

## CHECKLIST ENVIRONMENTAL ASSESSMENT

<b>Project Name:</b>	<b>Kurt Markegard Spring Development and Small Dam Installation - Lease # 4572</b>
<b>Proposed Implementation Date:</b>	June, 2016
<b>Proponent:</b>	Kurt Markegard – Lessee
<b>Location:</b>	Section 36, Township 2 South, Range 24 East
<b>County:</b>	Yellowstone

### I. TYPE AND PURPOSE OF ACTION

Kurt Markegard is proposing the installation of a spring development and small dam to improve water distribution on State Lease #4572. See map for details.

### 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 Department of Natural Resources and Conservation (DNRC) Southern Land Office, Crow Tribal Historic Preservation Office, and Kurt Markegard – Lessee of State Lease # 4572, are involved in this project.

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

The Department of Natural Resources and Conservation Water Resources Division Billings Regional Office—  
The lessee has been informed that he will be responsible for filing a water right for both the spring development and small dam and that the State of Montana must be listed as one of the owners on both water rights.

#### 3. ALTERNATIVES CONSIDERED:

**Alternative A (No Action)** – The DNRC does not grant permission to install the spring development and small dam.

**Alternative B (the Proposed action)** – The DNRC does grant permission to install the spring development and small dam.

### 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.*

The soils in the proposed project area consist of thin gravelly soils to clay loams. The spring development and small dam installation have been planned out to avoid unstable areas. Once construction is finished, the affected area will be reseeded with native grasses to reduce erosion and proper moisture drainage will be re-established. Various spring developments and dam installations in the area show that with post installation reclamation, these soils are capable of handling such actions.

No significant adverse impacts to the soils are anticipated.

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**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.*

This project would divert the water from one spring into a stock water tank and divert another spring's runoff into a small dam for use by livestock. The purpose of this project is to increase the amount of available water for livestock to better distribute their grazing patterns. Various spring developments and dam installations in the area show with post installation reclamation, the water quality, quantity, and distribution are not significantly impacted.

No significant adverse impacts to water quality, quantity, or distribution are anticipated.

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**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.*

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Dirt work may generate some airborne dust. These activities will minimally affect air quality for a very limited amount of time.

No significant adverse impacts to air quality are anticipated

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**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.*

There are no rare plants or cover types present in the break area.

The affected area will be reseeded with native grasses to restore vegetation cover following construction.

No significant adverse impacts to vegetation cover are anticipated.

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**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.*

A field survey of the proposed project area was done on May 6, 2016. No fish were found to use the springs or subsequent drainage areas where the project will take place.

The wildlife habitat, following construction of this project, will benefit greatly from the increase in available water. There may be some disturbance of their normal use of the area during construction, but this will be for a very limited amount of time. Following construction, use of the area by wildlife should return to normal.

No significant adverse effects to fish and wildlife are anticipated.

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**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.*

The Species of Concern Report from the Montana Natural Heritage Program indicates that the Great Blue Heron Grouse (*Ardea herodias*), the Yellow-billed Cuckoo (*Coccyzus americanus*), the Green-tailed Towhee (*Pipilo chlorurus*), the Brewer's Sparrow (*Spizella breweri*), and the Black-tailed Prairie Dog (*Cynomys*

*ludovicianus*) may occur in the area. However, these species have not been observed on this tract. The proposed project is not expected to alter the above listed species habitat significantly because of the small size of the project and the rehabilitation procedures following the project.

The proposed project area is not located in Sage Grouse habitat. A review of the ArcGIS database shows the nearest known sage grouse lek is approximately 8 miles to the south of the proposed project area. The proposed project will take place in mostly the riparian areas of the lease and there is no sagebrush located where the project will take place. A field survey was completed on May 6, 2016 and no sage grouse were sighted during the survey.

No significant adverse effects are anticipated.

