DECISION NOTICE for the Draft Environmental Assessment:
Elk Island WMA Grazing Lease

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DESCRIPTION OF PROPOSED ACTION:

Elk Island WMA was purchased by Montana Fish, Wildlife & Parks (MFWP) to provide hunting opportunities, primarily for white-tailed deer and pheasants, while also maintaining wildlife populations and the unique riparian ecosystem in a viable and healthy condition. The fields in the proposed project area currently contain stands of rank, minimally productive vegetation that is too thick to provide ideal nesting and brood rearing habitat for pheasants and other bird species. The proposed action is to implement a 3-pasture rest rotation grazing system that will allow for a range of habitat conditions to be maintained long-term while improving vegetation and soil health.

Rest-rotation grazing systems provide a myriad of benefits. Grazing of one-third of pastures during the growing season provides disturbance to "set back" rank vegetative growth and promote plant species diversity. Grazing one-third of pastures after seed ripe allows cattle to trample mature seeds into the soil, which promotes germination. The remaining one-third of pastures are completely rested, which allows plants to restore vigor and seedlings to establish. The result will be healthy plant communities that are diverse, provide excellent nesting and brood rearing cover for birds, and improved forage for a variety of wildlife species.

ALTERNATIVE TO PROPOSED ACTION:

Alternative A: No Action
- Decadent residual vegetation would remain.
- White-tailed deer and pheasant habitat would remain sub-optimal.
- Continued decline in vegetation quality and wildlife habitat functionality.

Alternative B: Haying or mowing under existing sharecropper agreements:
- Mowing and haying can result in direct mortality of birds and destruction of nests.
- Mowing is time-consuming, costly, and would result in significant litter deposition that may limit bird use and take several years to break down.
- Mowing would result in thick litter that might inhibit vegetation growth, reestablishment, and might promote establishment of undesirable plant species.
- Haying would remove litter but would require fertilizer inputs and reseeding in the long-term.
- The soil in the project area is generally poor and would not produce a desirable hay crop, especially given the current rank condition and poor forage quality of many fields.

•Haying occurs on approximately 55 acres of the WMA already—utilizing grazing as a management tool will allow the area biologist to compare the effectiveness of each method for reinvigorating grass stands.

Alternative C: Proposed Action: Provide grazing lease.

- Vegetation would be managed on a 3-year rotation, including two years of growing season rest.
- Soil and plant disturbance would reduce decadent residual vegetation and benefit plant seedling establishment.
- Management would promote maximum plant production, vigor and nutrient content.
- Provide better spring green-up vegetation conditions for white tailed deer.
- Provide better nesting and brood rearing cover for pheasants.
- Some segments of the general public may disapprove of cattle grazing on the WMA.
- Grazing the WMA as a management tool would facilitate positive relationships with local ranchers.

PUBLIC REVIEW PROCESS:

FWP is required by the Montana Environmental Policy Act (MEPA) to assess potential impacts of its proposed actions to the human and physical environments, evaluate those impacts through an interdisciplinary approach, including public input, and make a decision based on this information. FWP released a draft environmental assessment (EA) for public review of this proposal (Elk Island Wildlife Management Area Grazing Lease) on February 1, 2013 and accepted public comment until 5:00 P. M. on February 22, 2013.

Legal notice of the proposal and availability of the Draft EA was published in the *Glendive Ranger Review* and the *Sidney Herald*. Copies of the environmental assessment were distributed to neighboring landowners and interested individuals, groups, and agencies to ensure their knowledge of the proposed project. The EA was available for public review on FWP's web site (http://fwp.mt.gov/, "Recent Public Notices" and "Submit Public Comments") from January 31, 2013 through February 22, 2013. An FWP statewide news release was issued January 31, 2013 and posted on FWP's website (http://fwp.mt.gov/, "News Releases") the same day.

SUMMARY OF PUBLIC COMMENT

FWP received 13 total comments representing 10 people and 2 groups. Those persons indicating residence included 1 former Glendive resident, 1 from Roundup, 1 from Rosebud, and 1 from Emigrant. Comments were submitted by the Western Watershed Project (Helena, Montana, 1 comment) and the Gallatin Wildlife Association (Bozeman, Montana, 2 comments). Of the 13 total comments, 2 were in support of the proposal, 7 opposed it, and 4 requested clarification of the intent and justification for the proposed project but did not state either support or opposition.

Seven commenters expressed concern that grazing would result in degraded habitat through the removal of grass or shrub hiding cover. Two commenters expressed concerns about weed control, two expressed concerns that ungrazed habitat is limiting on the landscape, and 2 expressed financial/monetary concerns. All comments can be viewed in their entirety in Appendix A.

RESPONSE TO PUBLIC COMMENT

Below is a summary of comments and FWP responses. Similar comments from different parties were grouped together. (Comment numbers correspond to the numbering of the individual commenters and paragraphs in Appendix A.)

Comment #1: Wow, not nearly enough information to understand how this will help wildlife. What season of use will the cattle be there? How many? Is there going to be damage to riparian areas? What exact goal are they accomplishing for wildlife?

FWP Response: All of the commenter's questions are addressed in the draft EA.

Comment #2a: The EA is well done and thorough. In support of the Noxious Weed Management Plan the FWP biologist should establish contact with the Richland County Weed District Supervisor and let that person him know about the project. They have done good work on addressing the noxious weed infestations on both Elk Island and Seven Sisters WMA's. They are familiar with noxious weed locations and probably will attempt to treat some within your project area.

Comment #9g: Second, while the document acknowledges that grazing might spread weeds, the solution is to spray herbicides. Is this the way to manage weeds? Isn't it better not to create conditions favorable to the spread of weeds in the first place rather than reacting to them?

Weeds are a major threat to all wildlife. And livestock are well known as one of the major vectors for the spread of weed. Furthermore, the disturbance of soil and removal of "dense" vegetation opens up the landscape to colonization by weeds. So the grazing goals are likely to facilitate the establishment of weeds.

Third, the real costs of this threat are not given full consideration. We may be treating this area forever if an aggressive weed species is established. We are going to take this risk to provide slightly better forage for whitetail deer?

FWP Response: FWP does work with the Richland County Weed District to manage weeds on the property, and this relationship will continue within the project area. Potential establishment of additional weeds is minor, given the combination of low AUMs and the prescribed frequency of livestock movement between pastures. Given the low number of AUMs proposed, it would not be cost-efficient for a producer to ship cattle long distances to graze the WMA. Therefore, it is likely that only nearby landowners will be interested in the contract and the likelihood of introducing a weed that wasn't already present in the local area is very limited. Livestock grazing can potentially spread weeds. Wind, water, humans, domestic animals, wildlife and vehicles can also spread weeds. Weed monitoring and management will be necessary in the proposed project area regardless of livestock presence.

The presence of cattle is not expected to unreasonably increase the risk of noxious weed establishment within the proposed project area.

Comment #2b: The electric fence location may pose a safety issue for those on 4-wheelers.

FWP Response: The proposed project area is closed to off-road wheeled vehicle travel.

Comment #4a: No way, no grazing. DNRC sections are constantly trashed and ruined through grazing and become all but useless as a hunting resource. As previously stated every time I have had public land where I enjoyed sportsmen's access that was later open to grazing it was ruined in each and every case. Please don't do this,

Comment #5b: Regarding Chinese ringneck pheasants: Centuries of open estate pheasant breeding in the British Islands have shown large areas of dense, high growth brush and shrubs favor the highest pheasant populations. Cattle will decrease the density of the island's brush and decrease pheasant protection and numbers. Please google texts on Estate Pheasant Production in Great Brittian.

I recommend no cattle grazing on Elk Island for the best pheasant populations.

Comment #8c: The overly mature grasslands the grazing plan targets are well populated with pheasant and even some sharptail & whitetail deer. Many of the neighboring properties are grazed and have little to no cover left that will hold pheasants when the winter weather arrives. I believe it is too severe to graze 2/3 of the rangeland annually. The issue of winter cover is further exacerbated by the irrigation districts systematic removal of heavy cover below the big ditch, all of which is adjacent to the areas proposed for grazing.

