



FINAL ENVIRONMENTAL ASSESSMENT
for the proposed
Laverell's, Inc.
Land Application Site
Garneill, Montana

Solid Waste Section
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April 28, 2021

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ACRONYMS

LI – Laverell’s, Inc.

ARM – Administrative Rules of Montana

AAR– Annual Application Rate

Draft EA – Draft version of an environmental assessment before public comment

DEQ – Montana Department of Environmental Quality

DNRC – Montana Department of Natural Resources and Conservation

EA – Environmental Assessment

EIS – Environmental Impact Statement

Final EA – Final version of an environmental assessment after public comment

GWIC – Ground Water Information Center

MBMG – Montana Bureau of Mines and Geology

MCA – Montana Code Annotated

MEPA – Montana Environmental Policy Act

MNHP – Montana Natural Heritage Program

O&M – Operation and Maintenance

Proposed Action – Approving a new septage land application site

Septic Rules– ARM Title 17, chapter 50, subchapter 8, “Cesspool, Septic Tank, and Privy Cleaners”

SDLA – “Septic Disposal Licensure Act”, Title 75, chapter 10, part 12, MCA

Site – Approximately 80 acres of Briggs property located approximately six miles northeast of Judith Gap in Fergus County, Montana.

SWL – Static Water Level

USFWS – United States Fish and Wildlife Service

USGS – United States Geological Survey

1. NEED FOR PROPOSED ACTION

1.1 SUMMARY

This final environmental assessment (Final EA) was prepared for the septage land application site proposed by Laverell's, Inc. (LI), in accordance with the Montana Environmental Policy Act (MEPA). On January 17, 2020, the Department of Environmental Quality (DEQ) received an application from LI for licensing a new septage land application site (Proposed Action). LI proposes the land application of septage on approximately 80 acres of Briggs property located approximately six miles northeast of Judith Gap in Fergus County, Montana. (Site, **Figure 1**).

1.2 BACKGROUND

In July 1995, LI obtained a license from DEQ to pump and land apply septage in Montana. LI is currently approved to land apply septage on multiple land application sites in Sweet Grass County. LI is proposing to add the Site to their license. The Site is on private property.

This application was signature certified by Fergus County prior to DEQ's environmental review. According to the Administrative Rules of Montana (ARM), DEQ cannot review a new site disposal application unless it has been previously certified by the local county health officer or designated representative.

Septage is the liquid and solid material removed from a septic tank, cesspool, portable toilet, or similar treatment works that only receive domestic waste and wastewater collected from household or commercial operations. Septage is different than sewage, which is wastewater and excrement that has not been treated and is conveyed in sewer systems. Septage is what Montana's septic tank pumpers land apply.

Naturally occurring bacteria within wastewater reside in the typical septic tank, digesting organic matter over time. Pre-treated liquid, or effluent, typically exits the septic tank through a perforated pipe and enters its leach field, leaving floating materials and solids in the tank for further digestion. This method of treatment differs from that provided by publicly owned treatment works (POTWs). However, treatment of septage occurs in septic tanks nonetheless. The liquid leaving tank is further treated in the drainfield by soil microbes and sunlight .

Septic tanks are commonly pumped every 2 to 5 years, depending on tank capacity and number of users. Septage is then either delivered to a POTW for secondary treatment, land applied, or dewatered and landfilled at a licensed Class II municipal solid waste landfill facility.

As Montana's population and seasonal visitation grow, the demand for disposal of septage increases. Wastewater treatment plants can accept only limited amounts of septage from pumpers. Land application by pumpers allows for safe disposal of septage without overloading Montana's wastewater treatment plants. Land application also reduces Montana farmers' reliance on chemical fertilizers to improve soil. LI's application was submitted to DEQ under the laws and rules for licensing septic pumpers, demonstrating their intent to meet the minimum requirements for the pumping and land application of septage.

