CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	CRP Break Request – Lease 5756
Proposed Implementation Date:	Spring 2023
Proponent:	Adam Hemry
Location:	ALL, Section 36, T26N, R2E
County:	Teton, MT
Trust:	Common Schools

I. TYPE AND PURPOSE OF ACTION

Adam Hemry proposes the breaking and conversion of 512.90 Conservation Reserve Program (CRP) acres out of the 561.70 CRP acres under expired CRP contract 11000 on state land lease 5756, referred to herein as the "Project". See **Attachment A – Project Location Map** for proposed break acres.

The CRP contract, No. 11000, expired on 9/30/2022. The previous lessee originally re-bid the CRP "as is" but it was rejected by the Natural Resource Conservation Service (NRCS) as it did not meet their minimum standards. In order for the tract to be put back into CRP it needed to be sprayed and re-planted, which the previous lessee did not have farm equipment to do so. The lease was then transferred to the current lessee for the purpose of converting the CRP to agricultural land for small grain production.

The purpose of the conversion from CRP acres to agricultural production acres is to increase the overall revenue on lease 5756 for the Common Schools Trust while maintaining the Department of Natural Resources and Conservation (DNRC) land sustainability goals. The Project is expected to occur in the Fall of 2022.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

The Project is located on state-owned land, lease 5756 in Teton County, MT. Adam Hemry (Lessee) is the proponent. Agencies involved in the Project include the Natural Resources Conservation Service (NRCS) United States Department of Agriculture (USDA), Teton County Farm Services Agency (FSA), Montana Fish, Wildlife, and Parks (FWP), Montana Salinity Control Association (MSCA), Montana Audubon Society, and the DNRC, Trust Lands Management Division (TLMD).

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

It is the DNRC's understanding that the Lessee will abide by the stipulations under their USDA-NRCS Conservation Plan as determined by the USDA. The DNRC is not aware of any other permits required for the Project on state land described as ALL, Section 36, T26N, R2E.

3. ALTERNATIVES CONSIDERED:

Alternative A (Proposed Action): Grant the Lessee permission to break and convert 512.90 expired CRP acres to agricultural land for small grain production.

Alternative B (Deny Break/Graze CRP): Deny the Lessee permission to break and convert 512.90 expired CRP acres to agricultural land for small grain production and reclassify land use to grazing.

Alternative C (No Action): Deny the Lessee permission to break and convert 512.90 expired CRP acres to agricultural land for small grain production and require them to re-seed and apply for CRP again.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

Soil Properties:

There are eight main soil types found within the Project footprint that would be broken for small grain production.

40B – Kobase silty clay loam, 0 to 4 percent slopes:

The Project area contains approximately 222.90 acres of this soil type. These soils consist of well-drained soils that can be found in landforms such as alluvial fans. The depth to paralithic bedrock is more than 80 inches. Available water capacity is about 9.7 inches; the mean annual precipitation for this region is 11 to 14 inches. The NRCS Web Soil Survey (WSS) farmland classification for this soil type is "farmland of statewide importance" (Soil Survey of Choteau – Conrad Area; Parts of Teton and Pondera Counties, Montana). **See Table 1 - NRCS Soil Characteristics**, below for further information.

40C – Kobase silty clay, 4 to 8 percent slopes:

The Project area contains approximately 164.80 acres of this soil type. These soils consist of well-drained soils that can be found in landforms such as alluvial fans. The depth to paralithic bedrock is more than 80 inches. Available water capacity is about 9.7 inches; the mean annual precipitation for this region is 11 to 14 inches. The NRCS WSS farmland classification for this soil type is "farmland of statewide importance" (Soil Survey of Choteau – Conrad Area; Parts of Teton and Pondera Counties, Montana). **See Table 1 - NRCS Soil Characteristics**, below for further information.

44B – Marias silty clay, 0 to 4 percent slopes:

The Project area contains approximately 7.20 acres of this soil type. These soils consist of well-drained soils that can be found in landforms such as till plains. The depth to paralithic bedrock is more than 80 inches. Available water capacity is about 8.5 inches; the mean annual precipitation for the region is 11 to 14 inches. The NRCS WSS farmland classification for this soil type is "not prime farmland" (Soil Survey of Choteau – Conrad Area; Parts of Teton and Pondera Counties, Montana). **See Table 1 - NRCS Soil Characteristics**, below for further information.

61F – Hillon clay loam, 15 to 60 percent slopes:

The Project area contains approximately 2.10 acres of this soil type. These soils consist of well-drained soils that can be found in landforms such as hillslopes. The depth to paralithic bedrock is more than 80 inches. Available water capacity is about 9.4 inches; the mean annual precipitation for the region is 10 to 14 inches. The NRCS WSS farmland classification for this soil type is "not prime farmland" (Soil Survey of Choteau – Conrad Area; Parts of Teton and Pondera Counties, Montana). **See Table 1 - NRCS Soil Characteristics**, below for further information.

163D – Hillon – Kevin clay loams, 4 to 15 percent slopes:

The Project area contains approximately 36.90 acres of this soil type. These soils consist of well-drained soils that can be found in landforms such as moraines. The depth to paralithic bedrock is more than 80 inches. Available water capacity is about 9.4 inches (Hillon) and about 10.0 inches (Kevin); the mean annual precipitation for the region is 10 to 14 inches. The NRCS WSS farmland classification for this soil type is "not prime farmland" (Soil Survey of Choteau – Conrad Area; Parts of Teton and Pondera Counties, Montana). **See Table 1 - NRCS Soil Characteristics**, below for further information.

240B – Kobase – Marias complex, 0 to 4 percent slopes:

The Project area contains approximately 73.30 acres of this soil type. These soils consist of well-drained soils that can be found in landforms such as till plains and alluvial fans. The depth to paralithic bedrock is more than 80 inches. Available water capacity is about 9.7 inches (Kobase) and about 8.5 inches (Marias); the mean annual precipitation for the region is 11 to 14 inches. The NRCS WSS farmland classification for this soil type is

"not prime farmland" (Soil Survey of Choteau – Conrad Area; Parts of Teton and Pondera Counties, Montana). See **Table 1 - NRCS Soil Characteristics**, below for further information.