Comment #9a: I am writing to oppose the proposal to graze 272 acres of the 1,585 Elk Island Wildlife Management Area.These comments are sent on behalf of Western Watershed Project to which I am a board member.

The major justification appears to be to reduce dense vegetation to improve habitat for whitetail deer and pheasant--an exotic species. It is my view that the EA underestimates the long term impacts of livestock grazing, and potentially jeopardizes the long term wildlife value of the WMA.

The EA asserts without providing any specifics that the “The result will be healthy plant communities that are diverse, provide excellent nesting and brood rearing cover for birds, and improved forage for a variety of wildlife species.”

Comment #11b: 1. There are no references to any scientific literature indicating positive or negative effects of agricultural food plots, artificial nesting cover, or rest-rotation grazing on white-tailed deer, ring necked pheasants or wild turkey.

Comment #11g: 1. The descriptions of vegetative succession under the no action alternative are vague and seem to reflect only short-term trends. No data are provided to support the

contention that the current "rank" vegetation is, or will remain, "suboptimal for deer and pheasants. In contrast, we suggest the benefits of grazing are overstated. At least, they are not supported by any provided literature or local data.

Comment #12: Ms. Foster, cattle grazing is not beneficial to a Wildlife Management Area. The varied vegetation are necessary to herbivores and the cover, necessary for ground nesting birds, which cattle would destroy. Please manage for wildlife, not the ag/livestock industry and do not issue this grazing lease.

Comment #13b: -This lease goes all through the growing season, how does this help wildlife?

FWP Response: As the commenters suggest, poorly managed livestock grazing has the potential to degrade wildlife habitat. For example, continuous grazing at moderate to high stocking rates can result in the long-term deterioration of plant communities because cattle select favored "ice cream" plants season after season, thereby selecting against these favorable plant species and promoting undesirable plants. Continuous grazing can degrade vegetation and soil health because plants are clipped every year before they have had a chance to replenish energy reserves and set seeds, which leads to weakened and less vigorous plants. One commenter expressed concerns that DNRC lands are "thrashed"—many DNRC leases are designed to maximize profits for school trust funding, which encourages lessees to implement continuous grazing systems that utilize as much of the entire parcel as possible in every year. In contrast, the proposed rest-rotational grazing can maintain or improve soil, vegetation health, and vegetative species composition. Improvements are accomplished by resting the area from livestock grazing for two or more growing seasons following grazing during an initial growing season. Rotating treatments among different pastures ensures a variety of vegetation states (including areas with dense cover) in the proposed project area at any given time.

Unlike continuous grazing, resting allows four processes to occur: (Source: McCarthy, J. J. 2003. Results from the use of a system of "rest rotational grazing" for livestock to improve wildlife habitat in Montana. J. Mt. Ecol. 7:13-16.) 1) Plants that have been grazed are permitted the opportunity to build their root system and carbohydrate reserves which in turn allows the plant to become more robust and increases overall forage production; 2) Seed production and ripening take place, increasing the probability of reproduction of important grass species; 3) Seedlings are given time to become established, which reduces erosion and increases forage production on a site; 4) Organic material accumulates between plants enriching and building soil, while reducing both wind and water erosion.

Specific benefits of each rotational treatment (McCarthy 2003):

1) Early Grazing: The trampling of accumulated residual growth following a season of rest increases litter between plants and returns organic material to the soil. Studies have also shown that the removal of the residual growth from the previous year's rest treatment makes the plants more palatable to wildlife and improves forage quality. Early grazing of a pasture often results in a better distribution of forage utilization than later grazing as the upland vegetation remains succulent and attracts livestock off riparian areas, which allows for regrowth of riparian vegetation and puts less grazing pressure on woody vegetation. When livestock are removed from the pasture, cooler weather and fall moisture generally result in some regrowth of vegetation which is then available for wintering wildlife and serves as nesting cover the next spring.

2) Late Grazing: Turning livestock into the pasture after seed ripe allows the plant to complete a full season of photosynthesis prior to grazing. This results in the plant both producing seed and storing sufficient quantities of food to maintain itself in good condition throughout the winter months. Seeds are subsequently dislodged by the grazing action of the livestock and sown in the soil by trampling, thus increasing the possibilities for seedling establishment the following growing season. In contrast, haying leaves minimal seeds behind and mowing leaves thick litter which can inhibit vegetative regrowth. Trampling action will increases litter accumulation between plants which helps to control erosion but also breaks up litter which helps to return organic materials to the soil.

3) Rest: One or more years of rest following the late grazing treatment allows plants to establish additional root growth and store carbohydrates. Residual plant material is accumulated to act as litter for erosion control and soil building. Rest also allows seeds trampled during the late grazing to become established as seedlings. Woody plants benefit through additional leader growth and food storage.

Winter cover does not limit pheasant survival within the WMA—there is abundant shrub cover in the project area and the remainder of the WMA. While some shrubs cover is present in the proposed project area, it consists of primarily mature shrubs and rotational grazing is not expected to result in decreased shrub density. Rather, rotational cattle grazing may increase shrub vigor. If the presence of cattle does begin to degrade shrub habitat, the lessee will be required to fence cattle out of shrubby areas using temporary electric fences. Management of neighboring properties and the irrigation ditch is outside the scope of this EA and outside of MFWP control.

One commenter expressed concerns about riparian areas and the island, which are not included in the proposed project areas. The project area, which is less than 20% of the entire WMA, is composed mainly of tame grass planted to provide dense nesting cover and native rangeland composed mainly of inland saltgrass. Finally, the EA proposes a one-time prescriptive treatment cycle to be conducted over the course of 3 years, rather than a grazing plan that will continue in perpetuity.

Comment #4b: I know that money is a problem for all government agencies these days, but nothing good can come of this for all the users.

Comment #11e: 5. Financial costs of alternatives are vague. Our experience is that these costs are often understated for managing private activities on our WMAs. Expected costs for weed control under the no-action alternative are not given. Personnel costs for managing and administering the projects are not provided. Costs of owning and maintaining irrigation equipment, (at least on Isaac Homestead WMA) fences and water use are not provided.

Comment #11k: 5. It is unclear how livestock water will be provided. Is there any FWP expense associated with providing water? (We are aware of footnote 10f. But are there FWP expenses for obtaining water or providing materials for water developments?)

FWP Response: The primary purpose of the proposed project is not to generate income and the resulting income is anticipated to be low (less than $950 annually). Rather, grazing is a fiscally responsible management tool to accomplish the objective of reinvigorating and improving grass stands within the WMA. Costs associated with alternative B (haying/mowing) or plowing up and replanting tame grass fields would require significant investment of FWP resources through administration and personnel hours, operations and maintenance dollars, and equipment costs. Expected costs for weed control under the no-action alternative are impossible to accurately calculate, but are unlikely to be substantial since the proposed project area already has vegetation established. Providing temporary electric fences will be the responsibility of the lessee. Irrigation equipment will not be used for the proposed project. Providing water and temporary water developments/stock tanks will the responsibility of the lessee.

Comment 5a: Cattle grazing appears contrary to logic as whitetail deer did fine for three million years before European cattle appeared in Montana. Much of the research which supports cattle grazing in Montana WMAs is biased and was developed with direct observation and pressure to confirm beneficial effects of cattle grazing in WMAs by Stockgrowers.

I recommend keeping cattle and their diseases off Elk Island to obtain healthy whitetail populations.

FWP Response: Herbivores are ubiquitous in grassland habitats worldwide. The project proposes to use cattle grazing as a management tool to improve grass stands, including many acres of tame grass (e.g., tall and pubescent wheatgrass, brome) that was introduced post-European settlement. Cattle grazing within the WMA is not expected to increase disease risk for local wildlife or cattle producers given the small size of the project area, the prevalence of cattle on the directly adjacent and surrounding local landscape, and the ability of wildlife to move long distances. An exhaustive discussion of wildlife-cattle disease concerns is outside the scope of this EA.

