CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Firehammer Inc Water Pipeline Installation
Proposed Implementation Date:	October 2019
Proponent:	Firehammers Inc
Location:	8N 20E 34 S1/2
County:	Golden Valley
Trust:	Common Schools

I. TYPE AND PURPOSE OF ACTION

This checklist is to assess the environmental impacts of improving a spring, installing a water line and installing a stock water tank all on State Trust Lands. The pipeline will be buried approximately 5ft deep with a trencher. Using the trencher will minimize the disturbance of the pipeline. Developing the spring will involve digging in the spring and installing a perforated pipe. The only parts above the ground at the spring will be a small valve. The stock water tank will be an 8ft diameter fiberglass tank with an automatic solar pump.

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)
Northeastern Land Office (NELO)
Proponent: Firehammers Inc
Surface Lessees: Firehammers Inc

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

The DNRC, and NELO have jurisdiction over this proposed project.

DNRC's water resources division will also have jurisdiction because these water improvements will require filing a water right.

The proponent is responsible for acquiring all required permits for the proposed project. The proponent is responsible for settling all surface damages with the surface lessees.

DNRC is not aware of any other agencies with jurisdiction or other permits needed to complete this project

3. ALTERNATIVES CONSIDERED:

Alternative A (No Action) – Under this alternative, the Department does not grant permission to install a new stockwater tank and water supply system.

Alternative B (the Proposed Action) – Under this alternative, the Department does grant permission to install a new stockwater tank and water supply system.

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 potential of off road erosion in this area is mostly slight. There are some moderate erosion risks, but very little disturbance would occur in these areas. This project will not have soil exposed very long and will only create a minor surface disturbance there should be no major soil erosion.

Table — Erosion Hazard (Off-Road, Off-Trail) — Summary by Rating Value

Summary by Rating Value

Summary by Rating Value

Rating	Acres in AOI	Percent of AOI
Slight	40.6	53.7%
Moderate	35.0	46.3%
Totals for Area of Interest	**75.6**	**100.0%**

The soils in this area are mostly young, dry soils. There is nothing in the taxonomy of these soils that is concerning related to this minor construction project.

Tables — Soil Taxonomy Classification — Summary By Map Unit

Summary by Map Unit — Golden Valley County Area, Montana (MT666)

Summary by Map Unit — Golden Valley County Area, Montana (MT666)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
33B	Yamacall loam, 2 to 8 percent slopes	Fine-loamy, mixed, superactive, frigid Aridic Haplustepts	14.3	18.9%
80E	Blacksheep-Rock outcrop-Twilight complex, 8 to 45 percent slopes	Loamy, mixed, superactive, calcareous, frigid, shallow Aridic Ustorthents	22.3	29.6%
285F	Blacksheep, dry-Cabbart, dry-Rock outcrop, complex, 8 to 60 percent slopes	Loamy, mixed, superactive, calcareous, frigid, shallow Aridic Ustorthents	12.6	16.7%
720B	Rominel loam, 0 to 8 percent slopes	Fine-loamy, mixed, superactive, frigid Aridic Leptic Natrustalfs	6.4	8.5%
780F	Cabbart-Yamacall-Havre, rarely flooded, loams, 2 to 60 percent slopes	Fine-loamy, mixed, superactive, frigid Aridic Haplustepts	19.8	26.3%
Totals for Area of Interest			**75.6**	**100.0%**

No cumulative effects to geology and soil quality, stability and moisture are anticipated.

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 water system will affect the surface water currently present as well as change the distribution of the water on the tract. This project would develop a natural spring, altering the natural flow and piping it up to a new stock water tank to the southwest. There would be no continuing effects to water quality, though there will be a temporary increase in the sediment load in the spring while construction is going on. Long term water levels in the spring will be lower but that will be dependent on whether the pipeline is pumping, water should remain in the spring for wildlife use.

No significant adverse impacts expected to water resources.

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.

The air quality in the area will not be affected.

No cumulative effects to air quality are anticipated.

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.