400 – Havre – Fairway loams, 0 to 4 percent slopes, rarely flooded:
The Project area contains approximately 5.3 acres of this soil type. These soils consist of well-drained soils that can be found in landforms such as floodplains. The depth to paralithic bedrock is more than 80 inches. Available water capacity is about 9.0 inches; the mean annual precipitation for the region is 12 to 14 inches. The NRCS WSS farmland classification for this soil type is "farmland of statewide importance" (Soil Survey of Choteau – Conrad Area; Parts of Teton and Pondera Counties, Montana). **See Table 1 - NRCS Soil Characteristics**, below for further information.

540B – Marvan silty clay, wet, 0 to 4 percent slopes:
The Project area contains approximately 0.4 acres of this soil type. These soils consist of well-drained soils that can be found in landforms such as till plains. The depth to paralithic bedrock is more than 80 inches. Available water capacity is about 8.3 inches; the mean annual precipitation for the region is 11 to 14 inches. The NRCS WSS farmland classification for this soil type is "not prime farmland" (Soil Survey of Choteau – Conrad Area; Parts of Teton and Pondera Counties, Montana). **See Table 1 - NRCS Soil Characteristics**, below for further information.

Table 1 – NRCS Soil Characteristics

Soil	~Acres	Land Capability Class	T-Factor (tons/ac/yr)	WEG[1]	Estimated Barley Yield (bu/ac)	Estimated WW[2] Yield (bu/ac)	Estimated SW[3] Yield (bu/ac)
40B	222.90	4e	5	4L	58.00	39.00	35.00
40C	164.80	4e	5	4	56.00	38.00	34.00
44B	7.20	4e	5	4	49.00	32.00	29.00
61F	2.10	7e	5	4L	0.00	0.00	0.00
163D	36.90	4e	5	4L	51.00	34.00	30.50
240B	73.30	4e	5	4	53.50	35.50	32.00
400	5.30	3.5e	5	4L	63.00	43.00	38.50
540B	0.40	6w	5	4	48.00	26.00	23.00
Total/ Weighted Average	512.90	4.01	5.00	4.00	55.89	37.59	33.73

Land Capability Class:
Land capability classification shows, in a general way the suitability of soils for most kinds of field crops. The scale is from 1 to 8; with 1 being the most suitable and 8 being the least suitable. Class 4 soils are described as having very severe limitations that restrict the choice of plants or that require very careful management, or both.

Typical crop production in this region consists mainly of grains (barley, winter wheat, and spring wheat). Over a 10-year period (2012-2021) barley production in Teton County averaged 69.00 bu/ac, winter wheat production averaged 50.58 bu/ac, and spring wheat (excluding durum) production averaged 39.71 bu/ac. See **Table 2** – **USDA National Agricultural Statistics Summary**. It can be inferred, from the region's yields and productivity status that the choice of plants (i.e. barley, winter wheat, and spring wheat) appear to be on average suitable for the soil conditions described above.

[1] Wind Erodibility Group (WEG)
[2] Winter Wheat (WW)
[3] Spring Wheat (SW)

Table 2 – USDA National Agricultural Statistics Summary Teton County[4]

Year	Barley (Bu/ac)	WW (Bu/ac)	SW (Excluding Durum) (Bu/ac)
2012	64.30	33.20	29.90
2013	64.20	44.70	34.40
2014	73.70	53.30	44.80
2015	72.10	49.30	29.80
2016	72.20	60.90	40.20
2017	63.50	48.30	35.70
2018	66.40	56.70	53.20
2019	84.30	55.90	44.90
2020	76.80	65.40	48.50
2021	52.50	38.10	35.70
Average	69.00	50.58	39.71

Soil Stability:

T-Factor:
The T-Factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. A T-Factor of 1 indicates that the soils are fragile and are more susceptible to damage by erosion, a T-Factor of 5 is for deeper soils that have a low susceptibility to damage by erosion. The soils have a T-Factor of 5 indicating a low susceptibility to erosion. It is inferred that the practice of No-Till farming would be applied to the Project, as it is a current land use practice of the Lessee. It is expected that a No-Till practice would reduce the potential for erosion by wind and/or water.

WEG:
WEG consists of soils that have similar properties affecting their susceptibility to wind erosion in a cultivated area. Soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The soils have a WEG rating of 4 indicating a moderate susceptibility to erosion. It is inferred that the practice of No-Till farming would be applied to the Project, as it is a current land use practice of the Lessee. It is expected that a No-Till practice would reduce the potential for erosion by wind and/or water.

Suitability for Use:

Soil Comparison:
Adam Hemry has been a Lessee for the state for 6 years under leases 2488, 7113, 3509, and 6720 located in Sections 3 & 10 of T26N, R1E; referred hereafter as leases in T26N R1E. A review of the soil characteristics on the leases in T26N, R1E indicates the Lessee has experience farming similar soils to the ones found within the Project footprint. See **Table 3 – Soil Characteristic Comparison**. Due to the similar soils between the Project and the Lessee's leases in T26N, R1E, it is expected that any future grain production within the Project footprint would be similar to the production of the leases in T26N, R1E.

[4] Values obtained from the USDA National Agricultural Statistics Services are an average of non-irrigated and irrigated yields for Teton County, MT since non-irrigated yield data was not consistent. This can result in higher yields than non-irrigated yields.

Table 3 – Soil Characteristic Comparison[5]

	CRP for Break	Leases in T26N, R1E
Land Capability Class	4.01	3.42
T-Factor (tons/ac/yr.)	5.00	5.00
WEG	4.00	5.17
Estimated Barley Yield (bu/ac)	55.89	56.18
Estimated WW Yield (bu/ac)	37.59	37.82
Estimated SW Yield (bu/ac)	33.73	33.87

Grain Crop Yields:
A review of the Lessee's production reports for the last 6 years on the leases in T26N, R1E indicated that his spring wheat production was 46.37 bu/ac, over 4 years, and his winter wheat production was 52.04 bu/ac, over 6 years. **See, Table 4 – Lessee's 6 – Year Production History of Leases in T26N, R1E**.

