

# ENVIRONMENTAL ASSESSMENT AND RECLASSIFICATION CAPABILITY INVENTORY

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| <b>Project Name:</b> Lease 4615 (Section 14) Reclassification to Small Grain Production  | <b>Proposed Implementation Date:</b> Spring of 2024 |
| <b>Proponent:</b><br>Brian May Farms Inc. & Ann Spicher (Lessees)  |   |
| <b>Project Description:</b><br>The Lessee proposes the reclassification of approximately 118.5 acres of native and non-native grazing land on state land lease no. 4615 located in Section 14, Township 31N., Range 07E., in Liberty County, MT, to agriculture acres. See <b>Attachment A</b> - Project Location Map.<br><br>The Lessee is proposing to convert the 118.5 grazing acres to small grains production. Per Administrative Rule of Montana (ARM) <b>36.25.108 (2)</b> The department shall classify and reclassify land in accordance with its capability to support a particular use.<br><br>The purpose of the conversion from grazing acres to agriculture acres is to support revenue on state lease no. 4615 with a land use that aligns with the Lessee's current operations while maintaining the Department of Natural Resources and Conservation (DNRC) land sustainability goals. |   |
| Type of Reclassification: FROM: <input checked="" type="checkbox"/> Grazing <input type="checkbox"/> Timber <input type="checkbox"/> Ag <input type="checkbox"/> Other<br>TO: <input type="checkbox"/> <b>Grazing</b> <input type="checkbox"/> Timber <input checked="" type="checkbox"/> Ag <input type="checkbox"/> Other<br>ACRES: ≈ 118.5  |   |
| Location: NE4, W2 Sec. 14, T31N., R07E.  | County: Liberty                                     |

| <b>I. PROJECT DEVELOPMENT</b>   |  |
|---|--|
| 1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED: Provide a brief chronology of the scoping and ongoing involvement for this project. | The Lessees, Brian May Farms Inc., and Ann Spicher are the proponents. Agencies involved in the Project include the DNRC, Trust Lands Management Division.   |
| 2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:   | USDA Farm Service Agency / Natural Resources and Conservation Sod Buster Regulations. The DNRC is not aware of any other permits required for the Project on state land described as NE4, W2 Sec. 14, T31N., R07E.   |
| 3. ALTERNATIVES CONSIDERED:   | <p><b>Alternative A (Proposed Action):</b> Grant the reclassification request and convert ≈ 118.5 acres of grazing land (Class 1) to agricultural land (Class 3) for small grains production.</p> <p><b>Alternative B (No Action):</b> Deny the reclassification request, conversion of grazing acres.</p> |

**II. IMPACTS ON THE PHYSICAL ENVIRONMENT**

| RESOURCE   | [Y/N] POTENTIAL IMPACTS<br>N = Not Present or No Impact will occur.<br>Y = Impacts may occur (explain below)<br><i>LAND CAPABILITY CHARACTERISTICS</i>   |
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| <p>4. GEOLOGY, SOILS AND MINERALS:</p> <p>Are fragile, compactible or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations? Are there any mineral characteristics and how would reclassification impact development? If any lands are proposed for breaking, what are the soil types &amp; capability classes, texture, "T" factor, Wind Erodibility Group (WEG), and slopes? What crops will be grown and what are their potential yields? Will there be any mitigation measures implemented to address identified soil limitations?</p> | <p>[ Y ] There are 5 soil types found within the Project footprint. For the ~ 118.5 acres proposed for reclassification to agriculture, See <b>Attachment B</b>, Soil Report.</p> <p><b>Alternative A:</b><br/>                     The NRCS Web Soil Survey (WSS) indicated that one soil type (115B) proposed for reclassification has a "Non-irrigated Capability Class" greater than 3 and three soil types (115B, 331B, and 421C) have soils that are more than slightly saline. See <b>Attachment C</b>, Soil Characteristics. These soils do not meet the DNRC's criteria for sod breaking, however after a review of the soils being currently farmed on the remainder of State Lease No. 4615 and a review by The Montana Salinity Control Association the soils indicate they can be productive for small grains. Soil 115B is currently being farmed on the remainder of State Lease No. 4615 and a comparison of the "Current Farmable Soils" with the "Soils to Break" found there was only a 1.20% difference in the weighted "Non-irrigated Capability Class" value. The "Current Farmable Soils" weighted "Non-irrigated Capability Class" value was 3.30 whereas the "Soils to Break" weighted "Non-irrigated Capability Class" value was 3.34, See <b>Attachment D</b>, Soil Comparison. The Montana Salinity Control Association reviewed the area for the potential of saline seeps/recharges and found that there is no "ground water information for that area. It does appear that the waterway east of this parcel has some salinity most likely caused by the spring feeding it. MSCA does not have any projects southeast of Chester due to the depth of soils and bedrock is not near the surface in this area making it harder for seeps to form. I think it's fine to break out this parcel into annual cropping if that is what is planned." (Scott Brown, Program Director, 2024). Overall, Alternative A presents some limitations for the Project, but based on a comparison of the "Current Farmable Soils" and "Soils to Break" as well as the review by the Montana Salinity Control Association the "Soils to Break" could have a similar production value to the "Current Farmable Soils" and therefore long-term negative cumulative effects on soils are not expected.</p> <p><b>Alternative B:</b><br/>                     Negative cumulative effects on soils are not expected if there are no changes in management activities.</p> |
| <p>5. WATER QUALITY, QUANTITY AND DISTRIBUTION:</p> <p>Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?</p>  | <p>[ Y ] Black Coulee flows northwest to southeast in a meandering fashion ~ 0.25 miles west of the Project footprint and a spring originates ~ 0.25 miles east of the Project Footprint and flows south. The National Wetland Inventory (NWI) did not identify any Freshwater Emergent Wetlands within or near the Project Footprint. For additional information see, <a href="https://www.fws.gov/wetlands/data/Mapper.html">https://www.fws.gov/wetlands/data/Mapper.html</a>.</p>  |

