Owl Creek/Meeteetse Mule Deer Initiative

Wyoming Game and Fish Department
Cody Region
Final Report
May 2015
Acknowledgements

The Wyoming Game and Fish Department (WGFD) would like to thank all those who participated in the Owl Creek/Meeteetse Mule Deer Initiative (OC/M-MDI). This Initiative was a culmination of 6 months of planning, implementing, and collaborating public input for the future management of this deer herd. The 21 participating publics, along with the many WGFD personnel who made this Initiative a success, deserved a very big “Thank You”. Without your help, time, input and participation this Initiative would have not succeeded. By no means is this Initiative Plan an end to the process, it is only the beginning.

Introduction and Summary

In July 2007, a statewide Mule Deer Initiative (MDI) was adopted by the Wyoming Game and Fish Commission. The intent of this Initiative is to develop and implement management plans on a herd unit basis. The development of these plans is a collaborative effort involving interested publics, including hunters, agricultural producers, Land Management Agencies, Industry, conservation organization and the general public. These plans will serve and ultimately drive future management of mule deer herds in Wyoming.

In October 2014, the WGFD Cody Region initiated the Owl Creek/Meeteetse Mule Deer Herd Unit Initiative. The over-riding goal of the Initiative was to work collaboratively to develop management recommendations that will benefit the Owl Creek/Meeteetse mule deer herd unit. This process took the involvement of many public interests and stakeholders, along with WGFD personnel, over the course of six months to develop, implement and now finalize a working management plan for this mule deer herd. This Initiative involved surveying 2,000 hunters and conducting 6 public/stakeholder workshops in Thermopolis and Meeteetse in order to educate, gather information, and provide management recommendations.

The priority values identified during the OC/M Initiative by most stakeholders was to have more mule deer and larger bucks, and that they valued a quality hunt by seeing lots of mature bucks without seeing a lot of other hunters. Their over-riding concerns for this mule deer herd was the decline of mule deer numbers and the increase in white-tailed deer numbers, as well as concerns regarding habitat. Potential solutions brought forward to address these values and concerns included changes to current hunting season structures, continue addressing habitat issues and developing research needs.

Overview of Owl Creek/Meeteetse Mule Deer Herd Unit

Currently, the management goals of this deer herd is to provide quality buck hunting, allow mule deer populations to increase on public lands, and to address potential damage issues on private lands. The herd unit consists of five hunt areas (116, 117, 118, 119, & 120), which are all limited quota seasons and are managed under Special Management criteria (Figure 1). The post-season population objective was changed in 2014 from 8,000 to 5,000. The 2014 post-season population estimate is 29% below objective (Figure 2). Field personnel, landowners and most hunters agree
this herd is below desired numbers. Model trends currently indicate a slow decline in the population for the past 10 years, which mirrors that of field personnel and most landowners and hunters, along with classification sample sizes and harvest statistics. Poor habitat conditions, long-term drought, and increased harvest of deer on private lands due to potential damage have kept this population below objective.

Figure 1. Owl Creek/Meeteetse mule deer herd unit, hunt areas 116-120.

Both aerial and ground classifications surveys are used in obtaining post-season buck and fawn ratio for this deer herd (Figure 3). Routine classification routes for each Hunt Area have been maintained in order to reflect general trends in deer numbers over time. The number of deer classified has declined dramatically in recent years. In 2009, 1,335 deer were classified, while in 2014 only 601 were classified; a decline of 55%. Buck and fawn ratios have remained favorable in recent years, with a 6-year average of 38 bucks and 65 fawns per 100 does. The 2014 fawn ratio was 86:100, the highest on record.

Figure 2. Owl Creek/Meeteetse Mule Deer Herd Population Objective and Estimate, 2009-2014
Recent harvest statistics indicate hunting has gotten a little more difficult in this herd unit. Hunter numbers and harvest have declined the past six years by about 40-45% (Figure 4), while harvest success has dropped by 25% (Figure 5). The drop in hunter numbers and harvest is mostly due to Type 6 and 7 licenses quotas being reduced because of declining deer numbers and reduced damage issues. Type 1 hunter success continues to remain favorable at around 50-75%.
**Current Management Strategies by Hunt Area**

**Hunt Area 116:** Only about 25% of area 116 is public land, so hunter access can be difficult. Although the Pitchfork HMA provides excellent access in area 116, the HMA is closed to mule deer hunting because of low deer numbers. Damage on private crop lands is basically nonexistent in area 116, although the majority of mule deer in the area utilize irrigated hayfields. Landowner tolerance for mule deer varies, with most expressing concerns over declining numbers. Our current management strategy is to hopefully improve mule deer numbers while providing limited hunter opportunity.