Table 4 – Lessee's 6 -Year Production History of Leases in T26N, R1E

Year	Crop	Total Yield	Unit	Unit Price	Acres	Yield/Acre	Revenue
2016	Summer Fallow	0.00	Acres	$0.00	372.20	0.00	$0.00
2016	Spring Wheat	4161.71	Bushels	$3.90	80.00	52.02	$4,035.14
2016	Winter Wheat	17376.00	Bushels	$3.00	272.00	63.88	$12,853.00
2017	Summer Fallow	0.00	Acres	$0.00	351.66	0.00	$0.00
2017	Winter Wheat	16939.00	Bushels	$4.00	372.00	45.53	$17,250.00
2018	Summer Fallow	0.00	Acres	$0.00	372.18	0.00	$0.00
2018	Winter Wheat	18240.00	Bushels	$5.00	352.00	51.82	$24,338.00
2019	Summer Fallow	0.00	Acres	$0.00	315.99	0.00	$0.00
2019	Winter Wheat	20112.28	Bushels	$3.69	372.20	54.04	$18,540.62
2019	Spring Wheat	995.12	Bushels	$3.49	35.71	27.87	$863.26
2020	Summer Fallow	0.00	Acres	$0.00	407.91	0.00	$0.00
2020	Winter Wheat	8764.28	Bushels	$4.29	158.80	55.19	$9,346.50
2020	Spring Wheat	10310.34	Bushels	$4.05	157.15	65.61	$10,377.68
2021	Summer Fallow	0.00	Acres	$0.00	315.95	0.00	$0.00
2021	Winter Wheat	10358.08	Bushels	$7.96	247.80	41.80	$20,419.76
2021	Spring Wheat	6400.80	Bushels	$9.00	160.11	39.98	$14,370.72

A comparison between the Lessee's active production years and the same production years in Teton County indicated that the Lessee on average produces similar yields (bu/ac) for winter wheat to Teton County averages and a similar yield (bu/ac) for spring wheat to Teton County averages. See, **Table 5 – Lessee's Production Comparison of Leases in T26N, R1E to Teton County**.

[5] Values obtained in Table 3 are weighted averages of farmable soil on the proposed CRP acres for break and the Lessee's current existing leased acreage for leases in T26N, R1E. For the full analysis refer to **Attachment B – Soil Characteristic Comparisons**.

Table 5 – Lessee's Production Comparison of Leases in T26N, R1E to Teton County [6]

Year	Leases in T26N, R1E Production		Teton County Production	
	WW (bu/ac)	SW (bu/ac)	WW (bu/ac)	SW (bu/ac)
2016	63.88	52.02	60.90	40.20
2017	45.53		48.30	
2018	51.82		56.70	
2019	54.04	27.87	55.90	44.90
2020	55.16	65.61	65.40	48.50
2021	41.80	39.98	38.10	35.70
Average	52.04	46.37	54.22	42.33

Past data indicates that the Lessee has had successful production of grain crops on similar soils as the Project soils. It is assumed that the Lessee would potentially have the same agricultural production success rate on the 512.90 expired CRP acres requested for break.

BMPs:
The Lessee has land-use practices that consist of No-Till and a 50/50 summer fallow rotation, as seen in Table 4 above. The Lessee will be required to follow all stipulations under their USDA-NRCS Conservation Plan. Additionally, the Lessee by law has to abide by stipulations imposed on the lease by the DNRC TLMD, any violation of the lease stipulations would result in the cancelation of the lease.

Per Administrative Rule of Montana (ARM) **36.25.121 (1):**

> The department may cancel any lease or license if the lessee or licensee commits fraud or misrepresents facts to the department which, if known, would have had an effect on the issuance of the lease or license, uses the land for any purpose not authorized in the lease or license, or violates the terms of the lease or license or these rules, **fails to manage the land in a husband like manner consistent with conservation of the land resources and the perpetuation of its productivity**, or for any other reason provided by law. The lessee or licensee of a canceled lease or license shall not be entitled to any refunds or exemptions from any payments due to the state.

Determination:

Alternative A:
Effect, Not Likely to Adversely Effect. Soil-breaking activities for conversion to small grain production have the potential to impact soils. Through an analysis and comparison of soil characteristics, the Lessee's yield success rate over time on his leases in T26N, R1E, and his farming practices (BMPs), the conversion of the 512.90 expired CRP acres to agricultural grain production is not expected to result in negative cumulative impacts on soils that would render them unsuitable for future use.

Alternative B & C:
No Effect. Soil degradation is not expected for activities that do not include soil breaking and therefore, cumulative impacts on soils are not expected.

[6] Note; this table does not include the production year 2022 as the USDA Agricultural Statistics does not yet have data for this year.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:
Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

Surface or Groundwater Resources:
There is a Place of Use water right (41P 161818) within the Project footprint and there is a Surface Water Diversion water right (41O 137499) approximately 270 feet from the Project footprint, per the DNRC, Water Rights Query. For additional information on DNRC water rights, go to http://wrqs.dnrc.mt.gov/default.aspx. Flat Coulee, a tributary to the Teton River, runs north to south on Section 36, T26N, R2E with plans to farm around it. The Lessee has no plans to irrigate the tract at this time.

A review of the proposed Project by the MSCA, Roger Paulsen, determined that the "[M]SCA looked at Google Earth pictures from 2022 to 2005, and did not see anything that looks saline. There is a spot in the SW1/4 that looked saline, but it was listed as a gravel pit[7] in the topo map" (Roger Paulsen, 2022).

BMPs:
It is inferred that the practice of No-Till farming would be applied to the Project, as it is a current land use practice of the Lessee on his leases in T26N, R1E. It is expected that a No-Till practice would reduce the potential for agricultural run-off.

The Lessee by law has to abide by stipulations imposed on the lease by the DNRC TLMD, any violation of the lease stipulations would result in the cancelation of the lease. See ARM **36.25.121 (1)** discussed above in **Section 4**. Additionally, the Lessee will be required to follow all stipulations under their USDA-NRCS Conservation Plan.

Determination:

Alternative A:
Effect, Not Likely to Adversely Effect. The Project has the potential to increase agricultural run-off into nearby water features, however, with the implementation of the USDA-NRCS Conservation Plan, cumulative impacts are not expected.

Alternative B and C:
No Effect. Impacts on water features are not expected for activities that do not include soil breaking and therefore, cumulative impacts on water features are not expected.

