

Subcommittee Members: Ambur Aten, Bert Ramos,
Chris Jasmine, Jerry Annis, Marcial Evertsen,
Rachelle Peppers, Ted McElvain

Department Representative: Sarah Hale
Jeremy Lutz

**Nevada Board of Wildlife Commissioners
Mule Deer Enhancement Oversight Committee
Mule Deer Enhancement Program Subcommittee
Lander County; Management Area 15**

Thursday, August 4, 2022 / 4:00 p.m.

Meeting held via Zoom at www.Zoom.us

DRAFT Minutes

1. Call to Order – Department Representative

Meeting called to order at 4:00pm.

In attendance:

Ambur Aten, Subcommittee Member
Bert Ramos, Subcommittee Member
Chris Jasmine, Subcommittee Member
Jerry Annis, Subcommittee Member
Marcial Evertsen, Subcommittee Member
Sarah Hale, Department Representative
Jeremy Lutz, Department Representative

2. Approval of Agenda – For Possible Action

Subcommittee member Evertsen moved to approve the agenda.

Subcommittee member Jasmine seconded the motion.

The motion passed.

3. Approval of Minutes (July 12, 2022) – Department Representative – For Possible Action

Subcommittee member Aten moved to approve the July 12, 2022 Minutes with addition of discussion of new subcommittee member to 'Member Announcements' section.

Subcommittee member Evertsen seconded the motion.

The motion passed.

4. Member Announcements and Correspondence – Informational

Subcommittee member Evertsen visited Fire Creek spring enclosures; one open with cattle inside. Subcommittee member Aten visited Battle Mountains; saw 19 deer.

5. Discussion of Area 15 Potential Projects with BLM Personnel – For Possible Action

The subcommittee reviewed and discussed project proposals.

Subcommittee member Jasmine moved to submit the Bald Mountain, Elephant Head, and Fire Creek proposals to the Oversight Committee with discussed edits incorporated and coordination with grazing permittee on Fire Creek.

Subcommittee member Annis seconded the motion.

The motion passed.

6. Public Comment Period

There was no public comment.

7. Future Subcommittee Meetings – Department Representative – For possible Action

The Subcommittee discussed the time and date for the next meeting.

The meeting was adjourned at 4:44 pm.

Habitat Projects

MDEP Subcommittee: Area 15	Hunt Unit Group: 151-156					
Project Title: Bald Mountain Pinyon-Juniper Thinning	Project Location: Bald Mountain, Toiyabe Range, NE portion of Hunt Unit 154					
Brief Description of Project: <i>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.:</i>	Thin up to 11,000 acres of pinyon-juniper in year round and crucial winter mule deer habitat over several years. Install up to 12 spring exclosures over several years. PJ treatment is NEPA approved already, and spring exclosure NEPA approval is expected to take up to 1 year.					Score
Limiting Factor Score: <i>Use subcommittee cumulative score from Limiting Factor Score Form</i>	<i>Maximum of 5 points possible</i>					4.3
Unit Group 5-Year Published Deer Population Trend:	2017: 2200	2018: 2200	2019: 2000	2020: 2000	2021: 2500	
	<i>Decreasing = 5 pts</i>		<i>Stable = 3 pts</i>		<i>Increasing = 1 pt</i>	3
Does this project directly address factors limiting healthy mule deer populations? Yes	<i>Yes = 10 pts</i>			<i>No = 0 pts</i>		10
<i>How will project address limiting factors? The Area 15 Mule Deer Enhancement Program Subcommittee identified wildland fire and invasive/noxious weeds as the second and third highest limiting factors for mule deer in our area, with an average ranking of 4.3 each. This project aims to reduce the likelihood of these factors occurring in important wildlife habitat.</i>						
Does this project protect, maintain or strategically restore statewide priority mule deer habitat, enhance critical habitat or a critical life stage for mule deer? <i>Score using the highest ranking criteria</i>	<i>High priority (Critical Mule Deer Seasonal Range or Migration Route) = 10 points</i> <i>Moderate priority (High elev. summer range, PJ encroached shrub community, winter range) = 5 points</i> <i>Low priority (salt desert shrub or low density mule deer habitats) = 1 pt</i>					10
<i>Provide added details: This project aims to restore, enhance, and protect year-round and crucial winter mule deer habitat and important riparian resources.</i>						
Is this mule deer habitat restoration or improvement of a long-term nature? <i>Does the project involve habitat trend and condition through restoration and improvement of a long-term or permanent nature? Projects of this nature are known to have long-term benefits with demonstrated history of past successes</i>	<i>10+ years = 10 points</i>			<i>3-10 years = 5 points</i>		10
Project Scale and Implications: <i>Is the size or magnitude of the project, relative to the habitat type or Mule Deer distribution, impactful? Does the project convey a large conservation benefit to important or critical habitat for Mule Deer? For instance, does a riparian project have a meaningful impact across multiple reaches within a watershed or would a seeding project address a large extent or important critical habitat?</i>	<i>High impact = 15 pts</i>		<i>Moderate impact = 10 pts</i>		<i>Low impact = 1 point</i>	15
Does the project build upon existing project work? Yes	<i>Yes = 5 pts</i>			<i>No = 0 pts</i>		5
<i>Describe existing or past projects: Several PJ thinning projects have taken place in the immediate vicinity of our proposed treatment area, such as the Toiyabe Fingers Project approximately 2.5 miles to the north, which treated approximately 800 acres. This proposed project will further contribute to landscape-level restoration of crucial winter mule deer habiat.</i>						