**Hunt Area 117:** Area 117 is located exclusively on the Shoshone National Forest. Deer are distributed throughout the hunt area but at very low densities. Hunter success averages about 40%, with hunter effort being about 12-13 days/animal. Our current management strategy for area 117 is to provide a “high mountain” quality hunting experience with limited hunter numbers.

**Hunt Area 118:** Area 118 is interspersed with private and public lands. Hunter access isn’t an issue due to the existence of the Absaroka Front HMA, one large WIA and BLM lands. However, because of very low numbers of mule deer in area 118, hunter opportunity is limited. Much of area 118 has experienced large wild fires in the early 1990’s, along with prescribed fires in the early 2000’s. Thus, much of the habitat is in early successional stages, with limited shrub communities. Our current management strategy is to provide limited hunter opportunity while hoping to increase deer numbers.

**Hunt Area 119:** Area 119 continues to support relatively good numbers of deer with good buck ratios, which provides most hunters with a quality hunting experience. The area has good public access with plenty of public lands, and includes a portion of the Absaroka Front HMA. Damage issues aren’t much of a concern in the hunt area due to limited irrigated fields. However, Type 6 doe/fawn licenses have been common in the area in recent years to provide landowners an opportunity to reduce numbers if they desire. Our management strategy in area 119 has been to provide a quality hunting experience with a reasonable expectation of harvesting a good quality buck.

**Hunt Area 120:** Area 120 has limited hunter access due to the preponderance of private land. Much of the uplands are intermixed private and public land, whereas the lowlands are mainly private irrigated hay fields. Area 120 has always experienced damage issues. Doe/fawn harvest has been reduced in recent years because of declines in deer numbers and damage. Our management strategy for Area 120 has been to allow limited buck hunting in order to provide somewhat of a quality hunting experience, but at the same time allowing doe/fawn harvest to control damage issues.

**Public Participation and Involvement**
Involving interested publics was the key component of the OC/M mule deer initiative, and without the public’s involvement and input this initiative wouldn’t have succeeded. To accomplish this, several avenues were used to obtain feedback from a broad range of constituents, including landowners, Federal Agencies, NGO’s, hunters and interested publics.

This public involvement process first included a letter writing campaign to landowners and Land Management Agencies (Appendix A). The intent of this letter was to inform these landowners about the MDI process, and to invite them to attend the first round of public meetings on November 17 and 18 in either Meeteetse (Senior Center) or Thermopolis (Cultural and Historic Center). This same letter was sent to Federal land management agencies, including the Forest Service and Bureau of Land Management Offices in Cody and Worland, also inviting them to participate in the MDI process. In order to get the general public involved in this MDI process, WGFD news releases were printed in both the Thermopolis Newspaper and the Meeteetse Bulletin, inviting interested publics to attend the first initial meeting.

First MDI Public Meeting and Outcome

From these efforts a total of 17 publics attended and participated in the OC/M MDI information gathering meetings (Table 1). The first initial meetings in Thermopolis and Meeteetse began with introduction and logistics along with a brief explanation of the statewide MDI and its purpose, and then an educational presentation related to a statewide perspective of mule deer populations and mule deer hunter satisfaction. The second part of these meetings involved discussing participation objectives, schedules, framework, sideboards and expectations of this MDI. An informational presentation regarding and overview of the Owl Creek/Meeteetse herd unit, including current management, harvest statistics, and population trends was also presented.

Table 1. Number of constituents that participated in the Owl Creek/Meeteetse MDI meetings.

<table>
<thead>
<tr>
<th>Public Meetings</th>
<th>Landowners</th>
<th>FS/BLM personnel</th>
<th>Public/hunters</th>
<th>WGFD personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermopolis</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Meeteetse</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

After these presentations, meeting participants were grouped and asked to give feedback about their values and concerns associated with mule deer and mule deer hunting (Appendix B). During the breakout sessions, a department employee recorded the main points of the discussion on flip charts. Due to low turnout in Thermopolis, discussions were held as one small group while participants of the Meeteetse meeting were split into three groups. Participants in Meeteetse were asked to present their values and concerns back to the entire audience at the end of the meeting.

Overall, participants of the Owl Creek/Meeteetse mule deer initiative meetings were supportive of current season structures, and gauged a quality hunting experience by the opportunity to see (not necessarily harvest) a lot of mature bucks and not many other hunters. Although satisfied with their hunting experience, the majority of participants wanted to see more mule deer and larger buck mule deer. Concerns expressed were largely related to declining mule deer numbers.
and increasing white-tailed deer numbers with many participants placing a higher value on mule deer. Competition with white-tailed deer and/or elk was the most common concern. Meeting participants in Thermopolis expressed concerns related to habitat and were concerned that drought cycles have more influence than what we realize, and wanted more data related to how nutritional quality of habitat relates to population changes. Road kill was mentioned as a concern at both meetings and predation was a concern by two groups at the Meeteetse meeting. Individual participants in Thermopolis and Meeteetse expressed concern about and questioned why we are hunting bucks during the rut when the public’s goal is to have more and better quality bucks.