6. AIR QUALITY:
What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

Air Quality:
There are no Nonattainment areas located on or near the Project per the Environmental Protection Agency (EPA) Nonattainment area maps (NEPAssist, 2022). The breaking of the 512.90 expired CRP acres has the potential to cause dust particles to become airborne.

BMPs:
The Lessee will be required to follow all stipulations under their USDA-NRCS Conservation Plan.

Determination:

Alternative A:
Effect, Not Likely to Adversely Effect. The Project has the potential to cause temporary dust particles to become airborne during soil-breaking activities. Since the activity is temporary the Project is not expected to result in long-term negative cumulative impacts on air quality.

[7] The gravel pit located in the SW1/4 was recorded by the DNRC in 1985 and by 1995 it was removed and the land was in agricultural production.

Alternative B & C:
No Effect. Impacts on air quality are not expected for activities that do not include soil breaking and therefore, cumulative impacts on air quality are not expected.

7. VEGETATION COVER, QUANTITY AND QUALITY:
What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

Vegetative Community:
Vegetation within the Project footprint consists of an established CRP stand; a site visit conducted by DNRC staff on 08/28/20214 determined the CRP consists of 50% crested wheatgrass (*Agropyron cristatum*), 10% various wheatgrass species (*Agropyron*), 30% smooth brome (*Bromus inermis*), and 10% alfalfa (*Medicago sativa*). The surrounding land consists of agricultural dryland. Currently, the existing 561.70 expired CRP acres are not set up for grazing as there is no fencing to separate the Project acres from adjacent land. However, if the Lessee were to install fencing, and not convert the proposed 512.90 expired CRP acres to grain production, potential grazing conditions for this vegetation community would be set at an approximate base rate of 0.7 animal unit months (AUMs)/ac, for the first three years, which amounts to 393 AUMs (561.70 ac* 0.7 AUMs/ac = 393.19 AUMs). After three years the base rate would be lowered to 0.4 AUMs/ac which amounts to 225 AUMs (561.70 ac* 0.4 AUMs/ac = 224.68 AUMs).

The remaining 78.30 un-cultivated acres are native grassland; a site visit conducted by DNRC staff on 08/28/2014 determined that the vegetation community consists of 30% western wheatgrass (*Pascopyrum smithii*), 5% green needlegrass (*Nassella viridula*), 10% blue grama (*Bouteloua gracilis*), 5% Sandberg bluegrass (*Poa secunda*), 5% prairie junegrass (*Koeleria macrantha*), 5% threadleaf sedge (*Carex filifolia*), 10% needle and thread (*Hesperostipa comata*), 5% fringed sagewort (*Artemisia frigida*), 5% winterfat (*Krascheninnikovia lanata*), 5% various forbs, and 10% invasive grasses. Grazing conditions for the native grassland were set at 0.34 AUMs/acre, which amounts to 27 AUMs (78.30 ac * 0.34 = 26.62).

The Natural Heritage Program database did not indicate any plant species of concern within T26N, R2E.

BMPs:
The Lessee by law has to abide by stipulations imposed on the lease by the DNRC TLMD, any violation of the lease stipulations would result in the cancelation of the lease. See ARM **36.25.121 (1)** discussed above in **Section 4**. Additionally, the Lessee will be required to follow all stipulations under their USDA-NRCS Conservation Plan.

Determination:

Alternative A:
Effect, Likely to Adversely Effect. Conversion of the 512.90 expired CRP acres to agricultural land for small grain production will result in a permanent impact on the vegetative community, which has the potential to result in cumulative effects.

Alternative B:
Effect, Not Likely to Adversely Effect. Grazing of the 512.90 expired CRP acres has the potential to result in impacts to the vegetative community through trampling and/or removal of vegetation, however, with the DNRC's lease stipulations, it is not expected to result in cumulative impacts.

Alternative C:
No Effect. Impacts on the vegetative community are not expected for activities that do not include soil breaking or grazing and therefore, cumulative impacts on the vegetative community are not expected.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:
Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

Habitat:
The Project site is not considered Critical Habitat per the EPA. The 512.90 expired CRP acres provide habitat for a variety of big game species, predators, upland game birds, ground nesting birds, and small mammals.

A review of the proposed Project by FWP, Ryan Rauscher, Wildlife Biologist, determined that "[a]ny loss of permanent vegetative cover and conversion to grain production will not be positive for wildlife species, and specifically problematic for ground nesting birds, small mammals, upland game birds, deer and antelope populations in the area. Given that this parcel is near the Teton River and Flat Coulee, the net loss of permanent cover reduces the wildlife values on a larger scale than just the parcel itself. Because of those considerations, I would ask that DNRC not allow the tract to be broken" (Ryan Rauscher, 2022).

BMPs:
The Lessee by law has to abide by stipulations imposed on the lease by the DNRC TLMD, any violation of the lease stipulations would result in the cancelation of the lease. See ARM **36.25.121 (1)** discussed above in **Section 4**. Additionally, the Lessee will be required to follow all stipulations under their USDA-NRCS Conservation Plan.

Determination:

Alternative A:
Effect, Likely to Adversely Effect. The Project has the potential to impact wildlife species through the reduction of habitat, given the analysis by Ryan Rauscher, the Project is expected to result in cumulative impacts on habitat and the wildlife species that depend on them.

Alternative B:
Effect, Not Likely to Adversely Effect. Livestock grazing has the potential to impact wildlife species through trampling and/or removal of vegetation and interactions that can cause displacement, however, due to the DNRC's lease stipulations, it is not expected to result in cumulative impacts.

Alternative C:
No Effect. Impacts on wildlife habitats are not expected for activities that do not include soil breaking or grazing and therefore, cumulative impacts to habitat are not expected.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:
Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

Species of Concern/Threatened/Endangered:
Federally listed mammal species that occur in Montana include Black-footed Ferret (*Mustela nigripes*), Canada Lynx (*Lynx canadensis),* Grizzly Bear (*Ursus arctos horribilis*), and Northern Long-eared Bat (*Myotis septentrionalis*). Federally listed avian species that occur in Montana include Piping Plover (*Charadrius melodus*), Red Knot (*Calidris canutus rufa*), Whooping Crane (*Grus americana*), and Yellow-billed Cuckoo (*Coccyzus americanus*). For additional information and additional species (fish, plants, & insects) see https://ecos.fws.gov/ecp/report/species-listings-by-state?stateAbbrev=MT&stateName=Montana&statusCategory=Listed

The Natural Heritage Program database identifies the spiny softshell turtle (*Apalone spinifera*), and sauger perch (*sander canadensis)* as species of concern within T26N, R2E.