**II. IMPACTS ON THE PHYSICAL ENVIRONMENT**

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|  | <p><b>Alternative A:</b><br/>                 The conversion of the ≈ 118.5 grazing acres to small grain production has the potential to cause an increase in agricultural run-off to Black Coulee and an undeveloped spring. However, the affected soils have a moderate weighted T-Factor rating of 4.66 tons/acre and with the implementation of a no-till farming practice, cumulative negative effects on water quality are not expected.</p> <p><b>Alternative B:</b><br/>                 Negative cumulative effects on water quality are not expected if there are no changes in management activities.</p>   |
| <p>6. AIR QUALITY:<br/>                 Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>                                       | <p>[ Y ] There are no nonattainment areas located on or near the Project per the Environmental Protection Agency (EPA) Nonattainment area maps (NEPassist, 2024).</p> <p><b>Alternative A:</b><br/>                 The conversion of the ≈ 118.5 grazing acres to small grain production has the potential to cause dust particles to become airborne which can affect overall air quality. However, the affected soils have a moderate weighted WEG of 5.93, and with the implementation of no-till farming practices, cumulative negative effects on air quality are not expected.</p> <p><b>Alternative B:</b><br/>                 Negative cumulative effects on air quality are not expected if there are no changes in management activities.</p>  |
| <p>7. VEGETATION COVER, QUANTITY AND QUALITY:<br/>                 Will vegetative communities be permanently altered? Are any rare plants or cover types present? <i>What is the existing vegetation?</i></p> | <p>[ Y ] Vegetation within the Project footprint consists of native and non-native grazing land. ≈ 22.50 acres proposed for breaking in the SE4NW4 consist of non-native Crested Wheatgrass (<i>Agropyron cristatum</i>). ≈ 96.00 acres proposed for breaking in the SW4NW4 and S2SW4 consist of native grasses like Western Wheatgrass (<i>Pascopyrum smithii</i>), Winterfat (<i>Krascheninnikovia lanata</i>), Blue Grama (<i>Bouteloua gracilis</i>), Threadleaf Sedge (<i>Carex filifolia</i>), Needle and Thread (<i>Hesperostipa comata</i>), Prairie Junegrass (<i>Koeleria macrantha</i>), Sandberg Bluegrass (<i>Poa secunda</i>), Gardner Saltbush (<i>Atriplex gardneri</i>), Crested Wheatgrass (<i>Agropyron cristatum</i>), Cheatgrass (<i>Bromus tectorum</i>), and various forbs. A field evaluation conducted on July 18, 2023, by DNRC staff indicated that the native grassland is being impacted by Crested Wheatgrass (<i>Agropyron cristatum</i>) and Cheatgrass (<i>Bromus tectorum</i>), with them making up 50% of the plant community.</p> <p>The surrounding land on State Lease No. 4615 is</p> |