Second MDI Public Meeting and Outcome

The second round of public meetings started with a presentation regarding general mule deer biology and habitat requirements. Next, a review of the first meetings results were presented back to the participants, which were then asked to identify solutions and/or recommendations to address their concerns regarding this mule deer herd (Appendix C).

The most mentioned potential solutions were related to habitat, which included past affect of prescribed burns, where are habitat improvements needs (winter range vs. transitional ranges), ways to increase nutritional levels of deer, and current climate conditions seem to driving current habitat conditions, which are in turn driving current deer populations.

The second most mentioned solutions centered on changes to current hunting season structures, licenses quotas and season dates to help increase overall mule deer numbers and improve buck quality. Most participants were supportive of current mule deer hunting seasons, but some had ideas or thoughts on ways to improve it. Probably the biggest recommendation was to increase white-tailed deer harvest in order to lessen the competition with mule deer, thus hopefully increasing mule deer numbers. Another solution was to reduce or eliminate mule deer doe harvest, and another was to quite hunting bucks during the rut.

The next most heard solutions focused on research needs for this mule deer herd. These solutions varied, but mainly centered on finding out why mule deer aren’t surviving. Solutions that were discussed included survival studies, body fat conditions, affects on recruitment, pregnancy rates, and what habitats need improved.

Several other solutions and thoughts were brought up during the second meeting. These mainly involved highway road-kill, predation, non-motorized hunt areas, and climate. Some participants felt prohibiting planting of palatable forage along roadways would reduce highway mortalities, along with providing crossing areas for migrating deer. Predators did not appear to be a big issue with these participants since most only suggested management of predators is continued. Many of the participants felt climate conditions are affecting this deer herd, and the only way to increase deer numbers was to increase moisture conditions.

Third MDI Public Meeting and Outcome
The three main solutions the public felt most strong about, and that would likely benefit the Owl Creek/Meeteetse mule deer herd included, changes to hunting season structure, habitat management projects and research needs, with secondary solutions focusing on highway/road-kill conflicts and predator management. Therefore, the goal of the third round of public meetings was to present to the public a more focused version of these solutions, specifically management recommendations that would be both effective and feasible for benefitting this mule deer herd (Appendix D). Recommendations that had merit but weren’t necessarily going to provide effective or feasible management were also discussed.

The first main solution discussed focused on current hunting season structure and how it could be modified to possibly benefit this deer herd, both in terms of increasing mule deer numbers and providing better quality bucks and hunting experiences.

A. Hunting Season Structure

1. Increase opportunity to harvest more white-tailed deer
   a. Increase the license quotas for white-tailed deer hunting
   b. Lengthen the white-tailed deer seasons
   c. Allow unused licenses be valid for white-tailed deer
   d. Have general doe/fawn white-tailed deer seasons
   e. Allow white-tailed deer licenses to be valid in multiple hunt areas
   f. Increase and improve hunter access for white-tailed deer hunting

2. Limit mule deer doe/fawn harvest
   a. Reduce or eliminate doe/fawn mule deer licenses (hunting)
   b. Change Type 1 “any deer” licenses to “antlered deer”

3. Implement early and late season limited quota licenses for mule deer
   a. Split current Type 1 license quotas between an early (October) and late (November) hunting season
   b. Alternate between early (October) and late (November) season hunting every 3-5 years
   c. This would likely reduce buck harvest, thus increasing buck numbers
   d. Hunting quality would improve because of fewer hunters in the field at one time
   e. Would make the late (November) hunt a premier license and very difficult to draw

4. Implement antler point restrictions (4-point or better season)
   a. Would decreases overall buck harvest by restricting what hunters can harvest
   b. Usually only improves buck numbers, but not quality
   c. You end up harvesting the bucks you are trying to save (4 point deer)
   d. In some cases buck quality has gone down with point restrictions
   e. Increases the number of bucks shot and left in the field
f. Antler point restrictions may discourage hunters from hunting due to the difficulty of identifying a legal buck

**On-line Hunter Survey**

An online Google survey was conducted to assess hunter attitudes and opinions of the status and management of deer and habitat in the Owl Creek/Meeteetse herd unit. An invitation to participate in this on-line survey was mailed to hunters who had held licenses in any of the five hunt areas within the years 2010-2014. Of 2,005 hunters who received an invitation letter, only 138 (6.9%) participated in the survey. Survey questions and hunter responses are summarized in Appendix E.
Appendix A

Landowner list used to send out initial Owl Creek/Meeteetse MDI invite letter.

