



BOARD OF WILDLIFE COMMISSIONERS

Wildlife Heritage Account Project Proposal Form

APPLICANT INFORMATION

Person Submitting Proposal/Project Manager: Mike Cox

Organization/Agency: Nevada Department of Wildlife (NDOW)

Date: January 15, 2020

Address: 6980 Sierra Center Parkway, Ste 120 **City:** Reno

State: NV **Zip Code:** 89511

Cell: _____ **Phone:** 775-688-1556

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

PROJECT INFORMATION

Project Title: 2020-2021 Bighorn Sheep and Mountain Goat Capture, Transplant, and Monitoring Program

State Fiscal Year(s) Wildlife Heritage Account Funds are Needed: FY2021

Project Location: Statewide

Amount of Funds Requested from Heritage Account: \$68,900

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:

Conduct 1 California bighorn sheep augmentation. Ongoing test and removal project to recover the East Humboldt Range mountain goat herd. Continue monitoring of all the previously deployed GPS collars on bighorn sheep and mountain goats for home range, foray/dispersal, and potential for risk of contact with domestic sheep and goats. Conduct disease surveillance capture in Virginia Range desert bighorn herd; Initiate bighorn sheep educational outreach program in the Virginia Range for school kids. Provide travel and per diem assistance to volunteers as part of a new "citizen science" project to monitor lamb survival in various bighorn herds recently affected by pneumonia events. Support the "California Bighorn Sheep



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Taxonomy and Genomics Project” initiated in 2019 by Oregon State University involving Nevada and other western states and provinces.

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.):

Conduct California Bighorn augmentation to the north end of McGee Mountain involving approximately 20 bighorn sheep, primarily ewes. Source stock may include the Sheep Creek Range and Jackson Mountains. Pre-sampling for source herds would occur in the fall and captures for translocations would occur from late fall through February 2021. Approximately 15 animals would be collared to monitor survival and home range establishment.

Continued costs exist for satellite data transmission for previously deployed collars on approximately 120 bighorn sheep that will continue to be functioning in FY2021. The average cost/collar/year is \$120.

The East Humboldt Range mountain goat herd has slowly been declining since 2010 when the sympatric Rocky Mountain bighorn herd experienced its severe die-off and virulent pathogens were also transmitted to the mountain goats. Though the mountain goat herd likely only experienced minimal adult mortality, persistent poor kid recruitment has plagued the herd for a decade declining from 180 adults in 2009 to approximately 30 in 2020. An effort was planned for January 2019 to begin capturing and pathogen testing mountain goats, but it was cancelled due to inclement weather. Seven mountain goats were captured, collared and pathogen tested in January 2020 to begin to detect a likely “carrier”. Plans are to continue to capture and sample more of the adult mountain goats in FY2021. Time is critical to this project since most of the nannies are too old to be reproductively fit, combined with virulent pathogens that likely are causing kids to die from pneumonia.

NDOW is nearing its completion of the statewide disease surveillance of all bighorn herds that was initiated in 2011. That effort also supports the WAFWA’s Adaptive West Wide Wild Sheep Disease Management Venture (DMV) involving enhanced monitoring of key herds exposed to *Mycoplasma ovipneumoniae* but with varied herd responses. It is proposed to capture the Virginia Range desert bighorn herd that has yet to be sampled for pathogens.

Hope is to initiate an educational bighorn ecology outreach program for school kids in the Virginia Range. The project involves collaborating with the primary landowner, Blockchains, and Ryan Brock, the Wild Sheep Foundation’s youth education coordinator. Capture and collaring animals for students to monitor both in the classroom and during field tours to learn and gain greater appreciation for our state animal. The project costs would be the initial capture for pathogen testing but to also collar animals that could be focal animals for the project. Other costs would be for transporting school kids and teachers to viewing sites and purchasing optics for the program.

In order to assist the Game Division’s on-the-ground monitoring of recent disease events in desert bighorn sheep herds in west-central Nevada, we propose to initiate a Bighorn Lamb Survival “Citizen Science” project, using the general public to “adopt” a herd and monitor lamb production and survival post pathogen spillover. Costs would primarily be providing data recording devices and travel and per diem to



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encourage the general public to participate and to get commitment to follow through with monitoring for 2-3 months.