**II. IMPACTS ON THE PHYSICAL ENVIRONMENT**

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|  | <p>classified as agricultural land (361.5 acres) and adjacent private land is agricultural land as well. Reclassification of the ~ 118.5 acres from grazing to agriculture will permanently remove the vegetation cover. Ryan Raucher, FWP Wildlife Biologist for the area commented on 4/4/2024, stating "Any 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, swift fox, deer, and antelope populations in the area. Given that this parcel is near an adjacent native grassland area, the net loss of permanent cover reduces the wildlife values on a larger scale than just the parcel itself. Further, because a portion of this break request is native rangeland that serves as a seed bank for native plants, loss of this native rangeland also includes the loss of this seed bank. These native areas serve as some of the last refugia in the area for declining populations of native grassland birds. Because of those considerations I would ask that DNRC not allow these tracts to be broken."</p> <p><b>Alternative A:</b><br/>                 A permanent loss of native and non-native vegetation on the tract is expected to have negative cumulative effects on vegetation and the wildlife that it supports.</p> <p><b>Alternative B:</b><br/>                 Negative cumulative effects on vegetation are not expected if there are no changes in management activities, however, if no management changes are made the remaining ~ 96.00 will eventually turn to Crested Wheatgrass (<i>Agropyron cristatum</i>) and Cheatgrass (<i>Bromus tectorum</i>).</p> |
| <p>8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:<br/>                 Is there substantial use of the area by important wildlife, birds or fish? <i>What wildlife resources use or occupy the area?</i></p> | <p>[ <b>Y</b> ] The Project site is not considered Critical Habitat per the EPA (NEPAssist 2024). The tract may provide habitat for a variety of big game species, predators, upland game birds, ground-nesting birds, and small mammals.</p> <p><b>Alternative A:</b><br/>                 The conversion of the ~ 118.5 acres of grazing land to small grains production will permanently remove the vegetation described in Section 7, which can have negative cumulative effects on habitat.</p> <p><b>Alternative C:</b><br/>                 Negative cumulative effects on habitat are not expected if there are no changes in management activities.</p>  |
| <p>9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally</p>  | <p>[ <b>Y</b> ] Federally listed mammal species that occur in Montana include Black-footed Ferret (<i>Mustela</i></p>   |

**II. IMPACTS ON THE PHYSICAL ENVIRONMENT**

listed threatened or endangered species or identified habitat present? Any wetlands? Sensitive Species or Species of special concern?

*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 Montana Natural Heritage Program identifies other various species as Species of Concern in Section 14, T31N, R07E, See **Attachment E**, Species of Concern for additional information.

The National Wetland Inventory (NWI) did not identify any Freshwater Emergent Wetlands within or near the Project Footprint. For additional information see, <https://www.fws.gov/wetlands/data/Mapper.html>.

**Alternative A:**

The conversion of the ≈ 118.5 grazing acres to small grain production will permanently remove the vegetation described in Section 7, which could reduce wildlife forage and habitat and have negative cumulative effects on wildlife or habitat, see comments from Ryan Raucher, FWP Wildlife Biologist in Section 7.

**Alternative B:**

Negative cumulative effects on wildlife or habitat are not expected if there are no changes in management activities.

10. HISTORICAL AND ARCHAEOLOGICAL SITES: *Are any historical, archaeological or paleontological resources present?*

[ N ] The DNRC archaeologist conducted a Class III inventory of cultural and palaeontologic resources of the areas of potential effect (APE). No cultural or paleontological resources were identified. The proposed sod break will have *No Effect to Antiquities*. 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. A report of findings has been prepared and is on file with the DNRC and SHPO.

11. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light? *Are there notable aesthetic features on the tract?*

[ N ] The Project is located ≈ 8.75 miles southeast of Chester, MT (population 840), and is legally accessible to the public via South Joplin Road.

**Alternative A & B:**


| <b>II. IMPACTS ON THE PHYSICAL ENVIRONMENT</b>   |   |
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|  | There are no anticipated effects on aesthetics for the Project since the reclassification of $\approx$ 118.5 acres to agricultural land is consistent with the surrounding land use. 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. Therefore, impacts on visual and noise resources are not expected.       |
| 12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? | [ N ] The Project does not propose the use of limited natural resources and is not expected to have cumulative effects on environmental resources.  |
| 13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: Are there other studies, plans or projects on this tract?   | [ N ] Surrounding lands are owned by private landowners and the state with a mixed surface use of agricultural grain production and grazing. Any future development in the area will likely be restricted to these types of land uses and perhaps utility development, with non-significant impacts to the surface. Future development projects are not expected to have negative cumulative impacts. |