<table>
<thead>
<tr>
<th>Landowner</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitchfork Ranch</td>
<td>36 Road 5RU, Meeteetse, WY 82433</td>
</tr>
<tr>
<td>Tim Upton</td>
<td>3833 Gooseberry Cr., Meeteetse, WY 82433</td>
</tr>
<tr>
<td>LU Sheep Company</td>
<td>PO Box 699, Worland, WY 82401</td>
</tr>
<tr>
<td>Josh Longwell</td>
<td>216 Hanging Horse Rd., Thermopolis, WY 82443</td>
</tr>
<tr>
<td>Dee Hillberry</td>
<td>P.O. BOX 210 Thermopolis, WY 82443</td>
</tr>
<tr>
<td>George Pennoyer</td>
<td>3390 Owl Creek Rd. Thermopolis, WY 82443</td>
</tr>
<tr>
<td>Richard Wagner</td>
<td>P.O. BOX 51110 Casper, WY 82605</td>
</tr>
<tr>
<td>Frank Robbins</td>
<td>2766 Owl Creek Rd. Thermopolis, WY 82443</td>
</tr>
<tr>
<td>Joe Campbell</td>
<td>2884 Owl Creek Rd. Thermopolis, WY 82443</td>
</tr>
<tr>
<td>Anthony Martinez</td>
<td>3440 Owl Creek Rd. Thermopolis, WY 82443</td>
</tr>
<tr>
<td>Rod Graves</td>
<td>4070 Grass Creek Rd. Thermopolis, WY 82443</td>
</tr>
<tr>
<td>Larson Ranch Company</td>
<td>PO Box 104, Meeteetse, WY 82433</td>
</tr>
<tr>
<td>Renner Land LLC</td>
<td>PO Box 271, Meeteetse, WY 82433</td>
</tr>
<tr>
<td>John Leroux</td>
<td>PO Box 51110, Casper, WY 82605</td>
</tr>
<tr>
<td>Owl Creek Ranch Holdings LLC</td>
<td>2518 Owl Creek Rd, Thermopolis, WY 82443</td>
</tr>
<tr>
<td>Antlers Ranch</td>
<td>596 Road 4DT, Meeteetse, WY 82433</td>
</tr>
<tr>
<td>Fiddleback Ranch</td>
<td>363 Rd. 4EU, Meeteetse, WY 82443</td>
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<tr>
<td>Craig Griffith</td>
<td>1429 Rd 4DT, Meeteetse, WY 82433</td>
</tr>
<tr>
<td>91 Ranch, James Stuart</td>
<td>870 Road 5WT, Meeteetse, WY 82433</td>
</tr>
<tr>
<td>Eric and Craig Geving</td>
<td>344 Road 3JC, Meeteetse, WY 82433</td>
</tr>
</tbody>
</table>

30 October 2014

Dear Mule Deer Enthusiast and Landowner:

The Wyoming Game & Fish Department (WGFD) is inviting you to attend a public meeting on 17-18 November in either Meeteetse (Senior Center) or Thermopolis (Cultural and Historic Center). The intent of this meeting is to gather your interests and issues for the Owl Creek/Meeteetse mule deer herd. The Owl Creek/Meeteetse mule deer herd unit contains Hunt Areas 116-120 and is most of the area west of Wyoming Hwy 120 between Meeteetse and Thermopolis. Land status is about 40% public and 60% private land, and the hunting seasons are limited quota. It is important for the WGFD to develop a list of issues and goals to manage this herd, which will help us direct future management. Mule deer management is very important to the WGFD, and this same process is also being undertaken in several other deer herds around the state.

We hope you can join us in this opportunity to provide input on the management options, learn about the current herd status and to talk with WGFD managers about mule deer management. We will meet at the Hot Springs Museum and Cultural Center from 6-9PM on the 17th November and then the Meeteetse Senior Center from 6-9PM on the 18th. You do not have to attend both meetings since we will cover the same information at each. If you have any questions about the Owl Creek/Meeteetse Mule Deer Initiative or our series of meetings please contact either Tim Woolley or Tara Hodges at the Cody Regional Office at 307-527-7125.

Sincerely,

Tim Woolley
Wildlife Management Coordinator

Appendix B
Public values and concerns associated with Owl Creek/Meeteetse mule deer herd.

