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Platte Valley Mule Deer Plan



Wyoming Game & Fish Department

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	iv
EXECUTIVE SUMMARY	4
INTRODUCTION.....	12
PUBLIC PARTICIPATION.....	16
ISSUES, OBJECTIVES, AND STRATEGIES ADDRESSED.....	18
ISSUE 1: POPULATION MANAGEMENT.....	18
ISSUE 2: HABITAT MANAGEMENT	25
ISSUE 3. PREDATOR MANAGEMENT.....	37
ISSUE 4. ACCESS.....	41
ISSUE 5. DISTURBANCE.....	44
ISSUE 6. OUTREACH, PARTNERSHIPS, AND RESPONSE	47
LITERATURE CITED	51
APPENDIX A – Hunter Attitude Survey.....	53
APPENDIX B – Results First Round Workshops.....	68
APPENDIX C – Results Second Round Workshops	69
APPENDIX D. Responses to actions identified by the public, but not currently addressed in this plan.	89
APPENDIX E. Responses to written comments on the draft Platte Valley Mule Deer plan.....	94

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The Wyoming Game and Fish Department (WGFD) sincerely thanks all those who participated in the workshops and/or provided input on this plan during the Platte Valley Mule Deer Initiative. In particular, the WGFD is indebted to Jessica Clement who, with her guidance, leadership and expertise, made this process meaningful for all involved. In the spirit of the North American Wildlife Conservation Model, the WGFD is committed to the continuation of this collaborative process as we all strive to sustain a healthy mule deer population in the Platte Valley.

The Platte Valley Mule Deer Initiative represents an enormous investment in time and resources but without the enthusiastic and consistent participation of many members of the public this would have been nothing more than a hollow exercise.

We wish to acknowledge the many individuals who felt enough personal interest to forego evenings at home to travel to our workshops in sometimes rough weather and actively make their contributions to this effort. We are also grateful we could benefit from a wide range of stakeholder values and perspectives. We don't have the space to acknowledge everyone but below is a list of stakeholder groups as they identified themselves. The WGFD provided the venue for this plan but it was the public participation that provided the substance. This is a resource that truly belongs to everyone.

Stakeholder Groups That Attended: Thank You!

- *Bowhunters of Wyoming*
- *Bureau of Land Management*
- *Concerned Citizens*
- *Conservation Districts*
- *Individual Hunters*
- *Landowners*
- *Local print, radio and other media in all locations*
- *Local Ranches in all locations*
- *Media from other areas of Wyoming e.g. Casper Star-Tribune*
- *Outfitter Organizations*
- *Rocky Mountain Bird Observatory*
- *Rocky Mountain Elk Foundation*
- *Sportsmen*
- *State legislators*
- *Teddy Roosevelt Conservation Partnership*
- *Trout Unlimited*
- *The Mule Deer Foundation*
- *University of Wyoming Extension*
- *University of Wyoming Faculty and Associates*
- *University of Wyoming Students*
- *USDA Forest Service*
- *Wyoming Conservation Corps*
- *Wyoming Wildlife Federation*
- *Wyoming Department of Transportation*

EXECUTIVE SUMMARY

In July 2011, the Wyoming Game and Fish Department (WGFD) implemented a process, the Platte Valley Mule Deer Initiative (PVMDI), to increase public involvement in the management direction of the Platte Valley mule deer herd. Our primary goal was to develop a management plan specific to this herd unit, through a collaborative process with all interested stakeholders. The Platte Valley mule deer plan is tiered from the statewide Mule Deer Initiative approved by the Wyoming Game and Fish Commission in July 2007.

The WGFD surveyed Platte Valley mule deer hunters during July 2011 to better understand their perspectives on a variety of issues affecting management of this herd. Once that was completed, the WGFD engaged the public in face-to-face workshops using a process called “collaborative learning”. Collaborative learning enables stakeholders, including the initiating agency, to discuss issues in an open forum, allowing for meaningful dialogue, and active learning. From August 2011 through February 2012, WGFD conducted a series of twelve workshops in Saratoga, Rawlins, Laramie, and Cheyenne. The ultimate goal of this collaborative process and workshops was to develop this plan to guide mule deer management in the Platte Valley.

This plan is based on management issues and actions identified through the collaborative learning process. Management issues identified during this process include: Population Management, Habitat, Predator Management, Access, Disturbance, and Outreach, Partnerships, and Response.

In this plan we present strategies and actions for improvement that are feasible considering WGFD resources and statutory authorities. We also present “Management Actions in Progress or Completed” which will also contribute to the “Management Actions Planned” identified through this process.

The proposed WGFD management actions to be implemented in response to public input during this collaborative process are listed below and described in greater detail in the body of this plan.

1. Population Management

A. Improve the quality of the deer hunting experience in the Platte Valley herd unit.

- WGFD will propose an antlered only general license structure for the 2012 season.
- WGFD will propose a Limited Quota only structure for the 2013 through 2015 seasons. After the 2015 season, WGFD will evaluate the effectiveness of this season structure on hunter participation and satisfaction and through the collaborative process develop recommendations for future hunting seasons.
- WGFD will conduct a sightability survey to gauge any changes in population size in January/February 2016 after the 2015 season.

B. Manage deer numbers in the Platte Valley to a population size acceptable to public demands and supported by available habitat

- Starting summer 2012 existing mule deer habitat data will be evaluated in cooperation with federal agencies and the Saratoga-Encampment-Rawlins Conservation District (SERCD).
- During winter 2013/14 WGFD will evaluate the sustainability based on habitat monitoring, harvest trends, and herd ratios of the current population objective of 20,000 wintering deer. This evaluation, and any proposed change in the objective, will be taken to the public for their review and critical consideration.

C. Maintain recreation management of the Platte Valley mule deer herd, but evaluate success and direction of management using harvest statistics collected from deer harvested rather than buck:doe ratios that skewed by deer migrating between Wyoming and Colorado.

- Starting in fall, 2012 WGFD will recommend hunting seasons designed to increase hunter success, reduce the harvest of yearling bucks, and allow a greater proportion of the bucks within the herd to reach a trophy class.
- Starting in fall, 2012 effort by WGFD personnel to field check harvested mule deer will be increased. In addition to data currently collected, WGFD personnel will also collect information on antler points and antler spread of harvested bucks to monitor buck quality.
- Starting in fall, 2012 WGFD personnel will collect antler class data on bucks observed during classification sample collection.
- Given the lack of current baseline data on antler spread in Platte Valley harvests and the novelty of using harvest statistics to monitor management success, each of these three criteria will be re-evaluated every three (3) years starting in 2015.
- Hunter satisfaction will be gauged starting with the 2012 season using the harvest survey hunter satisfaction measure. It is WGFD goal to achieve at least 60% of respondents replying they are “satisfied” or “very satisfied”.

D. Manage elk and white-tailed deer numbers in the Platte Valley to decrease interspecies competition.

- WGFD will continue to implement elk hunting seasons designed to manage populations at objective (+/- 20%) in the Snowy Range and Sierra Madre Elk Herd Units.
- WGFD is considering reducing cost of the “cow/calf” licenses to increase license sales.

2. Habitat

A. Manage and Enhance mule deer habitat in the Platte Valley to sustain mule deer numbers at current levels in the short-term and improve habitat condition to increase mule deer in the long-term.

- Starting in April, 2012 WGFD will collaboratively develop the “Platte Valley Habitat Partnership” (PVHP). The PVHP is envisaged to at least include USFS, BLM, NRCS, SERCD, landowners, sportspeople, NGO’s, and outfitters.

- Develop a “Memorandum of Understanding” agreed to by appropriate agencies during summer, 2012 to effectively implement needed habitat projects.
- Seek funding to provide seed money to leverage other sources of funding to implement projects. Initial efforts will be completed by May, 2012.
- WGFD will dedicate a position as a Habitat Biologist to participate in and support the partnership during spring, 2012. This position will serve as a habitat biologist/expert to provide technical expertise to the PVHP, coordinate their activities, assist with NEPA planning/ documentation, plan needed meetings, oversee habitat inventories/projects, keep the partnership focused, etc.

B. Restore and improve all seasonal habitat types for mule deer throughout the Platte Valley.

- Considering other wildlife habitat needs and resource users WGFD will support the PVHP and work with Medicine Bow-Routt National Forest (MBRNF) and BLM’s Rawlins Field Office personnel, landowners, and others to conduct habitat treatments in beetle killed areas, enhance forage quality on mule deer summer range, and enhance mule deer transition and winter range in various shrub communities.
- WGFD will support the PVHP to develop a plan to improve mule deer habitats on a broad scale to sustain and ultimately increase mule deer numbers. Though left to the PVHP, the WGFD will encourage this plan is developed by June, 2013. WGFD will encourage and assist federal agencies to streamline processes to react to events or opportunities to enhance mule deer habitats.
- WGFD will reinitiate in spring, 2012 annual coordination meetings with the BLM, MBRNF, Natural Resource Conservation Service (NRCS), and other land management agencies to discuss new projects, habitat conditions, vegetation treatment projects and other management activities recommended.

C. Control invasive and noxious plants on mule deer range.

- Implement, as a standard on all habitat projects, measures to prohibit or eliminate invasive and noxious weeds.
- Support and implement new research and methods to reduce prevalence of cheatgrass in critical mule deer habitat.
- Establish a “Weed ID and Control” day during summer 2013 with the local weed and pest district for landowners and the general public.

D. Increase monitoring of important mule deer habitat.

- Utilize habitat assessments as a general inventory of condition, species composition, utilization, and possible future needs of shrub stands in the valley. This information will be used by the PVHP to develop their habitat management plan during 2012/2013.
- Work with agency, NGOs, and private partners during summer, 2012 to develop teams to measure vegetation at established monitoring transects in the Platte Valley.

- Starting in fall, 2012 WGFD will monitor utilization and production of key shrubs at an additional 15 shrub monitoring transects established within the southern portion of the Platte Valley mule deer herd unit.
- Starting winter, 2012/13 WGFD will collect fecal samples from big game species on mule deer winter range to better understand food habits and diet overlap.

E. Minimize impacts to Platte Valley mule deer herd from energy development.

- As needed, WGFD will identify and employ habitat treatments for Platte Valley mule deer as mitigation for habitat losses due to energy development.
- Starting immediately WGFD and the PVHP will consider using WLCI moneys to fund habitat treatments in the Platte Valley.
- WGFD will work with the BLM and USFS during permitting and project development to locate development footprint in least sensitive areas.
- WGFD will work with the BLM and USFS to require development consistent with the WGFD's and Western Association of Fish and Wildlife Agency's "Energy Development Guidelines for Mule Deer (Lutz et al. 2011).

F. Use WGFD lands to test new habitat improvement techniques.

- Starting in spring, 2013 WGFD will conduct legume seeding on Pennock.
- During winter, 2013/14 WGFD will evaluate use of livestock grazing to benefit mule deer on WGFD lands in the Platte Valley.
- Starting in fall, 2012 WGFD will conduct cheatgrass control and document subsequent management to determine best post-treatment management methods.
- Starting in 2013, WGFD will attempt to re-establish bitterbrush or other preferred mule deer browse species on WGFD lands in the Platte Valley.
- Starting in spring, 2014 WGFD will apply fertilizer to existing shrub stands on WGFD lands in the Platte Valley.

G. Respond to changing forest structure and condition as a result of pine beetles.

- WGFD will support and assist the PVHP to amend the Platte Valley Habitat Plan as forest habitats change due to beetle kill.

H. Improve mule deer habitats on private lands.

- WGFD will explore establishing "habitat easements" on Wyoming State Land Board (SLB) lands to compensate SLB for revenue while improving deer habitat on state land during winter 2012/13.
- WGFD will identify important mule deer seasonal habitats vulnerable to subdivision during winter 2012/13 and work with willing landowners and various land trusts to secure conservation easements on those lands as opportunities arise.
- Provide expanded legume seeding programs starting in spring, 2013.

I. Use promotion and advertising to increase interest in habitat projects.

- Provide regular media releases starting summer, 2012 updating residents on habitat projects. Increase use of social networking, e.g., YouTube, Facebook, internet and web media to increase exposure of habitat projects.
- Starting immediately utilize WGFD's website to better advertise habitat activities in the Platte Valley area (i.e., videos, virtual habitat tours, and school programs).
- In fiscal year 2013, budget to advertise Platte Valley habitat projects on the Chamber of Commerce sign in Saratoga.
- WGFD's Information and Education Section will promote ongoing habitat work through field trips with local media and interested citizens.

J. Fencing

- Starting summer, 2012 WGFD will work with the BLM, USFS, WYDOT, and NRCS to inventory and identify fences that cross migration routes and develop recommendations for modifications or removal.

K. Maintain or restore migration routes.

- WGFD will work with national and local citizen-based groups to emphasize the importance of wildlife road crossing projects to wildlife conservation and Wyoming.
- Starting winter, 2012/13 WGFD will cooperate with WYDOT to identify areas of high mortality.
- Coordinate with WYDOT to mitigate highway mortality by deploying variable message sign trailers and/or reducing traffic speed limits.
- Starting summer, 2012 WGFD will work with WYDOT for opportunities to re-establish migration routes across I-80 and other highway corridors with under- or over- passes.

3. Predator Management

A. Assess the impacts of predation on mule deer in the Platte Valley.

- Continue to monitor adult female survivorship and estimate annual predation rates through tracking and telemetry and documenting cause specific mortality.
- When possible, use vaginal implant transmitters and expandable telemetry collars, to mark mule deer fawns to evaluate cause specific mortality and to estimate fawn survival and recruitment and the potential impacts of predation.
- Starting summer, 2012 collect data on habitat nutrition/availability, interspecific competition (domestic and wild ungulates), weather, and other factors to assess potential impacts of the many factors, including predation, associated with the mule deer decline in the Platte Valley.

B. Attempt to increase mule deer recruitment and survival by reducing coyote predation.

- As an ongoing effort, WGFD will work cooperatively with the Carbon County Predator Management District, Animal Damage Management Board (ADMB), and Wildlife Services to develop coyote control projects for the benefit of mule

deer, in accordance with Wyoming Game and Fish Commission Policy VIIR – Predatory Animal and Predacious Bird Management Recommendations for the Benefit of Wildlife.

- WGFD will, at minimum, use annual fawn productivity measures (fawn:doe ratios) and population estimates and, when feasible, data collected from radio-collared mule deer to assess impacts related to predation and potential impacts of coyote reductions.

C. Attempt to increase mule deer recruitment and survival by reducing mountain lion predation.

- WGFD will evaluate current population status for those portions of the LMUs which overlap the Platte Valley Mule Deer Herd Unit and propose changes in regulation which will promote a reduction in mountain lion numbers.
- WGFD will consider proposing the following changes for the 2013-2015 mountain lion seasons:
 - Increase mortality quotas in Hunt Areas 9 and 31.
 - Increase hunting season lengths to yearlong.
 - Allow for reduced price mountain lion licenses to be valid in Hunt Areas 7 and 31.
- WGFD will, at minimum, use annual fawn productivity measures (fawn:doe ratios) and population estimates and, when feasible, data collected from radio-collared mule deer to assess impacts related to predation and potential impacts of mountain lion reductions.

D. Attempt to increase mule deer recruitment and survival by reducing black bear predation.

- If the mule deer 5-year average for doe:fawn ratios remains below 65:100, and the mule deer population estimate is below the management objective, WGFD will consider increasing Hunt Area 8 mortality quotas for the 2014 through 2016 black bear hunting seasons.
- WGFD will, at minimum, use annual fawn productivity measures (fawn:doe ratios) and population estimates and, when feasible, data collected from radio-collared mule deer to assess impacts related to predation and potential impacts of black bear reductions.

4. Access

A. Increase hunting access to private land.

- Starting immediately, WGFD will put more emphasis on the success of the PLPW program in the Platte Valley and the important role of participating landowners. Access for elk and white-tailed deer hunting will be emphasized.

B. Improve hunting access to public land.

- Starting immediately, WGFD will seek opportunities for easements across private land to access public land.

- Starting immediately, WGFD will seek potential partners for consolidation of public land through land trades.

C. Increase funding for access programs.

- As an ongoing effort, WGFD will seek funding sources and partners to increase funding for access to private and public land.

5. Disturbance

A. Reduce and mitigate the impacts of human disturbance to deer.

- Starting summer, 2012 WGFD will seek guidance and direction regarding inclusion of the Platte Valley in the regulated antler hunting area. WGFD will consider public input and make recommendations to the Wyoming Game & Fish Commission for any needed changes to statute.
- By summer, 2013 WGFD will identify mule deer transition and crucial winter ranges needing additional protection from human disturbance.
- Starting immediately, WGFD will encourage federal partners to develop a coordinated Travel Management Plan addressing OHV use specifically to benefit mule deer. The plan should include identification of illegal roads, unneeded or duplicate roads, appropriate time and type of OHV use and increased enforcement during key times (winter/fawning) of the year. The WGFD will assist with development of this plan.
- Starting immediately, WGFD will increase education regarding impacts motorized vehicle activity has on deer survival and hunt quality. This outreach effort will include additional communication with local OHV organizations to stress the positive impacts of self-policing. Information will be provided to hunters regarding impacts of high road densities and vehicle disturbance on hunt quality and mule deer production/survival. The WGFD will also stress the importance of providing public input to Federal land management agencies about enforcement concerns.

6. Outreach, Partnerships, and Response

A. Increase public awareness through increased exchange of information regarding various issues as they relate to the Platte Valley mule deer herd.

- Starting winter, 2012 WGFD will initiate additional public meetings to focus on mule deer issues. These meetings will provide a forum for continued collaborative information exchange, as well as an opportunity to discuss progress on this plan.
- During 2012 hunting seasons WGFD will provide both verbal and written materials, including fliers and brochures, to update hunters on important issues involving the Platte Valley deer herd at annual check stations and field contacts starting in 2012.
- Starting immediately, WGFD's annual "Job Completion Report" chronicling current conditions and management data for the Platte Valley deer herd will be posted on the Platte Valley Mule Deer Initiative website.

B. Continue to explore Platte Valley mule deer issues with WGFD stakeholders.

- After 2012 hunting seasons, WGFD will continue to hold annual collaborative workshops of the Platte Valley Mule Deer Initiative to maintain contact with our many stakeholders to ensure future management of this herd meets public desires and expectations and the biological needs of the herd.

C. Improve WGFD's ability to develop partnerships to effectively address issues critical to managing the Platte Valley deer herd.

- WGFD will work with all stakeholders to continue the collaborative process to progress on all aspects of mule deer management in the Platte Valley.
- WGFD will collaboratively develop the "Platte Valley Habitat Partnership" (PVHP). The PVHP is envisaged to at least include USFS, BLM, NRCS, SERCD, landowners, sportspersons, NGO's, and outfitters.
- During winter 2012/13 WGFD will provide an analysis of the revenues generated from mule deer hunting and the cost of mule deer management in the Platte Valley mule deer herd.
- Starting immediately, WGFD will increase communication with the Colorado Division of Parks and Wildlife to coordinate mule deer management.

D. Respond to unexpected conditions or circumstances impacting mule deer.

- When necessary, WGFD will utilize, within our current framework, processes to respond to unexpected circumstances resulting in mule deer declines to minimize impact of hunting seasons. This includes: withdrawing unsold licenses and utilizing the "emergency regulation" process to change hunting season structure.

INTRODUCTION

A statewide Mule Deer Initiative (MDI) written by the Wyoming Game and Fish Department (WGFD) was adopted by the Wyoming Game and Fish Commission (WGFC) in July 2007. The MDI outlines factors contributing to declining mule deer populations and identifies strategies to, at minimum, sustain current deer numbers.

The purpose of the Platte Valley Mule Deer Initiative (PVMDI) is to apply the overarching strategies and objectives of the statewide MDI to address herd-specific issues. WGFD undertook an intensive process to engage the public and systematically garner and utilize their input. After each set of workshops the WGFD spent one or more days reviewing the information received from stakeholders and deliberated the steps necessary to take the information back to the stakeholders for the next phase of the collaborative process. After receiving stakeholders' thoughts regarding improvements in the second set of workshops, WGFD reviewed this in light of both survey results and biological considerations. Based on these criteria, WGFD created actions to address the issues and improvements. This process, described in the section "Public Involvement", facilitated information exchange and increased understanding of the issues and concerns related to this mule deer herd. A series of 4 community workshops was held throughout southeastern Wyoming from August 2011 through February 2012. A total of twelve workshops were held in the communities of Saratoga, Rawlins, Laramie, and Cheyenne. WGFD tailored this management plan to address habitat, deer population, and social issues specific to the Platte Valley mule deer herd based on public input from these workshops.

In Wyoming, management of big game species is guided by the "Management by Objective" strategy. In the Platte Valley (Figure 1), the WGFD manages this mule deer population within 10% of the WGFC approved "post-season" population size of 20,000 mule deer (the number of deer in the population after the hunting season). This post-season objective was based on the desires of hunters and landowners and the number of deer the habitat can sustain. In the Platte Valley, it was estimated there was approximately 11,000 mule deer after the 2011 hunting season. Based on trends of mule deer numbers, harvest, and fawn production and recruitment, this mule deer population has been declining since approximately 2006. This decline is due to a combination of the factors or issues addressed in this plan. Though all of the issues identified are important, many recognized the importance of degraded habitat conditions and fawn recruitment. The Platte Valley mule deer herd is also managed to provide "recreational" hunting opportunity. This means WGFD establishes hunting seasons that result in observed postseason buck:doe ratios between 20-29 bucks for every 100 does. Observed buck:doe ratios have met or exceeded 20 bucks:100 does during 18 of the past 20 years. Since 1990, the buck:doe ratio has averaged 27 bucks:100 does.

Winter habitat condition is considered the limiting factor in mule deer population growth in the Platte Valley herd. However, summer and transition habitat quality are critical to ensure mule deer

enter the winter months with adequate fat reserves to maximize over-winter survival and, for pregnant does, to produce healthy fawns in the spring. High winter mortality is an obvious indication of severe winter conditions and/or poor habitat quality. The effects of winter malnutrition in mule deer populations may be expressed in reduced fawn crops even without extensive winter starvation (Wallmo and Gill, 1971). Habitat management and improvement, therefore, is a major component of the Platte Valley Mule Deer Plan and efforts will be aimed at all seasonal habitat types in an attempt to improve the year-round habitat quality in the Platte Valley to increase over-winter survival and fawn recruitment.