Wetlands:
The National Wetland Inventory identified one Freshwater Emergent Wetland within the Project footprint with a classification code of PEM1Ax and three Freshwater Emergent Wetlands adjacent to the Project footprint, two with a classification code of PEM1Ch, and another with a classification code of PEM1Ah. See **Attachment C –**

Wetland Map. For a complete description of wetland, classification codes go to https://www.fws.gov/wetlands/data/Mapper.html.

BMPS:
The Lessee by law has to abide by stipulations imposed on the lease by the DNRC TLMD, any violation of the lease stipulations would result in the cancelation of the lease. See ARM **36.25.121 (1)** discussed above in **Section 4**. Additionally, the Lessee will be required to follow all stipulations under their USDA-NRCS Conservation Plan.

Determination:

Alternative A:
Effect, Likely to Adversely Effect. The Project has the potential to impact wildlife species through the reduction of habitat, given the analysis by Ryan Rauscher in **Section 8** above, the Project is expected to result in cumulative impacts on habitat and the wildlife species that depend on them.

The Project will impact Freshwater Emergent Wetlands through an increase in agricultural run-off.

Alternative B:
Effect, Not Likely to Adversely Effect. Livestock grazing has the potential to impact wildlife species through trampling and/or removal of vegetation and interactions that can cause displacement, however, due to the DNRC's lease stipulations, it is not expected to result in cumulative impacts.

Alternative C:
No Effect. Impacts on wildlife habitats are not expected for activities that do not include soil breaking or grazing and therefore, cumulative impacts to habitat are not expected.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:
Identify and determine effects to historical, archaeological or paleontological resources.

Historical and Archeological Sites:
A Class I (literature review) level review was conducted by the DNRC staff archaeologist for the area of potential effect (APE). This entailed inspection of project maps, DNRC's sites/site leads database, land use records, General Land Office Survey Plats, and control cards. The Class I search revealed that no cultural or paleontological resources have been identified in the APE.

Determination:

Alternative A, B, & C:
Because the area of potential effect on state land was once cultivated, because the Holocene age soils in the APE are relatively thin, and because the local geology is not likely to produce caves, rock shelters, or sources of tool stone, no additional archaeological investigative work will be conducted in response to this proposed development. However, if previously unknown cultural or paleontological materials are identified during Project-related activities, all work will cease until a professional assessment of such resources can be made.

11. AESTHETICS:
Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

Visual and Noise:
The Project is located approximately 14.50 miles northeast of Dutton, Montana (population 224) and access is via 24th Road NE (south border) and/or 26th Lane NE (west border). The Project will not result in any above-ground structures and noise impacts will not increase in this area as a result of the Project.

Determination:

Alternative A:
Effect, Not Likely to Adversely Effect. The Project has the potential to impact visual and noise resources through the removal of the CRP and grain production activities afterward, however, due to adjacent private land being in-active grain production cumulative impacts on visual and noise resources are not expected.

Alternative B & C:
No Effect. Impacts to visual and noise resources are not expected for grazing activities or activities that do not include soil breaking and therefore, cumulative impacts to visual and noise resources are not expected.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:
Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

Limited Resources:
CRP is a limited resource for wildlife populations in the area. The CRP provides habitat for a variety of big game species, predators, upland game birds, ground nesting birds, and small mammals.

BMPs:
The Lessee by law has to abide by stipulations imposed on the lease by the DNRC, TLMD, any violation of the lease stipulations would result in the cancelation of the lease. See ARM **36.25.121 (1)** discussed above in **Section 4**.

Determination:

Alternative A:
Effect, Likely to Adversely Effect. The Project has the potential to impact wildlife species through the reduction of CRP acres, a limited resource that provides habitat. Given the analysis, by Ryan Rauscher in **Section 8** above, the Project is expected to result in cumulative impacts on limited resources.

Alternative B:
Effect, Not Likely to Adversely Effect. Livestock grazing has the potential to impact limited resources, such as CRP habitat, through trampling and/or removal of vegetation and interactions that can cause displacement of wildlife, however, due to the DNRC's lease stipulations, it is not expected to result in cumulative impacts.

Alternative C:
No Effect. Impacts to limited resources, such as CRP habitat, are not expected for activities that do not include soil breaking or grazing and therefore, cumulative impacts to habitat are not expected.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:
List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

Surrounding lands are owned by the state and private landowners with a surface use of agricultural grain production. Any future development in the area will likely be restricted to these types of land uses as well as utility development, with non-significant impacts to the surface. Future development projects are not expected to have negative cumulative impacts.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

Human Health and Safety:
Personnel involved with Project activities include the Lessee, where health and safety risks consist of the normal day–to–day farming operations.

Determination:

Alternative A, B, & C:
No Effect. Any risk to human health and safety will be restricted to the Lessee during the normal day–to–day farming operations.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

Identify how the project would add to or alter these activities.

Land Use:
Current land use on lease 5756 consists of 561.70 expired CRP and 78.30 native grazing acres that are not used. Alternative A would result in future land use consisting of 512.90 agricultural acres for small grain production and 127.10 grazing acres or Grassland CRP; Alternative B would result in the future land use consisting of 640 grazing acres; Alternative C would result in future land use consisting of an estimated 561.70 CRP acres and 78.30 grazing acres or Grassland CRP.

Potential Production:

Grain Crop Production:
Past data indicates that the Lessee has had successful production of grain crops on similar soils as the Project footprint soils. It is assumed that the Lessee would potentially have the same agricultural production success rate on the 512.90 expired CRP acres requested for break, See **Section 4** above. A review of the return rate on the Lessee's state leases in T26N, R1E indicated that the average 6-year rate of return is $30.48/acre. See **Table 4 – Lessee's 6 -Year Production History of Leases in T26N, R1E,** above.