Public Input: Thermopolis Meeting - 11/17/2014

1. Like seeing lots of deer, both bucks and does
2. Would like more bucks and better quality
3. Ratio of whitetail and mule deer has reversed - like to see mule deer return as dominate species
4. Road kill is a concern
5. If we want to see more deer, we need better habitat
6. Would like to see more experimental approach to both identify issues and increase quantity/quality
7. Would like to see deer for future generations
8. Habitat seems to be ok, but no mule deer
9. Drought cycles have more influence that we realize
10. How does nutritional quality of habitat relate to populations?
11. Need to be cautious of population models (showing population reduction)
12. Are we selecting for mediocrity in genetics by pressure on one end and lack of pressure on the other end?
13. If we want higher quality, why are we hunting during rut?
14. Put data on website- list names and responsibilities of personnel

Public Input: Meeteetse - 11/18/2014

Group 1:
1. Value the chance for a big buck - don't need to get a buck each year
2. Value lack of crowding
3. Could have more access
4. Success measured by the chance to see a buck
5. Season management has been satisfactory
6. Fear of hunting becoming a little "elitist"
7. Elk competition may be a factor
8. Competition with white-tailed deer on agriculture lands - negative to neutral perception
9. Opportunity to harvest doe if population can sustain it
10. Comfortable with familiar landscape - change of hunter numbers can change experience
11. Like dependability at preference points
12. Like stability in license numbers- like gradual change if changes are needed
13. Prefer opportunity over quality in general but OC/M is ok
14. Prefer quality over opportunity
15. Would like to see more opportunity for hunter safety classes - recruitment of youth is important
16. Hunter mentor program is good

Group 2:
1. Value high buck: doe ratios
2. Value low crowds
3. "Quality buck” older age class
4. Want higher numbers of mule deer
5. Concern in increasing numbers of White tail
6. Value mule deer over whitetail
7. Decrease white tail in mule deer habitat
8. Predation effects on mule deer populations
9. Study and influence/increase fawn survival
10. Concerns of disease effect on population
11. Mule deer out-competed for space by elk and white tail
12. Long season structure increases pressure disturbance on mule deer
13. Hunting bucks during rut (Nov) decreases quality
14. Want opportunity but would like to go each year
15. Are we managing for mule deer habitat or for other species?
16. Is loss of migration routes a concern?
17. Road kill is significant mortality factor (road side habitat)

**Group 3**
1. Value isolation - less interruption by other hunters
2. Less tag/pressure - seeing more deer
3. Not shooting small bucks - let bucks mature
4. Consistency in the hunting experience
5. Competition with whitetails
6. Seeing more deer - opportunity to see more bucks
7. Predation - seeing less carnivores on landscape
8. Flexibility in mule deer tags to later take white tail - extend to white tail only
9. Seeing quality bucks
10. Less vehicle traffic - road closure/parking
11. Knowing your part in management - even if draw tags less
12. Preference points for residents
Appendix C.

Public solutions and recommendations to address OC/M mule deer concerns

Meeteetse 12/8/2014 Public Meeting

Habitat
1. Willow & aspen release from browsers are helping mule deer. Possibly effects from wolves.
2. Effects from 2,4-D sprays on forbs seems to be persisting.
3. Use RX burn rather than spraying to address habitat concerns. (forbs)
4. Manage habitat for benefit of more than one species.
5. Conserve sagebrush but burn conifer encroachment.
6. Type 1 any deer at a different time than type 3 license - limited late season
7. Role of cattle on shrubs?
8. To go into winter healthy, requires good late summer habitat. Look at mule deer competition with livestock in late summer range.
9. Summer range habitat importance of going into winter range strong
10. Are the artificial methods to help boost habitat in all ranges?
11. Habitat: utilize wildfire, prescribed fire, and mechanical treatments to improve mule deer habitat on identified important seasonal ranges. What scale do treatments need to be?

Season Structure/Dates
1. 10/1 - 12/31 any white-tailed deer outside of riparian areas.
2. More white-tailed deer tags.
3. Increase white-tailed deer harvest #s by lengthening season dates.
4. More white-tailed doe harvest, 4 point or better, control burns.
5. Cut mule deer tags - increase white-tailed deer tags
6. In 118, after any deer season is over allow white-tailed harvest on that tag, and don’t allow 116 & 117 to hunt area for white-tailed deer
7. Cut the number of mule deer tags
8. 4 point or better on bucks
9. Don't kill does
10. Stop harvesting does
11. Limit mule deer doe harvest

Research
1. Collar does to study mortality causes
2. Need more research to understand causes of mule deer population declines, to better understand needed mgmt responses.
3. Research what is affecting levels of recruitment into the population.