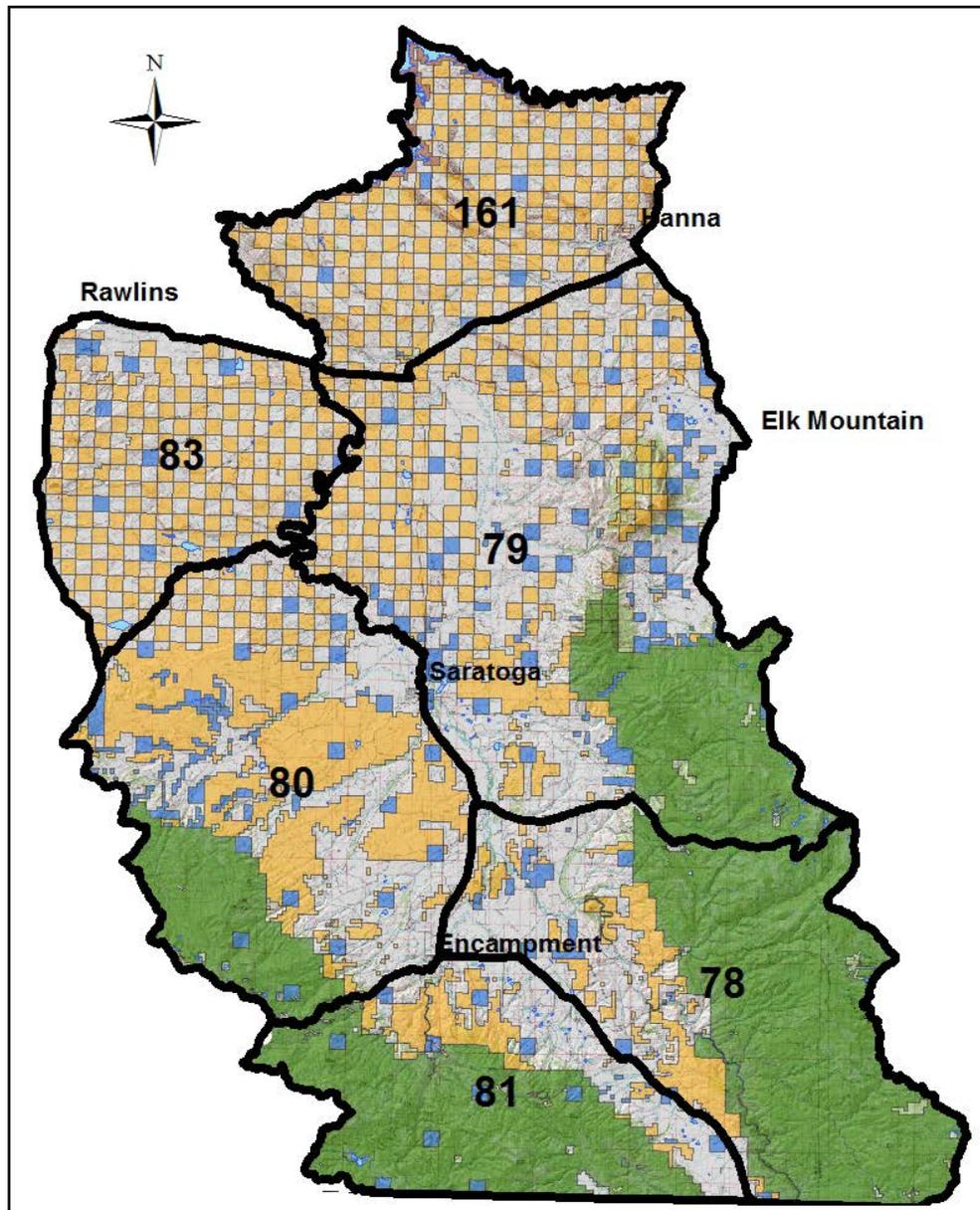


Figure 1. Platte Valley herd unit boundary and hunt areas.

Mule deer fawn recruitment in the Platte Valley is a major concern. An annual ratio of 65 fawns per 100 does is required to sustain a hunted mule deer population and a fawn ratio above 65/100 is required for the herd to increase (Unsworth et. al., 1999). Since 1990, observed fawn ratios in the Platte Valley have averaged 60 fawns/100 does and have exceeded 65 fawns per 100 does only six times (Figure 2). It is believed this is due primarily to poor habitat conditions, but the effect of predation cannot and is not ignored. It is clear predation can suppress mule deer population growth and recovery after a significant mortality event such as a severe winter (Ballard et al. 2001).

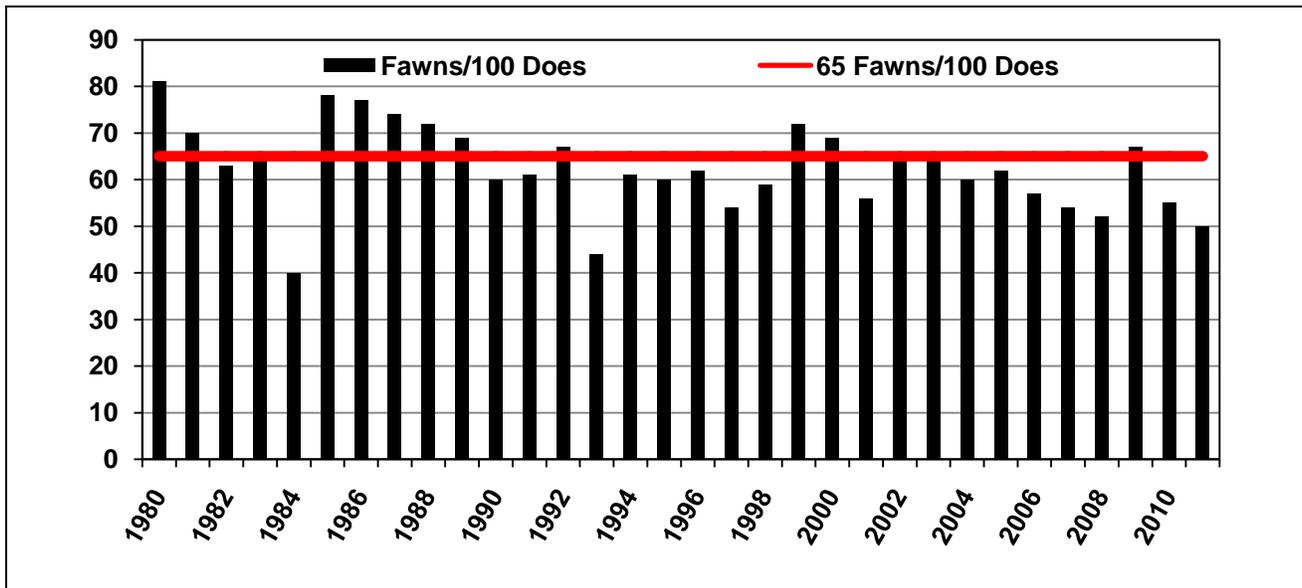


FIGURE 2. Fawn/Doe ratios in the Platte Valley (1980-2011).

Recent telemetry data suggest a significant portion of bucks classified during winter surveys migrate from Colorado and are not available to Wyoming hunters during fall hunting seasons. Because of this interchange between states, winter buck:doe ratios obtained in at least a portion of this herd unit do not accurately represent the proportion and number of bucks in Wyoming during hunting season and, therefore, do not properly indicate the impact of management actions on deer numbers and hunt quality. The population of mule deer in the Platte Valley available during the hunting season has been routinely overestimated. This has likely resulted in the over-harvest of the resident segment of this mule deer herd.

The management challenges and considerations in the Platte Valley are complex as they affect the biology of mule deer, our ability to sustain them, and the people who enjoy them. A part of complexity is change and for that reason this plan is not static, but is a “living” document and therefore will change as needed to best address issues. Because of this complexity and need for change, it is critical all who are affected continue to be engaged in the collaborative process.

During the workshops, stakeholders identified six major factors contributing to reduced hunter satisfaction and declining mule deer numbers including: Population Management, Habitat, Predator Management, Access, Disturbance, and Outreach, Partnerships, and Response.

Through implementation of this plan, WGFD will focus on the following management needs:

- 1) Identify factors that limit mule deer populations and impact the condition of their habitats;
- 2) Secure adequate funding to effectively implement management strategies;
- 3) Explore and expand partnerships with federal land management agencies, landowners, sportspersons, and others; and
- 4) Continue to encourage public involvement in, and support of management actions.

PUBLIC PARTICIPATION

All Wyoming wildlife is a public resource. Public involvement is vital to attain support and buy-in for a Platte Valley mule deer plan. This was accomplished through a series of steps to obtain feedback from a broad range of constituents, including persons living in the Platte Valley and others who hunt there but live elsewhere.

The first step was to understand the preferences and attitudes of persons who hunt mule deer in the Platte Valley. This was accomplished through a telephone survey during summer 2011. Participants included Wyoming residents living in the Platte Valley and elsewhere in the state, as well as nonresidents. Survey questions were partially based on issues identified by a group of selected stakeholders (i.e., hunters, outfitters, local business owners, and etc.) and some questions also came from a similar survey conducted in 2005 that addressed attitudes of deer hunters statewide. Early involvement of identified stakeholders assured issues of greatest concern were addressed, and also enabled WGFD to consider responses from persons who were unable to attend workshops in person.

Using results of the survey (see Appendix A) WGFD engaged the public through a “collaborative learning” process. Collaborative learning enables stakeholders, including the initiating agency, to discuss issues in an open forum, allowing for meaningful dialogue, and active learning. Collaborative learning does not strive to achieve a final consensus or majority vote, but emphasizes learning and mutual understanding. The goal is to allow participants to be fully engaged in the process, learn from each other about the situation, and work toward improvement of issues identified. This process is effectively used when issues are complex and competing interests and values are represented (Daniels and Walker 2001). WGFD intends to continue the collaborative learning process through annual updates and open dialog regarding status of the PVMDI.

The issues and actions addressed in this plan were based on results of the collaborative learning process. From August 2011 through February 2012, WGFD conducted a series of twelve workshops in Saratoga, Rawlins, Laramie, and Cheyenne. These four communities were chosen because of their centrality to the Platte Valley and because a significant number of people from these communities hunted there. A total of 389 people participated in the three sets of workshops (Table 1). During the first workshop, participants were provided information about collaborative learning and the public involvement process, and given some background on the Platte Valley mule deer herd. They were then asked to break into small groups to list and prioritize the issues affecting deer in the Platte Valley. Issues included: Mule deer population management, habitat, predator management, access, disturbance, and outreach, partnerships and response. The collaborative learning process was structured around these issues. Objectives, strategies and actions are presented in this plan as improvements to each issue.

Table 1. Number of participants in the first and second sets of workshops by location.

Workshops	Saratoga	Rawlins	Laramie	Cheyenne	Total
First	70	15	20	19	124
Second	66	27	36	24	153
Third	55	18	22	17	112
Total	191	60	78	60	389

The second round of workshops focused on actions to address the issues identified in round 1. Participants were given more in-depth information about each topic and then separated into groups to brainstorm actions. Their ideas were organized according to the category of issues addressed. Actions considered feasible in light of WGFD resources and statutory authorities are presented as strategies and actions in this plan.

The third round of workshops focused on the draft management itself. The draft plan was made available to the public about one week prior to the third round. Participants were presented with the “management actions planned” for each issue and then once again separated into groups to provide input and recommendations for inclusion in the plan. Their input and recommendations were given consideration and either included in the plan or will be included in an appendix to the plan.

We propose continuing this collaborative process to move management of the Platte Valley mule deer herd forward. To this end, we propose continuing this collaborative effort with stakeholders in and around the Platte Valley to build on the momentum that has so far been created to conserve mule deer herds and their habitat. Language articulating WGFD proposals to achieve this can be found through this plan.

ISSUES, OBJECTIVES, AND STRATEGIES ADDRESSED

ISSUE 1: POPULATION MANAGEMENT

Hunting Season Structure

WGFD manages deer harvest using general hunting seasons in many deer herd units. A general season license structure allows for unlimited sale of resident deer licenses that can be used in any hunt area where general license hunting is allowed. In a similar manner, non-residents may apply for a non-resident region general license. Although limited in number, these can be used in any hunt area with a general season within the respective non-resident region for which they are valid. For residents, general license seasons allow for maximum flexibility in hunting opportunity and guarantee license availability. In 2011, Wyoming had 144 deer hunt areas in the state and 123 (85%) had general license seasons.

Wyoming has enjoyed relatively high hunter success under general license seasons in much of the state, but this is not the case in the Platte Valley. Based on the five year average buck harvest for the period 2006 through 2010, only 2 herd units had lower success than the Platte Valley and since 2006, days per harvest has more than doubled from about 10 to 22. Sportsmen are frustrated by the quality of the hunting experience in this herd unit and during the November workshops, clearly expressed their desire for the Department to consider moving from a general license to a limited quota structure.

Based on the public input received during the workshops and to address concerns focused on hunting experience quality (i.e., hunter crowding), the Department is proposing to eliminate general license seasons in the Platte Valley on a 3 year experimental basis beginning in 2013. After the 2015 season, WGFD will evaluate the effectiveness of this season structure on hunter participation, hunter satisfaction, and buck quality. Based on that evaluation and through the collaborative process recommendations for future hunting seasons will be developed. Because the packet establishing the 2012 general license seasons is already published, the Department will propose a conservative general license antlered deer only season. During the 2012 season setting process, the Department will seek additional public input regarding the proposed shift to limited quota starting with the 2013 season.

Management Objective

Current boundaries of the Platte Valley mule deer herd unit were delineated in 1981 when Hunt Area 161 was created out of the southwestern portion of Hunt Area 70. Winter ranges in southern portions of Hunt Area 86 north of Sinclair were removed from this herd unit at the same time and added to the Ferris herd unit based upon telemetry observations and blockage of historic migration routes from the rest of the Platte Valley by fencing along Interstate 80.

Management of this herd from the 1940s through 1960s was focused on reducing winter deer populations, primarily to address complaints of deer damage to crops. Heavy hunter harvest in the

late 1960s probably exceeded recruitment and reduced the base population as expected. Heavy mortality during the winter of 1972-73 further decreased deer numbers. Implementation of restrictive hunting seasons and a series of mild winters allowed the herd to recover during the mid-1970s.

The population objective for the herd in 1978, which still included winter ranges in the Haystack Mountains north of I-80, was 20,000 wintering deer. This objective was reduced to 15,000 in 1981 to represent the number of deer estimated to be in the newly defined herd unit during that year. This new population objective was immediately unpopular with the public and WGFD personnel. As a result, a return to the previous objective of 20,000 was recommended annually until the change was made in 1986. This objective has been retained ever since and was intended to represent a population size winter ranges could support during most winters. In periods with mild winters, winter ranges in this herd have supported deer numbers in excess of 20,000 mule deer. But during harsh winters, losses are high and thousands of mule deer are lost to starvation, exposure and other natural losses. This causes extreme browsing of some winter ranges, and typically requires several years for the population to recover.

To better estimate mule deer numbers in this herd unit the WGFD conducted sightability surveys in 2009, 2010, and 2011. Estimates derived from these surveys were roughly 30 percent lower than those from previous estimates and aligned more closely with public and Department perceptions of deer numbers. Sightability estimates indicate the Platte Valley herd had roughly 11,000 mule deer in February 2012.

Ultimately, the quality and condition of habitats determine how many deer can be sustained. Since the 1960s, winter habitat conditions in the Platte Valley have declined as a consequence of fire suppression, ungulate grazing, suburban expansion, long-term drought, invasive species (particularly cheatgrass) and in some years, too many deer. These impacts have altered plant communities in such a way that significant population declines occur more frequently and recovery is slower. Fawn:doe ratios have also declined and because the herd is less productive, predation and other mortality factors may be suppressing population growth.

Even using a single population objective to guide management, there are still many different ways in which a mule deer herd can be managed. In Wyoming, big game herds are managed as either “recreational”, where hunting seasons and harvests are designed to emphasize the amount of public recreation provided by the herd while maintaining buck to doe ratios between 20 and 29. “Special” management uses hunting season and harvest strategies designed to maintain higher buck to doe ratios between 30 and 45 and emphasize the quality of buck hunting. Typically, “special” management reduces the amount of recreational opportunity a herd may provide to the hunting public.

The Platte Valley mule deer herd is currently managed under the “recreational” management strategy. This strategy has been successful in maintaining buck to doe ratios within the accepted limits. However, deer numbers and consequently buck numbers have declined and hunter success has dropped to the lowest level in 13 years and is one of the lowest in the state. This presented WGFD and its constituents with a paradox. On the one hand more than 60% of resident hunters in a WGFD initiated phone survey conducted during July 2011 felt there were too few bucks

available over the past five years. Yet, postseason buck:doe ratios in the Platte Valley herd have met or exceeded the recreational criterion the past 15 years. Recent WGFD telemetry data helped clarify this by indicating that a significant portion of bucks classified during winter surveys are in Colorado and not available to Wyoming hunters during fall hunting seasons. Because of this interchange between states, winter buck:doe ratios obtained in at least a portion of this herd unit do not accurately represent the proportion and number of bucks in Wyoming during hunting season and, therefore, do not properly indicate the impact of management actions on deer numbers and hunt quality.

Based upon comments from both the recent series of workshops and hunter responses to the 2011 phone survey, it appears use of harvest statistics may provide a more accurate representation of management direction, success, and public satisfaction. Thus, three parameters were chosen for monitoring management direction in the future: 1) hunter success (for antlered deer), 2) percent of bucks in harvest checks with antler spread of 24" or greater, and 3) hunter satisfaction based on responses to the harvest survey.

One drawback of using these parameters to monitor management effectiveness is each can be affected by annual events unrelated to management decisions, such as a severe winter or weather during hunting seasons. To lessen the effect of these variables, management criteria for the Platte Valley herd will be based on a running 3-year average. Hunter success is already monitored on an annual basis in this herd unit, but standardized collection of antler spread data has not occurred. Adoption of this criterion will require additional time and effort by WGFD personnel to collect these data during harvest checks. Because there is currently no baseline to identify what would constitute an acceptable percentage of 24+ bucks in harvest checks, the initial criterion was selected based upon recent data from the Wyoming Range mule deer herd. Finally, measures of hunter satisfaction in Platte Valley will be accomplished through the harvest survey that is conducted annually.

Finally, increases in elk and white-tailed deer populations have most certainly exerted increased physiological stress on mule deer as they all compete for forage and space. Competition can be difficult to demonstrate in free-ranging wildlife but most likely result in decreased survival or productivity leading to suppressed population growth (Lindzey et al. 1997). In the Platte Valley mule deer productivity has declined sharply over the past twenty years coinciding with increased elk populations and wider distribution of white-tailed deer. Therefore, it stands to reason increased competition may impact mule deer in the Platte Valley. Continued increased elk and white-tailed deer harvest to manage these populations to their objectives should benefit mule deer.

A. Improve the quality of the deer hunting experience in the Platte Valley herd unit.

Workshop Comments Addressed:

- Implement limited quota
- Eliminate General license seasons

Strategy: On an experimental basis, shift mule deer management from a general license season to a limited quota license structure in the Platte Valley Herd Unit beginning in 2013.

Management Actions Planned

- WGFD will propose an antlered only general license structure for the 2012 season.
- WGFD will propose a Limited Quota only structure for the 2013 through 2015 seasons. After the 2015 season, WGFD will evaluate the effectiveness of this season structure on hunter participation and satisfaction and through the collaborative process develop recommendations for future hunting seasons.
- WGFD will conduct a sightability survey to gauge any changes in population size in January/February 2016 after the 2015 season.

B. Manage deer numbers in the Platte Valley to a population size acceptable to public demands and supported by available habitat.

Workshop Comments Addressed:

- Evaluate the sustainability of current population objective/#'s in migration.
- Evaluate/change objective: what can habitat sustain, 20,000 may be too many.
- Change current population in model to a more reliable model or number.
- Evaluate population estimation process.
- Test assumption that herd unit objective (20,000) is realistic (sustainable).
- Conservation districts: historic range trend data with USFS and BLM to evaluate habitat condition.
- Reevaluate the objective in relation to habitat

Strategy: Evaluate the Population Objective

If appropriate, retain the current population objective of 20,000 wintering deer and review that objective every 5 years based upon habitat monitoring, harvest trends, and herd ratios. Estimates of herd size will be anchored with mid-winter sightability surveys conducted as budgets allow.

Management Actions Planned

- Starting summer 2012 existing mule deer habitat data will be evaluated in cooperation with federal agencies and the Saratoga-Encampment-Rawlins Conservation District (SERCD).
- During winter 2013/14 WGFD will evaluate the sustainability based on habitat monitoring, harvest trends, and herd ratios of the current population objective of 20,000 wintering deer. This evaluation, and any proposed change in the objective, will be taken to the public for their review and critical consideration.

Management Actions in Progress or Completed

- WGFD will continue to use mid-winter sightability surveys to estimate the number of mule deer in the Platte Valley herd as budgets allow. Use of other population estimation techniques will continue to be evaluated.

C. Maintain recreational management of the Platte Valley mule deer herd, but evaluate success and direction of management using harvest statistics collected from deer harvested rather than buck:doe ratios that are skewed by deer migrating between Wyoming and Colorado.

Workshop Comments Addressed:

- Eliminate general license in Platte Valley: future generations, more bucks, higher quality.
- Implement limited quota for approx. 3 years to improve quality.
- Implement point restrictions for quality of bucks.
- Consider changing to special management (higher buck: doe ratio)
- Four point or better seasons: increase buck quality and buck numbers, reduce opportunity for meat hunters.
- Evaluate buck management criteria - why 29 max? More bucks in the population expand gene pool, increase breeding success, healthy herd.

Strategy: Recalibrate Management Direction using harvest field check data

Evaluate recreational management in the Platte Valley herd using the following three criteria rather than standard post-hunt buck:doe ratios. It is understood, management by these criteria may cause observed post-hunt buck:doe ratios to exceed the 29:100 maximum for recreational management. Each of these four criteria will be evaluated using running 3-year averages, rather than a single year's data.

- Maintain success for hunters pursuing antlered deer above 40 percent.
- Maintain the proportion of bucks with antler spread of 24" or more to at least 20 percent of buck harvest checks.
- Maintain hunter satisfaction at or above 60% based on respondents to the annual harvest survey.

Management Actions Planned

- Starting in fall, 2012 WGFD will recommend hunting seasons designed to increase hunter success, reduce the harvest of yearling bucks, and allow a greater proportion of the bucks within the herd to reach a trophy class.
- Starting in fall, 2012 effort by WGFD personnel to field check harvested mule deer will be increased. In addition to data currently collected, WGFD personnel will also collect information on antler points and antler spread of harvested bucks to monitor buck quality.