| <b>III. IMPACTS ON THE HUMAN POPULATION</b>  |  |
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| RESOURCE   | [Y/N] POTENTIAL IMPACTS & CAPABILITY CHARACTERISTICS   |
| 14. HUMAN HEALTH AND SAFETY:<br>Will this project add to health and safety risks in the area?                                | [ N ] Any risk to human health and safety will be restricted to the Lessee or individual performing the ranching and farming activities. Farming and ranching activities can increase the ranchers or farmers' exposure to pesticides that are used for managing weeds, respiratory diseases, noise-induced hearing loss from loud machinery, and skin disorders from working long hours in the sun. Farming and ranching activities have the potential to increase exposure to health hazards, however, if the personnel involved with the Project activities employ prevention measures it is not expected to result in cumulative impacts on health and safety.   |
| 15. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION:<br>Will the project add to or alter these activities? | [ Y ] Current land use on State Lease No. 4615 consists of 118.5 grazing acres with 31 AUMs and 361.5 agricultural acres with an 8-year average production of \$24.90, see <b>Attachment D</b> , Soil Comparison.<br><br><b>Alternative A:</b><br>If the Project grants the reclassification of the $\approx$ 118.5 acres proposed for small grain production it is expected that those acres would have a similar production value to the "Current Farmable Soils" or the 361.5 acres described above at an average of \$24.90/acre which is good and relative to that area. Project activities would have a beneficial effect on the Lessees farming operations as well as the DNRC's revenue on State Lease No. 4615. |

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|   | <p><b>Alternative B:</b><br/>                 If there are no changes in management activities, then the 2024 production for the ~ 118.5 acres would be \$512.43 or \$4.32/acre.</p>   |
| <p>16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:<br/>                 Will the project create, move or eliminate jobs?<br/>                 If so, estimated number.</p>   | <p>[ N ] The Project will not result in any new jobs nor eliminate any, therefore cumulative effects on the employment market are not expected.</p>  |
| <p>17. LOCAL AND STATE TAX BASE AND TAX REVENUES:<br/>                 Will the project create or eliminate tax revenue?</p>  | <p>[ Y ] See <b>Section 15</b> above. The Project will add to tax revenues due to the revenue generated by general ranching and farming activities. Negative cumulative impacts on tax revenues are not expected.</p>  |
| <p>18. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?</p>   | <p>[ N ] The tract is legally accessible via South Joplin Road to the public. Project activities on the tract are not expected to impact traffic or increase the demand for government services, and therefore, it is not expected to have negative cumulative impacts on them.</p>  |
| <p>19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:<br/>                 Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?</p>   | <p>[ N ] 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 <b>77-1-401, MCA</b>:</p> <ul style="list-style-type: none"> <li>(a) Class 1 shall be grazing land</li> <li>(b) Class 2 shall be timber land</li> <li>(c) Class 3 shall be agricultural land</li> <li>(d) Class 4 shall be cabin sites and land uses other than grazing, timber or agricultural.</li> </ul> <p>Reclassification of land, if to occur, is not expected to negatively affect the Project and therefore cumulative impacts are not expected.</p> |
| <p>20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:<br/>                 Are wilderness or recreational areas nearby or accessed through this tract? Is the land legally accessible and is there recreational potential within the tract?</p> | <p>[ Y ] The Project is legally accessible to the public via South Joplin Road.</p> <p><b>Alternative A:</b><br/>                 The conversion of the ~ 118.5 grazing acres to small grain production will permanently remove the vegetation described in Section 7, which could reduce wildlife forage and habitat and in turn have negative cumulative effects on recreational hunting activities.</p> <p><b>Alternative B:</b><br/>                 Negative cumulative effects on recreational and wilderness activities are not expected if there are no changes in management activities.</p>  |
| <p>21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:<br/>                 Will the project add to the population and require additional housing?</p>  | <p>[ N ] The Project will not require additional housing and is not expected to have cumulative impacts on population and housing.</p>   |

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| 22. SOCIAL STRUCTURES AND MORES:<br>Is some disruption of native or traditional lifestyles or communities possible? | [ N ] The Project is not located within 10 miles of a Native American nation, or a Hutterite Colony. No archeological sites were identified within the Project footprint. The Project is not expected to impact native or traditional lifestyles or communities. |
| 23. CULTURAL UNIQUENESS AND DIVERSITY:<br>Will the action cause a shift in some unique quality of the area?         | [ N ] 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:  | [ Y ] The Project will benefit the Common School Trust in terms of grazing and agriculture production on State Lease No. 4615, see <b>Section 15</b> above. In addition, Alternative A, would allow the Lessee to farm in common with the adjacent farm field.   |