Habitat Projects

<p>Timely Completion: <i>Needed permitting, authority, and mechanisms are completed or in process and does the project have a high probability of being completed on-time:</i> -NEPA analysis or other statutory compliance is completed or not needed -Permits are completed or not needed -Contract mechanisms to support the work are in place or not needed</p>	<p>Timely completion (12 months) = 5 pts Extended completion (24 months) = 1 pt</p>	<p>5</p>
<p>Urgency: <i>(Is the project urgent due to a narrow biological window that requires immediate attention and funding to address resource degradation or deterioration?)</i></p>	<p>Yes = 5 pts No = 0 pts</p>	<p>5</p>
<p><i>Provide added details: Thinning PJ in this area is important to carry out in a timely manner before tree stands outcompete native vegetation and convert the area to a dense PJ woodland.</i></p>		
<p>Likelihood of Success: <i>What is the likelihood of successful completion and successful outcomes? Do the individuals and organizations involved possess the capability, experience, and proven methodology needed for implementation? Is the proposal supported by sound and established scientific or biological principals? Project objectives are realistic, measurable, and achievable with clearly defined methods</i></p>	<p>High likelihood= 5 points Moderate = 3 points Low = 1 point</p>	<p>5</p>
<p><i>Provide added details: PJ thinning and spring exclosures are common practices carried out by involved parties and are supported by scientific principals, so the project is likely to successfully be implemented. Due to the large scale of the project, implementation is planned to be spread over several years to keep objectives realistic and attainable.</i></p>		
<p>Partner Funding: <i>Does the project leverage funding or in-kind contributions by external partners and by how much? BLM has expressed willingness to contribute funding or to build upon treatment sections.</i></p>	<p>>3x match = 10 pts 1.5-2.9 match = 7 pts 0.75-1.49 = 3 pts 0.1-.74 = 1 pt</p>	<p>3</p>
<p><i>(List amounts and sources if possible) Does the project have confirmed funding commitment from project partner such as a letter or memo with stated commitment amount?</i></p>	<p>Amount: \$ Source: Amount: \$ Source:</p>	<p></p>
<p>Cost Effectiveness: <i>Are the expected results worth the cost of the project?</i></p>	<p>Very cost-effective = 10 pts Moderately cost-effective = 5 pts Minimally cost-effective = 1 pt</p>	<p>10</p>
<p><i>Provide added details: The biological benefits to mule deer and other species inhabiting the sagebrush ecosystem will be well worth the monetary cost of this project. Project work will also be put out for bid so that the lowest bidder may be awarded the contract.</i></p>		
<p>Amount Requested:</p>	<p>\$425,000</p>	
<p>Total Project Score (100 possible points)</p>	<p>Sum of Scores 85.3</p>	

Habitat Projects

Project Narrative: *Be specific to the needs and issues associated with mule deer and/or habitat and your technical approach to addressing the issue. Identify potential benefits to mule deer and other wildlife. Describe if the project is on public or private land and any private landowner permissions. Please describe any NEPA permitting requirements if on public land and when NEPA completion is expected. Also provide a tentative project schedule of major tasks. If your project is associated with water rights (e.g. spring fencing project) please discuss the status of permissions to complete the project with water rights holders.*