When properly managed, land application of septage is a beneficial resource, providing economic and environmental benefits with no adverse public health effects. A licensed land application program recognizes and employs practices that maximize those benefits. Septage does not include prohibited material (e.g., garbage or tampons) removed from a septic tank or similar treatment works by pumping.

1.3 PURPOSE AND NEED

DEQ must conduct an environmental review on LI's application by evaluating potential impacts of the Proposed Action. If DEQ approves the application, DEQ will add the Site to their existing license. DEQ's decision to approve or deny the application depends upon the consistency of the application with the following:

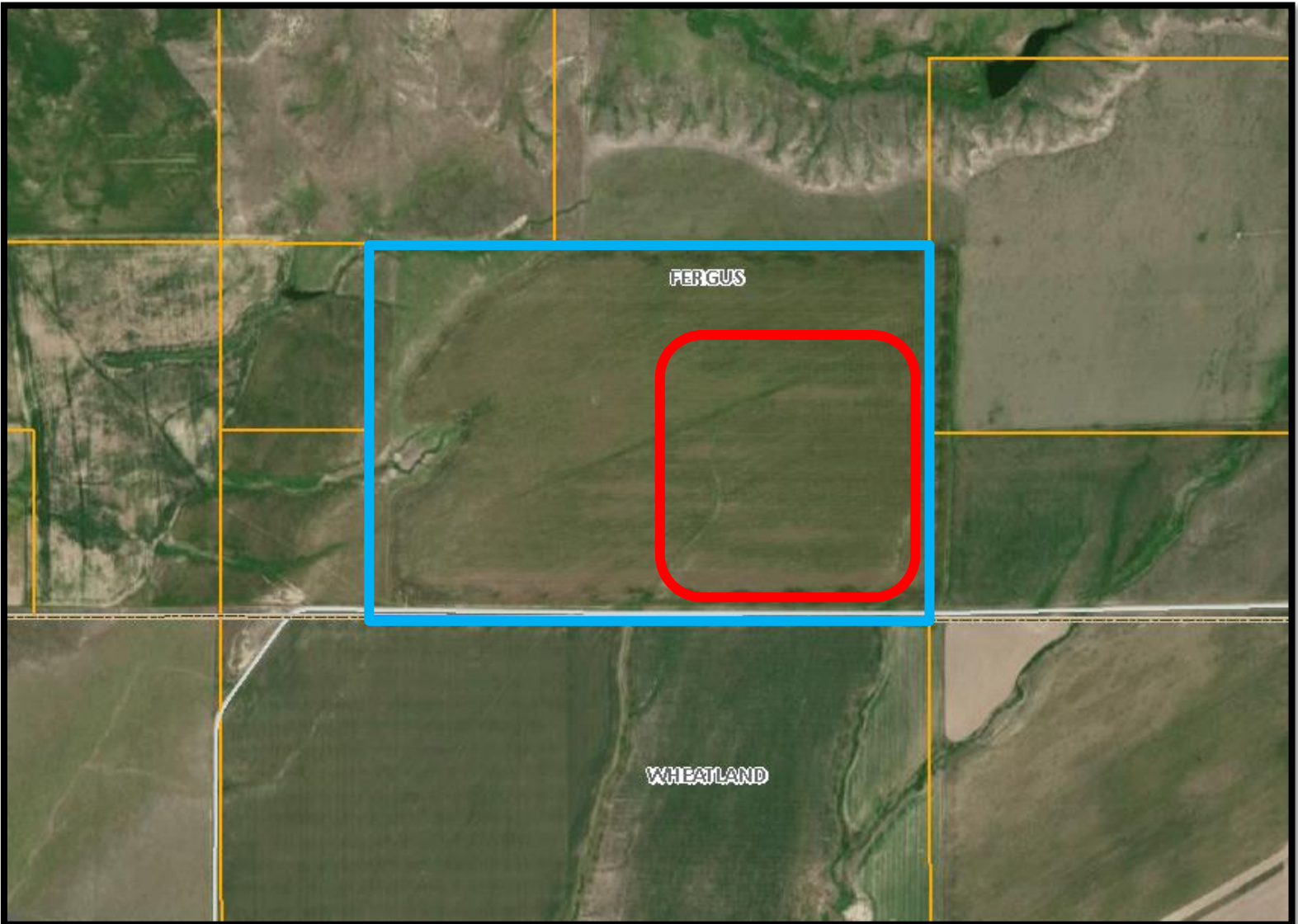
1. Septage Disposal Licensure Act (SDLA);
2. Administrative Rules of Montana (ARM) Title 17, chapter 50, subchapter 8, "Cesspool, Septic Tank, and Privy Cleaners" (Septic Rules);
3. the Clean Air Act of Montana; and
4. Montana Water Quality Act.