Road-kill
1. Don't plant clover on highways
2. Facilitate deer movement crossings across highways

**Predators**
1. Role of predators
2. Manage predators

**Misc.**
1. Are current population counts consistent with past counts?
2. Different methods of measuring deer numbers?
3. Resident preference point system.
4. Limit motorized access during critical times
5. Provide opportunities to camp/hunt without seeing lots of other people - Non-motorized areas?
6. Rain dance – we need more moisture
7. Modify barbed wire fences to 42" or less
6. Climate is ultimate driver and we can’t do anything about it

**Thermopolis 12/9/2014 Public Meeting**

**Habitat/Research:**
1. Need body fat info of does (sample size?)
2. Potential collar/ultrasound study (is money available?)
3. Finding out where habitat needs improved
4. Take a statewide look- focus money on most needed areas
5. Is water a limiting factor for mule deer?
6. Climate is driver

**Season structure/dates**
1. Change season dates so we are not hunting in the rut (some concern w/ hunter success)
2. Would potentially like to see increased white-tailed deer harvest but not longer season
3. Access is an issue in Owl Creek even if white-tailed deer tags are increased

**Questions raised**
1. Why are white-tailed deer doing so well, when mule deer are not?
2. Need to look at historical records
3. Let’s find out what normal is. (high populations, species composition)
4. What’s the target?
5. Research is the critical component
6. We have identified the major drivers that can’t be changed
Appendix D

Specific management recommendations derived from public solutions

A. **Hunting Season Structure**

1. Increase opportunity to harvest more white-tailed deer
   a. Increase the license quotas for white-tailed deer hunting
   b. Lengthen the white-tailed deer seasons
   c. Allow unused licenses be valid for white-tailed deer
   d. Have general doe/fawn white-tailed deer seasons
   e. Allow white-tailed deer licenses to be valid in multiple hunt areas
   f. Increase and improve hunter access for white-tailed deer hunting

2. Limit mule deer doe/fawn harvest
   a. Reduce or eliminate doe/fawn mule deer licenses (hunting)
   b. Change Type 1 “any deer” licenses to “antlered deer”

3. Implement early and late season limited quota licenses for mule deer
   a. Split current Type 1 license quotas between an early (October) and late (November) hunting season
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   c. This would likely reduce buck harvest, thus increasing buck numbers
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4. Implement antler point restrictions (4-point or better season)
   a. Would decreases overall buck harvest by restricting what hunters can harvest
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   d. In some cases buck quality has gone down with point restrictions
   e. Increases the number of bucks shot and left in the field
   f. Antler point restrictions may discourage hunters from hunting due to the difficulty of identifying a legal buck

B. **Habitat Management**

1. Continue cooperating and collaborating with land management agencies and landowners on habitat related projects and management
2. Address conifer encroachment onto important mule deer habitats
3. There are limited sagebrush treatment project opportunities
4. Try to promote and encourage aspen and willow (deciduous shrub) growth and habitats
C. Research Needs

1. Identify when/where nutrition is limited in relation to habitat
2. Body condition research
3. Research causes of mortality or lack of recruitment
4. Research effects of climate on habitat and populations
5. Evaluate if water is a limiting factor
6. Evaluate historical records to determine normal population levels (Are expectations too high?)

D. Highway Issues

1. Is highway mortality significant enough to worry about?
   a. average about 20 road-killed mule deer per year along hwy120
2. Incorporate Statewide Migration Initiative into this mule deer herd
3. Further investigate WyDOT reflector study north of Thermopolis
4. Continue to recommend non-palatable forage within highway right-of-ways

E. Predator Management

1. Mountain lion harvest quota
   a. Increased harvest quota in area 20 by 16 since 2007
2. Black Bear Harvest
   a. HA 32 went to unlimited mortality quota
   b. In HA 27, bear harvest increased from 4 bears in 2007 to 13 bears in 2013
3. WGFD contributes $100,000 annually to the WY Animal Damage Management Board (ADMB) to fund predator management projects
4. Wildlife Services/USDA, in cooperation with Park and Hot Springs Co. Predator Management Districts remove coyotes to protect livestock
Appendix E

Owl Creek/ Meeteetse Mule Deer Herd Unit Survey Responses
Responses displayed graphically and by number and percent of total (138 total responses)

1. In general, what is the most important reason you hunt mule deer?

- For the meat: 20 (14.5%)
- For a trophy: 47 (34.1%)
- To be with family and friends: 15 (10.9%)
- For the sport and recreation: 46 (33.3%)
- To be close to nature: 10 (7.2%)
- Don’t know: 0 (0%)

2. In what hunt area have you hunted mule deer the most often in the past five years?
3. What are the main reasons you chose to hunt mule deer in the hunt area you selected above?

- Recommended by family/friend: 27 (19.6%)
- Close to home: 27 (19.6%)
- Access (area is easy to access, have permission): 32 (23.2%)
- Hunted in the same area before: 34 (24.6%)
- Good chance of harvesting a deer: 25 (18.1%)
- Large antlered bucks in the area: 53 (38.4%)
- Hunting other game in addition to deer: 15 (10.9%)
- Few other hunters in the area: 18 (13%)
- Aesthetic reasons: 16 (11.6%)
- Season dates worked well with schedule: 18 (13%)
- Liked the regulations governing the area: 9 (6.5%)
- Don’t know: 0 (0%)
4. How satisfied were you with the overall quality of your mule deer hunting experience in the hunt area selected in question two?

