Draft
Environmental Assessment

Dome Mountain Wildlife Management Area
Agricultural Lease

DRAFT
February 18, 2016

Montana Fish, Wildlife & Parks

Draft Environmental Assessment
MEPA, NEPA, MCA 23-1-110 CHECKLIST

PART I. PROPOSED ACTION DESCRIPTION

1. Type of proposed state action: Renew an agricultural (hay) lease on the Dome Mountain Wildlife Management Area for a 5 year period (2016-2021)

2. Agency authority for the proposed action:
FWP has the authority under Section 87-1-201 MCA to protect, enhance, and regulate the use of Montana's fish and wildlife resources for public benefit now and in the future. In addition, in accordance with the Montana Environmental Policy Act, Montana Fish, Wildlife & Parks (MFWP) is required to assess the impacts that any proposal or project might have on the natural and human environments. Further, MFWP's land lease-out policy, as it pertains to the disposition of interest in Department lands (89-1-209), requires and Environmental Assessment (EA) to be written for all new agricultural leases, lease extensions, or lease renewals. The FWP Commission is the appropriate level of authority to provide approval for this renewal because the value of the lease is greater than $5,000.

3. Anticipated Schedule:
The proposed agricultural lease would commence April 15, 2016, and would expire December 31, 2021. Agricultural activities would take place between April 15 and September 30 of each year depending on onset of spring conditions and availability of water for irrigation (water rights end September 30).

4. Location affected by proposed action: The agricultural field is located within the Dome Mountain Wildlife Management Area (DMWMA), which covers 4,680 acres located on the east side of the Upper Paradise Valley approximately 14 miles north of Yellowstone National Park and 30 miles south of Livingston, MT. The hay meadows subject to the proposed agricultural lease renewal are located in Park County, in Township 7 South, Range 7 East, Sections 2 and 11. The meadows encompass 150 acres south of Dailey Lake and marsh. See Appendix A for maps.

5. Project size -- estimate the number of acres that would be directly affected that are currently:

	Acres		Acres
(a) Developed:		(d) Floodplain	0
Residential	0		
Industrial (existing shop area)	0	(e) Productive:	
		Irrigated cropland	150
(b) Open Space/ Woodlands/Recreation	0	Dry cropland	0
		Forestry	0
(c) Wetlands/Riparian Areas	0	Rangeland	0
		Other	0

6. Permits, Funding & Overlapping Jurisdiction.

No permits required.

7. Narrative summary of the proposed action:

The proposed action is to continue a share-crop agreement with a long-time lessee whereby the lessee cultivates and retains the first-cutting of alfalfa and grain hay, then continues to irrigate but does not harvest the second growth alfalfa and grain hay, instead leaving the second growth for wildlife use during winter months. The benefit and purpose is primarily for wintering elk and deer, providing forage for 2,000-3,000 elk and 150-300 mule deer. The area is also used by upland game birds including sandhill cranes. This area is open to public hunting during the archery and general rifle seasons and provides opportunity for elk, deer and upland game birds.

This agricultural field has been under lease since 1986 when FWP purchased the property, and under lease with the same lessee since 1987. The lessee has maintained the fields in good condition and has fulfilled all conditions of previous leases.

Elk, mule deer, and occasional white-tailed deer use DMWMA throughout the year. Most ungulate use occurs during the winter and early spring months as most of the elk and mule deer migrate to summer range following snow melt. The agricultural field has been cultivated since before FWP acquired it in 1986, and wintering elk utilize it on a daily or near daily basis. The objective of continuing the cultivation of this field is to provide enhanced winter forage for elk and other ungulates, and to encourage wintering ungulates to remain on DMWMA rather than utilizing nearby private agricultural lands where they come into conflicts with cattle.

8. Description and analysis of reasonable alternatives:

Alternative A: **No Action:** Agricultural lease will not be renewed and agricultural lands will not be cultivated.

- Some residual alfalfa would continue to grow for some years, however weeds would become more abundant without irrigation and cultivation
- FWP would have to commit additional resources to weed management
- Forage quality would decline and wintering ungulates would be likely to spend more time utilizing private agricultural lands

Alternative B: **Proposed Action:** Agricultural lease will be renewed for the mutual benefit of lessee, MFWP, and wildlife.

- Continued availability of second growth alfalfa for use by wildlife over the duration of the renewed lease
- Continued positive relationship with local landowners in terms of providing means for cultivating hay for local cattle, and pursuing cooperative management to encourage elk to remain on DMWMA

PART II. ENVIRONMENTAL REVIEW CHECKLIST

Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment.

A. PHYSICAL ENVIRONMENT

1. LAND RESOURCES Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Soil instability or changes in geologic substructure?		X				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?		X				
c. Destruction, covering or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?		X				
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				

The proposed action would result in no changes to soil conditions since there have been agricultural activities at the location for over 30 years.