Woody encroachment is a widespread phenomenon affecting rangelands worldwide, and The Great Basin is no exception to this. In many areas, altered disturbance regimes have allowed pinyon pine and juniper (hereafter PJ) to encroach into previously unoccupied areas, and to increase density of existing stands. PJ has the capacity to outcompete native vegetation, and during periods of drought dense stands of PJ can act as fuel to propagate catastrophic wildfire. As native vegetation struggles to recover after high-intensity fires, a window of opportunity is created for cheatgrass to establish and dominate the landscape. One area that we would like to prevent this from happening in is Bald Mountain of the Toiyabe Range, in the northeastern portion of Hunt Unit 154. Bald Mountain supports a variety of mountain-shrub species, but PJ is currently encroaching into the area. This area falls within both year-round and crucial winter mule deer habitat, and deer have frequently been documented using the area (via aerial surveys and collar data). We would like to thin PJ over a total of 11,000 acres in this area to enhance wildlife habitat and to reduce the potential of losing native vegetation to competition or wildfire. Additionally, we would like to hire a contractor to install welded drill-stem fencing around 12 sensitive springs in this area so that important riparian resources may be protected from large nonnative ungulates such as feral horses and cattle. Due to the large scale of this project, implementation will occur incrementally over several years to keep objectives manageable. We plan to thin up to 2000 acres of PJ and install up to two spring exclosures per year.

PJ thinning in the proposed project area is authorized on public land, so no further NEPA analysis is required. Proposed spring exclosures will take up to 1 year to receive NEPA clearance, and short pipelines may be installed on a subset to maintain access to water by water-rights holder.

Tentative Schedule:

- January - March 2023: Apply for project funding (Heritage, Habitat Conservation, BLM?)
- May 2023: Have SOW's and bid application documents completed and ready for submission
- July 2023: Solicit bids from contractors and award contracts to lowest bidder
- October 2023 - March 2024: Window for fence installation and PJ thinning by contractor(s)

Habitat Projects

MDEP Subcommittee: Area 15	Hunt Unit Group: 151-156					
Project Title: Battle Mountain Sage Brush Ecosystem Improvement	Project Location: Battle Mountain Range					
Brief Description of Project: <i>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.:</i>	Manipulate brush to create a mosaic of successional stages in sagebrush community and provide better quality forage to mule deer. Pair with collaring to evaluate effects of brush manipulation on area use by mule deer, and to determine where future treatments are necessary.					Score
Limiting Factor Score: <i>Use subcommittee cumulative score from Limiting Factor Score Form</i>	<i>Maximum of 5 points possible</i>					2
Unit Group 5-Year Published Deer Population Trend:	2017: 2200	2018: 2200	2019: 2000	2020: 2000	2021: 2500	
	<i>Decreasing = 5 pts</i>		<i>Stable = 3 pts</i>		<i>Increasing = 1 pt</i>	3
Does this project directly address factors limiting healthy mule deer populations?	<i>Yes = 10 pts</i>			<i>No = 0 pts</i>		10
<i>How will project address limiting factors?</i> This project aims to improve the quality of forage available to mule deer in this range by creating disturbance to trigger growth of younger vegetation.						
Does this project protect, maintain or strategically restore statewide priority mule deer habitat, enhance critical habitat or a critical life stage for mule deer? <i>Score using the highest ranking criteria</i>	<i>High priority (Critical Mule Deer Seasonal Range or Migration Route) = 10 points</i> <i>Moderate priority (High elev. summer range, PJ encroached shrub community, winter range) = 5 points</i> <i>Low priority (salt desert shrub or low density mule deer habitats) = 1 pt</i>					5
<i>Provide added details:</i> The Battle Mountains fall into the categories of high-elevation summer and year-round mule deer range.						
Is this mule deer habitat restoration or improvement of a long-term nature? <i>Does the project involve habitat trend and condition through restoration and improvement of a long-term or permanent nature? Projects of this nature are known to have long-term benefits with demonstrated history of past successes</i>	<i>10+ years = 10 points</i>			<i>3-10 years = 5 points</i>		10
Project Scale and Implications: <i>Is the size or magnitude of the project, relative to the habitat type or Mule Deer distribution, impactful? Does the project convey a large conservation benefit to important or critical habitat for Mule Deer? For instance, does a riparian project have a meaningful impact across multiple reaches within a watershed or would a seeding project address a large extent or important critical habitat?</i>	<i>High impact = 15 pts</i>		<i>Moderate impact = 10 pts</i>		<i>Low impact = 1 point</i>	15
Does the project build upon existing project work? No	<i>Yes = 5 pts</i>			<i>No = 0 pts</i>		0
<i>Describe existing or past projects:</i>						