Document Prepared By: Michaela Kalinowski Date 04/03/2024

| <b>IV. ENVIRONMENTAL ANALYSIS FINDING</b>  |  |
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| 25. ALTERNATIVE SELECTED:<br><br><b>Alternative A (Proposed Action):</b> Grant the reclassification request and convert ≈ 118.5 acres of grazing land (Class 1) to agricultural land (Class 3) for small grains production.  |  |
| 26. SIGNIFICANCE OF POTENTIAL IMPACTS:<br><br>The conversion of 118./5 acres of native and non-native vegetation to agricultural land will not have significant negative impacts. No till, flex cropping, and other common sustainable farming practices are required to mitigate potential impacts. Establishing highly productive agricultural land is considered to be the highest and best use and will provide higher long-term revenue which helps DNRC, TLMD meet objectives by increasing economic returns to trust beneficiaries in a sustainable manner. |  |
| 27. Need for Further Environmental Analysis:<br><br><input type="checkbox"/> EIS <input type="checkbox"/> More Detailed EA <input checked="" type="checkbox"/> No Further Analysis   |  |
| <u>Erik Eneboe</u><br>Name   | <u>Conrad Unit Manager, CLO</u><br>Title |
| <br>Signature   | <u>April 8, 2024</u><br>Date             |



**V. RECLASSIFICATION RECOMMENDATION AND APPROVAL**

28. Land Office Recommendation, including Highest and Best Use:

The Conrad Unit staff have required appropriate mitigations measurers to allow for breaking of the soils that do not fully meet the break criteria. Productive agricultural lands exist on all sides of the proposed break and will provide increased efficiencies for the lessee's farming operation. The highest and best use of this land is agricultural land and I recommend approval.

Hoyt Richards

CLO - Area Manager

Name

Title

*Hoyt Richards*

*4/10/2024*

Signature

Date

29. Recommendation by Bureau Chief:

Reasons for Recommendation:

*I recommend approval. Break will result in highest and best use of the parcel.*

*Kelly Motichka*

*4/15/24*

Kelly Motichka  
Ag & Grazing Management Bureau Chief

Date

30. Final Decision on Reclassification by Trust Land Management Division Administrator:

Approve

Deny

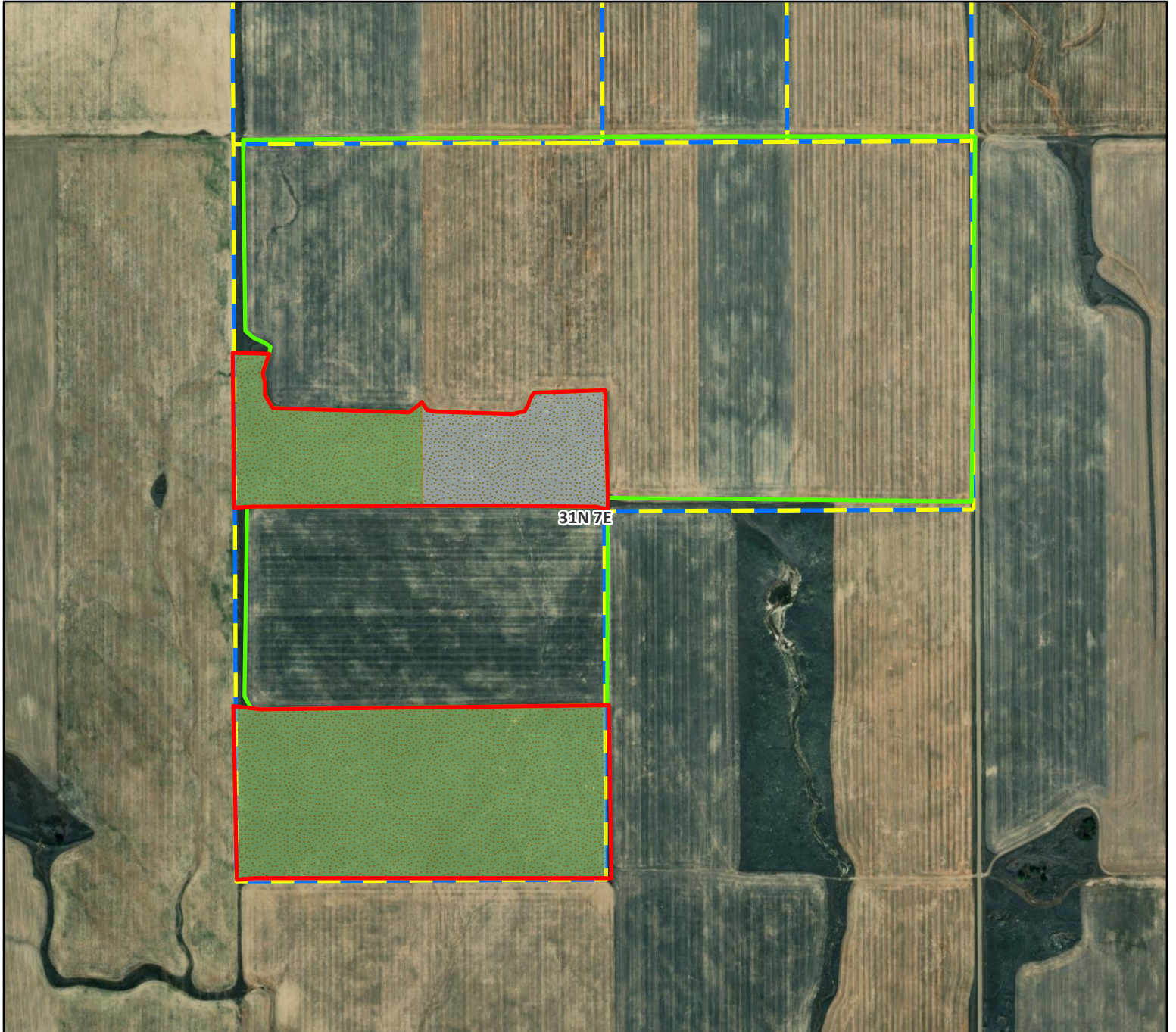
*Ryan Weiss*

*4/18/2024*

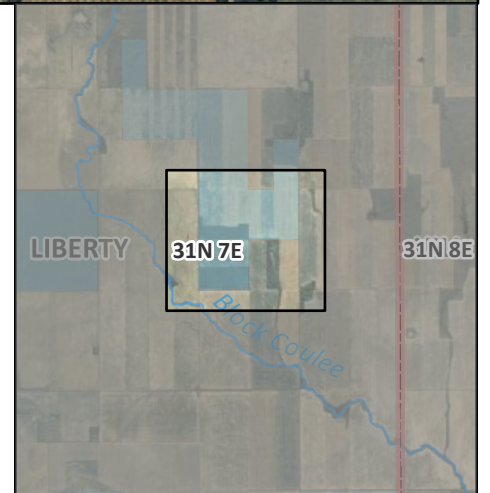
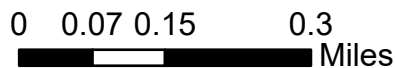
Ryan Weiss, Deputy Trust Lands Administrator

Date

Attachment A  
Project Location Map



- Soils to be Broken
- Current Farmable Soils
- Native Grazing Land
- Non-native Grazing Land
- DNRC Agreement Tracts
- DNRC Surface Tracts



