COMPILING THE PLATTE VALLEY MULE DEER HABITAT PLAN

Based on the Platte Valley Habitat Partnership's Collaborative Learning Process

<u>Suggested General Overview of the Draft Plan</u>

1. **Overall Draft Goal**
2. **Draft Objectives based on Interests**
3. **Criteria for Mule Deer Habitat Improvement**
4. **Strategies based on Options**
5. **Action Items based on Federal land and private landowner suggestions.**
6. **Monitoring Variables and Methodology**

GOAL (Draft):

The Platte Valley Habitat Partnership considers the condition and size of the mule deer herd in the Platte Valley important to its landscape and communities to preserve biodiversity, economic, recreational, cultural and aesthetic values. The Platte Valley Habitat Partnership's goal is to improve habitat for mule deer by addressing vegetation and riparian conditions with the intent to maintain or increase the numbers of healthy mule deer.

OBJECTIVES (Draft):

August 2012 Discussion 1

Stakeholder Interests:

"The Mule deer habitat improvement partnership is important to me because…..."

PVHP Interest #1: Biodiversity Value of the Mule Deer Herd

Objective #1: To improve vegetation and riparian conditions to benefit the number and health of mule deer and other species.

Interest Statement	Stakeholder Group
Important in maintaining role in biodiversity and landscape connectivity	Conservation NGO'S
Opportunity to tackle management challenge of addressing balance between mule deer, elk, livestock and host of other challenges.	Conservation NGO'S
Sustainability of Mule deer Sage Grouse and livestock and other wildlife	WGFD
Mule deer indicator species for entire ecosystem	Landowners
Provide habitat to sustain viable/healthy populations	Federal Agencies
Good mule deer habitat is good for other species	Federal Agencies
Water is key lifeblood to everything	Landowners

Platte Valley Mule Deer Initiative – Management Plan. Habitat Objectives:

- Restore and improve all seasonal habitat types for mule deer throughout the Platte Valley.
- Maintain or restore migration routes.
- Reduce disturbance to mule deer in all places, especially on winter range. Work with landowners on disturbances that may be excluding mule deer.
- Reduce impacts to mule deer by urban development.

PVHP Interest #2: Economic Value of the Mule Deer Herd

Objective #2: To enhance economic benefits to landowners, communities and dependent interests by improving habitat to benefit the number and health of mule deer and other species.

Interest Statement	Stakeholder Group
$ into the community	Landowners
Important as high profile/iconic species for hunters in Eastern Wyoming	Conservation NGO'S
Quality of life/recreation/Income/Local economics	WGFD
An important source of economic benefit to our communities/state (drives $ 1 billion in direct revenue)	Conservation NGO'S
Mule deer hunting is $ for Department to manage wildlife (mule deer and others)	WGFD
What's good for wildlife is good for landowners	Landowners
Vitality to Community through good hunting opportunities	Federal agencies
Water is key lifeblood to everything	Landowners

PVHP Interest #3: Recreational Value of the Mule Deer Herd

Objective #3: To enhance recreational benefits to Wyoming residents and visitors by improving habitat to benefit the number and health of mule deer and other species.

Interest Statement	Stakeholder Group
It's a lynchpin for improving and maintaining hunting fishing and wildlife recreation quality and opportunities.	Conservation NGO'S

PVHP Interest #4: Cultural Value of the Mule Deer Herd

Objective #4: To maintain and perpetuate the character of the Platte Valley landscape and culture by improving habitat to benefit the number and health of mule deer and other species.

Interest Statement	Stakeholder Group
Important also for propagating our wildlife-centered heritage.	Conservation NGO'S
See more deer for kids and grandkids	L.andowners

PVHP Interest # 5: Aesthetic Value of the Mule Deer Herd

Objective #5: To retain and enhance the aesthetic (sensory experiences) values attached to the mule deer herd by improving its habitat.