Comment #8b: The grazing plan seems to target 100% of the pasture/rangeland on the WMA. The wooded areas are completely ommitted even though they too have decedent understory vegetation that has seen minimal disturbance in the past 15 years.

> *FWP Response: The wooded areas are generally dominated by exotic smooth brome likely owing to a lack of disturbance as the commenter suggests. However, these areas are outside the scope of this EA.*

Comment 9b: There is no definition of "health", nor do we know which species will benefit other than whitetail deer and pheasant. While some grassland birds can "benefit" from livestock grazing, some are negatively affected. Whether any of these species that are negatively impacted reside at Elk Island WMA is not known, but certainly ungrazed habitat is far less abundant than areas with livestock grazing. http://mtnhp.org/Reports/Grassland_Birds_Progress.pdf

Comment 9f: The EA basically ignores most wildlife. Wildlife is more than whitetail deer. What species of, bees, butterflies, birds, rodents, etc. might use and require non-grazed habitat?

For instance, there are many native bee species that nest in the ground. How will grazing affect these species? What species are even here? How about hiding cover for small mammals, and other species? If you remove this "dense" vegetation, you make these species more vulnerable.

The EA does mention the meadow jumping mouse as a rare species found in the area, but asserts that it would benefit from grazing, again with no documentation. The EA proclaims that "Improved habitat structure and forage quality resulting from the proposed grazing are expected to benefit this species."

It is not clear how grazing could benefit the species when on the MDFWP web site, the meadow jumping mouse is known to be "found in dense, tall and lush grass." And "preferring relatively **dense vegetation** in open grassy and brushy areas of marshes, meadows, swamps, open conifer forest, and often favor sites bordered by small streams.
http://fieldguide.mt.gov/detail_AMAFH01010.aspx

Similarly, according to MDFWP WMA site description, Elk Island is home to sharptail grouse. Sharptail grouse are definitely impacted by livestock grazing, and the elimination of hiding cover needed to protect them from predators. The MDFWP species description describe sharptail grouse as being negatively impacted by "intense grazing" which can "eliminate native grasses required for shelter, protection from predators, night roosting and spring nesting; dense trees and shrubs are needed for food, rest, escape, cover and winter survival."
http://fieldguide.mt.gov/detail_ABNLC13030.aspx

The Hayden's Shrew- Sorex haydeni—is listed as potentially being found at Elk Island WMA. It is listed as a species of concern on the MDFWP web site. What could be the impacts of livestock grazing upon this species? I think attention should be given to this species.

Similarly the Southern Red Back Vole is found along the lower Yellowstone at Elk Island WMA. The species is relatively common in western Montana, but is not common at all in the plains. According to the MDFWP this is a disjunct population and perhaps even genetically unique. Little is known about its habitat preferences on the plains, but given its apparent rarity on the plains, more consideration should be given to the impacts grazing may have upon this species. http://fieldguide.mt.gov/detail_AMAFF09020.aspx

According to one source in its preferred habitat, it tends to be found in "areas with large amount of ground cover."
http://www.natureserve.org/explorer/servlet/NatureServe?searchName=Myodes%20gapperi
This would suggest that removing "dense" "decadent" vegetation by grazing may have a detrimental impact on the species.

In addition cowbirds are known to exist in this area.
http://fwp.mt.gov/fishAndWildlife/wma/siteDetail.html?id=283663

Since the proposed action is a three year rest rotation, livestock will be present in the spring and summer months and could attract additional cowbirds into the area. Cowbirds are well known as nest parasites. Will the presence of cattle increase the presence of cowbirds with a detrimental impact on nesting songbirds? No analysis of this potential is given.

> *FWP Response: A complete list of nongame species that may occur on the parcel is available from the Montana Natural Heritage Program Tracker online at http://mtnhp.org/tracker/NHTMap.aspx. A general discussion of the benefits of rotational grazing is listed on pages 5-6 above. Rotational grazing is expected to improve habitat for grassland birds, including sharptail grouse and others that utilize ungrazed grass stands, because 2/3 of the proposed project area will be rested during the growing/nesting seasons. One-third of the proposed project area annually will be grazed during the growing/nesting seasons, thereby benefiting grassland songbird, small mammal, invertebrate, and other nongame species that prefer grazed habitats. Rotational grazing retains dense hiding cover in ungrazed pastures, reinvigorates grass stands to maximize productivity, and ultimately results in diverse age stands of grass which benefit the maximum number of species. Diverse age stands may be particularly beneficial for sharptail grouse and pheasants that require dense hiding cover for nesting but productive areas with abundant green vegetation, forbs, and invertebrates for brood rearing.*
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> *Ground nesting bees include primarily mining bees (Andrena spp.), bumble bees (Bombus spp.), and long horned bees (Melissodes spp.). Disturbance provided by rotational grazing should promote greater numbers and diversity of forb species, which would provide a direct positive benefit for a variety of bee species. While overgrazing can degrade bee habitat, careful and well-timed cattle grazing can improve bee habitat (source: Carvell, C. 2002. Habitat use and conservation of bumblebees [Bombus spp.] under different grassland management regimes. Biological Conservation 103:33-49).*

While it is possible that meadow jumping mice might occur in the proposed project area, it is unlikely they are widespread in the area because they generally are found in moist lowland habitats rather than drier upland habitat types that comprise most of the proposed project area. Meadow Jumping Mice prefer dense, tall, and lush vegetation rather than dense, dry, decadent vegetation that currently exists in the proposed project area and therefore the proposed project would indeed be expected to benefit the species if it occurs in the area by reinvigorating grasslands while leaving ungrazed, undisturbed habitat available each year.

It is unlikely that the Hayden's Shrew occurs in the project area because: 1) the shrew prefers moist areas and the project area is primarily dry upland habitat, 2) records for Hayden's Shrew in Richland county are more than 20 years old, no more recent observations have been made. However, even if the Hayden's Shrew did occur in the project area, the proposed project would be beneficial to the shrew because increased grass productivity should also increase the abundance of seeds, and invertebrate food sources while maintaining adequate hiding cover.

It is unlikely that the Southern Red Backed Vole occurs in the project area because: 1) the vole is only known from woodland/shrubland habitat with the exception of great plains sand prairie habitat, whereas the project area is primarily saline, rather than sandy, soils, and 2) records for Southern Red Backed Voles in Richland county are more than 20 years old, no more recent observations have been made. However, even if the vole did occur in the project area, the proposed project would be beneficial because increased grassland productivity should also increase the abundance of high-quality vegetative forage preferred by the vole. Although grazing would remove some ground cover in portions of the proposed project area annually, the impacts of this would be limited spatiotemporally and the long-term result of the proposed project is expected to be improved vegetation quality and ground cover which would benefit meadow jumping mice, Hayden's shrews, southern red-backed voles and a variety of other small mammal species.

Cowbirds can be associated with cattle grazing, and may potentially have a detrimental impact on nesting native songbirds. However, the impact of cowbirds associated with the proposed project is expected to be marginal because 1) cowbirds are already present in the proposed project area, 2) the entire proposed project area is small (less than 300 acres, and only 1/3 of the area (approximately 100 acres) will be grazed during the nesting season), and 3) cattle are already present on neighboring properties adjacent to the proposed project area, thus any positive impacts of cattle on cowbirds are likely already occurring, and 4) the potential benefits of the project to native species (improved nesting cover, more productive grasslands with increased invertebrate densities, etc.) outweigh the potential impacts of increased cowbird numbers.

Comment 9c: The idea that we should be manipulating vegetation to promote a common and abundant species such as whitetail deer seems absurd to me. The EA provides no evidence that such manipulation is needed or even any quantitative numbers of how many more deer would result—assuming one agreed with such a goal.

The management goal of increasing vegetation suitable for whitetail deer and pheasant seems to ignore the fact that both of these species, whitetail in particular, are not rare or in dire need of population increases. Cattle grazing, while it may benefit pheasant (although hiding cover is often the limiting factor for pheasant), is likely to have a negative impact on other native species.