Attachment B  
Soil Report

AVAILABLE UPON REQUEST

Attachment C  
Soil Characteristics

## Soil Characteristics

|                 | 37C                            | 79B   | 115B   | 331B   | 421C   |  |
|-----------------|--------------------------------|---|--|--|--|--|
| Dryland Farming | Non-irrigated Capability Class | 3.00  | 3.00   | 6.00   | 3.00   | 3.00   |
|                 | Depth to Bedrock (Inches)      | >78.74  | >78.74   | 25.20  | 25.20  | 29.92  |
|                 | Slope                          | 6%  | 2%   | 2%   | 2%   | 5%   |
|                 | Soil Texture                   | Loam  | Loam   | Loam   | Loam   | Loam   |
|                 | Coarse Fragments               | <b>Evanston:</b><br>Ap - 6%<br>Bt - 6%<br>Bk1 - 6%<br>Bk2 - 6%                          | <b>Yamacall:</b><br>A - 13%<br>Bw - 13%<br>Bk - 0%<br>Bky - 6%                         | <b>Thoeny:</b><br>E - 7%<br>Btn - 7%<br>Btkn - 7%<br>Bknz - 7%<br>BCyz - 7%<br>Cz - 7% | <b>Phillips:</b><br>E - 7%<br>Btn - 7%<br>Btkn - 7%<br>Bknz - 7%<br>BCyz - 7%<br>Cz - 7% | <b>Joplin:</b><br>Ap - 8%<br>Bt - 7%<br>Bk1 - 7%<br>Bk2 - 7%<br>Bcyz - 7%<br>Cz - 7% |
|                 |                                | <b>Elloom:</b><br>E - 7%<br>Btn - 7%<br>Btkn - 7%<br>Bknz - 7%<br>BCyz - 7%<br>Cz - 7%  | <b>Elloom:</b><br>E - 7%<br>Btn - 7%<br>Btkn - 7%<br>Bknz - 7%<br>BCyz - 7%<br>Cz - 7% | <b>Hillon:</b><br>Ap - 10%<br>Bk1 - 9%<br>Bk2 - 9%<br>BCyz - 7%<br>Cz - 7%             |  |  |
|                 |                                | <b>Absher:</b><br>E - 10%<br>Btn - 7%<br>Btkn - 7%<br>Bknz - 7%<br>BCyz - 7%<br>Cz - 7% |  |  |  |  |
|                 | Depth to Water Table (Inches)  | >78.74  | >78.74   | >78.74   | >78.74   | >78.74   |
|                 | Saline or alkali Conditions    | Nonsaline to very slightly saline   | Nonsaline to very slightly saline  | Slightly saline to moderately saline   | Slightly saline to moderately saline   | Slightly saline to strongly saline   |
|                 | Annual Precipitation (Inches)  | 10-14   | 10-14  | 10-14  | 10-14  | 10-14  |
|                 | Flooding Frequency Class       | None  | None   | None   | None   | None   |
|                 | Ponding Frequency Class        | None  | None   | None   | None   | None   |
|                 | K-Factor                       | 0.24  | 0.24   | 0.32   | 0.32   | 0.28   |
|                 | WEG                            | 6   | 4  | 6  | 6  | 6  |
| T-Factor        | 5                              | 5   | 2  | 5  | 5  |  |

Attachment D  
Soil Comparison

Attachment E  
Species of Concern

AVAILABLE UPON REQUEST



## Soil Comparison

### Soils to be Broken

| Soils                         | Acres         | Percent of AOI | Land Capability Class | T-Factor    | WEG         | Barley Yield | WW Yield     | SW Yield     |
|-------------------------------|---------------|----------------|-----------------------|-------------|-------------|--------------|--------------|--------------|
| 37C                           | 3.10          | 3%             | 3.00                  | 5.00        | 6.00        | 57.00        | 38.00        | 34.00        |
| 79B                           | 4.00          | 3%             | 3.00                  | 5.00        | 4.00        | 54.00        | 36.00        | 32.00        |
| 115B                          | 13.90         | 11%            | 6.00                  | 2.00        | 6.00        | 3.11         | 0.44         | 0.44         |
| 331B                          | 78.40         | 65%            | 3.00                  | 5.00        | 6.00        | 39.33        | 26.66        | 24.00        |
| 421C                          | 22.10         | 18%            | 3.00                  | 5.00        | 6.00        | 55.55        | 37.44        | 33.88        |
| <b>Total/Weighted Average</b> | <b>121.50</b> | <b>100%</b>    | <b>3.34</b>           | <b>4.66</b> | <b>5.93</b> | <b>39.07</b> | <b>26.22</b> | <b>23.62</b> |

### Percent Difference

|                       |       |
|-----------------------|-------|
| Land Capability Class | 1.20% |
| T-Factor              | 1.07% |
| WEG                   | 0.84% |
| Barley Yield          | 2.51% |
| WW Yield              | 2.31% |
| SW Yield              | 2.36% |

### Current Farmable Soils

| Soils                         | Acres         | Percent of AOI | Land Capability Class | T-Factor    | WEG         | Barley Yield | WW Yield     | SW Yield     |
|-------------------------------|---------------|----------------|-----------------------|-------------|-------------|--------------|--------------|--------------|
| 35B                           | 1.70          | 0%             | 4.00                  | 5.00        | 3.00        | 53.00        | 36.00        | 32.00        |
| 37C                           | 14.10         | 4%             | 3.00                  | 5.00        | 6.00        | 57.00        | 38.00        | 34.00        |
| 115B                          | 34.30         | 10%            | 6.00                  | 2.00        | 6.00        | 3.11         | 0.44         | 0.44         |
| 224E                          | 0.90          | 0%             | 6.00                  | 5.00        | 4.00        | 38.88        | 24.82        | 22.47        |
| 331B                          | 274.70        | 77%            | 3.00                  | 5.00        | 6.00        | 39.33        | 26.66        | 24.00        |
| 421C                          | 21.20         | 6%             | 3.00                  | 5.00        | 6.00        | 55.55        | 37.44        | 33.88        |
| 503B                          | 8.90          | 3%             | 3.00                  | 5.00        | 6.00        | 60.59        | 41.00        | 37.00        |
| <b>Total/Weighted Average</b> | <b>355.80</b> | <b>100%</b>    | <b>3.30</b>           | <b>4.71</b> | <b>5.98</b> | <b>38.10</b> | <b>25.62</b> | <b>23.07</b> |