- Starting in fall, 2012 WGFD personnel will collect antler class data on bucks observed during classification sample collection.
- Given the lack of current baseline data on antler spread in Platte Valley harvests and the novelty of using harvest statistics to monitor management success, each of these three criteria will be re-evaluated every three (3) years starting in 2015.
- Hunter satisfaction will be gauged starting with the 2012 season using the harvest survey hunter satisfaction measure. It is WGFD goal to achieve at least 60% of respondents replying they are “satisfied” or “very satisfied”.

D. Manage elk and white-tailed deer numbers in the Platte Valley to minimize interspecies competition.

Workshop Comments Addressed:

Reduce competition with elk and deer.

- Interspecies Competition: elk, liberal season, even more.
- Continue reducing elk numbers – work with private landowners re. elk harvest.
- Decrease white-tailed deer.
- Interspecies competition with elk – reduce \$ for cow tags (res and non-res.).
- Competition with elk for deer: control elk to benefit deer.
- Decreasing elk number in areas where deer and elk winter.
- Control inter-species competition – elk, moose.

Strategy: Maintain or increase elk harvest in the Snowy Range and Sierra Madre elk herd units to manage populations at objective.

Management Actions Planned

- WGFD will continue to implement elk hunting seasons designed to manage populations at objective (+/- 20%) in the Snowy Range and Sierra Madre Elk Herd Units.
- WGFD is considering reducing cost of the “cow/calf” licenses to increase license sales.

Management Actions in Progress or Completed

- WGFD has increased the number of antlerless elk licenses, and increased the hunting season length for antlerless harvest, in elk hunt areas which overlap the Platte Valley Mule Deer Herd Unit.
- WGFD has worked with private landowners to provide hunter access to private lands as a means to increase antlerless elk harvest (Hunter Management Areas).

Strategy: Increase white-tailed deer harvest in the Platte Valley.

Management Actions Planned

- WGFD will implement white-tailed deer hunting seasons designed to minimize white-tailed numbers in those habitats important to mule deer.

Management Actions in Progress or Completed

- WGFD has continued to allow any white-tailed deer to be harvested during the general deer season in the Platte Valley Herd Unit for at least the past 25 years.
- WGFD has annually allocated limited quota any white-tailed deer only licenses in the Platte Valley Herd Unit since 2006.
- WGFD has annually allocated limited quota antlerless white-tailed deer only licenses in the Platte Valley Herd Unit since 2008.

ISSUE 2: HABITAT MANAGEMENT

It is common for stakeholders to advocate management of wildlife at optimal levels for aesthetic, recreation, sport harvest, and scientific purposes. Yet it is important to manage wildlife population levels commensurate with their habitats. The Mule Deer Working Group of the Western Association of Fish and Wildlife Agencies (WAFWA) defines habitat as those resources and conditions present in an area that allow an animal or population to live, survive, and successfully reproduce (deVos et al. 2003). The basic components of habitat include food, water, cover, and open space within sufficient proximity. The maximum number of deer an area can support and sustain over time is commonly called “carrying capacity,” and is determined by the amount and quality of food, cover and water available in an area to support a given number of deer over time. When a mule deer population surpasses what the available resources can sustain, the herd has exceeded the habitat’s carrying capacity. Body condition and fawn productivity or recruitment typically decline. Chronic overuse further diminishes the capacity of the habitat to support mule deer and may alter vegetation composition and productivity for many years.

Forage quality and accessibility is a key factor influencing how mule deer use their habitat. The characteristics that most influence the kinds of plants deer select seasonally are palatability, availability, and succulence. Mule deer forage mainly on shrub leaves, buds and stem tips from late summer through fall and winter. In spring through early summer, they rely more on forbs (broad leafy plants) and grasses that are green, succulent, and high in protein at that time of year. Food resources can affect mule deer in two primary ways, one arising from quantity and the other from quality. Mule deer require a sufficient amount of forage to survive, however large volumes of low quality forage may be inadequate. Mule deer must obtain sufficient energy, protein, and nutrients such as calcium and phosphorus from the plants they eat to maintain body condition and reproduce successfully. Nutrition influences overall body condition, ovulation, conception, gestation, lactation, survival, and home range size on a seasonal and annual basis. Nutrition also affects winter survival, size at birth, timing of birth, survival of fawns, and even sex composition of fawns. For example, does in good condition bear healthier fawns, more twins, and a higher proportion of females (Tollefson, 2010).

Does under nutritional stress give birth to smaller fawns, often later in the season, predisposing them to increased mortality. Nutritional status also affects a mule deer’s vulnerability to predation, as well as its ability to compete for food and survive when severe weather persists for extended periods. Finally, mule deer have a relatively small rumen and digestive tract with a specific microbial composition that decreases their ability to withstand rapid changes in diet composition. However, the primary cause for winter starvation is poor habitat condition on both summer and winter ranges exacerbated by too many mule deer and other herbivores competing for the same forage. Significant mortality can also take place in reasonably good habitat under extremely harsh winter conditions.

Many factors have contributed to loss and fragmentation of mule deer habitats in the Platte Valley. Some of the more obvious are: urban growth and rural subdivision development; natural events such as drought, severe winters, and wildfires; fences and other impediments to migration; and increased recreation activities such as off-highway vehicle (OHV) use. Global climate change may

be exacerbating several of these effects (deVos and McKinney 2007). These disturbances reduce the effectiveness of seasonally important habitats, leading to increased mortality and susceptibility to predation, reduced reproductive success, and displacement of mule deer into less suitable areas.

Mule deer habitats are also altered by many land management practices, including fire suppression, grazing by livestock and other wildlife species, shrub eradication projects, and activities that increase spread of cheatgrass and other invasive plants. Ungulate browsing (both by wild and domestic animals) and loss of natural fire cycles have led to a decline in the quantity and condition of important habitats, particularly aspen and mixed-mountain shrub communities. Shrub eradication projects designed primarily to increase grass production have reduced availability of shrubs that provide essential food and cover, especially on winter ranges. Invasive plants such as cheatgrass, knapweed, and thistle are increasingly outcompeting native shrubs, forbs and grasses on important mule deer ranges. Some invasive weeds, such as cheatgrass, ignite easily and increase the frequency and intensity of wildfires that eliminate native shrubs and other plants, and permanently alter the ecology of the landscape. Juniper and conifer stands can provide important mule deer cover, but at higher densities, they reduce sunlight and moisture reaching the more important understory vegetation. When junipers and conifers expand into important shrub-dominated habitats, they often outcompete and eliminate important forage plants.

In recent years, recurring drought has reduced the amount and quality of forage produced on many mule deer ranges, resulting in greater competition for the remaining food supply. Higher survival of mule deer during mild winters may exacerbate this competition and has contributed to declining habitat conditions. In recent history, significant mortality events have impacted the Platte Valley mule deer herd every two to three winters due in part to declining forage conditions on winter ranges. Dry conditions have increased the frequency of wildfires that damage native plant communities and favor spread of invasive plants such as cheatgrass.

A number of appropriately planned treatments can be applied to enhance mule deer habitat. Habitat enhancement practices could include mechanical treatment of shrubs and forested habitats, prescribed burning of shrubs or aspen, timber harvest, chemical (i.e., Spike) treatment of shrubs, legume seeding and livestock forage reserves or “grass banks.” Specific silvicultural and agricultural practices can improve shrub productivity and vigor, as well as enhance the herbaceous (forb and grass) component in the understory.

It is essential to manage mule deer habitats at risk. Within the Platte Valley, 15 shrub transects have been established and monitored by WGF D biologists and wardens on deer winter ranges since 2005. These transects are monitored in Wyoming big sagebrush, mountain big sagebrush, and antelope bitterbrush community types in this herd unit. Readings are taken in fall to measure annual leader production and in spring to estimate the percent of leaders browsed over winter. This monitoring program is essential to evaluate habitat conditions in order to manage for adequate amounts of high quality habitat needed to sustain healthy mule deer herds. Managers continue to explore and refine techniques for estimating carrying capacity and evaluating habitat conditions.

A. Manage and enhance mule deer habitat in the Platte Valley to sustain mule deer numbers at current levels in the short-term and improve habitat condition to increase mule deer numbers in the long-term.

Workshop Comments Addressed:

- Habitat improvement burning, mowing, funding, cooperate with private landowners, improve winter range habitat.
- More examples of cooperative habitat Improvement: more interest in habitat projects from partners.
- Get Forest Service more involved in wildlife projects (more habitat; improvements).
- Identify priority habitat needs to solicit help: increase habitat projects - faster.
- More clear cuts on USFS lands: improve summer range.
- Look for potential habitat projects on private land that benefit wildlife
- Create better interagency coordination regarding proper/improper grazing practices on public land (state/BLM/Forest)
- Create better interagency coordination regarding monitoring and creation of balance
- Coordinate with public and private landowners on habitat management and range impacts.
- More habitat improvement projects i.e. burns etc.
- Encourage land agencies to do more wildlife habitat work: improve habitat.
- More cooperation for habitat improvement - think outside the box.
- Habitat management plan in Platte Valley to include all stakeholders/landowners and what they can provide.
- Gather historical data from all agencies/private landowners to determine where the habitat is now.
- Increase cooperation and trust between private landowners and government agencies. Plant bitterbrush on private land.
- Better collaboration with WYDOT and landowners regarding fencing projects.
- Better Collaboration between all landowners (Federal, private, State) regarding mule deer management.
- Conservation districts: historic range trend data with USFS and BLM to evaluate habitat condition.
- Funding: Increase ways and work more with other stakeholders to increase funding, partnerships.

Strategy: Develop Effective Partnerships to Maintain and Improve Mule Deer Habitat

Develop a comprehensive habitat management plan created and implemented collaboratively between local, county, state, and federal entities, related NGO's, businesses, energy companies and interested citizens.

Management Actions Planned

- Starting in April, 2012 WGFD will collaboratively develop the “Platte Valley Habitat Partnership” (PVHP). The PVHP is envisaged to at least include USFS, BLM, NRCS, SERCD, landowners, sportspersons, NGO’s, and outfitters.
- Develop a “Memorandum of Understanding” agreed to by appropriate agencies during summer, 2012 to effectively implement needed habitat projects.
- Seek funding to provide seed money to leverage other sources of funding to implement projects. Initial efforts will be completed by May, 2012.
- WGFD will dedicate a position as a Habitat Biologist to participate in and support the partnership during spring, 2012. This position will serve as a habitat biologist/expert to provide technical expertise to the PVHP, coordinate their activities, assist with NEPA planning/ documentation, plan needed meetings, oversee habitat inventories/projects, keep the partnership focused, etc.

B. Restore and improve all seasonal habitat types for mule deer throughout the Platte Valley.

Workshop Comments Addressed:

- Habitat improvement: burning, mowing, funding, cooperate with private landowners, improve winter range habitat. Make it easier for private landowners to do habitat improvements – less government red tape.
- Identify priority habitat needs to solicit help: increase habitat projects – faster.
- More clear cuts on USFS lands: improve summer range.
- Habitat treatment on Forest (specifically burn).
- Forest: create more mule deer forage to hold deer on the forest.
- Forest: reduce old growth.
- Conduct winter range habitat treatments.
- Look for potential habitat projects on private land that benefit wildlife.
- The Condict and Sons Ranch work helps generate good will and adjacent landowner interest: keep this going and capitalize with others in valley.
- More habitat improvement projects i.e. burns etc.
- Habitat improvement: want to see projects tried/started.
- Encourage land agencies to do more wildlife habitat work: improve habitat.
- Habitat projects – more!: opportunities on/near forest boundary.
- Broad scale habitat management: across land states i.e. public, private.
- Set priority area for best habitat improvements for cash value.
- More prescribed burns: broad use of habitat tools for habitat improvement.
- Prescribe habitat treatments for shrubs (mule deer) not grass (elk).
- Step up habitat improvement projects – fire and mechanical.
- Habitat improvements through burns, mechanical (conifer removal in aspen stands).
- Landscape-wide habitat improvements.
- Habitat improvement: proper burn management.

- Habitat improvement: smaller scale burns.
- Use other methods than fire: chaining, herbicides, mowing.
- Consider more use of prescribed burns to improve habitat where appropriate.
- Habitat improvement: consider irrigation if possible to improve habitat.
- Old shrubs not as nutritious.
- Forest habitat improvements to increase aspen.
- Maintain diverse habitats.
- Seed mixtures to include beneficial non-native species.
- Grow food crops/plots for deer: increase winter survival.

Strategy: Increase number and size of habitat improvement projects.

WGFD will work with land management agencies and private landowners to restore and improve all seasonal habitats including winter, transitional, and summer ranges. Managers will implement treatments and management strategies to enhance the quantity and quality of sagebrush, mixed mountain shrubs, aspen, conifer, riparian and herbaceous communities. A suite of tools such as mowing, aeration, pitting, prescribed fire, chemical application (i.e. Spike), fertilization, seeding, and grazing management will be applied. Mule deer winter ranges are generally in poor condition and will be a high priority for restoration efforts. Habitat enhancement projects will be planned on a landscape scale. Pre- and post-treatment monitoring is critical to assess and adjust treatments.

Management Actions Planned

- Considering other wildlife habitat needs and resource users WGFD will support the PVHP and work with Medicine Bow-Routt National Forest (MBRNF) and BLM's Rawlins Field Office personnel, landowners, and others to conduct habitat treatments in beetle killed areas, enhance forage quality on mule deer summer range, and enhance mule deer transition and winter range in various shrub communities.
- WGFD will support the PVHP to develop a plan to improve mule deer habitats on a broad scale to sustain and ultimately increase mule deer numbers. Though left to the PVHP, the WGFD will encourage this plan is developed by June, 2013. WGFD will encourage and assist federal agencies to streamline processes to react to events or opportunities to enhance mule deer habitats.
- WGFD will reinitiate in spring, 2012 annual coordination meetings with the BLM, MBRNF, Natural Resource Conservation Service (NRCS), and other land management agencies to discuss new projects, habitat conditions, vegetation treatment projects and other management activities recommended.

Management Actions in Progress or Completed

- The Condict and Sons Ranch habitat improvements are being completed in stages. A water supply and distribution system is the first step, with the water well successfully drilled in 2011. The storage tank, pipe and troughs will be installed in 2012.
- The A-A Guzzler was not collecting or holding enough water. Repairs and improvements were made in 2011.

C. Control Invasive and noxious plants on mule deer range

Workshop Comments Addressed:

- Habitat: control cheatgrass.

Strategy: Control invasive and noxious plants on mule deer range.

Decrease the prevalence and distribution of invasive plant species (i.e. cheatgrass and thistle) to restore mule deer habitat. Incorporate weed management practices on all WGF Commission owned lands including use of weed-free hay and cleaning equipment to prevent seed spread. Assign WGFD field personnel to coordinate with weed and pest districts, weed management agencies, federal land managers and landowners on weed management plans, monitoring, prevention and treatment of invasive plant species. WGFD would emphasize best management practices to address spread of invasive plants associated with disturbance, drought, vegetation treatments, and wildfires, especially within critical habitats and corridors for mule deer.

Management Actions Planned

- Implement, as a standard on all habitat projects, measures to prohibit or eliminate invasive and noxious weeds.
- Support and implement new research and methods to reduce prevalence of cheatgrass in critical mule deer habitat.
- Establish a “Weed ID and Control” day during summer 2013 with the local weed and pest district for landowners and the general public.

Management Actions in Progress or Completed

- In 2010, 38 acres were sprayed with Plateau herbicide along the main road at Pennock WHMA.
- The Platte Valley is also part of the Southeast Wyoming Cheatgrass Partnership, a group that looks at the issues involved with the spread and control of cheatgrass.

D. Increase monitoring of important mule deer habitat

Workshop Comments Addressed:

- Reevaluate the objective in relation to habitat.
- Colorado: higher harvest for habitat concerns.
- Evaluate/change objective: what can habitat sustain? 20,000 may be too many.
- Gather historical data from all agencies/private landowners to determine where the habitat is now.
- Conservation districts: historic range trend data with USFS and BLM to evaluate habitat condition.

Strategy: Manage big game numbers to match the habitat.

Big game seasonal ranges overlap in much of the Platte Valley. This can lead to continuous, year-long use and/or heavy usage during the winter. Habitat condition needs to be better understood, both compared to historical conditions and its current state. Habitats of other big game and competition between mule deer and other wildlife, particularly elk, needs to be better understood, and steps taken, if needed, to protect mule deer winter range.

Management Actions Planned

- Utilize habitat assessments as a general inventory of condition, species composition, utilization, and possible future needs of shrub stands in the valley. This information will be used by the PVHP to develop their habitat management plan during 2012/2013.
- Work with agency, NGOs, and private partners during summer, 2012 to develop teams to measure vegetation at established monitoring transects in the Platte Valley.
- Starting in fall, 2012 WGFD will monitor utilization and production of key shrubs at an additional 15 shrub monitoring transects established within the southern portion of the Platte Valley mule deer herd unit.
- Starting winter, 2012/13 WGFD will collect fecal samples from big game species on mule deer winter range to better understand food habits and diet overlap.

Management Actions in Progress or Completed

- There are 14 shrub transects established in the valley that are regularly measured in the fall for growth and spring for usage. However, only 5 of these are in crucial winter range for mule deer.

E. Minimize impacts to Platte Valley mule deer herd from energy development

Workshop Comments Addressed:

- Measure annual habitat loss due to human impacts and then establish 1:1 mitigation to offset.
- Consider effects of energy and urban development on deer = habitat loss.

Strategy: WGFD field personnel cooperate to develop mitigation/management plans.

The WGFD will emphasize best management practices to address reclamation (i.e. seeding specifications), habitat improvement projects, directional drilling, locating roads/well pads in non-sensitive areas, etc. The WGFD will also emphasize management practices that specifically benefit mule deer.

Management Actions Planned

- As needed, WGFD will identify and employ habitat treatments for Platte Valley mule deer as mitigation for habitat losses due to energy development.
- Starting immediately WGFD and the PVHP will consider using WLCI moneys to fund habitat treatments in the Platte Valley.

- WGFD will work with the BLM and USFS during permitting and project development to locate development footprint in least sensitive areas.
- WGFD will work with the BLM and USFS to require development consistent with the WGFD's and Western Association of Fish and Wildlife Agency's "Energy Development Guidelines for Mule Deer (Lutz et al. 2011).

F. Use WGFD lands to test new habitat improvement techniques

Workshop Comments Addressed:

- Improve habitat on WGFD lands.
- Reseed burned areas.
- Fertilize shrubs: poor winter range habitat – increase vegetation.
- Fertilize habitat.
- Plant bitterbrush on private lands.
- Consider irrigation if possible to improve habitat.

Strategy: Use WGFD lands to experiment with habitat improvement techniques

WGFD has increased flexibility on Commission owned lands to experiment (shrub establishment, fertilization, etc.) with potential habitat restoration techniques on a small scale to assess their success and feasibility.

Management Actions Planned

- Starting in spring, 2013 WGFD will conduct legume seeding on Pennock.
- During winter, 2013/14 WGFD will evaluate use of livestock grazing to benefit mule deer on WGFD lands in the Platte Valley.
- Starting in fall, 2012 WGFD will conduct cheatgrass control and document subsequent management to determine best post-treatment management methods.
- Starting in 2013, WGFD will attempt to re-establish bitterbrush or other preferred mule deer browse species on WGFD lands in the Platte Valley.
- Starting in spring, 2014 WGFD will apply fertilizer to existing shrub stands on WGFD lands in the Platte Valley.

G. Respond to changing forest structure and condition as a result of pine beetles

Workshop Comments Addressed:

- Beetle kill trees: changing management plans as trees fall, habitat changes.
- Utilize dead trees to improve deer habitat.
- Use controlled fires to clear beetle killed timber: keep summer range accessible when trees start to fall.

Strategy: Be flexible with management plans as conditions change.

The current pine beetle outbreak in the MBRNF is unprecedented in history for scope or severity. How the forest will respond or recover in any particular spot is unknown. Flexibility in plans and management will be important to provide the greatest benefit to mule deer.

Management Actions Planned

- WGFD will support and assist the PVHP to amend the Platte Valley Habitat Plan as forest habitats change due to beetle kill.

H. Improve mule deer habitat on private lands

Workshop Comments Addressed:

- More CRP programs: landowner support incentives.
- Develop landowner incentives to improve habitat.
- Make incentives for private landowners to improve habitat.
- Conservation easements with private lands on winter range.
- Conservation easements to help prevent habitat loss.

Strategy: Increase incentives for landowners to preserve or enhance habitat.

Much of the crucial winter range for mule deer in the Platte Valley is either on private land, or a mix of public and private land that needs the cooperation of both to be managed properly. Many of these landowners are concerned about the mule deer herd and the habitat, but lack the means to make improvements or do treatments.

Management Actions Planned

- WGFD will explore establishing “habitat easements” on Wyoming State Land Board (SLB) lands to compensate SLB for revenue while improving deer habitat on state land during winter 2012/13.
- WGFD will identify important mule deer seasonal habitats vulnerable to sub-division during winter 2012/13 and work with willing landowners and various land trusts to secure conservation easements on those lands as opportunities arise.
- Provide expanded legume seeding programs starting in spring, 2013.

Management Actions in Progress or Completed

- In 2008, WGFD initiated a program to improve mule deer forage by cost sharing legume seeding with private landowners.

I. Use promotion and advertising to increase interest in habitat projects

Workshop Comments Addressed:

- More examples of cooperative habitat improvement: more interest in habitat projects from partners.
- Habitat: use current projects as examples to neighboring ranches.

Strategy: Use promotion and advertising to increase interest in habitat projects.

Communication between WGFD and its constituents and partners concerning habitat projects being implemented or completed in the Platte Valley is important to increase interest among landowners and others.

Management Actions Planned

- Provide regular media releases starting summer, 2012 updating residents on habitat projects. Increase use of social networking, e.g., YouTube, Facebook, internet and web media to increase exposure of habitat projects.
- Starting immediately utilize WGFD's website to better advertise habitat activities in the Platte Valley area (i.e., videos, virtual habitat tours, and school programs).
- In fiscal year 2013, budget to advertise Platte Valley habitat projects on the Chamber of Commerce sign in Saratoga.
- WGFD's Information and Education Section will promote ongoing habitat work through field trips with local media and interested citizens.

J. Fencing

Workshop Comments Addressed:

- Migration corridors: Establish wildlife friendly fencing guideline minimum standards.
- Migration corridors: free movement seasonally.
- Migration corridors: wildlife friendly fencing.
- Better cooperation with ranchers on fence conversion.
- Prioritize areas needing fence conversion: Saratoga highway, I-80 high fence.
- Identify and remove problem fences.
- Deer friendly fences for migration.
- Change to wildlife friendly fences.
- Better collaboration with WYDOT and landowners regarding fencing projects.