Habitat Projects

<p>Timely Completion: <i>Needed permitting, authority, and mechanisms are completed or in process and does the project have a high probability of being completed on-time:</i> <i>-NEPA analysis or other statutory compliance is completed or not needed</i> <i>-Permits are completed or not needed</i> <i>-Contract mechanisms to support the work are in place or not needed</i></p>	<p>Timely completion (12 months) = 5 pts Extended completion (24 months) = 1 pt</p>	<p>5</p>
<p>Urgency: <i>(Is the project urgent due to a narrow biological window that requires immediate attention and funding to address resource degradation or deterioration?)</i></p>	<p>Yes = 5 pts No = 0 pts</p>	<p>0</p>
<p><i>Provide added details:</i></p>		
<p>Likelihood of Success: <i>What is the likelihood of successful completion and successful outcomes? Do the individuals and organizations involved possess the capability, experience, and proven methodology needed for implementation? Is the proposal supported by sound and established scientific or biological principals? Project objectives are realistic, measurable, and achievable with clearly defined methods</i></p>	<p>High likelihood= 5 points Moderate = 3 points Low = 1 point</p>	<p>5</p>
<p><i>Provide added details:</i> Brush mastication is a common practice carried out by involved parties and is supported by scientific principals, so the project is likely to successfully be implemented. Implementation is planned to be spread over several years to keep project costs and objectives realistic and attainable.</p>		
<p>Partner Funding: <i>Does the project leverage funding or in-kind contributions by external partners and by how much? BLM has expressed willingness to contribute funding or to build upon treatment sections.</i></p>	<p>>3x match = 10 pts 1.5-2.9 match = 7 pts 0.75-1.49 = 3 pts 0.1-.74 = 1 pt</p>	<p>3</p>
<p><i>(List amounts and sources if possible) Does the project have confirmed funding commitment from project partner such as a letter or memo with stated commitment amount?</i></p>	<p>Amount: \$ Source: Amount: \$ Source:</p>	<p></p>
<p>Cost Effectiveness: <i>Are the expected results worth the cost of the project?</i></p>	<p>Very cost-effective = 10 pts Moderately cost-effective = 5 pts Minimally cost-effective = 1 pt</p>	<p>10</p>
<p><i>Provide added details:</i> The biological benefits to mule deer and other species inhabiting the sagebrush ecosystem will be well worth the monetary cost of this project. Project work will also be put out for bid so that the lowest bidder may be awarded the contract.</p>		
<p>Amount Requested:</p>	<p>\$285,550</p>	
<p>Total Project Score (100 possible points)</p>	<p>Sum of Scores</p>	
		<p>68</p>

Habitat Projects

Project Narrative: *Be specific to the needs and issues associated with mule deer and/or habitat and your technical approach to addressing the issue. Identify potential benefits to mule deer and other wildlife. Describe if the project is on public or private land and any private landowner permissions. Please describe any NEPA permitting requirements if on public land and when NEPA completion is expected. Also provide a tentative project schedule of major tasks. If your project is associated with water rights (e.g. spring fencing project) please discuss the status of permissions to complete the project with water rights holders.*

Periodic disturbance to a landscape is a natural and necessary process that creates favorable conditions for a suite of wildlife species, such as mule deer, by facilitating the growth of high-quality forage. The Battle Mountains, located in Hunt Unit 151, support a seemingly robust mountain brush ecosystem at higher elevations, but this area has experienced little to no disturbance over the past 50-100 years. The Battle Mountains contain an abundance of shrub species upon which mule deer rely; however, mule deer do not use this mountain range as much as would be expected in an area containing high-quality forage. One possible explanation for this is that the lack of disturbance in the Battle Mountains has allowed plants to age and senesce. Older shrubs produce fewer leaders (the tender new growth that mule deer prefer), have thicker cell walls that are more difficult for herbivores to digest, and contain higher concentrations of secondary defense compounds that reduce palatability. We would like to use the most scientifically appropriate method to masticate up to 1000 acres, in 5–20-acre sections, of brush in the Battle Mountains to create a mosaic of successional stages in the mountain brush community over the next several years. Mastication will stimulate leader growth in older plants, and will allow younger, more nutritious, plants to establish. This will result in a mix of age classes of shrubs that will provide more palatable and nutritious forage to wildlife, including mule deer, and will potentially allow more deer to reside in the Battle Mountains in future years.