Should MDFWP be favoring abundant (whitetail) and exotic species (pheasant) over native species? As the EA acknowledges, most of the private land in this area is grazed by livestock, and such such grazed habitat is not rare in the region. The EA fails to take a regional perspective on the presumed "need" for livestock disturbed habitat.

> *FWP Response: The WMA was purchased and is managed using monies provided by sportsmen through hunting license sales and Pittman-Robertson funds. The primary management goal of the WMA is to provide hunting opportunity, primarily for white-tailed deer and pheasants. Therefore it is appropriate to manage for abundant (whitetail) and exotic (pheasant) species because they are favored game species among sportsmen. Although the WMA is managed primarily to provide opportunity for sportsmen, a variety of other game and nongame species benefit from the existence and management of the WMA. The EA proposes a one-time prescriptive treatment cycle to be conducted over the course of 3 years, rather than a grazing plan that will continue in perpetuity and therefore is not directly comparable to grazed habitat in the surrounding landscape.*

<u>Comment 9d:</u> By contrast, ungrazed habitat is far rarer in this region, and species that depend on non-grazed landscapes are at a disadvantage.

The EA uses pejorative language demonstrating a lack of ecological knowledge. "Cattle grazing will remove the existing buildup of decadent vegetation"

"Decadent" is the same way foresters refer to "old growth" forests. There are many species of wildlife (wildlife is more than whitetail deer) that are dependent on vegetation that is dense and thick. There are numerous lichen, fungi, insects, and other species that require such vegetation.

<u>Comment #11f:</u> 6. The alternative of converting these lands to natural vegetation is not explored or analyzed. There is no description of what natural vegetative succession, or wildlife benefits, will occur if any of these projects are not applied to our WMAs. The only implication given is that there will be “weeds”. This seems to be largely a simplification of natural succession used to justify the projects.

<u>Comment #11j:</u> 4. Table 3 (footnote) indicates that cattle grazing is abundant on private lands in the area of the WMA. Therefore, we suggest that grazed habitats probably are not limiting for wildlife, especially mobile species such as deer. Allowing natural succession on the WMA likely will enhance overall landscape diversity in the area.

> *FWP Response: the proposed project area consists of extremely converted habitats (rather than pristine “old growth” as one commenter suggests), most of which were historically plowed and planted to crop for decades prior to being converted to dense nesting cover. The*

commenter is correct that foresters often use the term "decadent" to describe old growth forests. However, upland game bird biologists use the term "decadent" to refer to grasslands that are in decline or no longer maximizing potential. When crops and dense nesting cover fields are planted to benefit upland game birds, they must be periodically maintained (hayed, disked, grazed, etc.) in order to maintain vegetative productivity over long periods of time. Currently, exotic grass species are trying to encroach and eliminate native species and dense nesting cover in the proposed project area. Of particular concern is smooth brome, an exotic species that is poor-quality nesting habitat for most grassland birds. Brome encroachment is occurring throughout the proposed project area and the species is widespread in the surrounding landscape. One intended benefit of the proposed grazing treatment is to set back encroaching exotic species such as smooth brome. Disturbance will promote vegetative species diversity, which has declined in recent years in the proposed project area. As the commenter suggests, many wildlife species depend ungrazed areas. Many species, including pheasants, also require productive early-successional grasslands to thrive. The proposed rotational grazing plan will provide ungrazed areas annually while simultaneously promoting vegetation vigor and diversity. Finally, the EA proposes a one-time prescriptive treatment cycle to be conducted over the course of 3 years, rather than a grazing plan that will continue in perpetuity and therefore is not directly comparable to grazed habitat in the surrounding landscape.

Comment 9e: The EA just asserts that grazing will benefit whitetail and pheasant. Even if one agreed with this assertion, the EA makes no attempt to quantify how many more deer or pheasant might result from this risky vegetation manipulation. Will we see two more deer? Hundreds? Is it worth the risking the potential impacts that grazing may have on the land and other species?

FWP Response: It is impossible to accurately predict numbers of whitetail deer and pheasants that may result from the proposed project because annual survival and reproduction for both species are highly dependent upon weather events. Whitetail numbers are also controlled by disease, particularly EHD (Epizootic Hemorrhagic Disease) and BTV (Bluetongue Virus) outbreaks. The whitetail population along the Yellowstone River was reduced in 2011 due to a severe EHD outbreak. Maximizing the potential of vegetation on the WMA will allow for maximum health of wildlife populations: improved vegetation due to rotational grazing could result in better nutrition, higher fawning rates, better overwinter survival, and a much faster rebound for whitetail deer. For pheasants, increased nest success and brood survival have the potential to significantly bolster populations and hunting opportunity for sportsmen.

Comment 9h: Fourth, the EA makes light of water pollution resulting from grazing, justifying the pollution by saying that cattle are polluting the rest of the river. I find that a poor justification for even more pollution. Shouldn't FWP be reducing such pollution rather than contributing to it. Livestock are known to spread infectious disease through water.

FWP Response: The proposed project area is not adjacent to the river. Irrigation ditches do occur in the project area, but pollution of these is unlikely because they have raised sides and feces should not run off into the water. Livestock will not have access to irrigation

ditches because the ditches have steep slopes and deep channels that might endanger cattle. Even if cattle feces were to enter the ditches it would not pose a threat to natural ecosystems or human health given that the water is used for irrigation of farm fields.

Comment 9i: The presence of hormones, pesticides and antibiotics in the manure can have negative impacts on soils. For instance "The impact of manure and urine on soil from livestock is not simply one of perturbing nutrient cycles. Additives such as copper, zinc, antihelminthics and antibiotics or other veterinary treatments are given to animals. The presence of Cu and Zn can make manure unsuitable for use as a fertilizer on other farms and metals such as these pose a long-term risk in pasture soils because they can accumulate and are only slowly removed by leaching or offtake in vegetation. Heavy metals have been shown to reduce the microbial life and diversity in soil (Griffiths, 2000) and the activity of N-fixers in particular (Giller, 1999)." http://agriculture.de/acms1/conf6/ws4lives.htm

Fifth, the EA suggests that "hoof action" will benefit the soils. Numerous studies have documented that hoof action from livestock has a detrimental impact upon soils. By compacting soils, the active layer where the majority of soil microbes are found is compressed, leaving fewer habitats for these species which are responsible for breaking down vegetation. In addition compaction reduces water infiltration which may have detrimental impacts on plant communities. http://arc.lib.montana.edu/range-science/item/137 ; http://ucanr.edu/sites/uccelr/PollutionAndWaterQuality/FactSheets/SoilSurface/

FWP Response: Hormones, additives such as copper and zinc, and prophylactic antibiotics are typically administered during finishing in feed lots to increase weight in beef cattle. However, administering these products to grass-fed cattle is uncommon, and an increase in their prevalence is unlikely as a result of grazing the WMA. Feed lot conditions will not occur on the WMA due to limited AUMs, limited seasons of use and supplimental feeding of hay or grain be prohibited per grazing lease terms. Commonly used products do include fly repellent ear tags, pour-on pesticide/dewormer treatments, and other anthelmintics. The commenter states that these products are given to animals but does not cite any soil impacts of pesticides or anthelmintics administered to cattle as part of an agricultural operation, nor are we aware of rigorous scientific studies that implicate these commonly-used products in soil microbial problems.

The cited websites relate to tree seedling establishment and compaction due to heavy grazing. Hoof action during rotational grazing can break up soils, stomp seeds into soil, provide microsites that hold water for seedling establishment. Rest periods facilitate soil building and minimize compaction. Improved root structures with rotational grazing also improve the soil (McCarthy 2003).

Comment 9j: Seventh, although I am not certain that any vegetation manipulation is needed, if one were to advocate for this kind of manipulation, wildfire may be a better choice. The EA does not consider using fire to remove dense vegetation. Prescribed burning has some benefits that livestock grazing does not. Fire is not selective. Cattle tend to graze favorable plants, leaving

behind the less palatable species--often these are weedy species. Fire also rejuvenates vegetation and would achieve the desired vegetation management, but without having to maintain fences, and risk the introduction of weeds. Fire also does not compact the soil as with livestock, nor pollute the water.