Interest Statement	Stakeholder Group
Important part of our aesthetic appreciation of our environment	Conservation NGO'S

PVHP Interest #6: Mission Compatibility

Objective #6: To facilitate state and federal agencies to serve their constituents in a manner compatible with their missions by working with the public to improve habitat for mule deer and other species and purposes.

Interest Statement	Stakeholder Group
Our WGFD responsibility to sustain mule deer populations. Mission: " Conserve Wildlife, Serve People"	WGFD
Happy public – serving people	Federal Agencies

Criteria for Mule Deer Habitat Improvement (Draft)

August 2012 Discussion 2
Criteria for Mule Deer Habitat Improvement:
"What criteria can we use to gauge mule deer habitat improvement?"

Ecological Criteria

a. Vegetation and Riparian Factors

Common:

- Use standard measurements set in place by WGFD so we can compare to current conditions – gets to "more deer". NGO
- More acres that meet the mule deer habitat needs throughout the year. Landowners
- Thriving ecosystem, all elements sustained. Landowners

Other:

- Establish vegetation goals and criteria, NGO
- Improved nutritional aspects in vegetation, WGFD
- Vegetation community structure: improvement by hedging class and sustainable levels. WGFD
- Canopy cover, age class, species composition, presence/absence of invasions. WGFD
- Photo points. WGFD
- Improving range/riparian health. WGFD
- Maintain productive landscape (other uses). Federal agencies

b. Mule Deer population

Common:

- By improved fawn productivity. , WGFD
- Mule deer numbers are up, Landowners
- Doe-Fawn ratio – reproductive efficiency. , Landowners
- Mule deer Population, quality and quantity, increase. (related to fawn doe ratio increase), Federal agencies

Other:

- Population numbers, NGO
- Doe-fawn ratios, NGO
- Buck-doe ratios, NGO
- Mortality rates. NGO

- Shift in diet selectivity towards traditional MD groceries. , WGFD
- Winter survival, Landowners

Economic Criteria

- Numbers of hunters, anglers, recreationists. NGO
- Outfitter, hospitality, business revenues. NGO
- No reduction in livestock numbers – UP increase. Landowners
- Support and develop local businesses for project implementation. Federal agencies

Social Criteria

Common:

- Increase political and monetary support (social acceptance). WGFD
- Landowner satisfaction guarantees long term commitment. Landowners

Other:

- Maintain attractive landscape. Federal agencies
- Satisfaction surveys (hunter, landowner). NGO
- Public satisfaction on changes made over 10 years. Landowners
- Increased education for public and business strategies. Federal agencies

PVHP Process Criteria

Common:

- Increase cooperation/involvement of all stakeholders. WGFD
- Do not use dollars spent as a measure of success. Landowners
- Maintain productive working group. Federal agencies
- Higher dollar leveraging. Federal agencies

Other:

- Ease of process for implementation. WGFD
- Accurate assessment of habitat compared to baseline in 2012. Landowners
- Have an understanding of where we have been and where we are (conditions), where are we going, what are the desired conditions? Landowners
- Accountability with partners (finish projects in timely manner. Federal agencies

POSSIBLE STRATEGIES FOR MULE DEER HABITAT IMPROVEMENT (Draft)

August 2012 Discussion 3:
Options (Strategies) for Mule Deer Habitat Improvement:

1. **"What vegetation types are most important for mule deer?"**
2. **"What types of treatments would improve mule deer habitat?"**

<u>Good Guide: Options Group 3</u>

Juniper/Cedar

- Winter range
- Mountain scrub (bitter brush, mahogany, service berry)
- Sage brush
- Aspen
- Grasses/Forbs
- Cultivated crops (alfalfa, other legumes)

Mountain Shrubs:

1. More and healthier plants.
2. Increase age diversity
- Reduce use on existing plants = Catch 22
- Spring/Fall burns (Caution with other species)
- Plant bitterbrush

Juniper/Cedar

1. Reduce encroachment into riparian and foot hills
2. Maintain deer cover/shelter and aesthetic values
- Mechanical removal
- Chemical (spike)
- Carefully!
- Prescribed fire.