1.4 LOCATION DESCRIPTION AND STUDY AREA

The Site is in the SE ¼ of Section 19, Township 11 North, Range 17 East in Fergus County, Montana. The Site currently supports native grass.

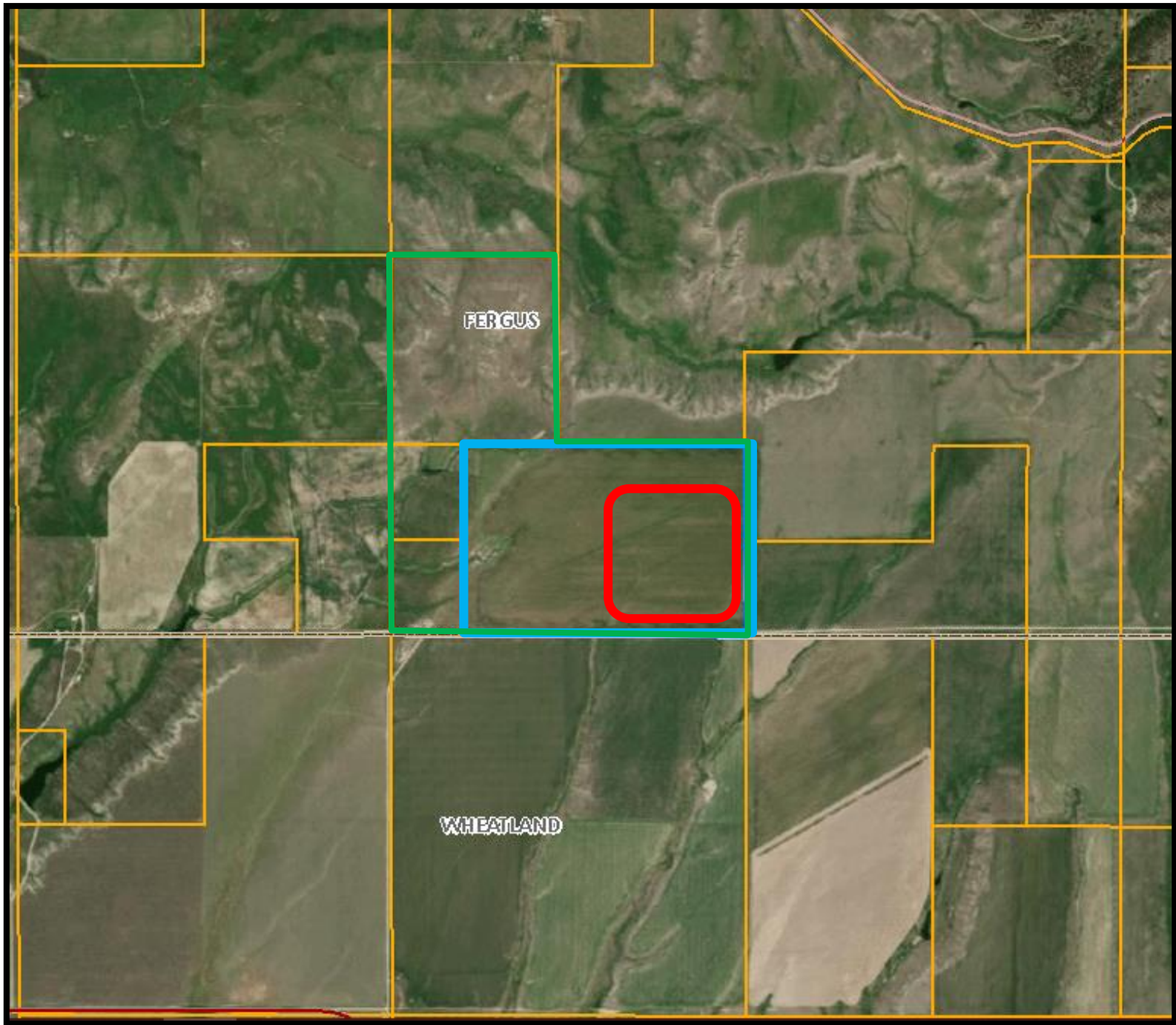
Neil Creek Road will be used to access the Site (**Figure 1**). The study area encompasses property that surrounds the Site. The study area depends on the resource under evaluation, as noted in the subparts of *Section 3*.