This improvement would temporarily disturb some upland as well as some seasonal wetland areas. These effects would be temporary and would be reclaimed or return naturally within a couple of years.

There are no plant species of concern in this township.

If re-seeding is necessary the proponent will acquire certified, weed free seed and refer to the Plant Materials Tech Note No. MT-46 (Rev. 4) dated September 2013 for seeding rates.

No noxious weeds previously recorded on any tracts but some invasive weeds are present and will need controlled.

No rare plants or cover types are present.
No long term cumulative effects to vegetation are anticipated.

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.

This improvement will take place within the sage grouse executive order core area. While it is in core area the quality of the habitat that will be disturbed is low. Most of the pipeline area is on the barren badland slopes of a small coulee with few to no shrubs or on a small bench that also has limited shrub cover. The stock water tank is on top of a bench that has very little shrub cover for a significant distance around the proposed location. The exception is the spring. This will only be disturbed temporarily while construction is taking place after which there will still be water for wildlife use.

The Montana Sage Grouse Oversight Team (MSGOT) was consulted on this project because it will take place within the Sage Grouse executive order core area. MSGOT determined that there would be no long term negative effects from this project because of the temporary and minimal disturbance as well as the construction methods creating minimal ground disturbance. The only restriction that they placed was that there be no work done from March 15 to July 15. Since this project will be done in October there will be no conflict with this restriction.

No cumulative effects are anticipated.

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.

There are no plant species of concern in the area.

There are several animal species of concern in this area. The most prominent of these is the greater sage grouse. Sage grouse and black tailed prairie dogs are the most likely to be affected by this project. However prairie dogs are not currently present in the areas that will be disturbed. Sage grouse are also not likely to be affected due to the poor quality of the habitat for their species.

MSGOT was consulted to determine the effects this project would have on sage grouse. After their review they gave only two recommendations to limit the project's impact. The first recommendation was that escape ramps be installed in the stock water tank to provide an escape route for trapped birds. DNRC already required escape ramps were in the stipulations for the project. The second recommendation was that there be no activity from March 15 to July 15, since this project will be completed in October there is no conflict with their recommendations.

Species of Concern
5 Species
Filtered by the following criteria:
Township = 008N002E (based on mapped Species Occurrences)

MAMMALS (MAMMALIA) — TOWNSHIP = 008N002E — 3 SPECIES

SCIENTIFIC NAME / COMMON NAME / TAXA SORT	FAMILY (SCIENTIFIC) / FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
Cynomys ludovicianus Black-tailed Prairie Dog	*Sciuridae* Squirrels	G4	S3		Sensitive - Known on Forests (CG)	SENSITIVE	SGCN3	15%	71%	Grasslands

Species Occurrences verified in these Counties: Big Horn, Blaine, Carbon, Carter, Cascade, Chouteau, Custer, Fallon, Fergus, Garfield, Golden Valley, Hill, Jefferson, Judith Basin, Lewis and Clark, Liberty, Mccone, Musselshell, Petroleum, Phillips, Powder River, Prairie, Richland, Rosebud, Stillwater, Sweet Grass, Toole, Treasure, Valley, Wheatland, Yellowstone

State Rank Reason: Across much of eastern Montana this species occurs in areas with suitable soil and topography. However sylvatic plague has caused the species to decline and has affected colony size and dynamics. Ongoing threats from disease and persecution due to perceived competition with grazing make long term status of this species uncertain.

BIRDS (AVES) — TOWNSHIP = 008N002E — 4 SPECIES

SCIENTIFIC NAME / COMMON NAME / TAXA SORT	FAMILY (SCIENTIFIC) / FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
Aquila chrysaetos Golden Eagle	*Accipitridae* Hawks / Kites / Eagles	G5	S3	BGEPA; MBTA; BCC17		SENSITIVE	SGCN3	3%	100%	Grasslands

Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Davison, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Lincoln, Madison, Mccone, Meagher, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Wibaux, Yellowstone