Strategy: Fencing

WGFD will work with private landowners and land management agencies to modify or replace fences impeding wildlife movement and construct new fences to standards that are less restrictive to wildlife movement. WGFD will provide assistance to remove fences identified as unnecessary.

Management Actions Planned

- Starting summer, 2012 WGFD will work with the BLM, USFS, WYDOT, and NRCS to inventory and identify fences that cross migration routes and develop recommendations for modifications or removal.

Management Actions in Progress or Completed

- Continue work with WYDOT, BLM, MBRNF, SLB, and private landowners to identify fences that don't meet wildlife friendly standards and modify or eliminate where possible.
- WGFD will continue to recommend fence designs that allow wildlife passage, wide rights-of-way (ROW), and reseeded with unpalatable plant species on highway projects. This will reduce the amount of time ungulates spend in highway right-of-ways during migration thereby reducing deer mortality.
- A WGFD habitat extension brochure on fence specifications was recently updated based on results of recent research and field studies.
- WGFD has developed wildlife compatible fence designs in cooperation with the BLM and Wyoming Department of Transportation.
- A portion of the fence along Highway 130 has been converted to pole top for safer passage of big game. This will continue as funding is available.

K. Maintain or restore migration routes.

Workshop Comments Addressed:

- Re-establish or improve migration underpasses.
- Better collaboration with WYDOT and landowners regarding fencing projects.
- Determine crucial corridors – define better – focus improvements in those locations: increase winter survival.
- Protect migration corridors: degraded migration corridors.
- Corridors: migration routes across highways, roads – highways, signs, slower speeds.
- Cooperate with CDPW regarding deer migration.
- Leave gates open on highway fences during deer migration.

Strategy: Highway Crossings.

Continue to work with WYDOT, federal partners, NGOs, and other wildlife interests to reduce highway related mortality through installation of crossing structures and by regulatory means such as reduced speed limits.

Management Actions Planned

- WGFD will work with national and local citizen-based groups to emphasize the importance of wildlife road crossing projects to wildlife conservation and Wyoming.
- Starting winter, 2012/13 WGFD will cooperate with WYDOT to identify areas of high mortality.
- Coordinate with WYDOT to mitigate highway mortality by deploying variable message sign trailers and/or reducing traffic speed limits.

- Starting summer, 2012 WGFD will work with WYDOT for opportunities to re-establish migration routes across I-80 and other highway corridors with under- or over- passes.

Management Actions in Progress or Completed

- WGFD personnel document distribution of winter wildlife including areas of concentration along roadways.
- WGFD and WYDOT personnel document locations of mule deer/vehicle collisions.

ISSUE 3. PREDATOR MANAGEMENT

Relationships between predators and prey populations are dynamic and complex. The influence of predation depends to a large degree on the size of a mule deer population in relation to the habitat's carrying capacity (Ballard et al. 2001). This relationship is also impacted by changes in habitat quality and quantity, weather patterns (prolonged drought or severe winters), competition for forage, species and densities of predators, and abundance of alternate prey. Managers must consider these factors in determining whether predator management could potentially benefit a mule deer population and in prescribing effective methods of predator management.

A wide range of predators such as coyotes, mountain lions, wolves, bobcats, black bears, and eagles prey on mule deer. Ballard et al. (2001) wrote a synthesis of research on deer-predator relationships, which formed the basis for a chapter in "Mule Deer Conservation: Issues and Management Strategies" (deVos et al. 2003), and the context for the discussion on predation in the "North American Mule Deer Conservation Plan" (Mule Deer Working Group 2004). This information has been used in the Wyoming Mule Deer Initiative and the Platte Valley Mule Deer Management Plan to develop strategies and objectives for predator management.

A mule deer population that is chronically depressed in otherwise favorable habitat conditions may respond to predator management (Ballard et al. 2001, Cougar Management Guidelines Working Group, 2005) especially if control actions target the predator(s) that is limiting the population. Hurley et al. (2011) studied the effects of coyote and mountain lion removal on mule deer population growth in Idaho. Mountain lion removal increased winter fawn survival and slightly increased adult doe survival however the removal efforts had minimal positive effects on mule deer population growth rates on a long-term scale. They also showed a decrease in the number of coyotes resulted in increased fawn survival through summer, but did not increase fawn recruitment into the population.

In 1999, the Wyoming Legislature created the Wyoming Animal Damage Management Program (ADMB). The ADMB was established for the purpose of mitigating damage caused to livestock, wildlife and crops by predatory animals, predacious birds and depredating animals and for the protection of human health and safety. The ADMB administers funds available to qualifying Predator Management Districts to implement predator management strategies in accordance with the ADMB's mission. The WGFD can apply to the ADMB for funding to collect information on predator abundance, population trends, control results, and other predator-related research. This type of information is critical to quantifiably assess the potential impact of predators on mule deer populations. When predator numbers are decreased via harvest to improve conditions for mule deer, it is important to assess the impact predator reductions may have on mule deer populations in the Platte Valley. These assessments should include measures of population change, fawn productivity, adult and fawn survivorship and cause-specific mortality by sex/age class of mule deer in the Platte Valley. Although predator control has been conducted extensively to protect livestock throughout the Platte Valley, the impact of these actions on mule deer populations has not been quantitatively determined.

In accordance with Wyoming Game and Fish Commission Policy VIIR (September 8, 2006), predator control (coyotes) may be considered to increase mule deer recruitment and/or survival, if post-hunting season fawn:doe ratios are less than 65:100, or after sudden population losses (winter die-off) greater than 25%. Control actions may also be considered when productivity and fawn survival data are not available, and the population is more than 15% below the objective level. The need for predator management should be objectively evaluated considering whether other natural factors may also be influencing mule deer productivity and population trends. Studies are encouraged to assess the effectiveness of predator control actions.

The strategies for improvement outlined below are intended to address all major predators, including trophy game animals (i.e., mountain lions and black bears) that prey on mule deer in the Platte Valley Herd Unit. Mountain lions and black bears are managed under plans approved by the Game and Fish Commission. If impacts to mule deer populations in the Platte Valley are documented from trophy game animals, management goals for trophy game animals will be reevaluated.

A. Assess the impacts of predation on mule deer in the Platte Valley.

Strategy: Estimate predation rates on adult female mule deer and fawns to evaluate the impact of predation on mule deer in the Platte Valley. It would be beneficial to compare survivorship of deer sex/age cohorts before and after a predator reduction occurs. While conducting monitoring of survivorship, managers will also consider the effects of habitat quality, weather, competition, and other biotic factors in order to evaluate potential impacts of these factors in concert with predation to the mule deer population. This assessment will be used to estimate the overall effects of predation and to address changes in management regimes of large carnivores and predators.

Management Actions Planned

- Continue to monitor adult female survivorship and estimate annual predation rates through tracking and telemetry and documenting cause specific mortality.
- When possible, use vaginal implant transmitters and expandable telemetry collars, to mark mule deer fawns to evaluate cause specific mortality and to estimate fawn survival and recruitment and the potential impacts of predation.
- Starting summer, 2012 collect data on habitat nutrition/availability, inter-specific competition (domestic and wild ungulates), weather, and other factors to assess potential impacts of the many factors, including predation, associated with the mule deer decline in the Platte Valley.

B. Attempt to increase mule deer recruitment and survival by reducing coyote populations.

Workshop Comments Addressed:

- Increase coyote control

Strategy: Increase Coyote Control

Management Actions Planned

- As an ongoing effort, WGFD will work cooperatively with the Carbon County Predator Management District, Animal Damage Management Board (ADMB), and Wildlife Services to develop coyote control projects for the benefit of mule deer, in accordance with Wyoming Game and Fish Commission Policy VIIR – Predatory Animal and Predacious Bird Management Recommendations for the Benefit of Wildlife.
- WGFD will, at minimum, use annual fawn productivity measures (fawn:doe ratios) and population estimates and, when feasible, data collected from radio-collared mule deer to assess impacts related to predation and potential impacts of coyote reductions.

Management Actions in Progress or Completed

- WGFD will continue monitoring radio-collared female mule deer, as part of the Platte Valley mule deer research project, to better define important parturition habitat. Monitoring data may be used to target future coyote control efforts in parturition habitat to improve fawn survival. Coyote control efforts in parturition habitat should be conducted prior to, and proceed through, the mule deer parturition season.

C. Attempt to increase mule deer recruitment and survival by reducing mountain lion populations

Workshop Comments Addressed:

- Increase mountain lion harvest to increase deer herd

Strategy: Increase Opportunities for Mountain Lion Harvest

The Platte Valley mule deer herd unit includes portions of 3 different Mountain Lion Management Units (LMU), consisting of several mountain lion hunt areas. Hunting season regulations (Chapter 42) are proposed for each hunt area to increase, maintain or reduce mountain lion numbers, in accordance with the desired LMU management goal.

Management Actions Planned

- WGFD will evaluate current population status for those portions of the LMUs which overlap the Platte Valley Mule Deer Herd Unit and propose changes in regulation which will promote a reduction in mountain lion numbers.
- WGFD will consider proposing the following changes for the 2013-2015 mountain lion seasons:
 - Increase mortality quotas in Hunt Areas 9 and 31.
 - Increase hunting season lengths to yearlong.
 - Allow for reduced price mountain lion licenses to be valid in Hunt Areas 7 and 31.
- WGFD will, at minimum, use annual fawn productivity measures (fawn:doe ratios) and population estimates and, when feasible, data collected from radio-collared mule deer to assess impacts related to predation and potential impacts of mountain lion reductions.

D. Attempt to increase mule deer recruitment and survival by reducing black bear populations

Workshop Comments Addressed:

- Increase quotas for bears

Strategy: Increase Opportunities for Black Bear Harvest

The Platte Valley mule deer herd unit includes portions of 3 Black Bear Management Units (BMU), consisting of several black bear hunt areas. Hunting season regulations (Chapter 3) are proposed for each hunt area to increase, maintain or reduce black bear numbers, in accordance with the desired management goal for each BMU. Black bear regulations for the 2011 through 2013 hunting seasons were approved by the Wyoming Game and Fish Commission in January 2011. A significant increase in the Hunt Area 9 mortality quota was approved in 2011. Currently there is no empirical evidence of black bears limiting mule deer, however cause-specific mule deer fawn mortality has not been evaluated in the Platte Valley.

Management Actions Planned

- If the mule deer 5-year average for doe:fawn ratios remains below 65:100, and the mule deer population estimate is below the management objective, WGFD will consider increasing Hunt Area 8 mortality quotas for the 2014 through 2016 black bear hunting seasons.
- WGFD will, at minimum, use annual fawn productivity measures (fawn:doe ratios) and population estimates and, when feasible, data collected from radio-collared mule deer to assess impacts related to predation and potential impacts of black bear reductions.

ISSUE 4. ACCESS

The outdoor hunting experience is diminished when hunters cannot find solitude and/or have limited opportunity to see wildlife. Hunters have been crowded into areas of public land partly because there has been a loss of access to private land. Respondents to the hunter survey and participants in the Platte Valley Mule Deer workshops identified loss of access to favorite hunting areas, both private and public, crowding of hunters into public land, exclusion from public land surrounded by private land, and inadequate marking of public and private land as major concerns.

Increased access to both private and public land for hunting elk and white-tailed deer will maintain or decrease these populations to acceptable levels and minimize competition with mule deer. In addition, it will disperse hunters, thereby improving the quality of the hunt and distributing harvest over wider areas. Hunters expressed a need for partnerships, incentives and increased funding to acquire access to broader areas of the Platte Valley. WGFD will continue to seek partners to address hunting access and to improve all wildlife management and the hunting experience.

A. Increase hunting access to private land

Workshop Comments Addressed:

- Increase access to private land to reduce hunter crowding, inter-species competition, and predator control
- Increase participation and education for Hunter Management Areas and Walk-in Areas
- Improve hunter/landowner relationships
- Increase incentives for landowners to allow hunting access
- Increase participation in Hunter Management Areas and Walk-in Areas

Strategy: Promote current PLPW program

Using media such as the Game & Fish Website, Game & Fish publications, newspapers, radio, video, Face book and YouTube provide information regarding the PLPW program to landowners and hunters. Recognize ranches that participate in the PLPW program, conservation easements, and donations of access. Increase incentives to landowners for providing hunting access.

Management Actions Planned

- Starting immediately, WGFD will put more emphasis on the success of the PLPW program in the Platte Valley and the important role of participating landowners. Access for elk and white-tailed deer hunting will be emphasized.

Management Actions in Progress or Completed

- WGFD will continue to promote the PLPW program using various media.
- WGFD will continue to seek hunting access to private land for the purpose of distributing hunting pressure.

- WGFD will continue to solicit landowners willing to provide hunting access.
- WGFD will continue to provide incentives for landowners to participate in hunter management, such as monetary incentives, habitat improvement projects, technical advice.

B. Improve hunting access to public land

Workshop Comments Addressed:

- Improve access to landlocked public land, e.g. land swaps and conservation easements
- Increase landowner incentives for access to public land
- Increase access to public land, specifically checkerboard
- Improve access to hard-to-get-to places
- Build better cooperation between private landowners and the state
- Increase WGFD involvement and communication in land purchase/donations with other agencies.

Strategy: Increase access to public lands.

Work with land management agencies and landowners for increased access to public lands and explore the potential to consolidate land status. Increase efforts to consolidate public and private land through land trades, donations, and access/conservation easements. Offer incentives to landowners to provide access to public land.

Management Actions Planned

- Starting immediately, WGFD will seek opportunities for easements across private land to access public land.
- Starting immediately, WGFD will seek potential partners for consolidation of public land through land trades.

Management Actions in Progress or Completed

- WGFD will continue to foster dialogue with private landowners about the benefits of dispersing hunters by providing access to public land.
- WGFD will continue to investigate access opportunities and wildlife benefits of acquisitions and easements.
- WGFD will continue to work with public land agencies to identify areas with difficult access and uncertain boundaries.
- WGFD will continue to provide input to public land management agencies regarding their travel management plans.
- WGFD will continue to promote electronic maps for GPS.
- Local WGFD personnel will continue to teach map reading and use of navigation systems in hunter education programs.
- WGFD will use education and information to enable the public to locate public land parcels, e.g. electronic maps.

C. Increase funding for access programs

Workshop Comments Addressed:

- Increase funds for access.

Strategy: Identify opportunities for other funding sources.

Seek additional funding sources and partners to increase funding for access to private and public land.

Management Actions Planned

- As an ongoing effort, WGFD will seek funding sources and partners to increase funding for access to private and public land.

Management Actions in Progress or Completed

- WGFD will continue to promote the Access Yes program.

ISSUE 5. DISTURBANCE

With the advent of vehicles, especially ATVs or OHVs, people are able to access landscapes easier than before. Increased motorized access provides recreation opportunity for some hunters, antler hunters, wildlife photographers and others enjoying the outdoors. It also increases stress on mule deer primarily during the winter months when they are physiologically in decline and are increasingly susceptible to mortality due to stress.

Human caused disturbance increases stress on mule deer and if the disturbance is great enough it will displace them from important habitats (Freddy et al. 1986, Sawyer et al. 2009). When undisturbed mule deer select habitats they do so to optimize food availability, nutrition, and escape cover. This ensures they are able to minimize energy expenditures and body weight loss and increase their chances of survival. It is therefore important as we consider habitat and mule deer population needs to evaluate the various disturbance impacts to wintering or fawn rearing mule deer.

Poorly regulated OHV use and antler hunting on occupied mule deer winter ranges were most frequently recognized by workshop participants in the Platte Valley. It is important to note WGFD does not have regulatory authority over ATV/OHV use on lands other than Wyoming Office of State Lands and Investment lands and WGFC owned lands.

A. Reduce and mitigate the impacts of human disturbance to deer

Workshop Comments Addressed:

- Close winter ranges to human activity; increase winter survival.
- Human impacts: measure annual habitat loss due to subdivisions, fences and other human impacts. Mitigate impacts equally. Report annually.
- Identify fawning areas and protect from disturbance.
- Manage people better.
- Antler hunting restrictions: increase habitat protection
- Antler hunting restrictions: include fawn drop- increase fawn survival.
- Support antler hunting season: eliminate another stress issue.
- Implement antler hunting regulation to protect wintering deer.
- Include Platte Valley in antler hunting restrictions (reduce stress).
- Regulate antler hunting.
- Limited ATV use AND Enforce ATV related laws: to address hunt quality, disturbance, habitat damage.
- Disturbances: More restrictions on OHV's, ATV's and Snow Machines on winter range/area wide.
- ATV management - time of use.
- Type of use - Hunting from ATV not allowed - use for game retrieval OK - minimize disturbance.
- More info on: predator populations, recreational use, ATV use.
- ATV education

- Minimize disturbance during fall especially by ATV's
- Work with Forest Service to ID illegal roads and improve enforcement. Encourage Forest Service to increase presence/enforcement during fall. ATV season/restrictions.
- ATV use for retrieval only - time frame (10 -2) retrieval only.
- ATV's: travel management and better enforcement.
- Encourage public reporting of ATV violations.
- Reduce numbers of ATV's/travel management - come up with a plan.
- Increase ATV law enforcement during crucial periods: protect habitat.

Strategy: Reduce and mitigate human disturbance to mule deer.

WGFD will increase efforts to reduce and mitigate the impacts of human disturbance to mule deer populations through cooperation with land management agencies and county planners. WGFD will educate the public on the importance of protecting sensitive areas such as crucial winter areas and parturition areas. WGFD will notify the public of sensitive areas and increase protective measures such as signing and law enforcement. WGFD will discourage activities that congregate mule deer, such as artificial feeding.

Management Actions Planned

- Starting summer, 2012 WGFD will seek guidance and direction regarding inclusion of the Platte Valley in the regulated antler hunting area. WGFD will consider public input and make recommendations to the Wyoming Game & Fish Commission for any needed changes to statute.
- By summer, 2013 WGFD will identify mule deer transition and crucial winter ranges needing additional protection from human disturbance.

Management Actions in Progress or Completed

- WGFD conducts law enforcement efforts to reduce disturbance to mule deer. WGFD cooperates with federal land management agencies on law enforcement efforts.
- WGFD currently provides comments on the Carbon County Land Use Plan, the Forest Management Plan and the BLM Resource Management Plan.
- WGFD currently tracks development and other disturbance with the Carbon County Planner.
- WGFD uses various media to describe the detrimental aspects of supplemental feeding and congregating wildlife at feeding sites.

Strategy: Travel Management and Education

Work with federal partners and the public to develop coordinated travel plans. The plan should focus on identification of illegal roads, unneeded or duplicate roads, appropriate time and type of OHV use and increased enforcement during key times (winter/fawning) of the year. Work to better educate the public about OHV impacts to wildlife and habitat.

Management Actions Planned

- Starting immediately, WGFD will encourage federal partners to develop a coordinated Travel Management Plan addressing OHV use specifically to benefit mule deer. The plan should include identification of illegal roads, unneeded or duplicate roads, appropriate time and type of OHV use and increased enforcement during key times (winter/fawning) of the year. The WGFD will assist with development of this plan.
- Starting immediately, WGFD will increase education regarding impacts motorized vehicle activity has on deer survival and hunt quality. This outreach effort will include additional communication with local OHV organizations to stress the positive impacts of self-policing. Information will be provided to hunters regarding impacts of high road densities and vehicle disturbance on hunt quality and mule deer production/survival. The WGFD will also stress the importance of providing public input to Federal land management agencies about enforcement concerns.

Management Actions in Progress or Completed

- WGFD personnel will continue to work closely with Federal counterparts to increase policing of road and seasonal closures. This partnership should be encouraged and enhanced to increase enforcement presence.
- WGFD will continue to convey concerns from sportsmen about OHV abuses to BLM/USFS.
- The WGFD works with Federal land management agencies to develop travel management plans that support seasonal closures to improve habitat conditions and provide “sanctuaries.”
- The Pennock Mountain WHMA currently utilizes seasonal travel restrictions to protect wintering wildlife.
- WGFD currently enforces travel restrictions on Office of the State Lands and Investment lands.

ISSUE 6. OUTREACH, PARTNERSHIPS, AND RESPONSE

By any social, cultural, economic, or ecological measure, mule deer are among the most valued of Wyoming's natural resources. Nowhere in the state is this more evident than in the Platte Valley near Saratoga and Encampment. The Platte Valley mule deer herd had been one of the premiere mule deer populations in Wyoming. Mule deer are one of the most popular big game species sought by hunters and to many the species is a quintessential symbol of the open western landscape. The mule deer is often labeled the "Icon of the West".

Deer management entails many biological considerations. However, stakeholders must remember all wildlife including mule deer are managed under the *Public Trust* doctrine in concert with the North American Model of Wildlife Conservation for all to enjoy. Therefore, it is critical that just as the biological needs of mule deer are considered so too are the needs, perspectives, and expectations of society and the many stakeholders interested in this mule deer herd and other wildlife. Our stakeholders, to whom this resource belongs, are the key to future support and funding of deer management in the Platte Valley.

WGFD has engaged in an outreach program to better understand public desire and to engage those interested in the management of this deer population in a more meaningful manner. The following objectives, strategies, and actions are a result of that process.

A. Increase public awareness through increased exchange of information regarding various issues as they relate to the Platte Valley mule deer herd

Workshop Comments Addressed:

- Educate the public about season options: lack of hunter knowledge.
- Provide the public with more information in more media regarding mortality of deer.
- Provide the public with more information in more media regarding hunter numbers.
- Use the Job Completion Reports to provide information to the public
- Communicate concerns to land management agencies.
- Hold more meetings to sustain public interest.
- Proactive management for habitat awareness of agendas of various organizations
- Increased transparency about where dollars go.

Strategy: Increasing Public Awareness

Utilize all of WGFD's existing avenues to increase the public's awareness regarding the many issues facing the Platte Valley deer herd, how WGFD is addressing those issues, and how the public can further engage and participate. This public outreach will be accomplished primarily through WGFD's Information and Education Branch, but would also utilize employees within the Wildlife Division. WGFD will also rely heavily on partnerships with other agencies, conservation/sportsmen's groups, and the regional media to reach various interested publics with pertinent information regarding Platte Valley deer.