We would also like to pair a mule deer collaring effort with this project to determine how animals use the Battle Mountains, and their response to brush treatments. A 2011 collaring effort took place in the Battle Mountains, but inference was limited due to constraints such as small sample size (n = 5 deer) and available collar technology (VHF locations only, and telemetry flights only occurred once-twice per month). We would like to collar up to 15 deer with VHF/GPS collars that will allow us to assess space use at a much finer scale than in the previous study. Collars with GPS capabilities will allow us to record daily locations of deer for several years which will allow us to assess whether deer respond to brush treatment over time, help pinpoint where future treatments would be most beneficial, and determine what other factors are limiting mule deer use of the Battle Mountains.

Although shrub senescence was rated a lower priority than other limiting factors, several members of the Area 15 MDEP team have expressed a desire to investigate or carry out mule deer habitat restoration in the Battle Mountains due to its support of a variety of mountain brush species yet low density of deer.

NEPA clearance for brush mastication is anticipated to take up to 90 days to complete once this project is brought to the BLM, so will not be prohibitive of project implementation.

Tentative Schedule

- January – March 2023: Apply for project funding (Heritage, Habitat Conservation, BLM)
- May 2023: Have SOW and bid application documents completed and ready for submission
- July 2023: Solicit bids from contractors and award contract to lowest bidder
- October 2023 - March 2024: Window for brush mastication
- January-February 2024: Collar deployment by hired capture crew

Habitat Projects

MDEP Subcommittee: Area 15	Hunt Unit Group: 151-156	
Project Title: Elephant Head Aspen Exclosure Repair	Project Location: Cottonwood Basin, Shoshone Range	
Brief Description of Project: <i>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.:</i>	Hire contractor to replace non-functional fencing around several aspen exclosures (that were installed in 2002) with welded drill-steel fencing to protect important riparian areas from cattle and feral horses. NEPA clearance expected to take between 90 days - 1 year.	Score
Limiting Factor Score: <i>Use subcommittee cumulative score from Limiting Factor Score Form</i>	<i>Maximum of 5 points possible</i>	
Unit Group 5-Year Published Deer Population Trend:	2017: 2200 2018: 2200 2019: 2000 2020: 2000 2021: 2500	
	<i>Decreasing = 5 pts Stable = 3 pts Increasing = 1 pt</i>	
Does this project directly address factors limiting healthy mule deer populations? Yes	<i>Yes = 10 pts No = 0 pts</i>	
<i>How will project address limiting factors?</i> The Area 15 Mule Deer Enhancement Program Subcommittee identified feral horses as the greatest limiting factor for mule deer in our area, with an average ranking of 5. This project aims to exclude feral horses from riparian resources that are important to mule deer and a variety of other wildlife species.		
Does this project protect, maintain or strategically restore statewide priority mule deer habitat, enhance critical habitat or a critical life stage for mule deer? <i>Score using the highest ranking criteria</i>	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	
<i>Provide added details:</i> This project aims to protect and restore resources within high-elevation summer range for mule deer.		
Is this mule deer habitat restoration or improvement of a long-term nature? <i>Does the project involve habitat trend and condition through restoration and improvement of a long-term or permanent nature? Projects of this nature are known to have long-term benefits with demonstrated history of past successes</i>	10+ years = 10 points 3-10 years = 5 points	
Project Scale and Implications: <i>Is the size or magnitude of the project, relative to the habitat type or Mule Deer distribution, impactful? Does the project convey a large conservation benefit to important or critical habitat for Mule Deer? For instance, does a riparian project have a meaningful impact across multiple reaches within a watershed or would a seeding project address a large extent or important critical habitat?</i>	High impact = 15 pts Moderate impact = 10 pts Low impact = 1 point	
Does the project build upon existing project work? Yes	Yes = 5 pts No = 0 pts	
<i>Describe existing or past projects:</i> This project will replace and improve previously installed exclosures.		