Centrocercus urophasianus Greater Sage-Grouse	*Phasianidae* Upland Game Birds	G3G4	S2		Sensitive - Known on Forests (BD) Sensitive - Suspected on Forests (CG, HLC)	SENSITIVE	SGCN2	17%	75%	Sagebrush

Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Chouteau, Custer, Davison, Deer Lodge, Fallon, Fergus, Gallatin, Garfield, Golden Valley, Hill, Madison, Mccone, Meagher, Musselshell, Park, Petroleum, Phillips, Powder River, Prairie, Rosebud, Silver Bow, Stillwater, Sweet Grass, Treasure, Valley, Wheatland, Wibaux, Yellowstone

Lanius ludovicianus Loggerhead Shrike	*Laniidae* Shrikes	G4	S1B	MBTA; BCC10; BCC17		SENSITIVE	SGCN3	4%	100%	Shrubland

Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Fallon, Fergus, Gallatin, Garfield, Glacier, Golden Valley, Hill, Jefferson, Liberty, Madison, Mccone, Meagher, Musselshell, Petroleum, Phillips, Pondera, Powder River, Prairie, Richland, Roosevelt, Rosebud, Sheridan, Stillwater, Sweet Grass, Teton, Toole, Valley, Wheatland, Wibaux, Yellowstone

Spizella breweri Brewer's Sparrow	*Passerellidae* New World Sparrows	G5	S1B	MBTA; BCC10; BCC17		SENSITIVE	SGCN3	12%	100%	Sagebrush

Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Chouteau, Custer, Dawson, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Hill, Jefferson, Lake, Lewis and Clark, Liberty, Lincoln, Madison, Mccone, Meagher, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Wibaux, Yellowstone

State Rank Reason: Species faces threats from loss of sagebrush habitats it is dependent on as a result of habitat conversion for agriculture and increased frequency of fire as a result of weed encroachment and drought.

The other species of concern should not be affected other than temporary displacement while the project is under construction.

No cumulative effects to habitat are anticipated.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

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 *Antiquities* have not been identified in the APE. 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.

No effects on historical, archaeological, or paleontological resources anticipated.

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.

This project will take place in isolated rangeland several miles from a county road and from the highway so there should be no aesthetic effects. There will be one stock water tank visible above ground but they are a common site in the area. There will be no noise other than the occasional sounds of a solar pump.

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.

No demands on limited resources are required for this project.

No direct or cumulative effects to environmental resources are anticipated.

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.

Once the installation has been completed, there will be no health and safety concerns associated with this project.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

This project will add a watering place of use for livestock on a state trust lands tract. Adding this water will improve the range management and cause cattle to use underutilized forage which will increase the productivity of the pasture.

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 project will not create any new jobs.

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.

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 not be any increases in traffic or traffic patterns if this project is approved.

There will be no direct or cumulative effects 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.

There are no zoning or other agency management plans affecting this project.

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.

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

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 proposed project does not include any changes to housing or developments. Population and housing will not be affected.

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

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.

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.

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 proposed project will not have any cumulative economic or social effect.

V. FINDING

25. ALTERNATIVE SELECTED:

Alternative B (the Proposed Action) – Under this alternative, the Department does grant permission to install a new stockwater tank and water supply system.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

I have evaluated the potential environment effects and have determined that no negative long-term environmental impacts will result from the proposed activity.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