Management Actions Planned

- Starting winter, 2012 WGFD will initiate additional public meetings to focus on mule deer issues. These meetings will provide a forum for continued collaborative information exchange, as well as an opportunity to discuss progress on this plan.
- During 2012 hunting seasons WGFD will provide both verbal and written materials, including fliers and brochures, to update hunters on important issues involving the Platte Valley deer herd at annual check stations and field contacts starting in 2012.
- Starting immediately, WGFD's annual "Job Completion Report" chronicling current conditions and management data for the Platte Valley deer herd will be posted on the Platte Valley Mule Deer Initiative website.

Management Actions in Progress or Completed

- WGFD will continue to expand its list of public outreach tools. For example, WGFD is exploring the utility of social media and has launched a Facebook page and now has a channel on YouTube. These outlets will be used to share information about the Platte Valley deer herd and its management.
- Currently, WGFD uses its website, Wyoming Wildlife magazine, Wyoming Wildlife News, informational video, slideshows, and photos. The website currently features a page dedicated to the Platte Valley deer herd planning process that will be maintained and updated.
- WGFD will continue to communicate the huge importance of quality fish and wildlife habitat to the people of Wyoming. Generating interest in messages about shrubs, forbs and the many other plants important to mule deer and other wildlife is always a challenge and WGFD is continually looking for new and exciting ways, such as web-based video and slide shows, to make that connection with the public.
- WGFD will continue to periodically utilize public surveys to understand the values and attitudes of the stakeholders of the Platte Valley mule deer herd.
- WGFD, in partnership with the Western Association of Fish and Wildlife Agencies' Mule Deer Working Group, produced a documentary chronicling the importance of mule deer in the West and challenges faced to sustain this species.

B. Continue to explore Platte Valley mule deer issues with all stakeholders through the collaborative learning process

Workshop Comments Addressed:

- More direct input from field WGFD people, ranchers and hunters.

Strategy: Continued collaboration with all stakeholders

Continued interaction through collaboration will be key to the successful management and recovery of this mule deer herd. WGFD is committed to this continued process.

Management Actions Planned

- After 2012 hunting seasons, WGFD will continue to hold annual collaborative workshops of the Platte Valley Mule Deer Initiative to maintain contact with our many stakeholders to ensure future management of this herd meets public desires and expectations and the biological needs of the herd.

Management Actions in Progress or Completed

- WGFD has hired a Human Dimensions specialist to oversee and conduct public input gathering processes.
- Social science studies targeted at Platte Valley mule deer hunters have been conducted to gather information on what hunters desire from the deer herd and their outdoor experience. A study of deer hunters statewide was conducted in 2005, followed by a study specifically targeting Platte Valley hunters in 2011.

C. Improve WGFD's ability to develop partnerships to effectively address issues critical to managing the Platte Valley Mule Deer Herd

Strategy: Developing partnerships

Develop meaningful and effective partnerships to address issues critical to improve mule deer habitat and population size. Partnerships with other agencies including the USFS, BLM, NRCS, local conservation districts, NGOs, landowners, hunters, outfitters, and others will be critical.

Workshop Comments Addressed:

- Funding: Increase ways to work more with other stakeholders to increase funding, partnerships
- Quantify connection between WGFD monies: increase monies. “Is there a connection between monies and management practices”?
- More examples of cooperative habitat improvement: more interest in habitat projects from partners.
- Coordinate with public and private landowners on habitat management and range impacts.
- Get Forest Service more involved in wildlife projects (more habitat; improvements).
- Create better interagency coordination regarding proper/improper grazing practices on public land (state/BLM/Forest).
- Create better interagency coordination regarding monitoring and creation of balance.
- Encourage land agencies to do more wildlife habitat work: improve habitat.
- More cooperation for habitat improvement - think outside the box.
- Habitat management plan in Platte Valley to include all stakeholders/landowners and what they can provide.
- Gather historical data from all agencies/private landowners to determine where the habitat is now.

- Increase cooperation and trust between private landowners and government agencies. Plant bitterbrush on private land.
- Better collaboration with WYDOT and landowners regarding fencing projects.
- Better Collaboration between all landowners (Federal, private, State) regarding mule deer management.
- Conservation districts: historic range trend data with USFS and BLM to evaluate habitat condition.
- Funding: Increase ways and work more with other stakeholders to increase funding, partnerships.

Management Actions Planned

- WGFD will work with all stakeholders to continue the collaborative process to progress on all aspects of mule deer management in the Platte Valley.
- WGFD will collaboratively develop the “Platte Valley Habitat Partnership” (PVHP). The PVHP is envisaged to at least include USFS, BLM, NRCS, SERCD, landowners, sportspersons, NGO’s, and outfitters.
- During winter 2012/13 WGFD will provide an analysis of the revenues generated from mule deer hunting and the cost of mule deer management in the Platte Valley mule deer herd.
- Starting immediately, WGFD will increase communication with the Colorado Division of Parks and Wildlife to coordinate mule deer management.

D. Respond to unexpected conditions or circumstances impacting mule deer

Workshop Comments Addressed:

- Pro-active/quicker response to important issues (weather issues, die offs) - Don't "study it to death" before taking action.
- Quicker response from WGFD: during bad winters or large die off, and reduce quotas/season length.

Strategy: Respond quickly to unexpected conditions

It is important WGFD has the ability to respond to unexpected conditions or circumstances such as late spring snow storms resulting in high mule deer loss. Often these storms occur after the season setting process for the current year. WGFD must have the latitude to respond.

Management Actions Planned

- When necessary, WGFD will utilize, within our current framework, processes to respond to unexpected circumstances resulting in mule deer declines to minimize impact of hunting seasons. This includes: withdrawing unsold licenses and utilizing the “emergency regulation” process to change hunting season structure.

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APPENDIX A – Hunter Attitude Survey
Responsive Management™



**ATTITUDES TOWARD MULE DEER MANAGEMENT
IN THE PLATTE VALLEY**

Conducted for the Wyoming Game and Fish Department

by Responsive Management

2011

53

ATTITUDES TOWARD MULE DEER MANAGEMENT IN THE PLATTE VALLEY

2011

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EXECUTIVE SUMMARY

INTRODUCTION AND METHODOLOGY

This study was conducted for the Wyoming Game and Fish Department (hereinafter referred to as “the Department”) to determine mule deer hunters’ opinions on mule deer hunting and mule deer management in the Platte Valley. The study entailed a telephone survey of licensed Wyoming hunters who had hunted in the Platte Valley in the past 5 years. Specific aspects of the research methodology are discussed below.

For the survey, telephones were selected as the preferred sampling medium because of the almost universal ownership of telephones among the sample (both landlines and cell phones were called). Additionally, telephone surveys, relative to mail or Internet surveys, allow for more scientific sampling and data collection, provide higher quality data, obtain higher response rates, are more timely, and are more cost-effective. Telephone surveys also have fewer negative effects on the environment than do mail surveys because of reduced use of paper and reduced energy consumption for delivering and returning the questionnaires.

The telephone survey questionnaire was developed cooperatively by Responsive Management and the Department, based on the research team’s familiarity with hunting, outdoor recreation, and natural resources. Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey. The sample of Wyoming licensed hunters was obtained from the Department. The sample included three distinct groups: Platte Valley residents, Wyoming residents not in the Platte Valley (hereinafter referred to as “non-Platte Valley residents”), and residents of other states who hunt in the Platte Valley (hereinafter referred to as “Wyoming non-residents”).

A central polling site at the Responsive Management office allowed for rigorous quality control over the interviews and data collection. Telephone surveying times are Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time. The survey was conducted in July and August 2011. The software used for data collection was Questionnaire Programming Language. Responsive Management

obtained a total of 599 completed interviews: 85 with Platte Valley residents, 331 with non-Platte Valley residents, 183 with Wyoming non-residents.

The analysis of data was performed using Statistical Package for the Social Sciences as well as proprietary software developed by Responsive Management.

PARTICIPATION IN MULE DEER HUNTING IN THE PLATTE VALLEY

- Two-thirds (66%) of both Platte Valley residents and non-Platte Valley residents had hunted mule deer in Wyoming in all 5 of the previous 5 years; the means were 4.13 years and 4.21 years, respectively. Among Wyoming non-residents, not surprisingly, a lower percent (21%) had hunted for mule deer in Wyoming all 5 of the past 5 years, and their mean was 2.56 years.
 - Another question asked about hunting mule deer specifically *in the Platte Valley*. A majority of Platte Valley residents (60%) did so 5 of the past 5 years, and their mean was 4.00 years. For Wyoming non-Platte Valley residents, 44% had hunted mule deer in the Platte Valley for 5 of the past 5 years, and their mean was 3.53. Finally, only 16% of Wyoming non-residents had done so for 5 of the past 5 years, and their mean was 2.27 years.
 - Hunters were also asked about the total number of years that they had hunted mule deer in the Platte Valley. As expected, Platte Valley residents had the highest mean (18.69 years), followed by non-Platte Valley residents (14.03), and distantly followed by Wyoming non-residents (5.14 years).
- The survey asked hunters to indicate their typical annual days of hunting mule deer in the Platte Valley in the past 5 years: the means were 8.34 days among Platte Valley residents, 6.98 among non-Platte Valley residents, and 7.04 among Wyoming non-residents.
- Hunt areas 78, 79, and 80 are the most popular Platte Valley hunt areas among respondents.
 - Another question pertaining to location asked respondents how far they typically travel, one-way, from home to hunt mule deer in the Platte Valley. As to be expected, the lowest mean was among Platte Valley residents (they typically travel 18.80 miles), the

middle mean was among Wyoming non-Platte Valley residents (98.41 miles), and the highest mean was among Wyoming non-residents (a mean of 1,093.63 miles).

- One question asked about hunting mule deer *outside* of the Platte Valley in the past season. A majority of Platte Valley residents (78%) and a majority of Wyoming non-residents (80%) did *not* hunt mule deer outside of the Platte Valley, while about half of Wyoming non-Platte Valley residents (48%) did not hunt mule deer outside of the Platte Valley.
- A final participatory question asked about the use of an outfitter or guide: 16% of Wyoming non-residents had used an outfitter or guide in the Platte Valley at some time. Among Wyoming residents (in or outside of the Platte Valley), only 2% had ever used an outfitter or guide in the Platte Valley.

MOTIVATIONS FOR HUNTING IN THE PLATTE VALLEY

- The survey asked respondents which one of five given reasons was the most important reason for hunting mule deer. Among Wyoming residents (both Platte Valley residents and non-Platte Valley residents), the utilitarian reason of “for the meat” was the top reason (42% of Platte Valley residents and 38% of non-Platte Valley residents gave this response). For Wyoming non-residents, the top motivation was not utilitarian: “for the sport or recreation” (33% gave this response).
- Proximity and familiarity are two top reasons that hunters choose to hunt mule deer in the Platte Valley. Nonetheless, other motivations of note include that the hunter likes the area, that the Platte Valley has plenty of game, that the area has good quality game, that tags were available for the area, and that the area has good access.

FACTORS IN A QUALITY DEER HUNT

- Respondents were read a list of six factors and were asked to indicate which of them they look for in a *quality* hunt (they could choose more than one). Of the six factors, two are utilitarian, and four are aesthetic. For Platte Valley residents, the utilitarian factor of

“presence of large-antlered bucks” was the top factor, while for non-Platte Valley residents and Wyoming non-residents the top factor was “for the outdoor experience.”

- The survey asked respondents to indicate the minimum number of points on one side that a buck should have to be considered a trophy buck. The most common response among all three groups was four points—a majority of each group gave this answer (from 61% to 65%).
 - A similar question asked about the minimum antler spread for a buck to be considered a trophy buck. Most of the answers ranged from 24 inches to 28 inches, with the means being 24.35 inches (Platte Valley residents), 24.12 inches (non-Platte Valley residents), and 23.48 inches (Wyoming non-residents).

SATISFACTIONS AND DISSATISFACTIONS WITH HUNTING IN THE PLATTE VALLEY

- Platte Valley residents and those not from the Platte Valley differ markedly in their satisfaction with hunting mule deer in the Platte Valley. While a majority of Platte Valley residents are *dissatisfied* (61%), a majority of each of the other two groups are *satisfied* (59% of non-Platte Valley residents and 70% of Wyoming non-residents).
 - In follow-up, respondents were asked to indicate the reasons that they were satisfied or dissatisfied. Among those who were *very* satisfied, the top reasons for being very satisfied are that there is plenty of game, that the Platte Valley area is beautiful, that they had a good hunting experience, that the area is not crowded, and that they had good access.
 - The top reasons for being dissatisfied are a perceived lack of game, lack of quality deer, not seeing the right kind of deer (e.g., only see does), crowding, poor habitat (including because of the beetle kill), and weather (including not only harsh winters but also that the hunting season was too hot recently).
- The survey asked respondents if there were any things that caused them *not* to hunt mule deer in the Platte Valley as much as they would have liked. A majority of Platte Valley residents (59%), half of non-Platte Valley residents (50%), and less than half of Wyoming

non-residents (43%) responded that there were such things. They were then asked in an open-ended question to name those things.

- The top factors that prompted less mule deer hunting than the respondent would have liked to engage in are a perceived lack of game, time constraints, crowding, access problems, poor health/age, and (particularly for Wyoming non-residents) the cost of licenses and the amount/cost of travel.

- The issue of crowding was directly addressed in the survey, which asked respondents to indicate if the number of hunters in the Platte Valley was acceptable or unacceptable.

Wyoming residents differ markedly from Wyoming non-residents. While 40% of both Platte Valley residents and non-Platte Valley residents think the number of hunters in the field in the Platte Valley is unacceptable, only 17% of Wyoming non-residents think this. On the other end, acceptability increases with distance from the Platte Valley: 42% of Platte Valley residents say the number of hunters is acceptable, 53% of non-Platte Valley residents think so, and 63% of Wyoming non-residents think the number of hunters is acceptable.

- The issue of crowding was also asked about in two other questions. The first question asked respondents if they agreed or disagreed with this statement: There were too many other hunters in the area where you hunted most often in the Platte Valley in the past 5 years. Again, there was a marked difference between Wyoming non-residents and residents from Wyoming (both in and outside of the Platte Valley): a majority of Platte Valley residents (60%) and non-Platte Valley residents (56%) agree with this statement (i.e., they think the Platte Valley is crowded), while only 30% of Wyoming non-residents agree.

- The second question discussed herein that concerned crowding asked respondents whether the number of hunters in the Platte Valley has increased, stayed the same, or decreased over the past 5 years. A majority of Platte Valley residents (53%) and non-Platte Valley residents (56%) think that the number of hunters has increased, while only 16% of Wyoming non-residents think that the number has increased.

OPINIONS ON CURRENT MANAGEMENT OF THE DEER HERD IN THE PLATTE VALLEY

- A basic question about mule deer management asked respondents if they think the Wyoming Game and Fish Department is doing an excellent, good, fair, or poor job of managing the mule deer population in the Platte Valley. Platte Valley residents differ markedly from the other two groups: 31% of Platte Valley residents give a rating of excellent or good, compared to 54% of non-Platte Valley residents and 68% of Wyoming non-residents. The difference is more extreme in “poor” responses: 42% of Platte Valley residents give a rating of poor, compared to only 13% of non-Platte Valley residents and 8% of Wyoming non-residents.
 - A follow-up question asked respondents to indicate their reasoning for giving the rating that they gave. For those who responded with “excellent”: top reasons are that there is plenty of game, that interactions with agency personnel have been favorable (including having enough check stations), that the Department does a good job, and the good quality of deer and habitat.
 - The top reasons for giving a negative rating (either “fair” or “poor,” which is in the bottom half of the scale) are the perceived lack of game, perceived mismanagement of the herd, regulatory issues, the perceived lack of quality deer, crowding, and too many out-of-state hunters.

- The survey asked whether the way the Department manages mule deer has improved, remained the same, or gotten worse in the past 5 years. Again, Platte Valley residents are more negative than the other two groups. Nonetheless, none of the groups were generally favorable in their opinions regarding trends in the past 5 years.

- A basic question asked respondents about the acceptability of the current number of mule deer in the Platte Valley. About half of non-Platte Valley residents (50%) and Wyoming non-residents (51%) find the current number of mule deer acceptable; meanwhile, Platte Valley residents are more negative, as only 27% find the current number acceptable.
 - Another question asked about the acceptability of the number of mule deer *harvested*. Platte Valley residents are about evenly split (31% say the harvest number is acceptable,

while 35% say it is unacceptable). The other groups are a little more favorable: among non-Platte Valley residents, 43% say acceptable and 23% say unacceptable; among Wyoming non-residents, those percentages are 40% acceptable and 19% unacceptable.

- Two “agree-disagree” questions were asked regarding the quantity of bucks and the quality of bucks.
 - Regarding the quantity, half of Wyoming non-residents (50%) agree that the number of bucks in the area was adequate in the past 5 years. Otherwise, for the other groups, less favorable ratings are given, as majorities of Platte Valley (73%) and non-Platte Valley residents (61%) *disagree* that the number of bucks in the past 5 years was adequate.
 - Regarding quality, majorities of all three groups indicated that they had heard about or had seen big antlered bucks in the Platte Valley area within the past 5 years (from 60% to 67% among the three groups).

- Three questions asked about recent trends: the trend in numbers of mule deer, the numbers harvested, and the numbers of bucks. Each asked if those numbers had increased, stayed the same, or decreased over the past 5 years.
 - Regarding total numbers of mule deer: the most common answer of all three groups is “decreased.”
 - Regarding numbers harvested: “decreased” is the most common answer of all three groups (excluding don’t know, the most common response of Wyoming non-residents).
 - Regarding the number of bucks, “decreased” is again the most common answer.

- Part of management of deer herds involves the *management of habitat*, to the extent that it can be influenced by agency action. Respondents were asked to rate the current quality of deer habitat in the Platte Valley, and they are more positive than negative: from 58% to 66% gave a rating of *excellent* or *good*, compared to a range of 25% to 39% giving a rating of *fair* or *poor*.
 - Respondents were asked for their opinion regarding whether the quality of mule deer habitat in the Platte Valley had improved, remained the same, or gotten worse in the past 5 years. “Remained the same” is the most common answer among all three groups (from

41% to 46%). Otherwise, a greater percentage of each group thinks the quality has *gotten worse* than thinks it has *improved*: among Platte Valley residents, 31% to 15%, among non-Platte Valley residents, 30% to 20%, and among Wyoming non-residents, 21% to 6%.

OPINIONS ON FACTORS THAT AFFECT THE DEER POPULATION IN THE PLATTE VALLEY, INCLUDING HABITAT

- Hunters who had previously indicated the total number of mule deer in the Platte Valley has increased or decreased in the past 5 years were asked about their opinion regarding the reasons for the increase or decrease.
 - Among those who thought the number had increased, common reasons given for the perceived increase include the large number of does in the herd, favorable weather, and good management.
 - Regarding a perceived decrease, overhunting was a prominent reason—the top reason among Platte Valley residents and non-Platte Valley residents, and the third-ranked reason among Wyoming non-residents. Nonetheless, nature-based reasons of the weather and predators were also commonly cited reasons.

- The most commonly named factors named, when respondents were asked in an open-ended question to say what factors they think control the ability of the herd to increase or decrease, include the weather, hunting management, habitat/food supply, and predators.

- A series of seven questions asked hunters' opinions on factors that may or may not have had a major impact, minor impact, or no impact at all on the mule deer population in the Platte Valley in the past 5 years.
 - Among all groups, the top two factors, when ranked by those saying the factor had a *major* impact, were winterkill and mountain lions. In general, Platte Valley residents had higher percentages than did the other groups saying that predators (mountain lions in one question and coyotes in another) have major impacts on mule deer populations.

- One question asked directly about the effect that habitat conditions have had on the trend in the number of mule deer in the Platte Valley. In general, habitat conditions are more often thought to have influenced the deer herd to decrease (23% to 29%) or remain the same (24% to 31%) rather than to increase (9% to 13%).
 - A majority of each group agrees that there is enough winter habitat in the Platte Valley to sustain the current size of the mule deer population (75% of Platte Valley residents, 73% of non-Platte Valley residents, and 56% of Wyoming non-residents). Disagreement ranged from 10% to 18%; many of the Wyoming non-residents responded that they did not know.
 - A follow-up question asked who respondents thought had the most influence over habitat on winter ranges: private landowners was the most common answer (55% of Platte Valley residents, 50% of non-Platte Valley residents, and 39% of Wyoming non-residents), followed by the Wyoming Game and Fish Department (18% of Platte Valley residents, 22% of non-Platte Valley residents, and 23% of Wyoming non-residents).
- A series of questions asked about the perceived importance of the quantity and quality of habitat on the summer and winter ranges for the Platte Valley mule deer herd. Overwhelming majorities of all three groups say that the quality and quantity of habitat on both summer and winter ranges is *very* important in determining the survival of mule deer in the Platte Valley herd. The winter ranges are thought to be slightly more important than the summer ranges: from 85% to 91% of the three groups think that either the quality or quantity of habitat on winter ranges is very important, compared to from 66% to 76% regarding summer ranges.
- Tangentially pertaining to habitat is the issue of collecting shed antlers in the winter, which may cause some disturbance to the herd in the winter. While a majority of Platte Valley residents and non-Platte Valley residents (56% and 58%, respectively) think that the collecting of shed antlers where mule deer are concentrated has an impact on the deer, only 31% of Wyoming non-residents think this.

OPINIONS ON MANAGEMENT OPTIONS FOR THE DEER HERD IN THE PLATTE VALLEY

- Respondents are split in a choice between having general seasons or limited quota seasons, with slightly more support for general seasons. Among Platte Valley residents, 47% wanted general seasons and 42% wanted limited quota. Among non-Platte Valley residents, it was 56% to 34%, and among Wyoming non-residents, it was 49% to 35% in favor of general seasons.
- A majority of each group was in support (62% to 67%) of managing for trophy bucks in the Platte Valley, even if it means more restrictions and reduced chances of hunting every year. Most of the support was *strong* support.
- A large majority of each group was in support (65% to 73%) of limiting the number of hunters in the field in the Platte Valley, even if that would make it less likely that a hunter would get a license.
- Antlerless harvest as a mule deer management tool is acceptable to a large majority of two groups and a near majority of the third group (49% of Platte Valley residents, 69% of non-Platte Valley residents, and 74% of Wyoming non-residents). The most opposition comes from Platte Valley residents (36%), compared to non-Platte Valley residents (22%) and Wyoming non-residents (14%).
 - In follow-up, reasons for it being acceptable were solicited. There was recognition that it is an effective tool and for the need to balance the herd. Some indicated that, as they hunt for meat, they find it acceptable to harvest antlerless deer.
 - The follow-up question among those who said it is unacceptable to use antlerless harvest as a management tool found the top reason to be the perceived lack of deer. Some also indicated being against the killing of does.
- Of three factors used in determining how many mule deer should be in the Platte Valley herd, habitat is regarded as the most important: a majority of each group (from 59% to 64%) chose “habitat” over “a high chance of harvest success even if it means limited hunting

opportunities” (from 21% to 27%) or “the opportunity for hunters to hunt every year regardless of success” (5% to 6%).