Lastly, funding is requesting to further support the “California Bighorn Sheep Taxonomy and Genomics Project” initiated in 2019 by Oregon State University (OSU). This project will use modern-day genomics science to determine if “California” bighorn are a distinct subspecies or simply a variation within the Rocky Mountain bighorn lineage. The results of this project will also inform wild sheep managers not only in Nevada but west wide in managing genetic diversity levels and to preserve existing genetic structure or to promote mixing. NDOW provided seed money for the project in FY2020 which has gained support from other states in collaborating with NDOW and OSU. For many years, Boone and Crockett Club have not recognized California bighorn as a separate subspecies, yet all western state and province wildlife management agencies still do.

How Would this Project Help with “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”? (See NRS 501.3575)

It is directly involved with the propagation, restoration, transplantation, and introduction of game mammals to the state of Nevada.

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):

The project involves multiple big game herds distributed widely across the state of Nevada on various public and private land jurisdictions.

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

It is directly involved with the propagation, restoration, transplantation, and introduction of game mammals to the state of Nevada.

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:

A sizeable part of the annual donations that support the Heritage Trust Account come from the sale and auction of bighorn sheep tags that are the direct result of the highly successful Nevada bighorn sheep restoration program. From the tremendous growth of the transplant herds, comes a huge responsibility to actively manage these herds. Just like the purchase of a large tract of land for long-term conservation and wildlife values, you must conduct annual operating and maintenance.



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There is too much of a sportsmen’s investment in past bighorn restoration projects to not continue to oversee responsible herd expansion and growth, better understand resource needs of the herds, minimize potential conflicts on public and private lands and lessen the probability of severe herd declines. This program has always been highly dependent on proceeds of special big game tags before and after the creation of the Heritage Trust Account. It only makes sense that the very same dollar that is generated from the success of the bighorn restoration program be used to maintain it.

By understanding bighorn sheep herd disease transmission processes, herd responses to diseases, and evaluate management alternatives to protect and restore herds to sustainable levels, NDOW can better advocate with local and federal land management agencies appropriate land conservation and protection for the long-term survival of these herds. Consumptive and nonconsumptive use of bighorn sheep will increase, benefiting not only the general public and sportsmen but local rural communities adjacent to these bighorn herds.

Project Duration: one year two years three years more

Estimated Start Date: July 1, 2020

Estimated End: June 30, 2021

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		\$ 68,900.00
2. Other Cash Funding Sources for this Project		
a. Various bighorn and wildlife conservation NGOs		\$ 61,700.00
b. NDOW’s Federal Big Game Investigations Grant		\$ 30,000.00
e. Total Other Cash Funding Sources (lines a - d)		\$ 91,700.00
3. Donations or In-kind Services for this Project		
a. Volunteer Time		\$ 10,800.00
b. Equipment		
c. Materials		
d.		
e.		
f.		
g.		
h. Total Donations/In-kind Services (lines a - g)		\$ 10,800.00
4. Total Project Funding		\$ 171,400.00
(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	\$ 3,000.00	
b. Mileage	\$ 3,000.00	
c. Total Travel Costs (lines a & b)	\$ 6,000.00	\$ -
3. Equipment Items		
a.		
b.		
c.		
d. Total Equipment Costs (line a - c)	\$ -	\$ -
4. Materials		
a. GPS collars	\$ 6,000.00	\$ 34,000.00
b. Basecamp supplies, trailer maintenance, pathogen testing, fixed-wing flights	\$ 15,000.00	
c. Satellite Data Transmission Costs	\$ 14,400.00	
d.		\$ -
e. Total Material Costs (lines a - d)	\$ 35,400.00	\$ 34,000.00
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. Quicksilver Air big game capture services	\$ 7,500.00	\$ 17,700.00
b. Volunteer labor - Captures & Citizen Science		\$ 10,800.00
c. NDOW Personnel Costs		\$ 30,000.00
d. California Bighorn Genomics - Oregon State University	\$ 20,000.00	\$ 10,000.00
e. Total Miscellaneous Costs (lines a - d)	\$ 27,500.00	\$ 68,500.00
6. Total Heritage Costs Only (add lines 1, 2c, 3d, 4e, and 5e)	\$ 68,900.00	
7. Total All Other Costs (add lines 1, 2c, 3d, 4e, and 5e)		\$ 102,500.00
8. Total Project Costs (add lines 6 & 7)	\$ 171,400.00	
(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

Satellite Data Transmission Costs for GPS collars

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

Will submit another Heritage Trust Project Proposal in FY2022.

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.):

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

Press Releases, Facebook, NDOW publications, podcasts

Authorizing Signature: *M. Lu Davis*

Review Date: 4/10/2020