Figure 1: Proposed Land Application Site
(*approximate Site in red; Briggs property in blue; surrounding property boundaries in orange*)



Source: Montana Cadastral (*NOT TO SCALE*)

Figure 2: Study Area
(approximate Site in **red**; Section 19 in **green**; Briggs property in **blue**)



Source: Montana Cadastral (**NOT TO SCALE**)

1.5 COMPLIANCE WITH MEPA

Under MEPA, Montana agencies are required to prepare an environmental review for state actions that may have an impact on the human environment. The Proposed Action is considered a state action that may have an impact on human health and the environment. Therefore, DEQ must prepare an environmental assessment. This Final EA analyzes the Proposed Action and reasonable alternatives to the Proposed Action and discloses potential impacts that may result from such actions. DEQ will determine the need for additional environmental reviews based on consideration of the criteria set forth in ARM 17.4.608.

1.6 PUBLIC INVOLVEMENT

DEQ is releasing this Final EA to present its initial findings described in *Section 4*. A 30-day public comment period begins upon release of the document. The public comment period ended on March 25, 2021. One commenter submitted comments covering multiple topics and DEQ prepared a response to the comments (*Section 8 of this Final EA*). A notice of availability for the draft version of this environmental assessment (Draft EA) was sent to adjacent landowners and other interested parties. A public notice was published in the Lewistown News-Argus and a hard copy was sent to Lewistown Public Library in Lewistown, Montana. The public notice, Draft EA, and Final EA may be viewed at:

<https://deq.mt.gov/public/ea/SepticPumpers>.

2. DESCRIPTION OF ALTERNATIVES

This Section describes the Proposed Action and No Action alternatives. MEPA requires the evaluation of reasonable alternatives to the Proposed Action. Reasonable alternatives are achievable under current technology and are economically feasible, as determined by the economic viability of similar projects with similar goals, conditions, and physical locations. Reasonable alternatives are determined without regard to the economic strength of the applicant, but may not include an alternative facility or an alternative to the proposed project itself.

According to ARM 17.4.609(3)(f), an environmental assessment (EA) must include alternatives whenever reasonable and prudent. DEQ has not considered any other alternatives to the Proposed Action because LI's application and operation and maintenance comply with the applicable laws and rules pertaining to land application of septage in Montana.

2.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the Site would not be approved by DEQ. Therefore, the Site could not be used by LI, and disposal of septage would have to occur at another approved location or treatment works.

2.2 PROPOSED ACTION

LI is proposing the land application of septage on the Site, described in *Section 1.1*.