- Very satisfied: 40 (29%)
- Somewhat satisfied: 46 (33.3%)
- Neither satisfied nor dissatisfied: 11 (8%)
- Somewhat dissatisfied: 24 (17.4%)
- Very dissatisfied: 15 (10.9%)

5. How satisfied are you with the number of mule deer in the hunt area selected in question two?

- Very satisfied: 25 (18.1%)
6. How satisfied were you with the number of mature buck mule deer in the hunt area selected in question two?

<table>
<thead>
<tr>
<th>Satisfaction Level</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very satisfied</td>
<td>14</td>
<td>10.1%</td>
</tr>
<tr>
<td>Somewhat satisfied</td>
<td>38</td>
<td>27.5%</td>
</tr>
<tr>
<td>Neither satisfied nor dissatisfied</td>
<td>18</td>
<td>13%</td>
</tr>
<tr>
<td>Somewhat dissatisfied</td>
<td>40</td>
<td>29%</td>
</tr>
<tr>
<td>Very dissatisfied</td>
<td>28</td>
<td>20.3%</td>
</tr>
</tbody>
</table>

7. What do you think are the three (3) most important issues affecting the mule deer population in the Owl Creek/Meeteetse herd unit?
8. Of the three issues you selected in question seven, which do you think is the most important?
9. What do you think is the most important issue affecting the number of bucks in the Owl Creek/Meeteetse herd unit?
10. How much influence do you think habitat condition has on the number of mule deer present in the Owl Creek/Meeteetse herd unit?

Major influence 57 41.3%
Minor Influence 53 38.4%
No influence 13 9.4%
Don’t know 14 10.1%
11. What three habitat issues do you think affect mule deer numbers the most?

- Lack of forage
- Lack of quality forage
- Too much removal of sagebrush from past burns/sprays
- Lack of conifer cover
- Conifer encroachment into sagebrush stands
- Improper livestock management
- Too many elk
- Lack of watering areas
- Drought
- Too much human disturbance on winter ranges
- Decrease of aspen stands
- Habitat has no effect on mule deer numbers
- Don’t know
- Other

Lack of forage 16 11.6%
Lack of quality forage 66 47.8%
Too much removal of sagebrush from past burns/sprays 10 7.2%
Lack of conifer cover 6 4.3%
Conifer encroachment into sagebrush stands 12 8.7%
Improper livestock management 30 21.7%
Too many elk 17 12.3%
Lack of watering areas 8 5.8%
Drought 58 42%
Too much human disturbance on winter ranges 24 17.4%
Decrease of aspen stands 13 9.4%
Habitat has no effect on mule deer numbers 6 4.3%
Don’t know 24 17.4%
Other 18 13%

12. What can be done to better manage mule deer in the Owl Creek/Meeteetse herd unit?

- More deer
- The last yr. I hunted 119 drought conditions left winter range in poor condition for all animals. I normally hunt Grass Creek and LU Ranch is a good steward of land, however I did see evidence of overgrazing on
what was already poor winter range grasses by cattle. LU on the other hand has done alot for wildlife putting in water guzzlers that benefit wildlife, and controlled burns. I hunted Elk in Grass Creek in 2014 with my Dad and we saw better deer than we had in previous years, and the range was in better condition for wintering wildlife than in previous years.