- Two questions asked about the importance of managing the *quality* and managing the *quantity* (or amount) of habitat. Both are felt to be of overwhelming importance (no more than 2% of any group responded with “not at all important”), with *quality* just slightly ahead of *amount*. From 78% to 82% said managing the quality is *very* important, while from 73% to 80% said managing the amount is *very* important. Nearly all the remaining respondents chose *moderately* important.
- Related to the management of habitat is the management of the collection of shed antlers. One question asked respondents if they would support or oppose efforts by the Department to regulate collecting of shed antlers where mule deer are concentrated during the winter. Majorities of both groups of Wyoming residents support doing so (62% among Platte Valley residents and 65% among non-Platte Valley residents). Additionally, more Wyoming non-residents were in support (46%) than in opposition (34%).

OPINIONS ON USE OF ATVS AND ATV MANAGEMENT

- Two questions asked about the amount of ATV use: one pertaining to ATV use where the hunter most often hunts, and the second question pertaining to ATV use in the winter ranges of the Platte Valley.
 - The groups differ markedly from one another regarding the acceptability of the amount of ATV use *where they most often hunt*. While both groups of Wyoming residents are split on the question (among Platte Valley residents, 42% say the amount of ATV use is acceptable and 48% say unacceptable; among non-Platte Valley residents, it is 46% to 43%), Wyoming non-residents find the amount acceptable (59% say acceptable to 29% who say unacceptable).
 - There appears to be more concern overall about the amount of ATV use *in the winter ranges*. There is also the same difference of opinion among groups, with Wyoming non-residents differing from the other two groups. Lower percents say acceptable than unacceptable among Platte Valley residents (32% say the amount of ATV use in the

winter ranges is acceptable compared to 53% who say unacceptable) and among non-Platte Valley residents (32% to 46%). However, among Wyoming non-residents, a higher percent say acceptable than say unacceptable (36% to 28%). A relatively high percentage of the latter group responded with don't know (24%).

- Regardless of their opinion on the acceptability of ATV use where they hunt and in the winter ranges, a majority of all groups support efforts to regulate the use of ATVs:
 - During the winter in the Platte Valley where mule deer are concentrated (from 73% to 81% support),
 - During the hunting season in the Platte Valley (65% to 69%), and
 - During the summer in the Platte Valley where mule deer are concentrated (56% to 60%).
 - As the data above indicate, regulation of the winter ranges is considered more important relative to regulation during the hunting season or regulation of the summer ranges.

LIKELY ALTERNATIVE BEHAVIORS TO HUNTING IN THE PLATTE VALLEY

- Four questions asked about likely participatory behaviors if the respondent cannot hunt mule deer in the Platte Valley every year. The four behaviors are to hunt mule deer in other general hunt areas outside the Platte Valley, to hunt mule deer in other general hunt areas near the Platte Valley, to hunt mule deer in limited quota areas, or to stop hunting mule deer until they can hunt in the Platte Valley again.
 - Among Platte Valley residents, the most common choice would be to hunt mule deer in other general hunt areas that are near the Platte Valley (38% would be very likely and 45% would be somewhat likely to do that, a sum of 82%), followed by hunt in limited quota areas (41% very, 34% somewhat, 75% total) and hunt in general hunt areas outside of the Platte Valley (33% very, 38% somewhat, 71% total). A relatively low percentage would stop hunting mule deer until they could hunt in the Platte Valley again (22% very, 21% somewhat, 44% total).
 - Among non-Platte Valley residents, the most common choice would be to hunt mule deer in other general hunt areas outside the Platte Valley (71% would be very likely and 20% would be somewhat likely to do that, a sum of 91%), followed by hunt in general hunt

areas near of the Platte Valley (57% very, 29% somewhat, 86% total) and hunt in limited quota areas (52% very, 27% somewhat, 79% total). Again, a quite low percentage would stop hunting mule deer until they could hunt in the Platte Valley again (6% very, 8% somewhat, 14% total).

- Finally, among Wyoming non-residents, the most common choice would be to hunt mule deer in other general hunt areas outside the Platte Valley (51% very, 28% somewhat, 79% total), followed by hunt in limited quota areas (44% very, 32% somewhat, 76% total) and hunt in general hunt areas near of the Platte Valley (37% very, 37% somewhat, 74% total). Again, a quite low percentage would stop hunting mule deer until they could hunt in the Platte Valley again (11% very, 8% somewhat, 19% total).

LAND OWNERSHIP AND MANAGEMENT

- Respondents were asked if they owned land or managed land in the Platte Valley: 38% of Platte Valley residents, 12% of non-Platte Valley residents, and only 2% of Wyoming non-residents owned or managed land in the Platte Valley.
- The survey asked about the amounts of land owned/managed in the Platte Valley. The mean amount owned by Platte Valley residents is 645.19 acres, their median is 12 acres. Among non-Platte Valley residents, the mean is 1,003.16 acres, and the median is 8 acres.

APPENDIX B – Results First Round Workshops

Platte Valley Mule Deer Initiative										
Issues Resulting from First Round of Workshops, August 2011										
Categorized into Themes										
Theme	*	Total	*	Cheyenne	*	Laramie	*	Rawlins	*	Saratoga
Access	3	7		0		0	2	3	1	4
ATV	1	5		0		0		2	1	3
Disease	1	3		0		1		0	1	2
Enforcement	4	17	3	7	1	3		1		6
Habitat Improvement	27	85	3	12	8	21	2	15	14	37
Habitat Protection	11	32	5	9		0	1	4	5	19
Human Disturbance	2	7		0		0	2	7		0
Inter-Species Competition	6	15		1		0		0	6	14
Limiting Factors	5	22		4		0	3	5	2	13
Other		10		2		4				4
Partnerships	8	21	5	10	1	1		2	2	8
Population Management	30	70	7	15	1	5	3	4	19	45
Predators	19	41		7	2	3	3	5	14	26
Public Education		3			1	3				
Quality of the Hunt	18	48	6	16	4	11	1	3	7	18
Research	1	8		3	1	3		0		2
Responsiveness to the Public	4	14		4		1		0	4	9
Total Issues	141	408	29	92	18	56	17	50	76	210
* Priority Issues Identified by Stakeholders										

APPENDIX C – Results Second Round Workshops

Theme 1	Theme 2	Survey Support?	C or M	Strategy for Improvement	Location	Group
Access	Enforcement			Allow WGFD to have access to private lands for enforcement.	S	5
Access	Funding		2	Increase license prices - use funds for access and habitat - only ref*** part of license fees - use extra money for access.	R	4
Access	Funding			Use access money for coyote bounties.	R	4
Access	ISP	Yes, pg 72	1	Interspecies Competition: Access: easements for access	L	3
Access	ISP	Yes, pg 68	1	Elk/deer competition - increase access/harvest for elk.	S	6
Access	Outreach	Yes, pg 72	1	Improve access to "hard to get to places" - Habitat Management Areas/walk in areas. More landowner education on the program: increase participation.	R	2
Access	Q.H.	Yes, pg 72	1	Quality of the Hunt: Improve access on private and public land.	L	3
Access	Partner	Yes, pg 72	1	Create more access to public land specifically checkerboard	C	4
Access	Partner	Yes, pg 72	1	Checkerboard: look at changing laws regarding restricting access	C	4
Access	Partner	Yes, pg 72	1	Improve access on public and private lands	C	1
Access	Partner	Yes, pg 72	1	Access: Build better cooperation between private landowners and state to gain more access in checkerboard.	L	1
Access	Partner	Yes, pg 72	1	Access: could use land swaps	L	1
Access	Partner	Yes, pg 72	1	Access: continue/expand Habitat Management Areas/Private Land Public Wildlife	L	1
Access	Partner	Yes, pg 72	1	Access: Improve hunter/land owner relationships.	L	1
Access	Partner	Yes, pg 72	1	Increase Game and Fish involvement and communication in land purchase/donations - with other agencies. Increase habitat and/or access.	L	2

Access	Partner	Yes, pg 72	1	Create more access - AccessYes	R	4
Access	Partner	Yes, pg 72	1	Improve access to landlocked public land: land swaps.	R	1
Access	Partner	Yes, pg 72	1	Improve access to landlocked public land: conservation easements.	R	1
Access	Partner	Yes, pg 72	1	improve access to landlocked public land: if landowner grazes public land, hunter should have access.	R	1
Access	Partner	Yes, pg 72	1	More liberal access for hunters before landowners get damage money.	R	1
Access	Partner	Yes, pg 72	2	Exchange public land grazing for access to private land (hunting.	C	4
Access	Partner	Yes, pg 72	2	Better marking/identification of private land boundaries.	L	1
Access	Partner	Yes, pg 72	2	Allow access on winter ranges for lion hunting.	L	1
Access	Partner	Yes, pg 72	2	Provide landowner licenses for access, i.e. Utah, Colorado.	S	8
Access	Partner	Yes, pg 72		More incentives for landowners to allow access: more access to private land - reduce hunter crowding.	L	2
Access	Partner	Yes, pg 72		Increase landowner incentives for public access.	S	4
Access	Partner	Yes, pg 72		Improve access to public land across private lands.	S	4
ATV	Disturbance	Yes, pgs 89-94	1	Limited ATV use AND Enforce ATV related laws: hunt quality, disturbance, habitat damage.	C	3
ATV	Disturbance	Yes, pgs 89-94	1	Type of use - Hunting from ATV not allowed - use for game retrieval OK - minimize disturbance.	S	4
ATV	Disturbance	Yes, pgs 89-94	1	Minimize disturbance during fall especially by ATV's	S	7
ATV	Disturbance	Yes, pgs 89-94	2	Disturbances: More restrictions on OHV's , ATV's and Snow Machines on winter range/area wide.	L	3
ATV	Enforcement	Yes, pgs 89-94	1	Increase federal law enforcement: ATV abuse	C	3
ATV	Enforcement	Yes, pgs 89-94	1	Work with Forest Service to ID illegal roads and improve enforcement. Encourage Forest Service to increase presence/enforcement during Fall. ATV season/restrictions.	S	7
ATV	Enforcement	?, pgs 89-94	1	Increase ATV fees to pay for enforcement.	S	8

ATV	Enforcement	Yes, pgs 89-94	2	ATV's: travel management and better enforcement.	S	6
ATV	Enforcement	Yes, pgs 89-94		Increase ATV law enforcement during crucial periods: protect habitat.	R	2
ATV	Outreach	Yes, pgs 89-94		ATV education	S	4
ATV	Partner	?, pgs 89-94	1	More funding for ATV enforce A. better partnerships for ATV enforce, B. develop money between USFS and WGFD	S	8
ATV	Predators	Yes, pgs 89-94		More info on: predator populations, recreational use, ATV use.	S	4
ATV		Yes, pgs 89-94	1	ATV management - time of use.	S	4
ATV		Yes, pgs 89-94	1	Encourage public reporting of ATV violations.	S	8
ATV		Yes, pgs 89-94	1	Reduce numbers of ATV's/travel management - come up with a plan.	R	3
ATV		Yes, pgs 89-94	1	Broaden Game and Fish authority to enforce ATV abuse.	R	1
ATV		Yes, pgs 89-94		ATV use for retrieval only - time frame (10 -2) retrieval only.	S	7
ATV		?, pgs 89-94		Ban ATV's	R	2
Disease		Yes, pg 68	1	Determine if EHD disease is affecting deer decline.	S	8
Disease		Yes, pg 68	1	Work with processors and taxidermists to survey for disease.	S	8
Disturbance	H.I.		1	Human Impacts: Measure annual habitat loss due to 1. subdivisions 2. fences, 3) other human impacts and then establish 1:1 mitigation to offset. Report annually.	L	1
Disturbance	H.I.		1	Identify fawning areas - 1. protect from disturbance, 2. improve habitat: increase population numbers.	R	2
Disturbance	Outreach			Better management of people	R	4
Disturbance			1	Game wardens enforce off-road travel.	S	1
Disturbance			1	Consider effects of energy and urban developments on deer = habitat loss.	R	4
Disturbance				Disturbances: Food Plots/feeding programs	L	3
Enforcement	Q.H.		1	Quality of the Hunt: Enforcement improvement decrease on road closures.	L	3

Enforcement	Q.H.		1	Quality of the Hunt: Partnerships with other fed enforcement	L	3
Enforcement	Q.H.			Quality of the Hunt: Increase game warden numbers.	L	3
Enforcement	Q.H.			Quality of the Hunt: Increase federal enforcement.	L	3
Enforcement			1	More field presence.	C	1
Enforcement			1	Increased field presence by WGFD	L	1
Enforcement			1	Increase law enforcement (winter range)	R	1
Enforcement			2	Increase Game and Fish law enforcement: more effectively manage the resource.	C	3
Funding	Predators		2	License add-on to fund coyote control.	S	6
Funding			1	Resident fee structure increase.	R	3
Funding			2	Push legislature for more funding for WGFD to address issues.	S	8
Funding				Late Season hunts to raise money for management. Increase funding for habitat projects.	C	3
Funding				Increase license fees.	S	8
H.I.	Disturbance			Close winter ranges to human activity: increase winter survival.	R	2
H.I.	Funding		1	Habitat improvement burning, mowing, funding, cooperate with private landowners, improve winter range habitat. Make it easier for private landowners to do habitat improvements - less government red tape.	S	7
H.I.	Objective		1	Reevaluate the objective in relation to habitat.	S	6
H.I.	P.M.		2	Consider winterfeeding program until habitat recovers.	S	8
H.I.	Partner	Yes, Pg 72, 86, 87	1	More examples of cooperative habitat Improvement: more interest in habitat projects from partners.	L	2
H.I.	Partner	Yes, Pg 72, 86, 87	1	Get Forest Service more involved in wildlife projects (more habitat; improvements).	R	4
H.I.	Partner	Yes, Pg 72, 86, 87	1	Identify priority habitat needs to solicit help: increase habitat projects - faster.	R	2

H.I.	Partner	Yes, Pg 72, 86, 87		More closures of government lands during crucial periods for deer fawning and winter range: increase deer survival	R	2
H.I.	Partner	Yes, Pg 72, 86, 87		More clear cuts on USFS lands: improve summer range	R	2
H.I.	Partner	Yes, Pg 72, 86, 87	1	Habitat Treatment on Forest (specifically burn)	C	4
H.I.	Partner	Yes, Pg 72, 86, 87	1	Forest: Create more mule deer forage to hold deer on the forest.	C	4
H.I.	Partner	Yes, Pg 72, 86, 87	1	Forest: Reduce Old Growth	C	4
H.I.	Partner	Yes, Pg 72, 86, 87	1	Conduct Winter Range habitat treatments	C	4
H.I.	Partner	Yes, Pg 72, 86, 87	1	Look for potential habitat projects on private land that benefit wildlife	C	4
H.I.	Partner	Yes, Pg 72, 86, 87	1	Create better interagency coordination regarding proper/improper grazing practices on public land (state/BLM/Forest)	C	4
H.I.	Partner	Yes, Pg 72, 86, 87	1	Create better interagency coordination regarding monitoring and creation of balance	C	4
H.I.	Partner	Yes, Pg 72, 86, 87	1	Coordinate with public and private landowners on habitat management and range impacts.	C	2
H.I.	Partner	Yes, Pg 72, 86, 87	1	Conduct work helps generate good will and adjacent landowner interest: keep this going and capitalize with others in valley.	C	2
H.I.	Partner	Yes, Pg 72, 86, 87	1	More habitat improvement projects i.e. burns etc.	C	1
H.I.	Partner	Yes, Pg 72, 86, 87	1	Habitat: Control cheat grass	L	3
H.I.	Partner	Yes, Pg 72, 86, 87	1	Habitat: Maintain diverse habitats	L	3

H.I.	Partner	Yes, Pg 72, 86, 87	1	Habitat: Increase size of winter range by cooperation with private land owners.	L	3
H.I.	Partner	Yes, Pg 72, 86, 87	1	Habitat: Use current projects as examples to neighboring ranches.	L	3
H.I.	Partner	Yes, Pg 72, 86, 87	1	Habitat Improvement: want to see habitat improvement projects tried/started	L	1
H.I.	Partner	Yes, Pg 72, 86, 87	1	Encourage land agencies to do more wildlife habitat work: improve habitat.	L	2
H.I.	Partner	Yes, Pg 72, 86, 87	1	More cooperation for habitat improvement - think outside the box.	S	4
H.I.	Partner	Yes, Pg 72, 86, 87	1	Habitat projects - more!: opportunities on/near forest boundary.	S	4
H.I.	Partner	Yes, Pg 72, 86, 87	1	Habitat management plan in Platte Valley to include all stakeholders/landowners and what they can provide.	S	4
H.I.	Partner	Yes, Pg 72, 86, 87	1	Broad scale habitat management: across land states i.e. public, private.	S	5
H.I.	Partner	Yes, Pg 72, 86, 87	1	Set priority area for best habitat improvements for cash value.	S	5
H.I.	Partner	Yes, Pg 72, 86, 87	1	More prescribed burns: broad use of habitat tools for habitat improvement.	S	5
H.I.	Partner	Yes, Pg 72, 86, 87	1	Beetle kill tree's: changing management plans as trees fall, habitat changes.	S	5
H.I.	Partner	Yes, Pg 72, 86, 87	1	ID overgrazed areas (range and riparian) and cooperate with land managers to improve.	S	7
H.I.	Partner	Yes, pg 68 and 72	1	Prescribe habitat treatments for shrubs (mule deer) not grass (elk)	S	7
H.I.	Partner	Yes, Pg 72, 86, 87	1	Gather historical data from all agencies/private landowners to determine where the habitat is now.	S	6
H.I.	Partner	Yes, Pg 72, 86, 87	1	Step up habitat improvement projects - fire and mechanical.	S	8

H.I.	Partner	Yes, Pg 72, 86, 87	1	Habitat improvements through burns, mechanical (conifer removal in aspen stands).	R	3
H.I.	Partner	Yes, Pg 72, 86, 87	1	Areas with high amounts of water rights, have a segment donated voluntarily for growth of shrubs for deer (ranches), cooperative agreements.	R	3
H.I.	Partner	Yes, Pg 72, 86, 87	1	Landscape wide habitat improvements	R	3
H.I.		Yes, Pg 72, 86, 87	1	Improve habitat on WGFD lands	R	3
H.I.	Partner	Yes, Pg 72, 86, 87	1	Grant WGFD management of state land.	R	3
H.I.	Partner	Yes, Pg 72, 86, 87	1	Habitat improvement: proper burn management.	R	1
H.I.	Partner	Yes, Pg 72, 86, 87	1	Habitat improvement: smaller scale burns.	R	1
H.I.	Partner	Yes, Pg 72, 86, 87	1	Use other methods than fire: chaining, herbicides, mowing.	R	1
H.I.	Partner	Yes, Pg 72, 86, 87	1	Utilize dead trees to improve deer habitat.	R	1
H.I.	Partner	Yes, Pg 72, 86, 87	2	Work with other land agencies on grazing management: improve habitat.	L	2
H.I.	Partner	Yes, Pg 72, 86, 87	2	More CRP programs: landowner support incentives.	S	5
H.I.	Partner	Yes, Pg 72, 86, 87	2	Consider more use of prescribed burns to improve habitat where appropriate.	S	7
H.I.	Partner	Yes, Pg 72, 86, 87	2	Reseed burned areas	S	7
H.I.	Partner	Yes, Pg 72, 86, 87	2	Increase cooperation and trust between private landowners and government agencies. Plant bitterbrush on private land.	S	6
H.I.	Partner	Yes, Pg 72, 86, 87	2	Create more water for wildlife and habitat (guzzlers)	R	4

H.I.	Partner	Yes, Pg 72, 86, 87		Regulation of urban development	C	4
H.I.	Partner	Yes, Pg 72, 86, 87		Fertilize shrubs: poor winter range habitat - increase vegetation	C	3
H.I.	Partner	Yes, Pg 72, 86, 87		Colorado: higher harvest for habitat concerns.	C	2
H.I.	Partner	Yes, Pg 72, 86, 87		Conservation easements with private lands on winter range.	C	2
H.I.	Partner	Yes, Pg 72, 86, 87		Habitat Improvement: Consider irrigation if possible to improve habitat.	L	1
H.I.	Partner	Yes, Pg 72, 86, 87		Old shrubs not as nutritious	S	3
H.I.	Partner	Yes, Pg 72, 86, 87		Make incentives for private landowners to improve habitat.	S	8
H.I.	Partner	Yes, Pg 72, 86, 87		Develop land owner incentives to improve habitat.	S	8
H.I.	Partner	Yes, Pg 72, 86, 87		Be more selective for PLPW lands.	S	8
H.I.	Partner	Yes, Pg 72, 86, 87		Use controlled fires to clear bug killed timber: keep summer range accessible when trees start to fall.	R	2
H.I.	Partner	Yes, Pg 72, 86, 87		Seed mixtures to include beneficial non-native species.	R	1
H.I.	Partner	Yes, Pg 72, 86, 87		Fertilize habitat	R	1
H.I.	Partner	Yes, Pg 72, 86, 87		Forest habitat improvements to increase aspens.	R	1
H.P.		pg 75 & 76	1	Antler hunting restrictions: increase habitat protection.	L	2
H.P.	Partner			Conservation easements to help prevent habitat loss.	S	2
ISP	Objective	Yes, pg 68	1	Elk and deer objectives need evaluated.	S	3
ISP	Predators	Yes pg 68	2	Make elk a predatory species.	S	1