FWP Response: Wildfire is not a viable option at this location for several reasons. First, burning the area as a whole would remove any and all cover for resident wildlife, and given the area's small size (less than 300 ac), burning individual portions would be impractical (e.g., requiring the installation of burn breaks that would result in destruction of a significant proportion of the habitat within the proposed project area). Second, an early season treatment is desired to set back encroaching exotic species, particularly smooth brome. It may be difficult to get a fire to carry prior to the nesting season. Third, burning during late spring/early summer could result in loss of nests, brood, or hen mortality. Fourth, burning later may be impossible due to burn bans and risk of fire spreading to neighboring properties. Fifth, late burns also could promote further encroachment of brome. Sixth, burns in Eastern Montana can be unpredictable and difficult to control. Seventh, fire could remove fences and other barriers that allow FWP to keep neighboring cattle off of the WMA. Eighth, burning can have unintended negative consequences on soil (e.g., if the fire is sufficiently hot to burn down to mineral soils). Post-fire erosion can also be a major concern for soil and water quality. Ninth, weed establishment can be a significant problem in areas cleared by fire. As the commenter indicates, under light to moderate continuous stocking rates cattle can degrade plant communities by consuming only the most palatable "ice cream" species. However, rotational grazing calls for more intense grazing, which forces cattle to feed on undesirable plant species as well as highly palatable species, followed by two growing seasons of rest and recovery (see general discussion of the benefits of rotational grazing, pages 5-6).

<u>Comment 9k:</u> Eighth, while it's not clear from EA whether any cottonwood/willow habitat will be affected, certainly there is ample evidence that livestock can negatively impact such habitat which is important to many wildlife species. If no cottonwood/willow will be affected, this should be made clearer in the EA.

FWP Response: No cottonwood or willow habitat will be affected.

<u>Comment 9m:</u> I believe the EA is inadequate and is full of unquestioned assumptions. I suggest the Dept. do a full EIS at a minimum so that the full costs of this action can be considered.

FWP Response: An EIS is not warranted for this action. No significant impacts to the physical and human environment will result due to the proposed action alternative, nor will there be significant public controversy over the proposed action; therefore, an EIS is not required.

<u>Comment #11c:</u> 2. Despite years of experience with agricultural share-cropping on WMAs (9 years on 7 Sisters, 12 years on Elk Island) no local wildlife data are presented for evaluating the effectiveness of this management technique for any of the three primary wildlife species.

3. There apparently are no plans for evaluating the effectiveness of renewed or new agriculture or grazing activities on any population characteristics of any of the primary wildlife species. When public resources are being committed, we believe management goals should be precisely stated and goal-achievement should be measured. This is necessary for real adaptive management. It is necessary to demonstrate value in the use of public resources.

Comment #11h: 2. We support the proposal to compare habitat effectiveness of haying vs. rest-rotation grazing for wildlife. However, no information is provided on what wildlife parameters will be measured and how they will be measured. There is no study plan. We believe wildlife use of the areas must be measured, not just vegetation responses. The study plan should test a clear hypothesis and incorporate elements of randomization and replication so that reliable information may be obtained.

FWP Response: The area wildlife biologist annually surveys the WMA for white-tailed deer and pheasants as part of larger trend area surveys for both species. Whitetails and pheasants are abundant on the WMA, with densities similar to or exceeding densities in surrounding areas (based on communication with past and present area biologists). The WMA annually receives significant hunting pressure yet hunter success rates are high (based on communication with sportsmen). The intent of the WMA is not to conduct research, rather to implement science-based practices to manage wildlife populations for the benefit of sportsmen. Rigorous research and data collection as suggested by the commenter would be extremely costly, unnecessary to achieve management goals, and would require landscape-level analyses that are beyond the scope of this EA, which specifically addresses a grazing lease on a small portion of the WMA. However, the area wildlife biologist does plan to set up photo points and qualitatively monitor vegetation in the proposed project area, areas where haying is used to reinvigorate grassland fields, and unmanipulated areas to evaluate the effectiveness of grazing as a vegetation management technique on the WMA.

Comment #11d: 4. Populations of the three primary wildlife species are complexly limited. That is, limiting factors vary greatly in space and time. However, there is very little or no discussion of habitat limitations for the three wildlife species in the project area. It seems that some habitats being created or maintained by leases on the WMAs are abundant on adjacent or nearby private lands. Will duplication of these habitats provide habitat that is limiting? Might other needed habitat types be scarcer on the area landscape? All four EAs provide broad, unsubstantiated statements regarding the values of the projects to the three primary wildlife species and to many species of "other wildlife". More precise discussion of this issue is warranted. If it cannot be provided, the need for on-the-ground evaluation of these projects is emphasized.

FWP Response: A broader picture of landscape-level habitat and spatiotemporal habitat needs of wildlife is beyond the scope of this EA, which specifically addresses a grazing lease on a small portion of the WMA.

Comment # 11i: 3. Rest-rotation systems are designed for long-term sustained production of livestock. Based on experience at other WMAs, initiating Alternative C will make it difficult to

cease or modify this practice in the future. A less-intensive, wildlife-oriented grazing program should be analyzed and evaluated. We question if there should be cows somewhere on the WMA every year. Perhaps grazing the land every 5th year, for example, will produce a better wildlife response.

FWP Response: The proposed project is a 3 year lease. The proposed project area will be split into 3 pastures and each pasture will be grazed only one of the three years during the growing season. Conducting the grazing treatment over three years ensures that ungrazed areas will be available for wildlife throughout the lease period. The effectiveness of the grazing treatment will be monitored throughout the lease period, and especially at the end of the lease. If the results of grazing are favorable, a new lease may be initiated when the condition of the grass fields again starts to degrade, which may occur in 3-5 or more years post-grazing. The commenter is incorrect in his assumption that grazing will be difficult to cease or modify because the lease will end after 2015.

Comment #13b: -Are these cow/calf units? If they are, the utilization rate is greater than 95 AUMs.

FWP Response: The maximum AUMs/yr will be 95.

Comment #13c: This EA does not include any climate change or drought management objectives. These are needed. I am enclosing maps that show the area to be in extreme drought now and also last summer and fall. These maps are from The Palmer Drought Severity Index, devised in 1965, was the first drought indicator to assess moisture status comprehensively. It uses temperature and precipitation data to calculate water supply and demand, incorporates soil moisture, and is considered most effective for unirrigated cropland. It primarily reflects long-term drought and has been used extensively to initiate drought relief. It is more complex than the SPI and the Drought Monitor. The Palmer Drought Severity Index is an important climatoligical tool for evaluating the scope severity and frequency of prolonged periods of abnormally dry or wet weather. It can be used to help delineate disaster areas and indicate the availability of irrigation water supplies, reservoir levels, range condition, amount of stock water, and potential intensity of forest fires. (Nation weather Service-Climate Prediction Center).

The maps that I'm enclosing show the area to be in extreme drought now, and in the same condition last August and September. How can grazing a WMA in extreme drought help wildlife? There needs to be language in the EA that addresses short and long term drought and climate change, including language that says no grazing in drought conditions. The reference page with notes that I've included gives you the basis for my concerns.

FWP Response: The proposed project does include language that the maximum AUMs/yr will be 95 and that actual stocking rates may be reduced in any pasture or year "depending on vegetation quality, numbers of cattle, growing conditions, and discretion of the lessee and area wildlife biologist." Thus, grazing could be reduced or eliminated if drought conditions occur.

DECISION NOTICE

Utilizing the EA and public comment, a decision must be rendered by FWP which addresses the concerns and issues identified for this proposed action.

FWP's analysis supports the agricultural lease of Elk Island WMA as proposed. I find there to be no significant impacts on the human and physical environments associated with this project. Therefore, I conclude that the Environmental Assessment is the appropriate level of analysis, and that an Environmental Impact Statement is not required.