Habitat Projects

<p>Timely Completion: <i>Needed permitting, authority, and mechanisms are completed or in process and does the project have a high probability of being completed on-time:</i> <i>-NEPA analysis or other statutory compliance is completed or not needed</i> <i>-Permits are completed or not needed</i> <i>-Contract mechanisms to support the work are in place or not needed</i></p>	<p>Timely completion (12 months) = 5 pts Extended completion (24 months) = 1 pt</p>	<p>5</p>
<p>Urgency: <i>(Is the project urgent due to a narrow biological window that requires immediate attention and funding to address resource degradation or deterioration?)</i></p>	<p>Yes = 5 pts No = 0 pts</p>	<p>5</p>
<p><i>Provide added details:</i> With rapidly increasing feral horse populations, this area is likely to experience irreparable degradation if riparian resources are not protected. This HMA is currently estimated to be at %1400 of AML.</p>		
<p>Likelihood of Success: <i>What is the likelihood of successful completion and successful outcomes? Do the individuals and organizations involved possess the capability, experience, and proven methodology needed for implementation? Is the proposal supported by sound and established scientific or biological principals? Project objectives are realistic, measurable, and achievable with clearly defined methods</i></p>	<p>High likelihood= 5 points Moderate = 3 points Low = 1 point</p>	<p>5</p>
<p><i>Provide added details:</i> Spring exclosures are common practices carried out by involved parties and are supported by scientific principals, so the project is likely to successfully be implemented. Implementation is planned to be spread over several years to keep project costs and objectives realistic and attainable.</p>		
<p>Partner Funding: <i>Does the project leverage funding or in-kind contributions by external partners and by how much? BLM has expressed willingness to contribute funding or to build upon treatments.</i></p>	<p>>3x match = 10 pts 1.5-2.9 match = 7 pts 0.75-1.49 = 3 pts 0.1-.74 = 1 pt</p>	<p>3</p>
<p><i>(List amounts and sources if possible) Does the project have confirmed funding commitment from project partner such as a letter or memo with stated commitment amount?</i></p>	<p>Amount: \$ Source: Amount: \$ Source:</p>	<p></p>
<p>Cost Effectiveness: <i>Are the expected results worth the cost of the project?</i></p>	<p>Very cost-effective = 10 pts Moderately cost-effective = 5 pts Minimally cost-effective = 1 pt</p>	<p>10</p>
<p><i>Provide added details:</i> The biological benefits to mule deer and other species inhabiting the sagebrush ecosystem will be well worth the monetary cost of this project. Project work will also be put out for bid so that the lowest bidder may be awarded the contract.</p>		
<p>Amount Requested:</p>	<p>\$231,250</p>	
<p>Total Project Score (100 possible points)</p>	<p>Sum of Scores 81</p>	

Habitat Projects

Project Narrative: *Be specific to the needs and issues associated with mule deer and/or habitat and your technical approach to addressing the issue. Identify potential benefits to mule deer and other wildlife. Describe if the project is on public or private land and any private landowner permissions. Please describe any NEPA permitting requirements if on public land and when NEPA completion is expected. Also provide a tentative project schedule of major tasks. If your project is associated with water rights (e.g. spring fencing project) please discuss the status of permissions to complete the project with water rights holders.*

Historically, the Great Basin hosted vast, intact, and interconnected vegetative communities that provided continuous wildlife habitat to a variety of species, including mule deer. However, the combination of climate change, development, prolonged drought, wildfires, and invasive species of flora and fauna has led to severe degradation of the range. In some areas, this has resulted in the creation of 'sky islands', where high quality mule deer habitat is isolated at higher elevations by the vastly different and degraded conditions at lower elevations. One such 'sky island' occurs on and around Elephant Head of the Shoshone Range in the southern tip of Hunt Unit 152. This area acts as important high-elevation summer habitat for mule deer (and a suite of other game and non-game species), and mule deer may occupy the area year-round when winters are mild. The continuous growth of wild horse populations in Area 15 has caused horses to encroach into previously unoccupied high elevations as they exhaust lowland resources. One area where this is currently taking place is in the basins surrounding Elephant Head. In 2002, several aspen/riparian restoration exclosures were installed in Cottonwood Basin of Elephant Head to protect aspen/riparian meadows from nonnative ungulates. Currently, these exclosures are in a state of disrepair and are allowing nonnative ungulates unlimited access to these important riparian resources, which have become severely degraded as a result. We would like to hire a contractor to replace the damaged barbed-wire fencing with welded drill-stem fencing to limit feral horse access so that these areas may recover. This proposed project would be simple in execution, yet high in impact to the wildlife resource, as allowing these aspen/riparian zones to recover will greatly improve the quantity and quality of resources available to wildlife and will help ensure the future of the Area 15 mule deer herd.

The Area 15 Mule Deer Enhancement Program Subcommittee identified feral horses as the greatest limiting factor for mule deer in our area, with an average ranking of 5. This project aims to exclude feral horses from riparian resources that are important to mule deer and a variety of other wildlife species.

