldt County Application Form is required. Hunters can obtain these forms from the participating landowners. A landowner must sign the application form. The form must be submitted through the mail or over the counter during business hours, M-F, 8 a.m. to 5 p.m. Contact NDOW at 775-688-1500 for more information. Tags will be available until the close of the season. Internet applications for the Paradise Valley of Humboldt County hunt will not be available.

Unless his or her privilege is limited or revoked pursuant to law, an eligible person may apply once for a type of hunt for Wild Turkey during a draw period.

Only one person may apply on an application.

Only one Wild Turkey tag per calendar year.

FALCONRY SEASON

FALCONRY SEASONS FOR UPLAND GAME BIRDS & RABBITS	
OPEN AREAS:	Statewide*
SEASON DATES:	September 1 – Last day of February
LIMITS:	Daily bag limit 2. Possession limit 8.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	All resident upland game birds except turkey and Columbian sharp-tailed grouse. White-tailed jackrabbits and cottontail rabbits. The taking of sage-grouse by falconry is only allowed in those units where there is an established open season. The daily and possession limit for sage-grouse is 2. **Limits singly or in the aggregate.**

except per NAC 504.340

FURBEARING ANIMALS

BEAVER, MINK, AND MUSKRAT	
OPEN AREAS:	Statewide
SEASON DATES:	October 1 – April 30

OTTER	
OPEN AREAS:	Elko, Eureka, Humboldt, Lander, and Pershing Counties
SEASON DATES:	October 1 – March 31
SPECIAL REGULATIONS:	Carson City, Churchill, Clark, Douglas, Esmeralda, Lincoln, Lyon, Mineral, Nye, Storey, Washoe, and White Pine counties are closed to otter trapping. If an otter is accidentally trapped or killed in those counties which are closed or outside the prescribed season, the person trapping or killing it shall report the trapping or killing within 48 hours to a representative of the Department of Wildlife. The animal must be disposed of in accordance with the instructions of the representative.

KIT AND RED FOX	
OPEN AREAS:	Statewide
SEASON DATES:	October 1 - Last Day of February

BOBCAT SEASON	
OPEN AREAS:	Statewide
SEASON DATES:	November 1 – Last Day of February
SPECIAL REGULATIONS:	**Closed to Nonresidents.**

GRAY FOX SEASON	
OPEN AREAS:	Statewide
SEASON DATES:	November 1 – Last Day of February
SPECIAL REGULATIONS:	**Closed to Nonresidents.**

BOBCAT PELT SEALING DATES

Pelt sealing, other than a single exception for taxidermy sealings, will be done only on the dates and during the times specified. Sealing locations will be at Department offices unless otherwise noted.

BOBCAT PELT SEALING DATES FOR THE 2024-2025 SEASON			
City	**Date**	**Time**	**Location**
Carson City	January 21	10am – 2 p.m.	NDOW Warehouse Corner of south Carson at Colorado St.
Elko	January 7 February 18 March 10	9a.m. – 3 p.m.	NDOW Elko Office
Ely	January 8 February 19	8 a.m.– Noon 10 a.m. – 2 p.m.	2018 Pioche Hwy, Ely NV
Fallon	January 28	10 a.m.– 2 p.m.	NDOW Fallon Office
	Annually scheduled to coincide with the NTA Fur Sale.	7 a.m.–11 a.m.	Nevada Trappers Association Fallon Fur Sale
	March 10	10 a.m.- 2 p.m.	NDOW Fallon Office
Las Vegas	February 12	8 a.m.– 5 p.m.	NDOW Las Vegas Office
	March 10	8 a.m. - Noon	
Panaca	February 11 March 10	8 a.m.– 1 p.m.	Nevada State Parks - NDOW Office, Panaca
Tonopah	February 13	1 p.m.– 5 p.m.	NDOW Tonopah Office
	March 10		
Winnemucca	January 29	8 a.m.– Noon	NDOW Winnemucca Office

Taxidermy Pelt Sealing: From the opening day of the bobcat season (November 1) until the first regularly scheduled bobcat sealing date in January, any person who wishes to have a single bobcat (1 per person per season) sealed for the purpose of tanning or taxidermy may personally present the lawfully taken pelt to any Nevada Department of Wildlife Regional office (Elko, Las Vegas, Reno) and request to have the Departments seal affixed to the pelt. All requirements of NAC 502.347 apply.

Pelt sealing, other than a single exception for taxidermy sealings, will be done only on the dates and during the times specified. Sealing locations will be at Department offices unless otherwise noted.

BOBCAT PELT SEALING DATES FOR THE 2025-2026 SEASON			
City	**Date**	**Time**	**Location**
Carson City	January 20	10am – 2 p.m.	NDOW Warehouse Corner of south Carson at Colorado St.
Elko	January 6 February 17 March 10	9a.m. – 3 p.m.	NDOW Elko Office
Ely	January 7 February 18	8 a.m.– Noon 10 a.m.- 2 p.m.	2018 Pioche Hwy, Ely NV
Fallon	January 27	10 a.m.– 2 p.m.	NDOW Fallon Office
	Annually scheduled to coincide with the NTA Fur Sale.	7 a.m.–11 a.m.	Nevada Trappers Association Fallon Fur Sale
	March 10	10 a.m.- 2 p.m.	NDOW Fallon Office
Las Vegas	February 11	8 a.m.– 5 p.m.	NDOW Las Vegas Office
	March 10	8 a.m.– Noon	
Panaca	February 10 March 10	8 a.m.– 1 p.m.	Nevada State Parks - NDOW Office, Panaca
Tonopah	February 12	1 p.m.– 5 p.m.	NDOW Tonopah Office
	March 10		
Winnemucca	January 28	8 a.m.– Noon	NDOW Winnemucca Office

Taxidermy Pelt Sealing: From the opening day of the bobcat season (November 1) until the first regularly scheduled bobcat sealing date in January, any person who wishes to have a single bobcat (1 per person per season) sealed for the purpose of tanning or taxidermy may personally present the lawfully taken pelt to any Nevada Department of Wildlife Regional office (Elko, Las Vegas, Reno) and request to have the Departments seal affixed to the pelt. All requirements of NAC 502.347 apply.