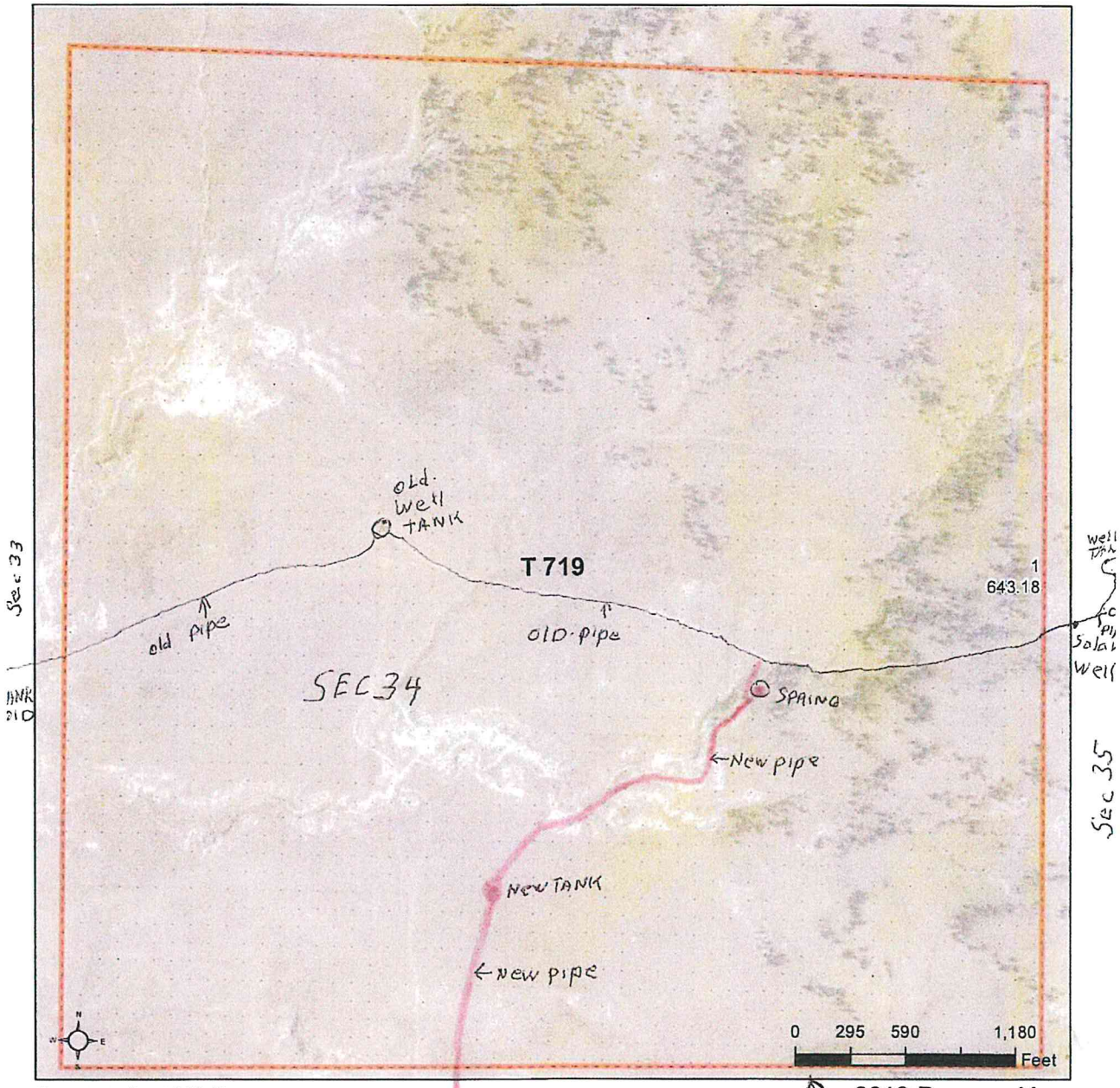
	EIS		More Detailed EA	XXX	No Further Analysis

EA Checklist Prepared By:	**Name:**	Dustin Lenz
	Title:	Land Use Specialist
Signature:	Dustin Lenz	**Date:** 30 May 2019

EA Checklist Approved By:	**Name:**	Jocee Hedrick
	Title:	Unit Manager, Northeastern Land Office
Signature:	Jocee Hedrick	**Date:** 5/30/19

USDA United States Department of Agriculture

Golden Valley County, Montana



Common Land Unit

- Rangeland
- Tract Boundary

Wetland Determination Identifiers

- Restricted Use
- Limited Restrictions
- Exempt from Conservation Compliance Provisions

2019 Program Year

Map Created April 16, 2019

2017 NAIP

Farm **1048**

Sec 3-T7N-R20E

34-8N-20E

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