2. AIR Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Emission of air pollutants or deterioration of ambient air quality? (Also see 13 (c).)		X				
b. Creation of objectionable odors?		X				
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				
e. For P-R/D-J projects, will the project result in any discharge, which will conflict with federal or state air quality regulations? (Also see 2a.)		n/a				

The proposed action would not change the ambient air quality at the FAS. Any dust generated from crop management activities would be short in duration and limited to the plot area.

3. WATER Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?		X				
b. Changes in drainage patterns or the rate and amount of surface runoff?		X				
c. Alteration of the course or magnitude of floodwater or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?		X				
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				
l. For P-R/D-J, will the project affect a designated floodplain? (Also see 3c.)		n/a				
m. For P-R/D-J, will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a.)		n/a				

This area has been sprinkler irrigated for hay crops since before FWP acquired the lands. Cultivation includes diversion of water from two streams and possible minor impacts to ground-water from leaching of fertilizers. Runoff from sprinkler irrigation is very minor. Irrigation/cultivation here has been in practice since before MFWP acquired the lands in 1986, therefore renewing the lease will not result in any changes to impacts on surface water, ground water, run-off or other water rights. The agricultural fields are bounded by wetlands to the north and south, and do not border the Yellowstone River or tributaries.

4. VEGETATION Will the proposed action result in?	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?		X				
b. Alteration of a plant community?		X				
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?			x		yes	4a
f. For P-R/D-J, will the project affect wetlands, or prime and unique farmland?		n/a				
g. Other:		X				

Vegetation communities were altered when cultivation of this agricultural field began, however the continuation of cultivation will not involve any additional conversion or alteration of current vegetation. 4a. Lessee is responsible for using cultivation methods that minimize establishment and spread of weeds; FWP is responsible for spraying weeds on the WMA including on and adjacent to the agricultural field (see Appendix A).

5. FISH/WILDLIFE Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Deterioration of critical fish or wildlife habitat?		X				
b. Changes in the diversity or abundance of game animals or bird species?		X				
c. Changes in the diversity or abundance of nongame species?		X				
d. Introduction of new species into an area?		X				
e. Creation of a barrier to the migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		X				
h. For P-R/D-J, will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f.)		n/a				
i. For P-R/D-J, will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d.)		n/a				

The objective of this lease is to increase use of the area by wintering wildlife. Cultivation begins with the onset of spring conditions when wintering wildlife are initiating movements to summer range. Most agricultural activity occurs after the WMA opens to the public on May 15. Farming and irrigation begin prior to WMA opening but are restricted to between the hours of 9 am and 4 pm to minimize disturbance to wildlife (see Appendix A).

B. HUMAN ENVIRONMENT

6. NOISE/ELECTRICAL EFFECTS Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Increases in existing noise levels?		X				
b. Exposure of people to serve or nuisance noise levels?		X				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				

Proposed action will have no impact on noise or electrical effects. Haying equipment may temporarily increase noise levels.

7. LAND USE Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflicted with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				

The proposed action would continue agricultural use of this portion of the WMA and would not conflict with other uses of the WMA (i.e. hunting, fishing, boating, hiking etc.)

8. RISK/HEALTH HAZARDS **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		X				
b. Affect an existing emergency response or emergency evacuation plan, or create a need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?		X				
d. For P-R/D-J, will any chemical toxicants be used? (Also see 8a)		n/a				

The proposed action would not increase risks or health hazards at the WMA.

9. COMMUNITY IMPACT **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				

The proposed action would have no impact on community activities or traffic patterns within the WMA. Traffic associated with irrigation and haying is minimal.

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10. PUBLIC SERVICES/TAXES/UTILITIES Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify:		X				
b. Will the proposed action have an effect upon the local or state tax base and revenues?		X				
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Will the proposed action result in increased use of any energy source?		X				
e. Define projected revenue sources*		X				
f. Define projected maintenance costs.*		X				

Proposed action will have no impact on public services/taxes/utilities. Maintenance costs are limited to maintenance of irrigation system owned by MFWP. Irrigation system was replaced in 2009 and remains in good condition. No major maintenance costs are anticipated for the duration of this lease.

11. AESTHETICS/RECREATION Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		X				
b. Alteration of the aesthetic character of a community or neighborhood?		X				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report.)		X				
d. For P-R/D-J, will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c.)		n/a				

Since the location of the proposed action has been used for the cultivation of crops for numerous years, the continuation of the agricultural lease would not alter any new areas within the WMA and not interfere with existing recreation activities at the WMA. Under the proposed action, no alteration of the current landscape would occur.

12. CULTURAL/HISTORICAL RESOURCES Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Destruction or alteration of any site, structure or object of prehistoric, historic, or paleontological importance?		X				
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				
d. For P-R/D-J, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a.)		n/a				

MFWP's proposed lease renewal is not expected to impact on any cultural or historical resources. If any artifacts or sensitive sites are discovered, MFWP will contact the State Historic Preservation Office staff for the identification and protection of cultural or historic resources as required by Montana law (22-3-433 MCA, Montana Antiquities Act).