Grazing Production:
Potential production for the state on grazing leases is dependent upon the grazing rate. Per **ARM 36.25.110(3):**

The rental rate for all grazing leases and licenses shall be on the basis of the animal-unit-month (AUM) carrying capacity of the land to be leased or licensed. The minimum annual rental rate per AUM is the weighted average price per pound of beef cattle on the farm in Montana as determined by the Montana National Agricultural Statistics Service of the U.S. Department of Agriculture (USDA Nass) for the previous year, multiplied by:

(a) 8.13 in calendar year 2012;
(b) 8.72 in calendar year 2013;
(c) 9.03 in calendar year 2014;
(d) 9.89 in calendar year 2015; and
(e) 10.48 in 2016 and all calendar year thereafter.

The 10-year average minimum grazing rate is $11.99/AUM, See **Table 6 – 10 – Year Average Minimum Grazing Rate**. AUMs are determined by the health of the vegetative community, see **Section 7** for the AUM analysis for the Project.

Table 6 – 10 – Year Average Minimum Grazing Rate

Year	Minimum Grazing Rate
2014	$9.03/AUM
2015	$9.89/AUM
2016	$10.48/AUM
2017	$14.01/AUM
2018	$11.03/AUM
2019	$13.10/AUM
2020	$12.92/AUM
2021	$13.41/AUM
2022	$12.83/AUM
2023	$13.16/AUM
Average	**$11.99/AUM**

CRP Production:
If the land went back into CRP, the stand would need to be replanted as Western Wheatgrass (*Agropyron cristatum*) makes up more than 80% of the plant community. The cost to replant the CRP would be covered by the Lessee. CRP rates are determined by the NRCS; the 2021 average rate for CRP in dryland conditions for Teton County was $40.00/acre; when applied to state land the DNRC has a 50% share of CRP production. The previous CRP contract was set at $40.00/acre and given the 2021 rate for CRP production in Teton County it is estimated that if the land went back into CRP, it would have an approximate rate of $40.00/acre which is $20.00/acre revenue for the state.

Grassland CRP Production:
Along with putting 512.90 expired CRP acres into grain production, the Lessee will potentially put the remaining expired CRP and 78.30 grazing acres into NRCS Grassland CRP. Grassland CRP rates are determined by the NRCS; the 2021 average rate for Grassland CRP in Teton County was $15.00/acre, when applied to state land the DNRC has a 50% share of Grassland CRP production. It is estimated that if the remaining un-cultivated acres went into Grassland CRP, it would have an approximate rate of $15.00/acre which is $7.50/acre revenue for the state. Note, that if the Lessee does not apply for Grassland CRP or does not qualify for the program then the remaining un-cultivated acres will be classified as grazing land with set AUMs.

Production Summary:
Based on the past data presented above, an estimated predicted value can be calculated per each Project alternative. See **Table 7 – Predicted Production Values Per Project Alternative**.

[8]Table 7 – Predicted Production Values for the DNRC Per Project Alternative

	AUMs	Rate/ AUM	Ag. Acres	Rate/ Acre	CRP Acres	Rate/ Acre	Grassland CRP Acres	Rate/ Acre	Annual Predicted Revenue for Trust
Alternative A – w/o Grassland CRP First 3 Years	61	$11.99	512.90	$30.48	-	-	-	-	$16,256.67
Alternative B – w/o Grassland CRP 3 Years After	47	$11.99	512.90	$30.48	-	-	-	-	$16,196.72
Alternative A – w/ Grassland CRP	-	-	512.90	$30.48	-	-	127.1	$7.50	$16.586.44
Alternative B – First 3 Years	420	$11.99	-	-	-	-	-	-	$5,035.80
Alternative B – 3 Years After	252	$11.99	-	-	-	-	-	-	$3,021.48
Alternative C – w/ Grazing	27	$11.99	-	-	561.70	$20.00	-	-	$11,557.73
Alternative C – w/ Grassland CRP	-	-	-	-	561.70	$20.00	78.30	$7.50	$11,821.25

Determination:

Alternative A:
Effect, Beneficial Effect. All Project alternatives will have a beneficial effect on the revenue of lease 5756 with Alternative A being the most productive and Alternative B being the least productive. However, Alternative A aligns with the Lessee's management goals which will reduce the risk of the Lessee forfeiting the lease.

Alternative B & C:
Effect, Not Likely to Adversely Effect. All Project alternatives will have a beneficial effect on the revenue of lease 5756 with Alternative A being the most productive and Alternative B being the least productive. However, Alternatives B and C do not align with the Lessee's management goals which could result in forfeiting the lease.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

Determination:

Alternative A, B, & C:
No Effect. The Project would not result in any new jobs nor eliminate any, therefore cumulative effects on the employment market are not expected.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:
Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

Revenues:
See **Section 15** above.

Determination:

[8] Note, these are predicted production values for the DNRC based on past data and should not be taken as exact values.

Alternative A:
Effect, Beneficial Effect. All Project alternatives will have a beneficial effect on the revenue of lease 5756 with Alternative A being the most productive and Alternative B being the least productive. However, Alternative A aligns with the Lessee's management goals which will reduce the risk of the Lessee forfeiting the lease; negative cumulative effects on taxes and revenue are not expected.

Alternative B & C:
Effect, Not Likely to Adversely Effect. All Project alternatives will have a beneficial effect on the revenue of lease 5756 with Alternative A being the most productive and Alternative B being the least productive. However, Alternatives B and C do not align with the Lessee's management goals which could result in forfeiting the lease; negative cumulative effects on taxes and revenue are not expected.

18. DEMAND FOR GOVERNMENT SERVICES:
Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services

Demand for Government Services:
The Project is legally accessible to the public. Additional government services (e.g. fire protection, police, schools, etc.) are not required for agricultural production or grazing activities.

Determination:

Alternative A, B, & C:
No Effect. Future Project activities on the tract are not expected to impact traffic or increase the demand for government services. Therefore, the Project is not expected to have negative cumulative impacts on government services.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

Locally Adopted Environmental Plans and Goals:
The DNRC classifies and reclassifies state land in accordance with its capability to support a particular use. The following classes are established in accordance with **77-1-401, MCA**:

(a) Class 1 shall be grazing land
(b) Class 2 shall be timber land
(c) Class 3 shall be agricultural land
(d) Class 4 shall be cabin sites and land uses other than grazing, timber or agricultural.