- No doe season when population is below objective
- aggressive white-tail deer management/harvest
- i think the herd just needs time to recover from hard past winters
- Quit getting rid of the Russian Olive trees - they are a good food and cover for deer & other animals.
- Give me a license next yr!!
- Allow hunting of Predators including Grizzly Bears and Wolves
- Quit overlapping the seasons. You are hunting the same deer more than once in 116 and 117. The highways are killing lots and lots of our deer down there.
- Less mountain Lions, Grizzly Bears & wolves
- Habitat improvement projects
- White tail tags o.t.c.
- G & F cannot control mother nature. 2014 was a good yr. for improving winter range conditions but prior years drought effected the forage available to game in the winters previous years more than 2014. I hunted Elk in this unit, and frequently the drought left range in poor condition for game. Hopefully the mule deer will see an increase. A point restrictions could protect mature bucks if necessary to allow hunter opportunity but not allow for taking of immature bucks.
- Reduce harvest for a couple of years
- manage wolfs
- Shoot every last *+-%@#$* coyote
- WGFD do a fine job in herd management. Me being an outsider from California will again say that WGFD does a great job and I will support whatever the service see's necessary
- reduce atv use
- Harvest of too many young bucks.
- Limit tags sold
- Predator reduction Wolves & Bears
- Restrict size of bucks to be taken
- less tags and a later season
- FIGURE OUT WHY THE POPULATION IS SO MUCH LOWER THAN IN THE 70's,80's and 90's and try to fix it...
- I hunted 116 in 2014 and harvested a mature buck mule deer buck. The weather was mild for October, no snow, and mule deer were observed on winter range, but many had not migrated when I hunted. I hunted WT in 2013 in 116 in November, and saw quite a few mature mule deer bucks in the closed season on winter range. Many areas in 116 have limited access for hunters so deer in this Unit particularly have sanctuary type habitat where they can be observed but not hunted which is good for overall quality of deer herd. Prior years drought probably hurt Mule Deer the most, but hopefully this is behind us in this area.
- I think make the white-tail kill more liberal
- continue to work with the private landowners to allow access for hunters so hunter harvest is an effective tool
- change dates season is to early
- Lower tag numbers
- Change the dates for this hunt to not coincide with the outfitters sheep hunting.
- Go back to small clear cuts in the wooded areas
- I have had a 117 tag 4 times in the last 12 years, I think a antler point restriction would assist in seeing better quality mule deer like I used to see 10 years ago. Also maybe cutting the
- I believe there has been too many 3-4 year old bucks harvested.
- Appears as limited # of mature bucks in the area. Too many 3-4 year olds are harvested.
- habitat management by land owners
- predator control
- better farming and ranching techniques, stop over grazing, grow more desirable food crops, predator control,
n/a
- Mt. Lion & wolf hunting
- decrease predation issues
- Get rid of road hunters and out of states group hunting
- stop hunting of does
- place antler point restrictions
- most ranches have no mule deer hunting
- nothing
- Increase quality habitat such as aspen stands and bitterbrush. i see a lot of competition from whitetail as well..which is happening all over Wyoming. also, i would like to see wyoming offer seperate season for say, muzzleloader, or late archery seasons to break up the number of other hunters in the field at the same time.
- kill more wolves
- less tags
- Predation control- better cattle grazing practices (Frank Robins), less tags, better winter range
- Probably should reduce the number of Doe licenses or make it a Buck Only tag., too many road hunters shooting small deer just to kill something in the area.
- Control predators and manage for trophy quality.
- Get rid of some predators
- habitat conditions are better than they have been in decades yet mule deer decrease and whitetail increase
- Work on predation (animal and man), improve winter habitat by reducing elk numbers,
- manage wolves/bears
- none
- Don't know
- increase white tail harvest
- Reduce the number of late season tags during the rut and try to spread the hunters out from Grass Creek in 119.
- reduce harvest
- Reduce White-tail populations
- Periodic 4 pnt or better seasons
- Continue to limit ATV/UTV Access
- Sell fewer hunting licenses and aggressively pursue predators.
- point restriction 4 x 4 or better
- less mule deer tags given, and more whitetail tags given
- control wolves better
- We need local control over predators
- most ranchers have no mule deer hunting
- More access to lands that are almost completely landlocked
- remove cattle pirating, illegally grazing
- reduced access by ATV's
- Reduction of Bears and Wolves in the area
- not qualified to say
- Don't hunt buck during rut
- This unit isn't a high population mule deer area, but I feel the grizzly and wolves really demolished this unit.
- Increase predictor hunting and trapping. Less wolves and lion. Better habitat such as aspen tree ect.
- latter season
- I'm not sure (in the high country). Although we did not see many deer until we got over into an area that had been burned, we still knew the deer were in the other areas. The issue is that many hunters do not have the patience or understanding to hunt high country deer (i.e. lots of glassing-they will eventually show themselves). Could the burned areas have better, renewed forage for the mule deer or was it just the fact that they could be seen more readily due to the lack of conifer cover? It could more than likely be a little of both. Either way, they appear to have ample habitat in the Wilderness Area.
- Fewer tags. No Doe tags
- nothing
- Overall WGFD does an excellent job to manage their herds
- Cut doe season
- Habitat improvements and waters to distribute wildlife.
- Work on predation (animals and man), reduce the number of elk to improve habitat
- decrease amount of buck tags to help increase quality of the area again for mature bucks
- Continued current management, increase lion quota and allow the legal harvest of Wolves in Wyoming.
- predator CONTROL
- Give biologists big pay raises
- I honestly can't answer this
- Hunters that harvest immature bucks.
- Not sure

13. Please select all answers that apply to you in relation to this mule deer herd unit:

- I am a resident hunter: 91 (65.9%)
- I am a nonresident hunter: 46 (33.3%)
- I am an outfitter: 2 (1.4%)
- I am a livestock producer: 5 (3.6%)
- I am a farmer: 5 (3.6%)
- I am a landowner: 19 (13.8%)
- Other: 8 (5.8%)