NEPA authorization is expected to take as little as 90 days for certain exclosures, but may take up to one year depending on the circumstances. It is not anticipated that NEPA clearance will delay implementation of this project within the proposed window.

Tentative Schedule:

- January-March 2023: Apply for project funding (water development?)
- May 2023: Have SOW and bid application documents completed and ready for submission
- July 2023: Solicit bids from contractors and award contract to lowest bidder
- September 2023-June 2024: Window for fence installation by contractor

Habitat Projects

MDEP Subcommittee: Area 15	Hunt Unit Group: 151-156					
Project Title: Fire Creek Cheatgrass Treatment	Project Location: Shoshone Range, Lander County, NE portion of Hunt Unit 152					
Brief Description of Project: <i>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.:</i>	Herbicide treatment and reseeding of up to 26,000 acres of cheatgrass to restore mule deer winter range on public land. Already covered under existing NEPA, so this project can be considered shovel-ready.					Score
Limiting Factor Score: <i>Use subcommittee cumulative score from Limiting Factor Score Form</i>	<i>Maximum of 5 points possible</i>					4.3
Unit Group 5-Year Published Deer Population Trend:	2017: 2200	2018: 2200	2019: 2000	2020: 2000	2021: 2500	
	<i>Decreasing = 5 pts</i>		<i>Stable = 3 pts</i>		<i>Increasing = 1 pt</i>	3
Does this project directly address factors limiting healthy mule deer populations? Yes	<i>Yes = 10 pts</i>			<i>No = 0 pts</i>		10
<i>How will project address limiting factors?</i> The Area 15 Mule Deer Enhancement Program Subcommittee identified wildland fire and invasive/noxious weeds as the second and third highest limiting factors for mule deer in our area, with an average ranking of 4.3 each. This project seeks to rehabilitate an area that has experienced wildfire and subsequent conversion from a sagebrush ecosystem to a cheatgrass dominated system.						
Does this project protect, maintain or strategically restore statewide priority mule deer habitat, enhance critical habitat or a critical life stage for mule deer? <i>Score using the highest ranking criteria</i>	<i>High priority (Critical Mule Deer Seasonal Range or Migration Route) = 10 points</i> <i>Moderate priority (High elev. summer range, PJ encroached shrub community, winter range) = 5 points</i> <i>Low priority (salt desert shrub or low density mule deer habitats) = 1 pt</i>					5
<i>Provide added details:</i> Prior to conversion, this area acted as low-elevation mule deer winter range, which has become increasingly rare throughout Area 15.						
Is this mule deer habitat restoration or improvement of a long-term nature? <i>Does the project involve habitat trend and condition through restoration and improvement of a long-term or permanent nature? Projects of this nature are known to have long-term benefits with demonstrated history of past successes</i>	<i>10+ years = 10 points</i>			<i>3-10 years = 5 points</i>		10
Project Scale and Implications: <i>Is the size or magnitude of the project, relative to the habitat type or Mule Deer distribution, impactful? Does the project convey a large conservation benefit to important or critical habitat for Mule Deer? For instance, does a riparian project have a meaningful impact across multiple reaches within a watershed or would a seeding project address a large extent or important critical habitat?</i>	<i>High impact = 15 pts</i>		<i>Moderate impact = 10 pts</i>		<i>Low impact = 1 point</i>	15
Does the project build upon existing project work? Yes	<i>Yes = 5 pts</i>			<i>No = 0 pts</i>		5
<i>Describe existing or past projects:</i> Herbicide treatments and reseeding are currently being implemented approximately 8 miles to the north of this project, so this project will contribute to large-scale restoration of winter range on the landscape.						