2.2.1 LAND APPLICATION SITE OPERATIONS

The operational and setback requirements for land application of septage at this Site are provided in **Tables 1** and **2**:

Table 1: Land Application Operational Requirements

ARM Reference	Specific Restrictions
17.50.809(10)	All non-putrescible litter must be removed from the land application site within 6 hours of application.
17.50.809(12)	Pumpings may not be applied at a rate greater than the crop’s annual application rate (AAR) for nitrogen.
17.50.810(1)	Pumpings may not be applied to flooded, frozen, or snow-covered ground if the pumpings may enter state waters.
17.50.811(3)	Pumpings may be applied only if the person first performs one of the following vector attraction and pathogen reduction methods: <ul style="list-style-type: none"> • injection below the land surface so no significant amount remains on the land surface within one-hour of injection; • incorporation into the soil surface’s plow layer within 6 hours of application; • addition of alkali material so that the pH is raised to and remains at 12 or higher for a period of at least 30 minutes; or, • management as required by 17.50.810 when the ground is frozen

Table 2: Land Application Site Setback Requirements

ARM Reference	Specific Restrictions
17.50.809(1)	Pumpings may not be applied to land within 500 feet of any occupied or inhabitable building.
17.50.809(2)	Pumpings may not be applied to land within 150 feet of any state surface water, including ephemeral or intermittent drainages and wetlands.
17.50.809(3)	Pumpings may not be applied to land within 100 feet of any state, federal, county, or city-maintained highway or road.
17.50.809(4)	Pumpings may not be applied to land within 100 feet of a drinking water supply source.
17.50.809(6)	Pumpings may not be applied to land with slopes greater than 6%.
17.50.809(8)	Pumpings may not be applied to land where seasonally high groundwater is 6 feet or less below ground surface.

Land application will be limited to areas approved by DEQ. Areas within the Site will not be used until their boundaries have been marked and approved by DEQ or the local county sanitarian.

LI will be required to log the type and amount of septage land applied annually as well as the dates applied. Disposal logs will be submitted to DEQ semiannually. DEQ will verify the Site’s annual application rate (AAR) and may periodically monitor the soils for adherence to the proposed maximum AAR.

2.2.2 EQUIPMENT AVAILABLE AND PUMPER TRUCK REQUIREMENTS

LI has the following equipment available for land application activities:

1. 1987 Kenworth W900 pumper truck
2. 1976 Peterbilt 352 pumper truck
3. 2015 Ford F-350 pickup
4. Disk for incorporation (to be pulled by any of the above vehicles)

The Septic Tank, Cesspool, and Privy Cleaner Vehicle Inspection Form was created by DEQ to guide the vehicle inspection. The county health officer's (or designated representative's) signature on the vehicle inspection form certifies that the vehicle is equipped with the necessary equipment to adequately screen and spread septage while land applying. The following questions are on the form to verify compliance with the Septic Rules:

1. Does the vehicle show signs of leakage?
2. Is the vehicle equipped with the proper spreading equipment?
3. Is the spreading equipment mounted on the vehicle or separate?
4. If required to screen septage before land applying, is the vehicle, or site, equipped with the proper screening equipment?
5. Is the spreading equipment approved for use?
6. Is the screening equipment approved for use?
7. Make/Model of Vehicle
8. Tank Size

LI will be required to submit this form for each pump or vac truck to DEQ prior to land application.

2.2.3 AMOUNT AND EXTENT OF SEPTAGE APPLICATION

Land application must not exceed the AAR (gallons per acre per year) based on:

1. The nitrogen content of the waste applied at the Site; and
2. The crop nitrogen yield for the crop or other vegetation at the Site.

The AAR for septage is calculated as follows:

$$\text{AAR} = \frac{\text{minimum crop nitrogen requirement (lbs./acre/year)}}{0.0026 \text{ (lbs./gallon)}}$$

The Site grows native grass. The nitrogen requirement for native grasses is 75 pounds per acre per year based on a conservative yield expectation. The resulting AAR for septage is 28,826 gallons per acre per year, which is equal to approximately 1.06 inches of liquid applied annually per acre. For comparison, the average annual precipitation in the Judith Gap area is 15.3 inches per year.

