



## BOARD OF WILDLIFE COMMISSIONERS

## WILDLIFE HERITAGE ACCOUNT PROJECT PROPOSAL FORM

## APPLICANT INFORMATION

Person Submitting Proposal/Project Manager: Cody McKee

Co-Project Manager: Kari Huebner, NDOW-Elko

Organization/Agency: Nevada Department of Wildlife

Date: February 4, 2020

Address: 6980 Sierra Center Pkwy, Ste 120 City: Reno

State: Nevada Zip Code: 89503

Cell: (541) 910-5639 Phone: (775) 688-1525

Email: cmckee@ndow.org Fax: (775) 688-1495

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

## PROJECT INFORMATION

Project Title: Continued monitoring of Moose Expansion in Nevada

State Fiscal Year(s) Wildlife Heritage Account Funds are Needed: FY21

Project Location: Elko County, Nevada

Is a Project Map Attached? Yes  No

(a map must include the project title, map scale, date map was created, and a north arrow)

## Purpose of the Project:

Continue to develop a comprehensive understanding of movement patterns and population status of Shiras moose (*Alces alces shirasi*) in northern Nevada. Identify and protect critical moose habitats and movement corridors. Determine long-term viability of moose by identifying potential threats and opportunities for growth.



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**Detailed Description of Project** (include any development plans such as vegetation removal, planting, seeding, or installation of structures; also include the schedule for obtaining any necessary permits, completing NEPA compliance, etc.):

Since 2013, the Department has recorded more than 100 Shiras moose (*Alces alces shirasi*) sightings in northern Nevada. Observations are becoming more frequent and are distributed throughout northern Nevada including Paradise Valley in Humboldt County and the Ruby Mountains in Elko County. While dispersal behavior is often characteristic of young bulls, recent observations include mature bulls, cows, and calves indicating the fledgling moose population in Nevada is reproductively viable.

The purpose of the proposed project is to develop a comprehensive understanding of movement patterns and population status of moose in northern Nevada. Specific objectives include the evaluation of dispersal behavior, identification of movement corridors, the development of a map identifying potential and realized habitat in Nevada, and develop current and potential population estimates. Radio-collars deployed on young bulls and adult cows will be the primary mechanism for achieving project objectives.

During winter 2020, the Department successfully caught and released 4 female moose in northeast Nevada. Each moose was fitted with a GPS-enabled radio-collar capable of collecting 6 locations per day for 4 years enabling biologists for the Department to track real-time movements through the Global Iridium Satellite Network. This capture effort was made possible by funds obtained from the Wildlife Heritage Trust Account and officially launches the Department's management program for moose.

Despite the success of the winter 2020 effort, initial radio-collar and capture costs were higher than originally estimated. Higher costs were due, in-part, to the Department's decision to supplement capture efforts with an aerial infrared (IR) survey intended to locate moose immediately prior to the capture. The aerial IR survey was expensive (\$1,045/hr) but it greatly improved capture efficiencies by directing crews to known locations of moose.

The Department requests additional funding from the Wildlife Heritage Trust Account to support on-going moose monitoring efforts in FY21. Anticipated costs include annual data transmission fees, capture efforts, survey time, and other miscellaneous costs associated with moose management in Nevada.

### **How Does this Project Meet the Objectives of the Wildlife Heritage Program? (See NRS 501.3575)**

This project and resulting products will inform management, encourage propagation, and be the foundation for the long-term conservation of moose in Nevada. Ultimately, data collected and analyzed during this effort will be used to determine the long-term sustainability of Nevada's moose population and its ability to support regulated harvest.



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**Legal Description of the Property on Which the Proposed Project is to be Located** (must include the property address, access roads, township, range and section):

Primarily Elko County, Nevada but property may expand if moose are located outside of this boundary.

**Does this Project Have Additional Funding Sources Other than Your Wildlife Heritage Account Request?**                      Yes  No

**Does this Project Involve Habitat Restoration and Improvement of a Long-term or Permanent Nature?**  
Yes  No

**Please Describe in Detail the Reason Why You Need Wildlife Heritage Account Funding to Fund this Project:**

The proliferation of moose in Nevada is a unique and exciting opportunity for the Department to better understand Nevada’s newest ungulate. Given the attention garnered by the Department’s first moose capture and citizen science efforts, this project will provide positive media exposure to the Wildlife Heritage Trust Fund. Additionally, Wildlife Heritage Account funds can be leveraged to obtain 3:1 matching Federal Aid through the Wildlife Restoration Act to fully fund this project.