After review of this proposal, it is my decision to accept the draft EA as supplemented by this Decision Notice as final, and to recommend the continuation of the agricultural lease for Elk Island WMA.

The Final EA may be viewed on FWP's Internet website: http://www.fwp.mt.gov or be obtained upon request from Montana Fish, Wildlife and Parks, Region 7 Headquarters, P.O. Box 1630, Miles City, Mt. 59301 (406) 234-0900.

March 12, 2013

Brad Schmitz
Region 7 Supervisor

Date

APPENDIX A
PUBLIC COMMENTS – ELK ISLAND WMA GRAZING LEASE
FEBRUARY 1-22, 2013

Comment #	Comment
1	**From:** unknown **Sent:** Thursday, January 31, 2013 12:41 PM **To:** Foster, Melissa **Subject:** Public Comment: Elk Island Wildife Management Area Grazing Lease Environmental Assessment Wow, not nearly enough information to understand how this will help wildlife. What season of use will the cattle be there? How many? Is there going to be damage to riparian areas? What exact goal are they accomplishing for wildlife?
2	**From:** unknown **Sent:** Thursday, January 31, 2013 2:46 PM **To:** Foster, Melissa **Subject:** Public Comment: Elk Island Wildife Management Area Grazing Lease Environmental Assessment
a	The EA is well done and thorough. In support of the Noxious Weed Management Plan the FWP biologist should establish contact with the Richland County Weed District Supervisor and let that person him know about the project. They have done good work on addressing the noxious weed infestations on both Elk Island and Seven Sisters WMA's. They are familiar with noxious weed locations and probably will attempt to treat some within your project area.
b	The electric fence location may pose a safety issue for those on 4-wheelers.
3	**From:** Ed Bukoskey **Sent:** Thursday, January 31, 2013 5:34 PM **To:** Foster, Melissa **Subject:** Public Comment: Elk Island Wildife Management Area Grazing Lease Environmental Assessment Grazing would help get thick forage and underbrush down so wildlife is more apt to use this area. Yes, allow grazing. Ed Bukoskey, 1878 Cartersville Rd., Rosebud, Mt. 59347

4	**From:** tjfishing75@gmail.com **Sent:** Friday, February 01, 2013 1:57 PM **To:** Foster, Melissa **Subject:** Public Comment: Elk Island Wildife Management Area Grazing Lease Environmental Assessment
a	No way, no grazing. DNRC sections are constantly trashed and ruined through grazing and become all but useless as a hunting resource. As previously stated every time I have had public land where I enjoyed sportsmen's access that was later open to grazing it was ruined in each and every case. Please don't do this,
b	I know that money is a problem for all government agencies these days, but nothing good can come of this for all the users.
5	**From:** Doc Mealer [docmealer@hotmail.com] **Sent:** Saturday, February 02, 2013 3:09 PM **To:** Foster, Melissa **Subject:** Elk island cattle grazing comment for Scoping
a	Cattle grazing appears contrary to logic as whitetail deer did fine for three million years before European cattle appeared in Montana. Much of the research which supports cattle grazing in Montana WMAs is biased and was developed with direct observation and pressure to confirm beneficial effects of cattle grazing in WMAs by Stockgrowers. I recommend keeping cattle and their diseases off Elk Island to obtain healthy whitetail populations.
b	Regarding Chinese ringneck pheasants: Centuries of open estate pheasant breeding in the British Islands have shown large areas of dense, high growth brush and shrubs favor the highest pheasant populations. Cattle will decrease the density of the island's brush and decrease pheasant protection and numbers. Please google texts on Estate Pheasant Production in Great Brittian. I recommend no cattle grazing on Elk Island for the best pheasant populations. W R Mealer Member of SCI. North American Conservation Committee
6	**From:** rbishop53@yahoo.com **Sent:** Saturday, February 02, 2013 6:56 PM **To:** Foster, Melissa **Subject:** Public Comment: Elk Island Wildife Management Area Grazing Lease Environmental Assessment Why would you what to kill the pheasant off at elk island. I count on ELK Island as one of my place to Pheasant hunting . So do not turn it in to grazing land

7	**From:** wberthoud@msn.com **Sent:** Friday, February 08, 2013 9:55 AM **To:** Foster, Melissa **Subject:** Public Comment: Elk Island Wildife Management Area Grazing Lease Environmental Assessment I drive over from roundup every year to pheasant hunt in the area and elk island doesn"t need to be destroyed by you idiots. the vegetation is not decadent, and the habitat is not sub optimal. Please let go of each others genitals and knock off the stupid crap
8	**From:** Chris & Jeannie Lorentz [cnjlorentz101@gmail.com] **Sent:** Thursday, February 07, 2013 6:40 PM **To:** Foster, Melissa **Subject:** Elk Island Grazing Plan Ms. Foster, a I would like to comment on the proposed grazing plan for Elk Island WMA. As a former resident of Glendive, I have spent considerable time at Elk Island since 1996 and have walked almost every acre, except the islands. I have frequently hunted the pasture lands targeted for grazing lease. I have also hunted both deer and pheasants on other parcels of Elk Island, and a great deal of private lands in the lower Yellowstone. Elk Island is a treasure please take good care of it. The plan seems to be hastily thought out with too much emphasis on making friends with grazing operators. b The grazing plan seems to target 100% of the pasture/rangeland on the WMA. The wooded areas are completely ommitted even though they too have decedent understory vegetation that has seen minimal disturbance in the past 15 years. c The overly mature grasslands the grazing plan targets are well populated with pheasant and even some sharptail & whitetail deer. Many of the neighboring properties are grazed and have little to no cover left that will hold pheasants when the winter weather arrives. I believe it is too severe to graze 2/3 of the rangeland annually. The issue of winter cover is further exacerbated by the irrigation districts systematic removal of heavy cover below the big ditch, all of which is adjacent to the areas proposed for grazing. d I have hunted Elk Island with several senior hunting partners over the years who are no longer able to hunt the rough cover and broken ditch banks and sloughs. The open grasslands provide an opportunity for pheasants that is not available elsewhere at Elk Island WMA. Please look beyond the boundaries of the WMA before considering such a radical change in habitat management. In light of the good track record at Elk Island and the consistent production of birds and the hunter opportunity it has provided rethink the grazing plan. Please send your response to me via email, I have included my email address below. Sincerely, Chris Lorentz

9	**From:** George Wuerthner [gwuerthner@gmail.com] **Sent:** Thursday, February 07, 2013 7:40 PM **To:** Foster, Melissa **Subject:** Comments on Elk Island WMA grazing proposal FYI Melissa Foster, MFWP Wildlife Biologist P.O. Box 342 Wibaux, MT 59353 Dear Ms. Foster:
a	I am writing to oppose the proposal to graze 272 acres of the 1,585 Elk Island Wildlife Management Area.These comments are sent on behalf of Western Watershed Project to which I am a board member. The major justification appears to be to reduce dense vegetation to improve habitat for whitetail deer and pheasant--an exotic species. It is my view that the EA underestimates the long term impacts of livestock grazing, and potentially jeopardizes the long term wildlife value of the WMA. The EA asserts without providing any specifics that the "The result will be healthy plant communities that are diverse, provide excellent nesting and brood rearing cover for birds, and improved forage for a variety of wildlife species."
b	There is no definition of "health", nor do we know which species will benefit other than whitetail deer and pheasant. While some grassland birds can "benefit" from livestock grazing, some are negatively affected. Whether any of these species that are negatively impacted reside at Elk Island WMA is not known, but certainly ungrazed habitat is far less abundant than areas with livestock grazing. http://mtnhp.org/Reports/Grassland_Birds_Progress.pdf
c	The idea that we should be manipulating vegetation to promote a common and abundant species such as whitetail deer seems absurd to me. The EA provides no evidence that such manipulation is needed or even any quantitative numbers of how many more deer would result—assuming one agreed with such a goal. The management goal of increasing vegetation suitable for whitetail deer and pheasant seems to ignore the fact that both of these species, whitetail in particular, are not rare or in dire need of population increases. Cattle grazing, while it may benefit pheasant (although hiding cover is often the limiting factor for pheasant), is likely to have a negative impact on other native species. Should MDFWP be favoring abundant (whitetail) and exotic species (pheasant) over native species? As the EA acknowledges, most of the private land in this area is grazed by livestock, and such such grazed habitat is not rare in the region. The EA fails to take a regional perspective on the presumed "need" for livestock disturbed habitat.
d	By contrast, ungrazed habitat is far rarer in this region, and species that depend on non-grazed landscapes are at a disadvantage. The EA uses pejorative language demonstrating a lack of ecological knowledge. "Cattle

grazing will remove the existing buildup of decadent vegetation"