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#### **10. HISTORICAL AND ARCHAEOLOGICAL SITES:**

*Identify and determine effects to historical, archaeological or paleontological resources.*

The only cultural resource that has been documented on this section is a historic school located in the NWNWNE. The proposed project is not expected to impact the historic school as it will be located far enough away to avoid and impacts. A field survey was conducted on May 6, 2016. No additional cultural resources were found during the field survey.

The Crow Tribal Historic Preservation Officer, Emerson Bull Chief, was contacted for input on this project. He has not voiced any concerns to date.

No significant cumulative impacts are anticipated.

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#### **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.*

The project is located in an isolated area away from any population. No long term or cumulative effects to aesthetics are anticipated.

No significant impacts are anticipated.

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#### **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.*

This project would divert the water from one spring into a stock water tank and divert another spring's runoff into a small dam for use by livestock. The proposed project will only collect portions of the available water supply provided by the springs and drainages. Water will continue to travel down the drainage past the spring development and dam.

No significant cumulative effects to environmental resources are anticipated.

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#### **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.*

There are no other projects or plans being considered on the tracts listed on this EA.

#### 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.

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#### 14. HUMAN HEALTH AND SAFETY:

*Identify any health and safety risks posed by the project.*

There are some human safety risks associated with operating equipment. The proponent and their employees accept these risks as acceptable occupational hazards.

No significant adverse impacts to human health and safety are anticipated.

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#### 15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

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

The proposed project will increase the efficiency with which the lessee grazes livestock on this tract of State land. By increasing the distribution of water, the livestock will graze the land more evenly. By grazing the land more evenly, the cattle will utilize the available forage better and have less impact on the areas where they tended to congregate prior to the project's installation.

The proposed project will have a positive impact on the grazing patterns of the cattle grazing the land. No adverse impacts to industrial, commercial, and agriculture activities are anticipated.

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#### 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.*

The proposed activity will not create, move or eliminate any jobs. No new jobs will be created.

No significant adverse impacts to the employment market are anticipated.

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#### 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.*

There are no direct or cumulative effects to taxes or revenue for the proposed project.

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#### 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*

There will be no increases in traffic, no changes in traffic patterns, and no need for additional fire protection, or police services.

No significant adverse impacts to government services are anticipated.

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#### 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.*

There are no zoning or other agency management plans affecting these lands.

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**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.*

No significant impacts to the recreational value are anticipated.

There will be no direct or cumulative effects on recreation or wilderness activities.

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**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.*

The proposal does not include any changes to housing or developments.

No direct or cumulative effects to population or housing are anticipated.

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**22. SOCIAL STRUCTURES AND MORES:**

*Identify potential disruption of native or traditional lifestyles or communities.*

There are no native, unique or traditional lifestyles or communities in the vicinity that would be impacted by the proposal.

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**23. CULTURAL UNIQUENESS AND DIVERSITY:**

*How would the action affect any unique quality of the area?*

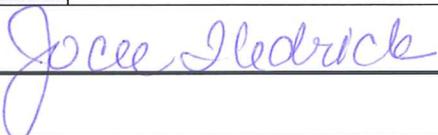
The proposed project will have no effect on any unique quality of the area.

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**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 area included in the proposed spring development and dam installation is currently leased as grazing land that is rated at 77 AUMs per year. The proposed project will only encompass less than 1 acre, and will not reduce the AUM rating of this tract.

<b>EA Checklist Prepared By:</b>	<b>Name:</b> Jocee Hedrick
	<b>Title:</b> Land Use Specialist
<b>Signature:</b> 	<b>Date:</b> 5-18-16

**V. FINDING**

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**25. ALTERNATIVE SELECTED:**

I have selected the Proposed Alternative B, and recommend that the DNRC does allow the construction and installation of a spring development and small dam.

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**26. SIGNIFICANCE OF POTENTIAL IMPACTS:**

I have evaluated the potential environment effects and have determined that no significant adverse environmental impacts will result from the proposed activity.