**Project Duration:**        one year  two years  three years  more

**Estimated Start Date:** 07/01/2020

**Estimated End Date:** 06/30/2024



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PROJECT FUNDING

The funding breakdown below should cover the total funding needs of the project. While projects may be extended beyond the fiscal year for which money was awarded, such an extension must be due to unusual circumstances and be approved by the Wildlife Commission (see NAC 501.340). (Double click on the table to activate the embedded spreadsheet.)

1. Amount of Wildlife Heritage Account Cash Requested		<b>\$ 20,000.00</b>
2. Other Cash Funding Sources for this Project		
a. Pittman-Robertson Federal Aid		\$ 5,000.00
b.		
c.		
d.		
e. Total Other Cash Funding Sources (lines a - d)		<b>\$ 5,000.00</b>
3. Donations or In-kind Services for this Project		
a. Volunteer Time		
b. Equipment		
c. Materials		
d.		
e.		
f.		
g.		
h. Total Donations /In-kind Services (lines a - g)		\$ -
4. Total Project Funding		<b>\$ 25,000.00</b>
(add lines 1, 2e,3h)		



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## PROJECT COSTS

The cost breakdown below should cover the total costs of the project you are seeking funding for. NOTE: THE HERITAGE ACCOUNT CANNOT BE USED TO PAY INDIRECT COSTS. (Double click on the table to activate the embedded spreadsheet.)

	Heritage Costs	All Other Costs
1. Land Acquisition		
2. Travel (NDOW travel costs can't be included)		
a. Per diem		
b. Mileage		
c. Total Travel Costs (lines a & b)	\$ -	\$ -
3. Equipment Items		
a. Cow moose radio-collar (Survey Iridium 2D x3)	\$ 4,590.00	
b. Bull moose radio-collar (Survey Iridium 2D x2)	\$ 3,180.00	
c.		
d. Total Equipment Costs (line a - c)	\$ 7,770.00	\$ -
4. Materials		
a. Capture and monitoring supplies	\$ 430.00	
b.		
c.		
d.		\$ -
e. Total Material Costs (lines a - d)	\$ 430.00	\$ -
5. Miscellaneous Costs including Contractor Costs (if you will be using a contractor, include their name and list the specific services they will be providing)		
a. Hourly capture rate (\$1,600.00/hr)	\$ 3,000.00	\$ 5,000.00
b. Capture Crew Per Diem (2 nights)	\$ 800.00	
c. Ferry Costs (\$900.00/hr)	\$ 1,800.00	
d. Annual data transmission fees (\$120/collar)	\$ 1,200.00	
e. Survey Time	\$ 5,000.00	
e. Total Miscellaneous Costs (lines a - d)	\$ 11,800.00	\$ 5,000.00
6. Total Heritage Costs Only (add lines 1, 2c, 3d, 4e, and 5e)	\$ 20,000.00	
7. Total All Other Costs (add lines 1, 2c, 3d, 4e, and 5e)		\$ 5,000.00
8. Total Project Costs (add lines 6 & 7)	\$ 25,000.00	
(Note: total project funding from previous table must match total project costs)		



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Are there going to be any Ongoing Costs for this Project?    Yes     No

If There will be Ongoing Costs Associated with this Project, is there an Anticipated Funding Source for These Costs?    Yes     No

**Do You Anticipate Needing Additional Wildlife Heritage Account Funds Beyond the Upcoming Fiscal Year? If So, Please Describe What Your Funding Requirements will be and for What Purposes (As noted above, extensions beyond the first fiscal year must be due to unusual circumstances and approved by the Wildlife Commission.):**

The Department is unlikely to purchase additional radio-collars after FY21. However, redeployment of already purchased radio-collars will occur if any are recovered from dead study animals. Further, data transmission fees are charged on an annual basis and funding may be requested in future years.

**How Will You Give Credit to the Wildlife Heritage Account and Other Funding Sources?**

The Wildlife Heritage Account will be credited in all media and publications as a primary funding source.

NDOW Authorizing Signature: *M Lu Davis*

Review Date: 4/10/2020