"Decadent" is the same way foresters refer to "old growth" forests. There are many species of wildlife (wildlife is more than whitetail deer) that are dependent on vegetation that is dense and thick. There are numerous lichen, fungi, insects, and other species that require such vegetation.

e The EA just asserts that grazing will benefit whitetail and pheasant. Even if one agreed with this assertion, the EA makes no attempt to quantify how many more deer or pheasant might result from this risky vegetation manipulation. Will we see two more deer? Hundreds? Is it worth the risking the potential impacts that grazing may have on the land and other species?

f The EA basically ignores most wildlife. Wildlife is more than whitetail deer. What species of, bees, butterflies, birds, rodents, etc. might use and require non-grazed habitat?

For instance, there are many native bee species that nest in the ground. How will grazing affect these species? What species are even here? How about hiding cover for small mammals, and other species? If you remove this "dense" vegetation, you make these species more vulnerable.

The EA does mention the meadow jumping mouse as a rare species found in the area, but asserts that it would benefit from grazing, again with no documentation. The EA proclaims that “Improved habitat structure and forage quality resulting from the proposed grazing are expected to benefit this species.”

It is not clear how grazing could benefit the species when on the MDFWP web site, the meadow jumping mouse is known to be “found in dense, tall and lush grass.” And “preferring relatively **dense vegetation** in open grassy and brushy areas of marshes, meadows, swamps, open conifer forest, and often favor sites bordered by small streams. http://fieldguide.mt.gov/detail_AMAFH01010.aspx

Similarly, according to MDFWP WMA site description, Elk Island is home to sharptail grouse. Sharptail grouse are definitely impacted by livestock grazing, and the elimination of hiding cover needed to protect them from predators. The MDFWP species description describe sharptail grouse as being negatively impacted by “intense grazing” which can “eliminate native grasses required for shelter, protection from predators, night roosting and spring nesting; dense trees and shrubs are needed for food, rest, escape, cover and winter survival.”
http://fieldguide.mt.gov/detail_ABNLC13030.aspx

The Hayden’s Shrew- Sorex haydeni—is listed as potentially being found at Elk Island WMA. It is listed as a species of concern on the MDFWP web site. What could be the impacts of livestock grazing upon this species? I think attention should be given to this species.

Similarly the Southern Red Back Vole is found along the lower Yellowstone at Elk Island WMA. The species is relatively common in western Montana, but is not common at all in the plains. According to the MDFWP this is a disjunct population and perhaps even genetically unique. Little is known about its habitat preferences on the plains, but given its apparent rarity on the plains, more consideration should be given to the impacts grazing may have upon this species. http://fieldguide.mt.gov/detail_AMAFF09020.aspx

According to one source in its preferred habitat, it tends to be found in “areas with large amount of ground cover.”
http://www.natureserve.org/explorer/servlet/NatureServe?searchName=Myodes%20gapperi
This would suggest that removing “dense” “decadent” vegetation by grazing may have a detrimental impact on the species.

In addition cowbirds are known to exist in this area.
http://fwp.mt.gov/fishAndWildlife/wma/siteDetail.html?id=283663

Since the proposed action is a three year rest rotation, livestock will be present in the spring and summer months and could attract additional cowbirds into the area. Cowbirds are well known as nest parasites. Will the presence of cattle increase the presence of cowbirds with a detrimental impact on nesting songbirds? No analysis of this potential is given.

g Second, while the document acknowledges that grazing might spread weeds, the solution is to spray herbicides. Is this the way to manage weeds? Isn’t it better not to create conditions favorable to the spread of weeds in the first place rather than reacting to them?

Weeds are a major threat to all wildlife. And livestock are well known as one of the major vectors for the spread of weed. Furthermore, the disturbance of soil and removal of "dense" vegetation opens up the landscape to colonization by weeds. So the grazing goals are likely to facilitate the establishment of weeds.

Third, the real costs of this threat are not given full consideration. We may be treating this area forever if an aggressive weed species is established. We are going to take this risk to provide slightly better forage for whitetail deer?

h Fourth, the EA makes light of water pollution resulting from grazing, justifying the pollution by saying that cattle are polluting the rest of the river. I find that a poor justification for even more pollution. Shouldn’t FWP be reducing such pollution rather than contributing to it. Livestock are known to spread infectious disease through water.

i The presence of hormones, pesticides and antibiotics in the manure can have negative impacts on soils. For instance “The impact of manure and urine on soil from livestock is not simply one of perturbing nutrient cycles. Additives such as copper, zinc, antihelminthics and antibiotics or other veterinary treatments are given to animals. The presence of Cu and Zn can make manure unsuitable for use as a fertilizer on other farms and metals such as these pose a long-term risk in pasture soils because they can accumulate and are only slowly removed by leaching or offtake in vegetation. Heavy metals have been shown to reduce the microbial life and diversity in soil (Griffiths, 2000) and the activity of N-fixers in particular (Giller, 1999).” http://agriculture.de/acms1/conf6/ws4lives.htm

Fifth, the EA suggests that "hoof action" will benefit the soils. Numerous studies have documented that hoof action from livestock has a detrimental impact upon soils. By compacting soils, the active layer where the majority of soil microbes are found is compressed, leaving fewer habitats for these species which are responsible for breaking down vegetation. In addition compaction reduces water infiltration which may have detrimental impacts on plant communities. http://arc.lib.montana.edu/range-science/item/137 ;
http://ucanr.edu/sites/uccelr/PollutionAndWaterQuality/FactSheets/SoilSurface/

j Seventh, although I am not certain that any vegetation manipulation is needed, if one were to advocate for this kind of manipulation, wildfire may be a better choice. The EA does not consider using fire to remove dense vegetation. Prescribed burning has some benefits that

	livestock grazing does not. Fire is not selective. Cattle tend to graze favorable plants, leaving behind the less palatable species--often these are weedy species. Fire also rejuvenates vegetation and would achieve the desired vegetation management, but without having to maintain fences, and risk the introduction of weeds. Fire also does not compact the soil as with livestock, nor pollute the water.
k	Eighth, while it's not clear from EA whether any cottonwood/willow habitat will be affected, certainly there is ample evidence that livestock can negatively impact such habitat which is important to many wildlife species. If no cottonwood/willow will be affected, this should be made clearer in the EA.
l	In summary, ungrazed landscapes are in much shorter supply in eastern Montana. That MDFWP would jeopardize such habitat to facilitate the slight increase in production of whitetail deer or pheasant seems foolish. The EA has not demonstrated a significant need for grazing the WMA.
m	I believe the EA is inadequate and is full of unquestioned assumptions. I suggest the Dept. do a full EIS at a minimum so that the full costs of this action can be considered. George Wuerthner Box 5163 Helena, Montana 59607
10	**From:** Bert Otis [otisranch@wispwest.net] **Sent:** Monday, February 11, 2013 7:25 AM **To:** Foster, Melissa **Subject:** Elk Island Wildlife Management Area Dear Fish Wildlife & Parks Commission, I support Alternative C - Provide grazing lease on the Elk Island Wildlife Management Area. This proposed action will improve the habitat more then Alternative B, with less or no conflicts with wildlife. Early spring & Fall grazing has less impact then most management tools, and most of the time has great benefits. Thank You Bert Otis PO Box 60 Emigrant, MT 59027 otisranch@wispwest.net