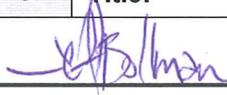
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**27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:**

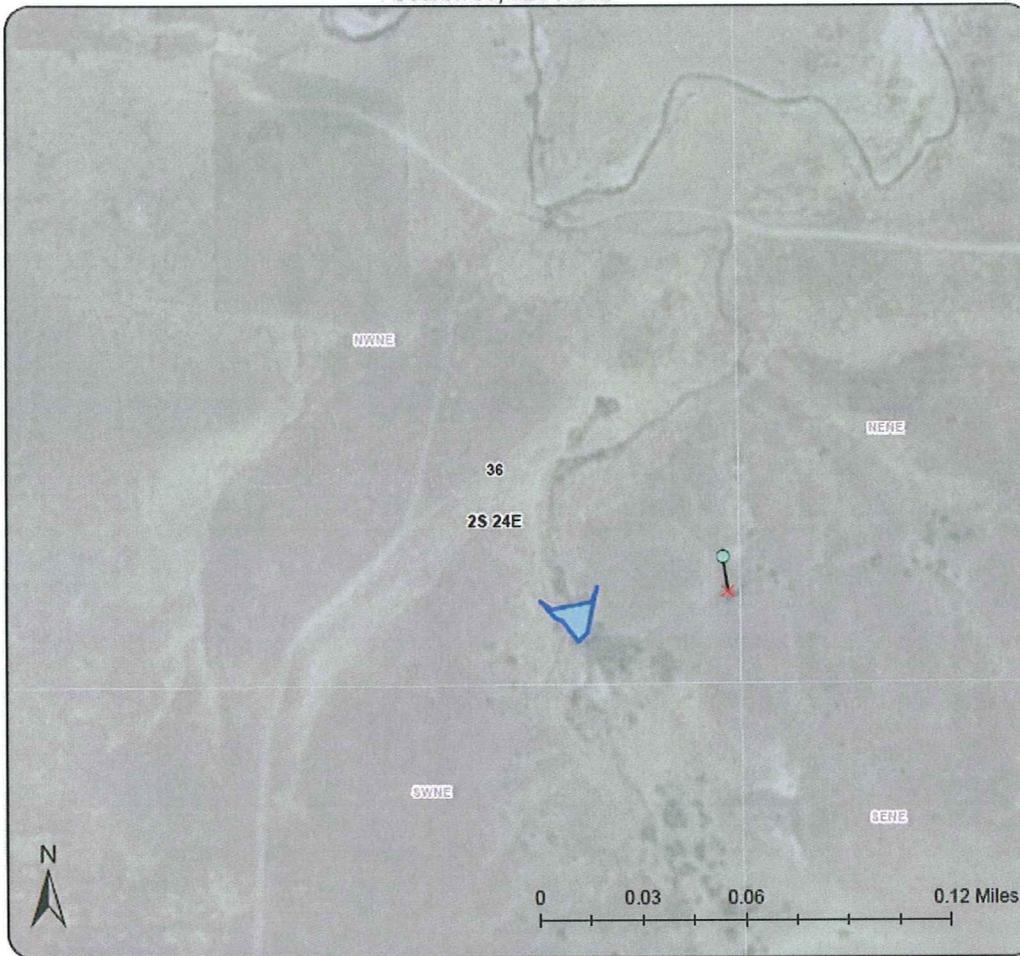
EIS

More Detailed EA

No Further Analysis

<b>EA Checklist Approved By:</b>	<b>Name:</b> Jeff Bollman
	<b>Title:</b> Southern Land Office Area Planner
<b>Signature:</b> 	<b>Date:</b> 19 May 2016

2016 Proposed Improvements for Spring Creek Section  
Section 36, T2S R24E



**Legend**

- Proposed Stocktank
- × Spring Development
- Waterline
- Stockwater Dam