### Lease 4615 (Section 14) Production History

| Lessee               | Year | Crop          | Quantity | Unit | Unit Price | Acres  | Yield/Acre  | State Revenue | Lease Type |
|----------------------|------|---------------|----------|------|------------|--------|-------------|---------------|------------|
| Brian May Farms Inc. | 2023 | Spring Wheat  | 4101.5   | Bu   | 8.62       | 185.59 | 22.09978986 | \$8,811.03    | Crop Share |
| Brian May Farms Inc. | 2023 | Summer Fallow |          |      |            | 116.57 | 0           | \$0.00        | Crop Share |
| Brian May Farms Inc. | 2023 | Green Lentils | 16964.8  | lb   | \$0.30     | 57.94  | 292.7994477 | \$1,250.96    | Crop Share |
| Brian May Farms Inc. | 2022 | Summer Fallow |          |      |            | 185.59 | 0           | \$0.00        | Crop Share |
| Brian May Farms Inc. | 2022 | Winter Wheat  | 2938.9   | Bu   | \$9.06     | 174.51 | 16.84086872 | \$6,641.92    | Crop Share |
| Brian May Farms Inc. | 2021 | Summer Fallow |          |      |            | 174.51 | 0           | \$0.00        | Crop Share |
| Brian May Farms Inc. | 2021 | Winter Wheat  | 3723.14  | Bu   | \$7.43     | 185.59 | 20.06110243 | \$6,889.84    | Crop Share |
| Brian May Farms Inc. | 2020 | Summer Fallow |          |      |            | 186.99 | 0           | \$0.00        | Crop Share |
| Brian May Farms Inc. | 2020 | Winter Wheat  | 8027.46  | Bu   | \$4.46     | 174.51 | 46          | \$8,910.48    | Crop Share |
| Brian May Farms Inc. | 2019 | Summer Fallow |          |      |            | 175.91 | 0           | \$0.00        | Crop Share |
| Brian May Farms Inc. | 2019 | Spring Wheat  | 3922.57  | Bu   | \$4.60     | 96.94  | 40.46389519 | \$4,491.35    | Crop Share |
| Brian May Farms Inc. | 2019 | Spring Wheat  | 1816.55  | Bu   | \$4.60     | 88.65  | 20.49125776 | \$2,079.72    | Crop Share |
| Brian May Farms Inc. | 2018 | Summer Fallow |          |      |            | 96.94  | 0           | \$0.00        | Crop Share |
| Brian May Farms Inc. | 2018 | Winter Wheat  | 13024.89 | Bu   | 5.5        | 263.16 | 49.49418605 | \$17,850.01   | Crop Share |
| Brian May Farms Inc. | 2017 | Spring Wheat  | 2933.24  | Bu   | 7.05       | 96.94  | 30.25830411 | \$5,155.23    | Crop Share |
| Brian May Farms Inc. | 2017 | Summer Fallow |          |      |            | 263.16 | 0           | \$0.00        | Crop Share |
| Brian May Farms Inc. | 2016 | Summer Fallow |          |      |            | 96.94  | 0           | \$0.00        | Crop Share |
| Brian May Farms Inc. | 2016 | Winter Wheat  | 10511.31 | Bu   | \$4.13     | 263.16 | 39.94265846 | \$10,806.72   | Crop Share |

| Year       | Return Rate     |
|------------|-----------------|
| 2023       | \$ 27.94        |
| 2022       | \$ 18.44        |
| 2021       | \$ 19.13        |
| 2020       | \$ 24.65        |
| 2019       | \$ 18.18        |
| 2018       | \$ 49.57        |
| 2017       | \$ 14.32        |
| 2016       | \$ 30.01        |
| <b>AVG</b> | <b>\$ 24.90</b> |

*End of Documentation*