Habitat Projects

<p>Timely Completion: <i>Needed permitting, authority, and mechanisms are completed or in process and does the project have a high probability of being completed on-time:</i> <i>-NEPA analysis or other statutory compliance is completed or not needed</i> <i>-Permits are completed or not needed</i> <i>-Contract mechanisms to support the work are in place or not needed</i></p>	<p>Timely completion (12 months) = 5 pts Extended completion (24 months) = 1 pt</p>	<p>5</p>
<p>Urgency: <i>(Is the project urgent due to a narrow biological window that requires immediate attention and funding to address resource degradation or deterioration?)</i></p>	<p>Yes = 5 pts No = 0 pts</p>	<p>5</p>
<p><i>Provide added details:</i> Removal of cheatgrass from the landscape is imperative to preventing further propagation in the cheatgrass-wildfire cycle, which has been exacerbated by drought.</p>		
<p>Likelihood of Success: <i>What is the likelihood of successful completion and successful outcomes? Do the individuals and organizations involved possess the capability, experience, and proven methodology needed for implementation? Is the proposal supported by sound and established scientific or biological principals? Project objectives are realistic, measurable, and achievable with clearly defined methods</i></p>	<p>High likelihood= 5 points Moderate = 3 points Low = 1 point</p>	<p>5</p>
<p><i>Provide added details:</i> Herbicide treatment and reseedling are common practices carried out by involved parties and are supported by scientific principals, so the project is likely to successfully be implemented. Due to the large scale of the project, implementation is planned to be spread over several years to keep objectives realistic and attainable.</p>		
<p>Partner Funding: <i>Does the project leverage funding or in-kind contributions by external partners and by how much? BLM has expressed willingness to contribute funding or to build upon treatment sections.</i></p>	<p>>3x match = 10 pts 1.5-2.9 match = 7 pts 0.75-1.49 = 3 pts 0.1-.74 = 1 pt</p>	<p>3</p>
<p><i>(List amounts and sources if possible) Does the project have confirmed funding commitment from project partner such as a letter or memo with stated commitment amount?</i></p>	<p>Amount: \$ Source: Amount: \$ Source:</p>	<p></p>
<p>Cost Effectiveness: <i>Are the expected results worth the cost of the project?</i></p>	<p>Very cost-effective = 10 pts Moderately cost-effective = 5 pts Minimally cost-effective = 1 pt</p>	<p>10</p>
<p><i>Provide added details:</i> The biological benefits to mule deer and other species inhabiting the sagebrush ecosystem will be well worth the monetary cost of this project. Project work will also be put out for bid so that the lowest bidder may be awarded the contract.</p>		
<p>Amount Requested:</p>	<p>\$650,000</p>	
<p>Total Project Score (100 possible points)</p>	<p>Sum of Scores 80.3</p>	

Habitat Projects

Project Narrative: *Be specific to the needs and issues associated with mule deer and/or habitat and your technical approach to addressing the issue. Identify potential benefits to mule deer and other wildlife. Describe if the project is on public or private land and any private landowner permissions. Please describe any NEPA permitting requirements if on public land and when NEPA completion is expected. Also provide a tentative project schedule of major tasks. If your project is associated with water rights (e.g. spring fencing project) please discuss the status of permissions to complete the project with water rights holders.*

A combination of factors has led to widespread conversion of the Great Basin's sagebrush ecosystem to an annual cheatgrass system. A major driver of this conversion has been extreme drought paired with increased wildfire frequency, which has allowed many areas to succumb to the cheatgrass-wildfire cycle (where cheatgrass fuels wildfire, wildfire facilitates cheatgrass invasion, and so-on). This has many detrimental effects on an ecosystem, ranging from a significant loss of net carbon storage potential to the loss of wildlife habitat, including crucial mule deer habitat. Area 15 has experienced conversion of its sagebrush system to cheatgrass/exotic annuals in many areas, one of which is the Fire Creek area in the northeastern portion of Hunt Unit 152. Prior to its conversion, this area acted as low-elevation mule deer winter range, which has become increasingly rare throughout Area 15. We would like to treat a total of 26,000 acres of this area with herbicide (imazapic), then re-seed with an appropriate BLM/NDOW approved seed mix. We aim to rehabilitate severely degraded winter mule deer habitat and restore ecological function to the landscape, which will benefit a variety of game and non-game species in addition to mule deer. Implementation will occur incrementally over several years to keep objectives manageable, thus, we plan to treat up to 5,000 acres per year. Due to the nature of this project, work will span two fiscal years because re-seeding cannot take place until the year following herbicide treatment.

The Area 15 Mule Deer Enhancement Program Subcommittee identified wildland fire and invasive/noxious weeds as the second and third highest limiting factors for mule deer in our area, with an average ranking of 4.3 each.

This project is authorized on public land under an existing EIS, so further NEPA analysis is required.

Tentative Schedule:

- January-March 2023: Apply for project funding (Heritage, Habitat Restoration, BLM)
- September 2023: Aerially apply imazapic to 5,000 acres of project area
- September 2024-January 2025: re-seed 5,000 acres of project area with BLM and NDOW approved seed-mix