11	**From:** Glenn Hockett [glhockett@bresnan.net] **Sent:** Tuesday, February 19, 2013 3:12 PM **To:** Foster, Melissa **Cc:** Northrup, Rick; GWA Board [glhockett@bresnan.net] **Subject:** Elk Island WMA Livestock Lease Feb. 19, 2013 Melissa Foster Montana Fish, Wildlife & Parks P. O. Box 342 Wibaux, MT 59353 (mfoster@mt.gov) **Subject**: Draft EA: Elk Island WMA Livestock Lease Dear Ms. Foster:
a	The Gallatin Wildlife Association (GWA) is a non-profit volunteer wildlife conservation organization representing hunters and anglers in Southwest Montana and elsewhere. Our mission is simply to protect habitat and conserve fish and wildlife. GWA supports sustainable management of all fish and wildlife populations through fair chase public hunting and fishing opportunities that will ensure these traditions are passed on for future generations to enjoy. We are commenting separately on this and three other current EAs for managing agricultural use or grazing on our public wildlife areas. These EAs have much in common. Consequently, our 4 letters contain much repeated information. The three WMAs, subjects of these four EAs, are outside our region of Montana and our members have little or no personal experience on the areas. Thus, we apologize if we are making any incorrect assumptions. We understand that the primary purposes of these WMAs are to support populations and facilitate hunting of white-tailed deer, ring necked pheasants and wild turkeys. Secondary purposes are to benefit a diversity of wildlife expected to inhabit the Yellowstone River valley. **I Issues for all four EAs.**
b	1. There are no references to any scientific literature indicating positive or negative effects of agricultural food plots, artificial nesting cover, or rest-rotation grazing on white-tailed deer, ring necked pheasants or wild turkey.
c	2. Despite years of experience with agricultural share-cropping on WMAs (9 years on 7 Sisters, 12 years on Elk Island) no local wildlife data are presented for evaluating the effectiveness of this management technique for any of the three primary wildlife species. 3. There apparently are no plans for evaluating the effectiveness of renewed or new agriculture or grazing activities on any population characteristics of any of the primary

	wildlife species. When public resources are being committed, we believe management goals should be precisely stated and goal-achievement should be measured. This is necessary for real adaptive management. It is necessary to demonstrate value in the use of public resources.
d	4. Populations of the three primary wildlife species are complexly limited. That is, limiting factors vary greatly in space and time. However, there is very little or no discussion of habitat limitations for the three wildlife species in the project area. It seems that some habitats being created or maintained by leases on the WMAs are abundant on adjacent or nearby private lands. Will duplication of these habitats provide habitat that is limiting? Might other needed habitat types be scarcer on the area landscape? All four EAs provide broad, unsubstantiated statements regarding the values of the projects to the three primary wildlife species and to many species of "other wildlife". More precise discussion of this issue is warranted. If it cannot be provided, the need for on-the-ground evaluation of these projects is emphasized.
e	5. Financial costs of alternatives are vague. Our experience is that these costs are often understated for managing private activities on our WMAs. Expected costs for weed control under the no-action alternative are not given. Personnel costs for managing and administering the projects are not provided. Costs of owning and maintaining irrigation equipment, (at least on Isaac Homestead WMA) fences and water use are not provided.
f	6. The alternative of converting these lands to natural vegetation is not explored or analyzed. There is no description of what natural vegetative succession, or wildlife benefits, will occur if any of these projects are not applied to our WMAs. The only implication given is that there will be "weeds". This seems to be largely a simplification of natural succession used to justify the projects.
	II Issues for Elk Island Grazing Lease
g	1. The descriptions of vegetative succession under the no action alternative are vague and seem to reflect only short-term trends. No data are provided to support the contention that the current "rank" vegetation is, or will remain, "suboptimal for deer and pheasants. In contrast, we suggest the benefits of grazing are overstated. At least, they are not supported by any provided literature or local data.
h	2. We support the proposal to compare habitat effectiveness of haying vs. rest-rotation grazing for wildlife. However, no information is provided on what wildlife parameters will be measured and how they will be measured. There is no study plan. We believe wildlife use of the areas must be measured, not just vegetation responses. The study plan should test a clear hypothesis and incorporate elements of randomization and replication so that reliable information may be obtained.
i	3. Rest-rotation systems are designed for long-term sustained production of livestock. Based on experience at other WMAs, initiating Alternative C will make it difficult to cease or modify this practice in the future. A less-intensive, wildlife-oriented grazing program should be analyzed and evaluated. We question if there should be cows somewhere on the WMA every year. Perhaps grazing the land every 5th year, for example, will produce a better wildlife response.
j	4. Table 3 (footnote) indicates that cattle grazing is abundant on private lands in the area of the WMA. Therefore, we suggest that grazed habitats probably are not limiting for wildlife, especially mobile species such as deer. Allowing natural succession on the WMA likely will enhance overall landscape diversity in the area.
	5. It is unclear how livestock water will be provided. Is there any FWP expense

k	associated with providing water? (We are aware of footnote 10f. But are there FWP expenses for obtaining water or providing materials for water developments?)
l	Please consider the above comments in evaluating the Seven Sisters agricultural lease. Since WMAs are relatively rare on the landscape, we must maximize their value in achieving our wildlife goals. Moreover, public funds and other resources should be used as efficiently and effectively as possible. We are under no illusion that this is a simple request. Sincerely, Glenn Hockett Volunteer President Gallatin Wildlife Association
12	**From:** katqanna@gmail.com **Sent:** Tuesday, February 19, 2013 9:43 PM **To:** Foster, Melissa **Subject:** Public Comment: Elk Island Wildife Management Area Grazing Lease Environmental Assessment Ms. Foster, cattle grazing is not beneficial to a Wildlife Management Area. The varied vegetation are necessary to herbivores and the cover, necessary for ground nesting birds, which cattle would destroy. Please manage for wildlife, not the ag/livestock industry and do not issue this grazing lease. Kathryn QannaYahu
13	February 20, 2013 Melissa Foster Montana Fish, Wildlife & Parks P.O. Box 342 Wibaux, MT 59353 (mfoster@mt.gov)
a	Please accept my comments on the Elk Island grazing lease. I also wish to be included in comments received from the Gallatin Wildlife Association. These comments are in addition to those previously submitted by the GWA. The purpose of the lease is to better manage vegetation for wildlife cover and forage. The turnout date for livestock is May and livestock are to be removed in October. The lease allows 95 AUMs on 272 acres. I am assuming that the 272 acres are on the other side of the Game Manager's residence, given the statement in the EA that said .5 miles from the Yellowstone River. The questions/concerns that I have are:
b	-This lease goes all through the growing season, how does this help wildlife?
c	-Are these cow/calf units? If they are, the utilization rate is greater than 95 AUMs.
d	This EA does not include any climate change or drought management objectives. These are

	needed. I am enclosing maps that show the area to be in extreme drought now and also last summer and fall. These maps are from The Palmer Drought Severity Index, devised in 1965, was the first drought indicator to assess moisture status comprehensively. It uses temperature and precipitation data to calculate water supply and demand, incorporates soil moisture, and is considered most effective for unirrigated cropland. It primarily reflects long-term drought and has been used extensively to initiate drought relief. It is more complex than the SPI and the Drought Monitor. The Palmer Drought Severity Index is an important climatoligical tool for evaluating the scope severity and frequency of prolonged periods of abnormally dry or wet weather. It can be used to help delineate disaster areas and indicate the availability of irrigation water supplies, reservoir levels, range condition, amount of stock water, and potential intensity of forest fires. (Nation weather Service-Climate Prediction Center). The maps that I'm enclosing show the area to be in extreme drought now, and in the same condition last August and September. How can grazing a WMA in extreme drought help wildlife? There needs to be language in the EA that addresses short and long term drought and climate change, including language that says no grazing in drought conditions. The reference page with notes that I've included gives you the basis for my concerns. Thank you for considering my comments. Nancy Schultz 420 N. 10th Ave. Bozeman, MT 59715 nancyanaconda@msn.com