The current land classification on lease 5756 is 561.70 agricultural acres (Class 3) and 78.30 grazing acres (Class 1). Alternative A would require 48.80 agricultural acres to be reclassified to grazing (Class 1), Alternative B would require 561.70 agricultural acres to be reclassified to grazing acres (Class 1), and Alternative C would not require a change to the land classification.

Determination:

Alternative A, B, & C:
No Effect. Reclassification of land is not expected to affect the Project and therefore cumulative impacts are not expected.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

Legal Access and Recreational Opportunities:
The Project is located on legally accessible land via 24th Road NE and 26th Lane NE. Recreation potential consists of hunting.

Determination:

Alternative A:
Effect, Likely to Adversely Effect. The Project has the potential to impact regional recreational hunting activities through the reduction of CRP acres that currently provide habitat for wildlife. Given the analysis, by Ryan Rauscher in **Section 8** above, the Project is expected to result in the reduction of wildlife habitat which could potentially reduce wildlife species and recreational hunting opportunities for the area. The Project is expected to have cumulative impacts on access to and quality of recreational activities.

Alternative B:
Effect, Not Likely to Adversely Effect. The Project has the potential to impact regional recreational hunting activities through trampling and/or removal of vegetation and interactions that can cause displacement of wildlife which can reduce wildlife species and recreational hunting opportunities for the area. However, due to the DNRC's lease stipulations, it is not expected to result in cumulative impacts on access to and quality of recreational activities.

Alternative C:
No Effect. Impacts on regional recreation opportunities are not expected for activities that do not include soil breaking or grazing and therefore, cumulative impacts on access to and quality of recreational activities are not expected.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

Determination:

Alternative A, B, & C:
No Effect. The Project will not require additional housing and is not expected to have cumulative impacts on population and housing.

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

Social Structures:
The Project is not located within 10 miles of a Hutterite Colony or the Blackfeet Nation. No archeological sites were identified within the Project footprint.

Determination:

Alternative A, B, & C:
No Effect. The Project is consistent with the surrounding land use, therefore, negative cumulative effects on native or traditional lifestyles or communities are not expected.

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

Determination:

Alternative A, B, & C:
No Effect. The Project will not result in any new activities to occur in the area and therefore it is not expected to cumulatively impact the unique quality of the area.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:
Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

The Project will benefit the Common School Trust in terms of production revenue on lease 5756, see **Section 15** above.

Any future development in the area will likely be restricted to agricultural and grazing types of land uses as well as utility development, with minimal impacts to the surface. Future development projects are not expected to have negative cumulative impacts.

EA Checklist Prepared By:	**Name:**	Michaela Hanson	**Date:**	11/21/2022
	Title:	Land Use Specialist		

V. FINDING

25. ALTERNATIVE SELECTED:

Alternative A (Proposed Action): Grant the Lessee permission to break and convert 512.90 expired CRP acres to agricultural land for small grain production.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

The proposed break acres on this state land are adjacent to productive cropland. The Lessee is a proven "good farmer" and reports yields and revenues consistent with the region. All proposed break acres meet the current DNRC breaking policy, which indicates that soils are suitable for small grain production under No-Till farming practices. Small-scale impacts are expected to occur on wildlife habitats which have the potential to result in cumulative impacts on wildlife populations and recreation hunting opportunities. The Project is expected to have a significant positive impact on crop production for the tract which will result in higher long-term revenue. The Lessee must work with FSA and NRCS and obtain a Conservation Plan and comply will all sod-busting regulations. Breaking these acres will help meet the DNRC TLMD objectives by increasing revenue to the Common School Trust while maintaining land sustainability goals. Other significant negative impacts are not expected with this land break.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

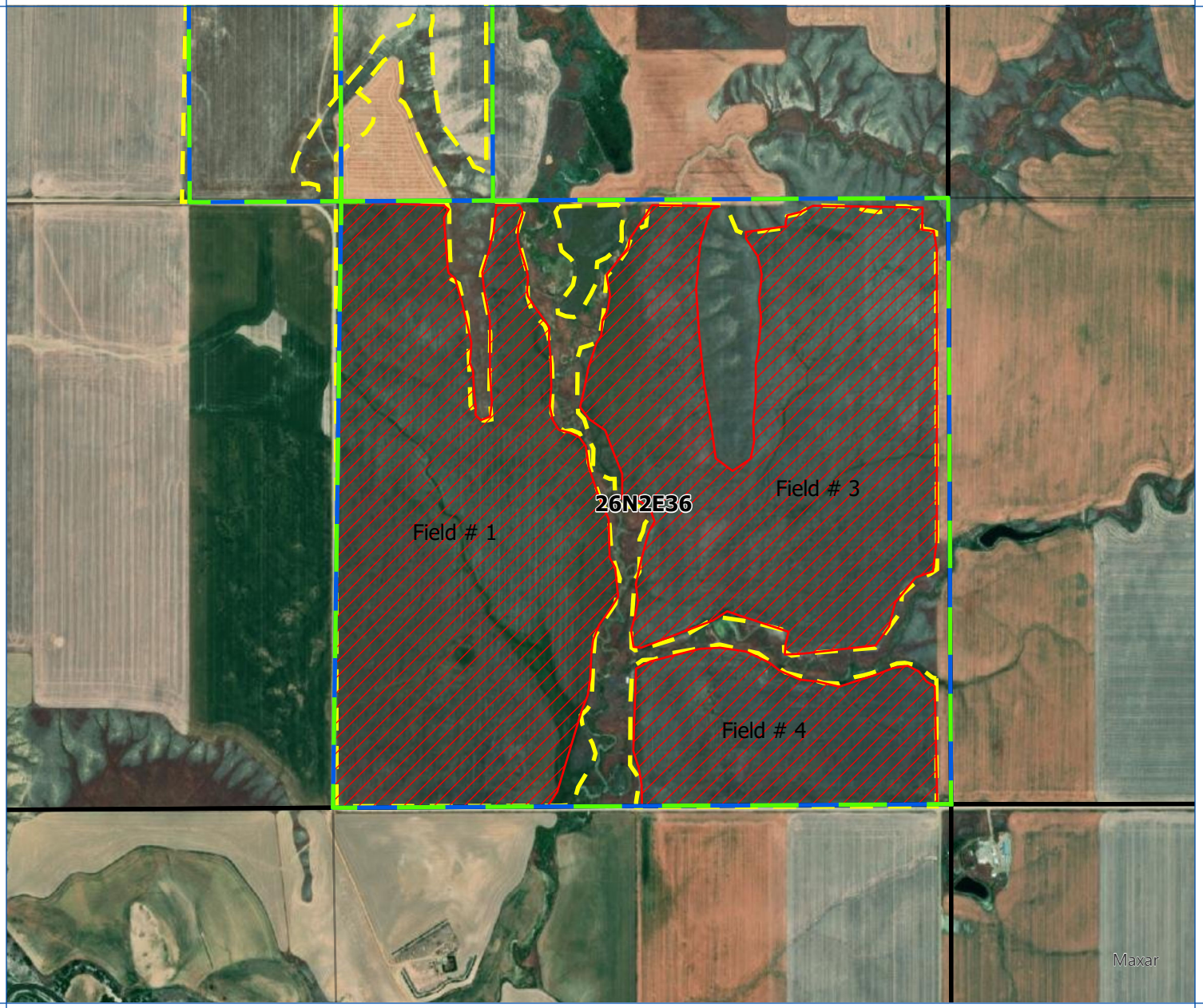
[ ]	EIS	[ ]	More Detailed EA	[x]	No Further Analysis