SIGNIFICANCE CRITERIA

13. SUMMARY EVALUATION OF SIGNIFICANCE Will the proposed action, considered as a whole:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources that create a significant effect when considered together or in total.)		X				
b. Involve potential risks or adverse effects, which are uncertain but extremely hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				
f. For P-R/D-J, is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e.)		n/a				
g. For P-R/D-J, list any federal or state permits required.		n/a				

PART III. NARRATIVE EVALUATION AND COMMENT

The action proposed by this environmental assessment is the renewal of a successful agricultural lease that covers 150 acres of the Dome Mountain Wildlife Management Area. This lease, first entered into in 1986 after FWP acquired the lands, has as its objective increased forage for wintering elk and mule deer while allowing production of hay for local use. See Appendix A for Cooperative Management Agreement.

During the renewal process for the previous lease, there was public concern over whether elk utilize this agricultural field sufficiently to warrant continuing the lease. Additionally, concerns have been expressed by the lessee over elk presence during summer months. Specifically these concerns were about the impact summer elk use may have on availability of forage for wintering elk, and whether summer utilization compromises the effectiveness of the agricultural field in attracting and holding elk during winter months. Summer presence of elk is a recent change. In response to both of these concerns, the agricultural field was monitored with two trail cameras during winter months for the past 3 years, and year round for the past 2 years. The trail cameras were stationed at each end of the field and programmed to take photos every 15 minutes from daybreak to nightfall. Additionally the cameras had motion sensors and took pictures if animals moved by them during the night. The resulting collection of photos is extensive and provides documentation that elk make use of the agricultural field almost every day from January through mid-April with varying use in late April and May depending on snowmelt. Time spent on the field increased in late winter/early spring when the alfalfa field begins to green up. During summer, elk were documented on the agricultural field sporadically during summer 2015, but with more frequency during Summer 2014. Elk summer use ranged in numbers from a handful of elk to approximately 100 elk, and in intensity varying from less than weekly to daily during portions of August 2014.

The conclusions of the trail camera monitoring are that the agricultural field is heavily utilized by large numbers of elk and frequently used by small numbers of mule deer and white-tailed deer during the winter and early spring months. Additionally, we corroborated the lessee's reports that elk utilize the agricultural field throughout the year. Given the heavy utilization by elk through the winter months, there is no indication that the recent levels of summer foraging has compromised the value of the agricultural field for wintering wildlife. Photos provided by the lessee to document forage growth at the end of September 2014, after the summer of highest elk utilization, show abundant crops remaining for use by wintering wildlife (Appendix B). Additionally, trail camera photos document that elk utilization did not decrease during Winter 2015 following increased summer elk presence during Summer 2014. Crop production was high in 2014 due to good growing conditions. If summer utilization increases substantially, combined with variable growing conditions, concerns for forage availability remaining for wintering wildlife could become a valid concern. The lessee will continue to report observations of elk utilization and cattle trespass. Trail camera monitoring will be scaled back to occasional monitoring unless there are indications of substantial changes in utilization of the field.

PART IV. PUBLIC PARTICIPATION

1. Public involvement:

The public will be notified in the following manners to comment on this EA, the proposed action and alternatives:

- Two public notices, one in the Livingston Enterprise and one in the Bozeman Chronicle
- Public notice on the Fish, Wildlife & Parks web page: *http://fwp.mt.gov*.

Copies of this environmental assessment will be distributed to the neighboring landowners and interested parties to ensure their knowledge of the proposed project.

This level of public notice and participation is appropriate for a project of this scope having limited impacts, many of which can be mitigated.

2. Duration of comment period:

The public comment period will extend for (30) days following the publication of the legal notice area newspapers. Comments will be accepted until 5:00 pm, March 18, 2016 by mail or email at the addresses listed below (Part V, 2).

PART V. EA PREPARATION

1. Based on the significance criteria evaluated in this EA, is an EIS required? (YES/NO)? NO
If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action.
The proposed action will not have a significant adverse impact on the local environment; it is a continuation of an arrangement that has proven beneficial for wildlife habitat and agriculture for the past 30 years.

2. Person(s) responsible for preparing the EA:
Karen Loveless
Livingston Area Biologist
1400 South 19th Ave Bozeman, MT
406-333-4211
kloveless@mt.gov

3. List of agencies or offices consulted during preparation of the EA:

Montana Fish Wildlife & Parks:
- Fisheries Division
- Wildlife Division
- Lands

Montana Historical Society

APPENDICES
A. Area description and maps
B. Cooperative management agreement terms
C. Photos of Agricultural Field at completion of cultivation, September 2014