Sagebrush

1. Increase age diversity
2. Decrease canopy cover (primarily summer range)
3. Change species composition
4. Need mosaic
- Prescribed fire

- Mechanical (mowing
- Chemical: spike or fertilizer
- Manage herbivores for proper use

Aspen

1. Increase age diversity
2. Decrease conifer encroachment
3. Expand distribution
4. Improve understory vegetation
- Mechanical (jack strawing)
- Fire
- Exclosure
- Controlling herbivory (elk, livestock)

<u>Options Group 1</u>

Summer: shrubs/forbs (legumes)/succulent grasses.

- Riparian Community important.
- Water is important too.
- Some migrate, some don't.
- Top 5 items: (Jack Creek)

Summer Tools:

- Mechanical/Mosaic
- Timber management
- Conifer removal, aspen regeneration
- Water development
- Grazing management
- Fire
- New Forage species.

Winter:

- Brush: Most desirable = bitterbrush.
- Sagebrush
- Four-wing salt brush
- Mahogany?
- Meadow regrowth
- Trees (thermal cover): habitat diversity.
- Change if necessary - Ensure diverse seral stages.
- Decrease old decadent stands if necessary.

Winter Tools

- Herbicides/Chemical.
- Grazing Management
- Wildlife Management – Elk/Pronghorn
- Mechanical – Machinery, Hand.
- Fire
- Fertilization of vegetation.
- Seeding – forage kochia, trefoil.
- Irrigation
- Human Management – Access, Development.
- *All Site Specific
- Travel Corridors (I-80 underpasses)

Options Group 2: Jim, Pat, Mae, George, Ryan, Paula

- Winter: Big Sage, Mahogany, Bitter brush, snow berry, snow brush.
- Transition: Big sage, bitter brush.
- How do we change the vegetation to improve Mule deer habitat?
- Diversity of composition and distribution.
- Leader growth.
- More groceries to reduce pressure (over grazing).
- What tools are appropriate?
- Area specific
- Mechanical: roller chopper, chaining?, grading, mowing, plow.
- Burn: mosaic. Depends on timing and what the objective is.
- Chemical: spike (rate) – sage bush
- Planting: time of year.
- Livestock grazing:
    - species: goats, sheep, bovine, other
    - intensity
    - duration
- Water developments and making the most of what we have.

Options Group 4

Vegetation: Aspen, Riparian, mixed Mountain Shrub, Sagebrush with inclusion of juniper, greasewood, saltbrush. coniferous, early lodgepole pine.

Consider: food, cover, water, space, arrangement

Treatment options for Aspen:

Conifer cutting/removal

- Clearcut entire clone/stand.
- Prescribed fire.
- Allow natural fire.
- Bioweed control
- Post-treatment grazing management (Elk)

Manage for:

- Multiple age classes
- Cover vs. food
- Understory vegetation
- Water management.

Consider:

- Location on landscape
- Proximity to water
- Size and scale of treatment.

Riparian Areas

- Livestock grazing management (time, duration, intensity).
- Plantings (willow) and deciduous shrub.
- Bank stabilization
- Irrigate meadows: seeding of high quality, easy to digest species.
- Bioweed control – insects, goats, sheep.
- Use of approved herbicides and timing of weed control.

Mixed Mountain Shrub and Sagebrush

- Sprouters vs. non-sprouters
- Plant shrubs? With protection.
- Prescribed fire
- Mowing
- Allow natural Fire
- Livestock grazing management (e.g. bitterbrush and fall livestock use).
- Herbicides e.g. spike, plateau for understory management.

Coniferous

Early to mid seral lodgepole pine.

- Beetle
- Timber harvest
- Clearcut
- Thinning
- Selective cut
- Grazing management
- Natural fire/managed fire
- Prescribed fire.

APPENDIX A

PLATTE VALLEY MULE DEER HERD INITIATIVE MULE DEER MANAGEMENT PLAN (DRAFT 07-30-12)

SECTION: HABITAT MANAGEMENT IN EXECUTIVE SUMMARY

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, 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.

- 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 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.

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.