ISP	Research	Yes pg 68	2	Limit competition between species i.e. Pronghorn, elk - consider social vs. natural science XXXX to animal behavior	R	4
ISP		Yes, pg 68	1	Reduce competition with elk and deer	C	1
ISP		Yes, pg 68	1	Interspecies Competition: Elk, liberal season, even more.	L	3
ISP		Yes, pg 68	1	Continue reducing elk numbers - work with private landowners re. elk harvest.	S	1
ISP		Yes pg 68	1	Decrease white tail deer.	S	1
ISP		Yes pg 68	1	Interspecies competition - increase white tail deer licenses.	R	3
ISP		Yes pg 68	2	Interspecies competition with elk - reduce \$ for cow tags (res and non-res).	S	2
ISP		Yes pg 68	2	Competition with elk for deer: control elk to benefit deer.	S	4
ISP		Yes pg 68	2	Decreasing elk numbers in areas that deer and elk winter.	S	5
ISP		Yes pg 68	2	Control inter-species competition - elk, moose.	S	3
ISP		Yes pg 68		Interspecies Competition: Moose, WTD; Increase some licenses where possible.	L	3
ISP		Yes pg 68		Monitor moose population.	S	1
LQ		? Pg. 79 - 81	1	Control number of hunters, limited quota: It is hard to regulate hunter numbers and with a general season.	C	3
LQ		? Pg. 79 - 81	1	Implement limited quota on as needed basis to build numbers.	C	1
LQ		? Pg. 79 - 81	1	Implement limited quota for approx. 3 years to improve quality.	L	1
LQ		? Pg. 79 - 81	1	Limited quota: hunting experience/ quality - less hunters.	L	2
LQ		? Pg. 79 - 81	1	Limited quota, increase males: longer season, each unit area has a quota and stop killing does to increase numbers.	S	1
LQ	Objective	? Pg. 79 - 81	1	Limited quota (entire area) until objective is reached.	S	2
LQ		? Pg. 79 - 81	1	Limited Quota	S	3
LQ		? Pg. 79 - 81	1	Limited quota - very restricted license numbers and season length and/or (Parta)	S	7

LQ		? Pg. 79 - 81	1	Limited Quota except for youth hunters who would get a general license.	S	6
LQ		? Pg. 79 - 81	1	Limited Quota seasons - all areas Platte Valley limited quota.	S	8
LQ		? Pg. 79 - 81	1	Increase license fee to increase time in field on limited quota license.	R	3
LQ		? Pg. 79 - 81	1	Implement a youth "special" resident license in those limited quota areas with a fixed % (state wide).	R	3
LQ		? Pg. 79 - 81	1	Limited quota everywhere - 2-3 years then review: fewer hunters, more bucks.	R	2
LQ		? Pg. 79 - 81	1	Limited Quota.	R	1
LQ		? Pg. 79 - 81	1	No limited quota for youth	R	1
LQ		? Pg. 79 - 81	2	Limited quota area wide or standard openers or area closure or point restrictions or standard openers	L	3
LQ		? Pg. 79 - 81	2	General license - reduce non-resident quota.	S	1
LQ		? Pg. 79 - 81	2	Set aside areas for limited quota: e.g. area 78.	S	4
LQ		? Pg. 79 - 81	2	Limited quota for entire Platte Valley: control hunting numbers, increase buck numbers.	S	4
LQ		? Pg. 79 - 81	2	Limited quota - not liberal and/or longer/late season	S	5
LQ		? Pg. 79 - 81	2	Limited quota - link tag numbers to changes in population.	S	6
LQ		? Pg. 79 - 81	2	Later season to harvest migratory deer - November Limited Quota doe season	S	6
LQ		? Pg. 79 - 81	2	More limited quota areas	R	4
LQ		? Pg. 79 - 81	2	Limited quota - longer season.	R	3
LQ		? Pg. 79 - 81	2	Limited Quota statewide	R	3
LQ		? Pg. 79 - 81	2	If go to limited quota, do away with later season.	R	3
LQ		? Pg. 79 - 81	2	Multiple limited quota deer season (Colorado)	R	1
LQ		? Pg. 79 - 81		Limited Quota and public outreach	C	2
LQ		? Pg. 79 - 81		Limited quota until population recovers then back to general.	S	6

LQ		? Pg. 79 - 81		Increase license fees to offset dollars lost by switch to limited quota.	R	1
Outreach	Enforcement		1	Communicate concerns to land management agencies.	S	7
Outreach	funding		2	Increased transparency about where dollars go.	R	1
Outreach	H.I.		1	Proactive management for habitat awareness of agendas of various organizations	R	4
Outreach	H.I.			Provide herb seeds to public.	R	4
Outreach	Partner		1	Funding: invest in education: public i.e. management	L	3
Outreach			1	Educate the public about season options: lack of hunter knowledge.	C	3
Outreach			2	Hold more meetings to sustain public interest.	S	8
Outreach				Provide the public with more information in more media regarding mortality numbers of deer	C	General
Outreach				Provide the public with more information in more media regarding hunter numbers.	C	General
Outreach				Use the Job Completion Reports to provide information to the Public	C	General
Outreach				Provide the public with information/education on other opportunities in WY - self regulation vs. quotas.	C	2
P.M.	Disturbance			Control camping areas in Forest. Have specified camping areas.	R	4
P.M.	H.I.		1	Better collaboration with WYDOT and landowners regarding fencing projects	C	4
P.M.	H.I.		1	Better Collaboration between all landowners (Federal, private, State) regarding mule deer management while satisfying the diverse land use management strategies.	C	4
Objective	H.I.		1	Evaluate/change objective: what can habitat sustain, 20,000 may be too many.	L	2

P.M.	H.I.	Yes pg 68	2	More wildlife friendly fences especially in migration corridors - ID problem fences and modify (fawning areas). Improve fawn survival. Farm Bill \$ available.	S	7
P.M.	H.I.	Yes, pg 72 & 73	*	Conservation districts: historic range trend data with USFS and BLM to evaluate habitat condition.	S	5
P.M.	ISP	Yes pg 68	1	Liberalize elk seasons to maximize harvest.	S	7
P.M.	ISP	Yes pg 68	1	Open deer and elk at same time - work with Colorado on seasons.	R	4
P.M.	LQ		1	Population Management: limited quote feasibility	C	4
P.M.	LQ		1	Population Management: Limited doe harvest (limited quota doe/fawn or really short (2 days) doe season)	C	4
P.M.	LQ		1	Consider limited quota for hunter management as well as population management in addition to outreach to public on opportunities elsewhere.	C	2
P.M.	LQ			Hunter distribution: would limited quota in area 78 improve distributions? Would this increase populations?	C	2
P.M.	Outreach		1	Maintain programs to encourage youth hunters (increase hunter recruitment)	C	1
P.M.	Outreach		1	More hunter ed classes and more instructors. Make it easier to become and instructor.	C	1
P.M.	Partner		1	Better cooperation with ranchers on fence conversion.	R	1
P.M.	Q.H.		2	Change season dates and run buck seasons later in the fall.	L	1
P.M.			1	Migration Corridors: wildlife friendly fencing	C	4
P.M.			1	Migration Corridors: free movement seasonally	C	4
P.M.			1	Migration Corridors: Establish wildlife fencing guideline minimum standards	C	4
P.M.		Yes, pg 68	1	Re-establish or improve migration underpasses	C	4
P.M.			1	G&F needs to be more vocal about multiple land use strategies and benefits to wildlife/mule deer	C	4

P.M.			1	Follow through by feds on grazing steps.	C	4
P.M.			1	Population Management: shorten seasons until deer numbers rebound	C	4
P.M.		4 pt higher	1	Population Management: Antler point restrictions	C	4
P.M.			1	Protect migration corridors: degraded migration corridors	C	3
P.M.			1	Coordinate seasons and population management with Colorado: many deer surveyed in winter not there during hunt	C	2
P.M.			1	Distribute deer better in different land status.	C	1
P.M.			1	Eliminate general license in Platte Valley: future generations, more bucks, higher quality.	C	1
P.M.			1	Cons - General license. A. too restricted.	C	1
P.M.			1	Manage herds closely to accommodate factors we can't control e.g. beetle kill, drought, weather.	C	1
P.M.			1	Decrease doe harvest. E.g. 1st year - no doe harvest, 2nd year - 50, 3rd year - evaluate with buck population and habitat quality , keep it mosaic.	L	3
P.M.	Objective		1	Evaluate the sustainability of current population objective/#'s in migration.	L	3
P.M.			1	Consider changing to special management (higher buck: doe ratio)	L	1
P.M.			1	Determine crucial corridors - define better - focus improvements in those locations: increase winter survival.	L	2
P.M.			1	Close season	S	1
P.M.			1	Change current population in model to a more reliable model (or number - Tony/Will?)	S	1
P.M.		pg 82 - 84 ?	1	No antlerless harvest until population is up.	S	2
P.M.			1	Close more roads - less pressure on deer.	S	2
P.M.		pg 82 - 84 ?	1	Increase penalties for antlerless deer poaching to increase big bucks.	S	2

P.M.		pg 82 - 84 ?	1	Eliminate antlerless harvest until population recovers - #'s will increase.	S	4
P.M.			1	Evaluate population estimates process - ongoing.	S	4
P.M.		pg 75/76	1	Support for antler hunting "season": eliminate another stress issue.	S	4
P.M.	Objective		1	Test assumption that herd unit objective (20,000) is realistic (sustainable).	S	4
P.M.			1	Cooperations with other agencies and states: Colorado re. mule deer hunting.	S	5
P.M.			1	Temporary season closures or very short season (if A doesn't work, then Plan B).	S	7
P.M.		pg 68, 82 - 84 ?	1	No antlerless seasons except for whitetail.	S	7
P.M.			1	Choose your weapon either archery or rifle not both.	S	7
P.M.		Yes	1	Implement antler hunting regulation to protect wintering deer.	S	7
P.M.			1	Archery only - no archery then gun hunting excluding youth hunters.	S	6
P.M.			1	Stagger seasons	S	8
P.M.			1	Either/or choose your weapon	S	8
P.M.			1	No weekend openers	S	8
P.M.			1	Develop better method for accurate count and consider at what point season should be closed.	S	8
P.M.			1	Adjust season openers to common dates to spread out hunting pressure.	R	4
P.M.			1	Shorten seasons	R	4
P.M.			1	Make either/or archery hunts.	R	4
P.M.		Yes pg 75	1	Include Platte Valley in antler hunting restrictions - (reduce stress)	R	4
P.M.			1	Implementing and stick with plan - 5 year spans.	R	3

P.M.			1	Re-visit sage grouse core area - multi species management.	R	3
P.M.		Yes, pg 68	1	Prioritize areas needing fence conversion: Saratoga highway, I-80 high fence.	R	2
P.M.			1	No doe harvest.	R	1
P.M.			1	Identify and remove problem fences.	R	1
P.M.		Yes pg 75	1	Regulate antler hunting	R	1
P.M.			2	Hunt does when the herd is too large for the winter range. More deer than the winter range can sustain.	C	3
P.M.		Yes, pg 68	2	Reduce highway related mortality: Impacting deer numbers	C	3
P.M.			2	Work with USFS to allow retrieval for downed game.	C	1
P.M.		Yes pg 26	2	Point restrictions	L	3
P.M.			2	Four point or better seasons: increase buck quality and buck numbers, reduce opportunity for meat hunters.	L	2
P.M.			2	Evaluate buck management criteria - why 29 max?: More bucks in the population - expand gene pool, increase breeding success, healthy herd.	L	2
P.M.			2	Shorten season	S	1
P.M.			2	Point restrictions - 3 point or better.	S	1
P.M.			2	3-point or less - temporarily	S	2
P.M.			2	Post signs for game crossing at Beaver Creek, HWY 230.	S	2
P.M.	Objective		2	Population estimate practices questions: raise objectives.	S	5
P.M.		Yes, pg 68	2	Corridors: migration routes across highways, roads - highways, signs, slower speeds.	S	5
P.M.			2	No doe hunting! If doe hunting have doe hunting at beginning of the season.	S	5
P.M.			2	Habitat wildlife improvement should not be "limited" in "sage grouse core areas".	S	5
P.M.			2	Point restrictions for short periods to boost buck numbers.	S	7
P.M.			2	Enforce no camping regulations on state lands.	S	7

P.M.			2	Common opening dates.	S	6
P.M.			2	Coordinate seasons/licenses with Colorado.	S	6
P.M.		Yes pg 26	2	Antler point restrictions	S	6
P.M.			2	Eliminate archery any deer.	S	6
P.M.			2	November archery only.	S	6
P.M.		Yes pg 26 4-pt	2	Antler point restriction 3-point or better.	S	8
P.M.			2	Shorten season - 1 week or 5-day.	S	8
P.M.			2	Points restrictions	R	4
P.M.		Yes pg 26	2	Antler restriction	R	3
P.M.			2	Choose your weapon (archery, muzzle loader)	R	3
P.M.			2	Standardize openers.	R	3
P.M.			2	Ranching for wildlife to place a value on wildlife.	R	3
P.M.		Yes pg 26	2	Antler point restrictions - 2-3 years. Fewer hunters, increased bucks.	R	2
P.M.			2	Reduce non-resident licenses - new region: decrease hunters.	R	2
P.M.			2	Create a "super license" to generate money, increase season length, increase # Sept. 1 - Dec. 31: increase \$\$ for wildlife.	R	2
P.M.			2	Close roads - Road X72: reduce roads by half What three-digit road ??	R	2
P.M.			2	Shorter seasons - five days.	R	2
P.M.			2	Open deer seasons on the same day: spread hunters out.	R	2
P.M.		Yes pg 68	2	Split seasons - 1st season, 2nd season, 3rd season: deer and elk at same time.	R	2
P.M.			2	Require hunters to choose archery or rifle: decrease pressure on deer, decrease hunter numbers.	R	2
P.M.				Exchange federal xxxx? For wildlife use on private lands	C	4
P.M.		pg 82 - 84 ?		No antlerless hunting.	C	1
P.M.				Area closure	L	3
P.M.				Standard Openers	L	3

P.M.				Cooperate with CDOW regarding mule deer migration.	L	3
P.M.				Grow food crops/plots for deer: increase winter survival.	L	2
P.M.				No deer season at all for one year the following year no yearling bucks.	S	2
P.M.		Yes, pg 68		Work with WYDOT on reclaiming highway right of way with unpalatable plants.	S	2
P.M.				Deer friendly fences for migration.	S	2
P.M.		Yes, pg 68		Leave gates open on highway fences during deer migration	S	2
P.M.		pgs 79 & 82		General season but with antler point restrictions.	S	6
P.M.				Change statute to allow transfer of licenses	S	8
P.M.				Create a trophy area or a waiting period on drawing.	R	4
P.M.				Shorten season within "general season" structure.	R	3
P.M.				When we need doe harvest, coordinate with Colorado - split harvest: larger huntable population in WY	R	2
P.M.		Yes pg 26		Antler hunting restrictions: include fawn drop: increase fawn survival.	R	2
P.M.				Preference points.	R	1
P.M.		Yes pg 26		Antler point restrictions	R	1
P.M.				Change to wildlife friendly fences.	R	1
Partner				Increase/improve winter habitat through partnerships with ranches, agencies, etc.	S	2
Predator		Yes, pg 68	1	Increase lion quota 31 immediate impact.	S	2
Predators		Yes, pg 68	1	Increase lion harvest to increase deer herd. Predation limiting deer herd.	C	3
Predators		Yes, pg 68	1	Look at opportunities to increase bear and lion quota: Encampment River - more bears than maybe WGFD realizes.	C	2
Predators		Yes, pg 68	1	Work with county predator boards and USDA/APHIS and WY ADMB on coyote control	C	2

Predators		Yes, pg 68	1	Manage Predator and trophy game on annual basis in conjunction with big game (everything is connected).	C	1
Predators		Yes, pg 68	1	Increase quotas for mountain lions and bears.	C	1
Predators		Yes, pg 68	1	Increase large predator harvest specifically lions up to whatever the public will support.	L	1
Predators		Yes, pg 68	1	Evaluate mountain lion quotas in areas where quotas are reached: increase predator management.	L	2
Predators		Yes, pg 68	1	Emergency mountain lion season - watch bears.	S	1
Predators		Yes, pg 68	1	Increase predator control - coyotes, lions, bears, eagles.	S	1
Predators		Yes, pg 68	1	Look at lion quotas annually.	S	2
Predators		Yes, pg 68	1	Place a bounty on coyotes.	S	2
Predators		Yes, pg 68	1	Increase predator control - to increase fawn survival especially over winter.	S	7
Predators		Yes, pg 68	1	Kill more coyotes	S	6
Predators		Yes, pg 68	1	Double lion quota in Area 31	S	6
Predators		Yes, pg 68	1	Increase predator harvest (lions-bears)	R	4
Predators		Yes, pg 68	1	Keep license/season on lions open till quota is met.	R	3
Predators		Yes, pg 68	1	Predator control: coyotes - implement bounty	R	3
Predators		Yes, pg 68	1	Predator control: Lions - leave seasons open.	R	3
Predators		Yes, pg 68	1	Predator control: bears and eagles.	R	3
Predators		Yes, pg 68	1	Predator control - liberal lion seasons, longer open until quota is reached. 2nd license all of Platte Valley - increase deer numbers.	R	2
Predators		Yes, pg 68	2	Predator Management - increase quotas: lions and bears, a predatory animals - no quota.	S	4
Predators		Yes, pg 68	2	Bonus in harvest predators to earn preference points	S	5
Predators		Yes, pg 68	2	Predators intense control for 3-4 years	S	3
Predators		Yes, pg 68	2	Make lions a predator rather than trophy game.	S	6
Predators		Yes, pg 68	2	Year-round lion seasons	S	6

Predators		Yes, pg 68	2	Develop bounty for coyotes.	S	8
Predators		Yes, pg 68	2	Develop better technique for estimating predator numbers.	S	8
Predators		Yes, pg 68	2	Make bounties on coyotes.	R	4
Predators		Yes, pg 68		Look at quotas on lions.	C	2
Predators		Yes, pg 68		Lions: will - area 31 closes others still with opportunity.	C	2
Predators		Yes, pg 68		Classify black bear and lions as predators.	S	2
Predators		Yes, pg 68		Place a bounty on lions.	S	2
Predators		Yes, pg 68		Increase lion quota in hunt areas that are currently reaching h*st quota.	S	7
Predators		Yes, pg 68		Determine the role of eagles, ravens as predators.	R	1
Q.H.	P.M.		2	Implement point restrictions for quality of bucks.	L	1
Q.H.				Reduce hunter crowding A - eliminate 1 - weekend seasons in general areas.	C	1
Q.H.				Quality of the Hunt: Open roads for hunter dispersal.	L	3
Research	Funding			More dollars for studies: better idea where deer are going.	L	2
Research	H.I.			More research on necessity of rare plant species.	R	4
Research			1	Increase research for habitat and increase habitat projects.	S	6
Research				Don't hire the Teton Science school to do the work.	S	6
Responsiveness	Funding			Funding: Increase ways and work more with other stakeholders to increase funding, partnerships.	L	3
Responsiveness			1	More direct input from field WGFD people, ranchers and hunters.	C	1
Responsiveness			1	Pro-active/quicker response to important issues (weather issues, die offs) - Don't "study it to death" before taking action.	S	4
Responsiveness			1	Quicker response from WGFD: during bad winters or large die off, and reduce quotas/season length.	R	2

Responsiveness			2	Quantify connection between WGF D monies: increase monies. "Is there a connection between monies and management practices"?	S	5
Responsiveness				Make it easier for folks to volunteer with WGF D	C	1

C or M

C – Consensus = 1

M – Majority = 2

Location

S – Saratoga

R – Rawlins

L – Laramie

C - Cheyenne

APPENDIX D. Responses to actions identified by the public, but not currently addressed in this plan.

Population Management

“Mandatory harvest checks/harvest reporting? Do we need a statute/regulation tool for this?”

- There is currently no mandatory harvest check for mule deer although all hunters and fishermen who encounter a field check station are required to stop. Requiring mandatory check of all harvested mule deer would require a change in statute. The WGFD will increase efforts to collect field harvest information in 2012.

“Counts at hunting season rather than winter population.”

- Pre-season herd classification flights or counts are not conducted because mule deer are dispersed throughout the herd unit and are often in habitat types that make them impossible to observe in early fall. In winter, mule deer are concentrated on open winter ranges where they are easier to observe and count.

“Limited quota could be higher than general - increase of dollars toward habitat.”

- One of the goals of the proposed limited quota structure is to reduce the number of mule deer hunters in the Platte Valley which could result in a loss of revenue rather than a surplus. The WGFD is currently facing a serious short term revenue deficit and is in the process of working with the legislative Travel, Recreation and Wildlife committee to evaluate license prices and potential revenue sources. Certainly, hunters and anglers pay the majority of wildlife management in the state and about 80% of the departments funding comes from license sales.

“Hard to grow herd with a limited quota. Good as long as it is restrictive.”

- The limited quota season structure will address hunter crowding issues and reduce the harvest of bucks, but will do little to increase the overall size of the population. Increasing fawn recruitment and adult doe survival is the key to overall population growth. Many factors influence fawn recruitment and adult doe survival including habitat condition, predation, weather, and a host of other factors.

“Increase price of license.”

- The License fee structure is established by the Wyoming legislature and not directly by the Game and Fish Department.
- The WGFD is working with the Travel, Recreation, and Wildlife legislative committee to examine license fee prices. Increasing the price of a deer license is certainly an option that will be explored.

“Breaking seasons down into smaller increments. Time to hunt.”

- Season dates and lengths for the 2013 season will be discussed during the season

setting process. Split dates are an option, although they add increased complexity to the regulations.

“Antler point restrictions.”

- Antler point restrictions are being proposed for the 2012 season.

“Continue no doe/fawn hunting till population has increased.”

- Antlerless mule deer harvest is not proposed for either the 2012 general season or the 2013 to 2015 limited quota seasons. Antlerless harvest may be reinstated at some point in the future if population parameters and habitat conditions warrant.

“Encourage WGFD to be as restrictive as possible under general seasons - pop. Mgmt.”

- A five day general season with a three point antler restriction is proposed for the 2012 general license season.

“Resident preference points.”

- The resident preference point issue has been considered for a number of years. This is a statewide issue and will require examination at the level. It is beyond the scope of this planning effort for the Platte Valley.

“Limited quota entire state with archery only seasons. Black powder - choose your weapon.”

- This is a statewide issue and will require examination at the level. It is beyond the scope of this planning effort for the Platte Valley.

“Additional meeting on limited quota before season setting.”

- WGFD will host a series of public meetings in November or December of 2012 to discuss the most recent seasons and begin discussing recommendations for the 2013 season.

“Youth- no mention of youth recruitment/retention. Longer season for youth. Look at opportunity to include youth education in classrooms throughout Wyoming communities.”

- WGFD agrees youth hunting opportunity is important. The initiation of specific youth hunting seasons for mule deer in the Platte Valley will be reviewed once the WGFD has had time to evaluate the results of the proposed limited quota season structure.

“Establish WGFD office in Saratoga during hunting season.”

- It is financially unfeasible to establish an office in Saratoga during hunting season. There is currently a wildlife biologist, habitat biologist, and a game warden stationed in Saratoga.

Habitat

“Funding from Colorado: feeding deer.”