EA Checklist Approved By:	**Name:**	Erik Eneboe
	Title:	Conrad Unit Manager, CLO, DNRC
Signature: 	**Date**:	Nov, 21, 2022

Attachment A
Project Location Map

CRP Break Request - Lease 5756

The Montana Department of Natural Resources & Conservation



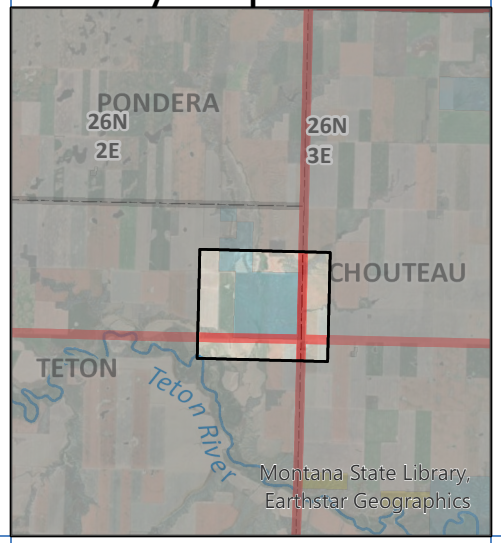
Legend

- CRP for Break
- Ag & Grazing Lease
- Current FSA Fields
- Surface Tracts
- PLSS Township

Lease 5756

ALL, Section 36, T26N, R2E
Field #1: 231.00 acres
Field #3: 210.90 acres
Field #4: 71.00 acres

Vicinity Map



N

Attachment A - Project Location Map

0 0.13 0.25 0.5 Miles

Author:
Michaela Hanson

10/19/2022

Attachment B
Soil Characteristic Comparisons

Soil Characteristic Comparisons

Soil Type	CRP Break ~Acres	Leases in T26N, R1E ~Acres	CRP for Break	Leases in T26N, R1E	CRP for Break	Leases in T26N, R1E	CRP for Break	Leases in T26N, R1E	CRP for Break	Leases in T26N, R1E	CRP for Break	Leases in T26N, R1E	CRP for Break	Leases in T26N, R1E
			Land Capability Class		T-Factor (tons/ac/yr)		WEG		Estimated Barley Yield (bu/ac)		Estimated WW Yield (bu/ac)		Estimated SW Yield (bu/ac)	
39B		127.30		3.00		5.00		6.00		60.00		41.00		36.00
40B	222.90		4.00		5.00		4.00		58.00		39.00		35.00	
40C	164.80		4.00		5.00		4.00		56.00		38.00		34.00	
44B	7.20	17.10	4.00	4.00	5.00	5.00	4.00	4.00	49.00	49.00	32.00	32.00	29.00	29.00
61F	2.10		7.00		5.00		4.00		0.00		0.00		0.00	
150B		284.55		4.00		5.00		4.00		52.00		34.50		31.00
163D	36.90		4.00		5.00		4.00		51.00		34.00		30.50	
164B		129.10		3.00		5.00		6.00		59.00		40.00		36.00
240B	73.30		4.00		5.00		4.00		53.50		35.50		32.00	
400	5.30		3.50		5.00		4.00		63.00		43.00		38.50	
439B		165.25		3.00		5.00		6.00		59.00		40.00		36.00
540B	0.40		6.00		5.00		4.00		48.00		26.00		23.00	
539B		0.60		5.00		5.00		6.00		51.00		38.00		33.50
Total/ Weighted Average	512.90	723.90	4.01	3.42	5.00	5.00	4.00	5.17	55.89	56.18	37.59	37.82	33.73	33.87

39B – Ethride silty clay loam, 0 to 4 percent slopes
40B – Kobase silty clay loam, 0 to 4 percent slopes
40C – Kobase silty clay, 4 to 8 percent slopes
44B – Marias silty clay, 0 to 4 percent slopes
61F – Hillon clay loam, 15 to 60 percent slopes
150B – Marias-Linnet silty clays, 0 to 4 percent slopes
163D – Hillon – Kevin clay loams, 4 to 15 percent slopes
240B – Kobase – Marias complex, 0 to 4 percent slopes
400 – Havre – Fairway loams, 0 to 4 percent slopes, rarely flooded
439B – Ethridge clay loam, 0 to 4 percent slopes
540B – Marvan silty clay, wet, 0 to 4 percent slopes
539B – Ethridge-Nunemaker silty clay loams, 0 to 4 percent slopes

Attachment C
Wetland Map

U.S. Fish and Wildlife Service
National Wetlands Inventory

Attachment C - Wetland Map

October 19, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

End of Documentation