Investigations Projects

MDEP Subcommittee: Washoe MDEP	Hunt Unit Group: 021, 022		
Project Title: Management Area 2 MDEP Predator Project	Project Location: Hunt Units 021 & 022		
Brief Description of Project: Include any development plans such as capturing, collaring, wildlife health analysis, etc. and include the schedule for obtaining any necessary permits, permission, funding, etc.:	Data from the first 2 years of mule deer collaring in Management Area 2 identified lion predation as the main source of mortality. To offset the impacts of lion predation on a small population, a predator project would help increase adult survival.		Score
Limiting Factor Score: Use subcommittee cumulative score from Limiting Factor Score Form	Maximum of 5 points possible		3.2
Has this mule deer managment area or hunt unit group been identified as a statewide priority for research or investigations?	Yes = 10 pts	No = 0 pts	10
Does this project directly address identifing factors limiting healthy mule deer populations? (10 points possible)	Yes = 10 pts	No = 0 pts	10
In Unit 021, 4 of the 6 mortalities were attributed to lions, and 2 of 2 mortalities in Unit 022 were lion kills, indic experienced good fawn recruitment the past few years, adult mortality is likely contributing to its decline. Our sworse body condition, thus more susceptible to predation. Additionally, we're proposing to remove predators to	subcommittee is proposing targeted lior	•	
Does this project occur in a crucial or priority habitat for mule meer? (10 points possible) (Score using the highest ranking criteria)	High priority (Critical Mule Deer Seasonal Range or Migration Route) = 10 points Moderate priority (High elev. summer range, PJ encroached shrub community, winter range) = 5 points Low priority (salt desert shrub or low density mule deer habitats) = 1 pt		10
This project would occur in critical mule deer winter range, which was delineated from the first 2 years of collar months, we can have a targeted, surgical approach to increase survival rates for adult mule deer.	data. By focusing removal efforts in the	e areas where mule deer concentrate throughout the winter	
Will the research or investigation improve knowledge of habitat and restoration of a long-term or permanent nature? Projects of this nature are known to have long-term benefits with demonstrated history of past successes.	10+ years =	10 points 3-10 years = 1 point	5
Is the sample size (# of marked animals) and project scale (distribution across an entire hunt unit or region) adequate to gain meaningful inference or statistical power for interpreting the relative impact of this investigation?	High impact = 10 pts	Moderate impact = 5 pts Low impact = 1 point	10
Does the project complement an adjacent project or study, previous project, or help inform future habitat projects?	Yes= 5 points	No = 0 pts	5
Describe existing or past projects: The proposed project would occur in the same area where we have collared would also be able to utilize the GPS collared deer to inform removal efforts surrounding concentrations of dee habitat projects for wildfire rehabilitation.	, , ,		
Needed permitting, authority, and mechanisms are completed or in process and does the project have a high probability of beinig completed on-time: -NEPA analysis for wilderness permits for capture work -Permission from private landowners or other government agencies (such as USFWS or D.O.D.) -Contract mechnisms to support the work are in place or not needed	Timely completion (12 mont	ths) = 5 pts Extended completion (24 months) = 1 pts	5

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Is the project urgent due to a narrow biological window that requires immediate investigation and funding to address the problem or lack of knowledge?	Yes = 5 points No = 0 pts	5
Based on the previous year's collar data, predator removal in Management Area 2 should be considered urgent. With mule of decline of this population. At the Mule Deer Summit, our subcommittee learned the importance of the interaction between likely to make riskier decisions, and be more susceptible to predation. Conducting a predator project in conjunction with a conjunct	predation and nutrition. Most of the deer collared last winter were in poor body condition, indicating they are more	
What is the likelihood of a successful project? High likelihood means a proposal is supported by sound scientific principles, appropriate sample sizes for statisitical inference, and comprehensive study design. Low likelihood means a general lack of clear project objectives, or is not supported by scienciftic principles, or lacks a robust study design and direct application to widlife management.	High likelihood= 5 points Moderate likelihood = 3 points Low likelihood = 1 point	5
This project is likely to have high success due to the targeted removal on winter range. In "Ecology and Manage Carnivore-Prey Relationship chapter cites predation to account for half the mortality during winter months for nutrition is available, predation can accelerate declines in populations and also limit the rebound of the populat after, we have the ability to conduct a BACI (Before/After/Control/Impact) analysis on the effectiveness of the part of the	nule deer. This same chapter also states that during hard winters, or during years of drought where poor ions. Due to our subcommittee having GPS collared deer in the hunt units prior to the project, as well as	
Does the project leverage funding or in-kind contributions by external partners and by how much?	>3x match = 10 pts	
(List amounts and sources if possible) Does the project have confirmed funding commitment from project partner such as a l	Amount: \$ 125,000 Source: Predator Fee Amount: \$ Source:	
Cost Effectiveness: Are the expected results worth the cost of the project?	Very cost-effective = 10 pts	10
Due to the proximity of Management Area 2 to Reno, there is a high demand for tags that are allocated for these units each year hunting opportunities for sportsmen. The project is also cost effective, by targeting lion removal in a concentrated area, as well ongoing collaring project by minimizing loss of collared deer to predation. Redeploying collars on replacement deer can cost be	as utilizing collared deer mortalities to guide lion removal efforts efficiently. This project is complementary to our	
Amount Requested:	\$125,000	
Total Project Score (100 possible points)	Sum of Scores	78.2

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iducted on BLM, FS, USFWS, or private land and if any private landowner permissions are neccesary. Please describe any NEPA permitting requirements (such was permission to capture animals in wilderness) if on public land and when NEPA received. Also provide a tentative project schedule of major tasks (ie collar orders, capture dates, data collection period, reporting dates, etc). Please list any collaborators or project funding partners.	
better understand the factors that may be limiting the mule deer of Management Area 2, our subcommittee deployed GPS collars on 32 mule deer from 2021-2022. More than half of the mule deer llared had back fat that was less than 0.2 mm thick going into winter and had a poor body condition score. In Unit 021, lion predation accounted for 4 of the 6 mortalities. In Unit 022, lion predation of the 2 mortalities that were observed for collared mule deer. With both hunt units experiencing quality fawn recruitment the past few years, it is likely that adult mortality is the main reason the pulation is underperforming. At the MDEP Mule Deer Summit this past August, Jon Horne of Idaho Fish & Game, spoke on the importance of the interaction between predation and nutrition. Horne at deer in poor body condition were more susceptible to predation, due to making riskier decisions while foraging. In winter months, deer are in their poorest body condition and are also congregations on the winter range. As a result, our subcommittee is proposing to conduct targeted lion removal on critical mule deer winter range, as well as removing predators that kill collared mule deer lidlife Services remove lions from deer winter range during the months (December-May) when deer are most susceptible, we believe this will be effective and save on the cost of the project. Due to collars that were deployed prior to predator removal, we have the ability to compare adult survival rates of mule deer before, during, and after predator removal. The project will also assess popular roughout the duration of the project to determine if the predator removal had population level impacts. The attached map shows winter range for collared mule deer in Management Area 2, highlighest this project would focus on.	n accounted he e indicated ted in higher er. By having o the number lation trends