BOBCAT TOOTH DATA SUMMARY 2023-24								BOBCAT RATIO DATA						BOBCAT HARVEST DATA				
	ADULTS		KITTENS		TOTALS			TOTAL KITTENS/ ADULT FEMALES	FEMALE KITTENS/ ADULT FEMALES	TOTAL KITTENS/ TOTAL ADULT	ADULT MALES/ ADULT FEMALES	MALE KITTENS/ FEMALE KITTENS	ALL MALES/ ALL FEMALES	TRAPPER DATA			HARVEST	
MGMT. AREA	MALE	FEMALE	MALE	FEMALE	ADULTS	KITTENS	ALL TEETH							HARVEST EFFORT dys/trp hvst	TOTAL TRAPPERS	TOTAL TRAP DAYS	TOTAL HARVEST	TRAP HARVEST
1	35	20	4	9	55	13	68	65	45	24	175	44	134	93	4	6,159	66	66
2	22	15	11	6	37	17	54	113	40	46	147	183	157	185	14	11,098	60	60
3	60	26	3	9	86	12	98	46	35	14	231	33	180	137	12	14,109	104	103
4	20	15	3	2	35	5	40	33	13	14	133	150	135	68	7	2,708	40	40
5	15	10	1	3	25	4	29	40	30	16	150	33	123	177	6	5,130	29	29
6	29	18	3	7	47	10	57	56	39	21	161	43	128	154	16	7,693	58	50
7 8 9	48	36	3	14	84	17	101	47	39	20	133	21	102	192	14	17,844	103	93
10	17	15	2	1	32	3	35	20	7	9	113	200	119	348	9	10,443	34	30
11	39	33	5	12	72	17	89	52	36	24	118	42	98	135	19	9,481	89	70
12	12	8	3	6	20	9	29	113	75	45	150	50	107	88	10	3,347	42	38
13	40	24	7	9	64	16	80	67	38	25	167	78	142	164	18	11,660	91	71
14	7	9	3	1	16	4	20	44	11	25	78	300	100	126	5	1,640	19	13
15	9	10	0	2	19	2	21	20	20	11	90	0	75	138	5	2,624	20	19
16	16	9	2	6	25	8	33	89	67	32	178	33	120	83	9	2,413	36	29
17	16	11	3	2	27	5	32	45	18	19	145	150	146	138	8	3,860	32	28
18	17	5	3	2	22	5	27	100	40	23	340	150	286	149	12	4,331	31	29
19	8	17	2	3	25	5	30	29	18	20	47	67	50	82	11	2,383	31	29
20	46	26	6	4	72	10	82	38	15	14	177	150	173	152	10	14,265	94	94
21	14	6	3	7	20	10	30	167	117	50	233	43	131	107	5	1,074	30	10
22	23	8	3	4	31	7	38	88	50	23	288	75	217	130	14	4,027	40	31
23	13	14	2	6	27	8	35	57	43	30	90	33	75	100	10	3,215	33	32
24	33	18	15	8	51	23	74	128	44	45	183	188	185	143	8	7,275	76	51
25	12	7	2	2	19	4	23	57	29	21	171	100	156	54	3	648	21	12
26	45	41	20	14	86	34	120	83	34	40	110	143	118	360	16	40,649	132	113
27	7	4	0	2	11	2	13	50	50	18	175	0	117	67	4	735	13	11
29	5	6	0	1	11	1	12	17	17	9	83	0	71	287	6	3,448	12	12
UNK																		
TOTAL	**608**	**411**	**109**	**142**	**1019**	**251**	**1270**	**61**	**35**	**25**	**148**	**77**	**130**	**165**	**255**	**192,259**	**1336**	**1163**
R - I	**228**	**140**	**33**	**39**	**368**	**72**	**440**	**51**	**28**	**20**	**163**	**85**	**146**	**138**	**82**	**63,631**	**467**	**462**
R - II	**201**	**153**	**26**	**52**	**354**	**78**	**432**	**51**	**34**	**22**	**131**	**50**	**111**	**169**	**96**	**64,732**	**456**	**384**
R - III	**179**	**118**	**50**	**51**	**297**	**101**	**398**	**86**	**43**	**34**	**152**	**98**	**136**	**202**	**77**	**63,896**	**413**	**317**
BASIN	**511**	**341**	**72**	**116**	**797**	**175**	**972**	**51**	**34**	**22**	**150**	**62**	**128**	**150**	**220**	**136,793**	**1028**	**910**
MOJAVE	**97**	**70**	**37**	**26**	**167**	**63**	**230**	**90**	**37**	**38**	**139**	**142**	**140**	**264**	**31**	**49,307**	**242**	**187**