- Feeding mule deer is not effective in increasing their chances of survival. Mule deer are highly selective foragers, at least in part, due to their specialized digestive system. Specific types of bacteria in their rumen are required to aid digestion of their naturally occurring foods. Often because their digestive system can't adapt quickly enough, supplementally fed mule deer die with stomachs full of undigested feed. Supplemental feeding programs have been successful for other species like elk that have less specialized digestive systems and are more adaptable to different kinds of forage.

“Harvest roadside areas for feed for elk - to bait away from winter range”

- Supplemental feeding of elk is expensive and depending on the extent of the program, can easily cost many tens of thousands of dollars. This approach also concentrates elk which fosters the spread of diseases. Using this money to improve mule deer habitat would provide a long-term solution instead of an emergency fix.

“Add a habitat check-off. Added to license sales. The same as search and rescue. Check off/donation.”

- Creation of a habitat check-off would require a change of Wyoming statutes. The WGFD is in need of alternative or non-traditional long-term funding sources. A check of box for habitat is one potential idea that could be explored. The WGFD will be looking for public input to help generate ideas to address our funding shortfalls.

“Two conflicting goals: evaluation of habitat - herd objective of 20,000 vs. relative carrying capacity.”

- While we do not know exactly what the habitat's carrying capacity is in the Platte Valley, we do know the deer population going into the winter of 2010-11 was below our objective of 20,000. Significant losses occurred during the winter despite the relatively low deer population. Improvement in habitat condition is necessary to sustain a deer population near the current objective.

“Irrigate the Pennock.”

- The WGFD currently has an irrigation management plan established on the Pennock WHMA.

Predators

“Consider predator hunting in PLPW areas.”

- Access and hunting opportunities on PLPW properties are stipulated by the landowners as part of the access agreement. Hunting opportunities on these lands are typically very specific in regard to species, location and timing. Predator hunting would have to be negotiated with each landowner on a case by case basis.

Access

“What is strategy for incorporating special needs (i.e., handicapped) in hunting opportunities?”

- Certainly providing opportunity to all is a goal of the WGFD. WGFD has, on a statewide basis, providing special opportunity for those with special needs.
- Strategies for improving access are addressed on pages 36 and 37 of the PVMD plan but currently there are no management actions that deal specifically with access for hunters with special needs in the Platte Valley.

“Public vs. private land ownership, need better marking.”

- The vast amount of public land which borders private land makes marking private land boundaries unfeasible.

“Exchange of use - access for improvement or work on land.”

- The WGFD will investigate whether this approach is feasible under the PLPW program.

“Road closures (USFS) without notice caused loss of trust with public.”

- The USFS has become increasingly proactive about notifying the public of scheduled road closures. A notice was issued on Feb 15, 2012 detailing specific road closures. The intent is to have all hazard tree removal projects completed by Sept. 1, 2012. Additional information can be obtained by contacting the USFS. Visitors to the Medicine Bow National Forest around Encampment and Saratoga are encouraged to check the status of work areas by calling 307-326-5258 or stopping by the Brush Creek/Hayden Ranger District office at 2171 S. Highway 130 in Saratoga between 7:30 a.m. and 4:30 p.m., Monday through Friday. Road projects and closure information may also be found on the Medicine Bow-Routt National Forest website: <http://fs.usda.gov/mbr> under *Road Work and Delayed Openings*.

Public Involvement, Outreach, Partnerships, and Response

“Provide better volunteer opportunity. Example: adopt a vegetation transect program. Engage public in the process!”

- Persons wishing to volunteer currently only have to fill out a volunteer form. Volunteer opportunities have been limited in the past due to a lack of suitable projects. The proposed PVMD plan will include a number of management actions which will lend themselves to volunteer activities.

“Can we get parts of this plan associated with mule deer initiative and WGFD show “Call of the Wild”?”

- This will be investigated.

“Website page to access collared deer information”

- A summary of the mule deer research will be posted on the WGFD website.

“Integrate radio systems between agencies.”

- Integration of radio systems has occurred at the state level but not between state and federal entities.

APPENDIX E. Responses to written comments on the draft Platte Valley Mule Deer plan

Paucity of citations on much of the data presented when addressing issues at hand as well as the low amount of peer-reviewed literature cited.

- This document was primarily intended for a public and hunter audience. Therefore, citations were used sparingly. However, additional citations, many of which are peer-reviewed, were added – see the “Literature Citation” section.

It is critical to quantitatively assess the many proposed management changes throughout the Platte Valley region to document if and how the mule deer population responds as well as determining habitat alteration practices that are most beneficial/detrimental, predator reductions and quantified impacts on a population level, public support and partnerships.

- WGFD appreciates this concern and while many additions were made to the final plan to address this critical aspect of adaptive management with regard to monitoring, it is recognized inherent complexity will make many determinations difficult. Regardless, WGFD deems the recommended changes necessary in the timeframe identified.

The plan fails to address increases of elk concurrent with mule deer declines and the competitive advantage of elk and other species including the encroachment of white-tailed deer and habitat competition from a growing elk population.

- Interspecies competition between mule deer, elk and white-tailed deer is addressed in the PVMD plan:
 - ✓ WGFD will continue to implement elk hunting seasons designed to manage this population at objective (+/- 10%) in the Snowy Range and Sierra Madre Elk Herd Units.
 - ✓ WGFD is considering reducing the cost of the “cow/calf” licenses to increase license sales where needed.
 - ✓ WGFD will implement white-tailed deer hunting seasons designed to increase white-tailed deer harvest throughout the Platte Valley and in particular in those habitats important to mule deer.
- WGFD is focusing on improving shrub conditions throughout the Platte Valley for all species of wildlife.

There is an implicit assumption the habitat cannot support more mule deer than the current objective of 20,000. This is in spite many have witnessed many more mule deer in the earlier decades before the population crash.

- WGFD is committed to re-evaluating the management objective for all big-game populations throughout the state every five years. This is necessary, in part, to ensure

wildlife populations are managed in concert with available habitat. Regardless of habitat conditions in the past we must manage what we have to work with today. If in the future, habitats allow for mule deer population increase the objective, if appropriate, can be changed.

The public needs to have an opportunity for consideration and input on the plan. Public input should be allowed via the mail and electronically. WGFD needs to consider all substantive input and provide a rationale for inclusion, or not, of such input.

- WGFD is appreciative of all constructive input and has considered all suggestions received during the workshops and the written comment period for the plan. Appendix D and E provides a rationale for those comments not incorporated.

Limited quota in 2013 seems an extreme measure. It is recommended to continue with general licenses in Areas 80 and 81 and move to limited quota permits in Areas 78 and 79 to allow for comparison of the two strategies. This experiment should be continued for the standard 5 years rather than 3 to allow a more adequate measure of success and associated public acceptance.

- The WGFD is proceeding with limited quota seasons throughout the Platte Valley to better regulate hunter numbers.
- WGFD uses changes in 3-year data sets and statistics to evaluate and change management of other wildlife species. WGFD believes using 3-year trend data would result in a more responsive, adaptive, and reasonable approach to management. Several comments were heard from the public about “not studying the problem to death before you do something.”

An earlier and better start to improve the quality of the hunt in terms of more and larger bucks could start in 2012 by excluding spikes and fork-horned bucks. Also, the buck to doe standards for the “recreational” and “special” designations should be adjusted upward to compensate for the late migration of mule deer from Colorado.

- A 3-point or better Antler Point Restriction (APR) was instituted in the Platte Valley starting in 2012.
- The “recreation” and “special” designations are standards used statewide successfully to discern between the two strategies.

It appears WGFD could not quite accept the proposed departure from the “recreational strategy” of general permits to the “special management strategy” proposed to achieve higher quality hunts with a higher buck to doe ratio and more trophy bucks.

- The WGFD is committed to providing hunting recreation opportunity AND a quality hunting experience. Certainly, the shift to a limited quota licensing structure does not

preclude maintaining buck:doe ratios at “recreation” levels and provide optimal hunting opportunity.

There is willingness to wait for the desired improvements in hunt quality and a preference point system for resident applicants as is now done for most out-of-state applicants and in-state moose permits.

- The resident preference point issue has been considered for a number of years. This is a statewide issue and will require examination at that level. It is beyond the scope of this planning effort for the Platte Valley.

There was a lack of data upon which to base management decisions, emphasis on predator control, a potpourri of management strategies and limited quota hunting season structure. In short, this management plan appears more reactive to public issues with limited inclusion of management concerns or scientific-based management direction.

- All technical data related to the management of this herd and its habitats was used to develop the draft PVMD plan. However, the PVMD plan is not a research document, but rather a road map for achieving the goals outlined during the collaborative meetings involving the public and the WGF. The data used to formulate this plan was presented during the 12 public meetings.
- Through the Platte Valley Mule Deer Initiative, it became apparent some needed technical data were not available. The WGF’s Mule Deer Working Group is working to standardize mule deer data collection throughout the state to ensure, in at least “key” herd units such as the Platte Valley, all critical and valuable data are collected.

It was recommended the PVHP create a public database that lists habitat projects identified by the PVHP. The database would include all the habitat projects identified by the PVHP ranging from fence removal to seeding and could be a tool to match volunteers, non-governmental organizations, and potential funders to the projects.

- A database as recommended would be useful. The WGF Saratoga Habitat Biologist will serve as a habitat biologist/expert to provide technical expertise to the PVHP, coordinate their activities, assist with NEPA planning/ documentation, plan needed meetings, oversee habitat inventories/projects, keep the partnership focused, etc. and will evaluate this recommendation.

The PVHP should coordinate cross-border habitat projects with the Owl Mountain Partnership (www.owlmountainpartnership.org).

- The Saratoga Habitat Biologist will become familiar and initiate communication with the Owl Mountain Partnership.

WGFD needs to utilize the emails and addresses collected at the Platte Valley Mule Deer Meetings to provide the public updates as the Mule Deer Initiative progresses.

- The WGFD will continue to expand its list of public outreach tools. For example, WGFD is exploring the utility of social media and has launched a Facebook page and now has a channel on YouTube. These outlets will be used to share information about the Platte Valley deer herd and its management.

The lack of consistency in data collection across regions is disappointing. The Wyoming Range Mule Deer herd unit has data on buck quality i.e. antler characteristics since 1989 whereas the Platte Valley Mule Deer herd unit has no such data. It is recommended WGFD implement a set of data guidelines, including antler characteristics, to be followed by each region. Consistent data collection across regions will be useful in future management.

- The WGFD has not collected data on antler characteristics in the recent past in the Platte Valley. From this point forward the WGFD will collect antler class data during both classifications and harvest field checks.
- The WGFD's Mule Deer Working Group is working to standardize mule deer data collection throughout the state to ensure that, in at least "key" herd units such as the Platte Valley, all critical and valuable data are collected.

The Platte Valley Mule Deer Management Plan should place more emphasis on defining, evaluating and improving transition ranges as well as assuring deer unimpeded access to these ranges. The PVMD Plan's objectives that address migration and freedom of movement in migration areas are endorsed.

- WGFD agrees transition ranges are critical and they will not be overlooked.

In several places in the plan the statement is made that data will be evaluated over a 3 year span "to lessen effects of variables." A minimum of 5 years of trend data are likely necessary to provide statistically meaningful analysis.

- WGFD uses changes in 3-year data sets and statistics to evaluate and change management of other wildlife species. WGFD believes using 3-year trend data would result in a more responsive, adaptive, and reasonable approach to management. Several comments were heard from the public about "not studying the problem to death before you do something".

Because of questions regarding validity of data for mule deer populations in HU 541, it is difficult to draw any conclusions regarding the best population management scenario. If the intent is to increase the population while increasing the proportion of mature males, and reduce the proportion of yearling males in the harvest while increasing hunter success, then it seems a plausible scenario would be to limit the number of hunters. If, however, Ellenberger and Byrne (2011) are correct and the population is experiencing environmental feedback that limits production then a scenario that includes female harvest should be investigated.

- WGFD agrees with those who participated in the PVMDI this population is experiencing “environmental feedback”. Habitat and weather concerns were a primary issue brought forward by the participants as well. Concurrently, many believe hunting is contributing to population decline and decline in the number of bucks. WGFD during the PVMDI emphasized to all participating limited quota hunting will not result in mule deer population recovery. Rather, we emphasized the implementation of limited quota hunting will improve hunting quality in terms of hunter crowding. WGFD agrees in principle doe harvest is a valuable tool in the Platte Valley given current environmental conditions.

One of the drawbacks to limited quota hunting is that it may impact hunter recruitment because young or first time hunters are unable to draw a license in the year they wish to hunt. In an attempt to maintain hunter recruitment WGFD should consider a general license or a doe license for youth/first-time resident hunters. A general tag or a doe tag will provide flexibility for young hunters, encourage retention, and provide support to the next generation of sportsmen.

- WGFD recognizes the validity of this concern. WGFD commits to evaluate the initiation of specific youth hunting seasons for mule deer in the Platte Valley once the WGFD has had time to evaluate the results of the proposed limited quota season structure.
- WGFD also recognizes the importance of a quality hunting experience for the youth hunter with regard to hunter recruitment. Certainly, if a young hunter’s experience is not a quality experience, he or she is not likely to return to the activity especially given the numerous other activities vying for their time.

To us it appears that the major issue promulgating development of this management plan is that a segment of the hunting public desires more buck mule deer, bigger bucks, easier hunting and fewer hunters. If the WGFD seeks to meet those desires, implementation of a trophy hunt unit such as the adjacent Colorado DAU D-3, North Park Unit is a strategy worth investigating.

- WGFD appreciates the suggestion. Of course, hunter satisfaction is just one component of the Platte Valley Mule Deer plan. One of the stated goals of this plan is to improve

hunter satisfaction; however, the major focus of this plan is to restore mule deer habitat in the Platte Valley to foster a healthy and sustainable mule deer population. Nonetheless, as WGFD considers alternative mule deer management strategies this recommendation will be investigated.

The management plan proposes that efficacy of the limited quota season will be evaluated in 3 years. This is likely not a long enough period. For most trend data such as will be available for this evaluation, a minimum of 5 years is necessary for statistically meaningful results. Furthermore, the "shotgun" approach taken in this management plan will obscure whatever results that may occur. That is why we recommend obtaining representative data for mule deer populations and their habitat prior making major changes in management strategies.

- WGFD uses changes in 3-year data sets and statistics to evaluate and change management of other wildlife species. WGFD believes using 3-year trend data would result in a more responsive, adaptive, and reasonable approach to management. Several comments were heard from the public about “not studying the problem to death before you do something”.
- WGFD appreciates the need to collect more data and monitor results of management actions. WGFD firmly believes we have adequate data on this mule deer population and its habitats to move progressively and measurably (using standardized data sets and collection/monitoring technique) towards improvement.

The overwhelming majority of studies support the fact that predator control in a situation like the UNPRV will not result in a mule deer population increase. Instead of focusing on predator control WGFD should be addressing other limiting factors affecting mule deer including habitat and weather events.

- Predator management is just one component of the Platte Valley Mule Deer plan. One of the stated goals of this plan is to increase mule deer recruitment and survival by reducing predation, but the major focus of this plan is to restore mule deer habitat in the Platte Valley to foster a healthy and sustainable mule deer population.
- Most recently, Pierce et al. (2012) recognized the importance of the mule deer population size relative to carrying capacity and the effects of predation, mostly by mountain lions, was likely additive during the period of increase and thus slowed but did not prevent population growth of mule deer. Ballard et al. (2001) in their review of publicized research stated predation may be a significant mortality factor in some areas under certain conditions. Certainly, the effect of predation is influenced by a host of other factors, but ignoring the issue in the context of this plan would be irresponsible and short-sighted.

The proposed management action that calls for increased harvest of black bears and cougars, if fawn:doe ratios can't be maintained at 65:100 or the population estimate is below the objective, is unjustified. This is especially true considering the current population objective is in question. It may not be feasible to achieve 65 fawns:100 does considering impacts of weather or other environmental factors that are probably influencing the mule deer population in HU 541.

- A number of factors influence fawn:doe ratios. To completely ignore the impacts of predation is irresponsible and unjustifiable given the science on the subject. The PVMD plan addresses habitat quality, disturbance, interspecies competition and predator management to positively influence doe:fawn ratios.

Data regarding fawn mortality will need to be further researched. The Wyoming Game & Fish Department will need to monitor and collect data to determine cause of mortality, and if caused through predation, the predator species must be identified then specifically targeted. Any unscientific approach to predator reduction will bring public scrutiny and a lack of support for the effort to recover the Platte Valley mule deer population.

- The impacts of predation on adult mule deer and fawns are addressed in the PVMD plan:
 - ✓ Continue to monitor adult female survivorship and estimate annual predation rates through tracking and telemetry and documenting cause specific mortality.
 - ✓ When possible, use vaginal implant transmitters and expandable telemetry collars, to mark mule deer fawns to evaluate cause specific mortality and to estimate fawn survival and recruitment and the potential impacts of predation.
 - ✓ Starting summer, 2012 collect data on habitat nutrition/availability, inter-specific competition (domestic and wild ungulates), weather, and other factors to assess potential impacts of the many factors, including predation, associated with the mule deer decline in the Platte Valley.

Another concern stems from the abundance of management strategies proposed to be implemented in HU541 which include hunting season changes, habitat treatments and predator control. The way all these strategies are proposed for implementation and the lack of any monitoring plan will render conclusions regarding the efficacy of these strategies impossible

- WGFD appreciates the spirit of this comment and concern. To the best of our ability we will monitor the effects of management strategies implemented using hunter satisfaction, harvest check data, antler size, population estimates, habitat quality parameters, and etc.. It is recognized cause and effect relationships may not be discernable given the number of changes made. Regardless, implementation in an expedient manner is warranted given the plight of the mule deer population and the public's concern.

We recommend WGFD first obtain reliable population data, then focus management efforts on improving habitats and working to control invasive and noxious weeds while improving hunter access to both private and public lands. They should also initiate studies to evaluate habitat's capability to support mule deer and adjust the herd objective to reflect this capability.

- As presented during the public meetings, WGFD has invested considerable resources to obtain three (3) reliable population estimates for this herd via sightability surveys.
- Strategies to manage and enhance mule deer habitat, including controlling invasive and noxious weeds in the Platte Valley are addressed in the PVMD plan and will be integrated in the PVHP.

Any plan to manage mule deer proposed by Wyoming Game and Fish cannot be independent of the BLM, USFS and must incorporate both their input and cooperation as an integral part of its success.

- Developing partnerships with the BLM and USFS is addressed in the PVMD plan:
 - ✓ WGFD will work with all stakeholders to continue the collaborative process to progress on all aspects of mule deer management in the Platte Valley.
 - ✓ WGFD will collaboratively develop the “Platte Valley Habitat Partnership” (PVHP). The PVHP is envisaged to at least include USFS, BLM, NRCS, PERCD, landowners, sportspeople, NGO’s, and outfitters.

In order to provide adequate habitat for sustainable mule deer populations in the Platte Valley, all stages of the normal cycle of succession must be promoted. While experimental fertilization and vegetative introductions may seem commendable, it is important to keep in mind that the success of these practices and their positive and/or negative effects on both specialist species such as mule deer, as well as unintentional effects on other species within the habitat are untested and any predicted benefit is as yet unproven.

- Experimental fertilization and vegetative introductions are only two of the many potential habitat improvement tools that may be implemented. Projects will be developed through the PVHP process.
 - ✓ Considering other wildlife habitat needs and resource users WGFD will support the PVHP and work with Medicine Bow-Routt National Forest (MBRNF) and BLM’s Rawlins Field Office personnel, landowners, and others to conduct habitat treatments in beetle killed areas, enhance forage quality on mule deer summer range, and enhance mule deer transition and winter range in various shrub communities.

The work of Sawyer et al. on mule deer should be carefully studied and incorporated. He has concluded that extensive energy development could pose the most serious threat to mule deer populations in western Wyoming through disruption and removal of important habitat.

- WGFD recognizes Sawyer's work and references Sawyer et al. (2009) in the text and added this citation to the literature cited section of the PVMD plan.

The Fortification Creek Area in Wyoming is a clear example of how elk (*Cervus elaphus*), a far less sensitive species than mule deer, has responded to areas of development. It has been well-documented that the area's non-migratory elk population is now avoiding the increasing areas of human infrastructure and disturbance. Although this situation references energy development, it should be considered an example of how all possible human-induced disturbances such as motorized access and antler hunting during crucial periods can foreseeably affect mule deer.

- The potential impacts to Platte Valley mule deer from energy development and human presence are addressed in the PVMD plan:
 - ✓ WGFD will work with the BLM and USFS to require development consistent with the WGFD's "Recommendations for Development of Oil and Gas Resources within Important Wildlife Habitats" and Western Association of Fish and Wildlife Agency's "Energy Development Guidelines for Mule Deer."

Additional consequences from human presence include, but are not limited to, mortality and injury due to vehicle collisions, illegal hunting, and harassment from an increasing amount and variety of recreational activities. Negative physiological stresses to the deer occur when energy expenditures by an animal are increased due to alarm and/or avoidance movements.

- Reduction and mitigation of human disturbance to mule deer is addressed in the PVMD plan:
 - Starting summer, 2012 WGFD will seek guidance and direction regarding inclusion of the Platte Valley in the regulated antler hunting area. WGFD will consider public input and make recommendations to the Wyoming Game & Fish Commission for any needed changes to statute.
 - During winter 2012/13 WGFD will identify mule deer transition and crucial winter ranges needing additional protection from human disturbance.
 - Starting immediately, WGFD will encourage federal partners to develop a coordinated Travel Management Plan addressing OHV use specifically to benefit mule deer. The plan should include identification of illegal roads, unneeded or duplicate roads, appropriate time and type of OHV use and increased enforcement during key times (winter/fawning) of the year. The WGFD will assist with development of this plan.
 - Starting immediately, WGFD will increase education regarding impacts motorized vehicle activity has on deer survival and hunt quality. This outreach effort will include additional communication with local OHV organizations to stress the positive impacts of self-policing. Information will be provided to hunters regarding impacts of high road densities and vehicle disturbance on hunt quality and mule deer production/survival. The WGFD will also stress the importance of providing public input to Federal land management agencies about enforcement concerns.

The term ‘mitigation’ must be clearly defined among the collaborative partners, as it has become an industry “buzzword” with increasingly vague and/or varying definitions.

- Strategies addressing mitigation practices related to energy development are specified in the PVMD plan.
 - ✓ As needed WGFD will identify and employ habitat treatments for Platte Valley mule deer as mitigation for habitat losses due to energy development.
 - ✓ WGFD will encourage the implementation of the WAFWA’s “Energy Development Guidelines for Mule Deer”.