Land application of septage at the AAR is alternated annually between separate parcels to allow for agronomic crop uptake of the applied nitrogen. Plants can utilize nitrogen available from the septage if the volume of septage applied each year does not exceed the AAR. When land application is rotated, one parcel is used every year. For example, if 100 acres are proposed for land application, 50 acres would be used one year and the other 50 acres would be used similarly the next year. In this case, LI will designate two equal areas of approximately 40 acres and rotate parcels each year. The residual soil nutrient levels at each parcel will vary over time. DEQ may periodically monitor the soil for nutrient content to determine compliance with the AAR.

The Briggs property could annually treat the proposed 300,000 gallons of waste without exceeding the AAR on approximately 40 acres each year.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES BY RESOURCE

3.1 LOCATION DESCRIPTION AND STUDY AREA

The location description and study area are described in *Section 1.1* of this Final EA. The study area includes land and resources in and around the Site. The affected environment is described in each subsequent section depending on the resource.

3.2 IMPACTS

Table 3 shows a summary of the impacts of the No Action Alternative and the Proposed Action.

Table 3: Impacts

Resource	Alternative 1 – No Action	Alternative 2 – Proposed Action
Wildlife and Habitats	Minor impact.	Minor impact. Wildlife tend to avoid land application sites due to human scent and activities and will relocate (See Section 3.2.1)
Soils and Vegetation	Minor impact.	Minor beneficial impact. The quality of soils and vegetation will be enhanced by the Proposed Action (See Section 3.2.2)
Geology	No impact	No impacts. (See Section 3.2.3)
Hydrology and Hydrogeology	No impact.	No impacts. (See Section 3.2.4)

Aesthetics and Noise	Minor impact.	Minor impact. Land application activities resemble agricultural activities occurring in the surrounding area. Odor will largely be controlled by daily tilling. (See Section 3.2.5)
Human Health & Safety	No impact.	No impacts. (See Section 3.2.6)
Industrial, Commercial, and Industrial Activities	No impact.	No impacts. (See Section 3.2.7)
Cultural Uniqueness and Diversity	No impact.	No impacts. (See Section 3.2.8)
Demand for Government Services	Minor impact.	Minor impact. Fergus County sanitarian and DEQ will conduct periodic inspections of the Site. (See Section 3.2.9)
Socioeconomics	No impact.	No impacts. (See Section 3.2.10)
Traffic	Minor impact.	Minor impact. LI will access the Site via Neil Creek Road, which currently supports traffic to homes and businesses in the area. (See Section 3.2.11)

3.2.1 WILDLIFE AND HABITATS

Impacts to wildlife and habitats from the Proposed Action will be minor.

Transient wildlife tends to avoid land application sites due to human scent and activities. Montana Fish, Wildlife & Parks (FWP) manages the overall wildlife populations of the region. Species of fish, amphibians, and aquatic invertebrates and plants are not included on the following lists because land application activities will not impact nearby perennial waters based on STP requirements for minimum setbacks, maximum slopes, and elimination of runoff (see *Sections 2.2.1 and 3.2.4.1*).

The applicant does not plan to expand the Site beyond the boundaries described in the application. Therefore, no habitats outside the land application area will be impacted. Parcels of land adjacent to the Site are primarily used for grazing and agricultural production with some native grass acreage. Beyond the immediate vicinity of the Site, a similar mix of agricultural lands and native grasslands provide habitat for species present in the region.

3.2.1.1 THREATENED AND ENDANGERED SPECIES

The U.S. Fish & Wildlife Service’s (USFWS) online databases were used to identify plant and animal species at the Site and study area (USFWS, 2021). The USFWS species and status listings for Fergus County, Montana, are shown in **Table 4**:

Table 4: Federally Established Species List

Scientific Name	Common Name	Status
<i>Canis lupus</i>	Gray wolf	Recovery
<i>Haliaeetus leucocephalus</i>	Bald eagle	Recovery
<i>Mustela nigripes</i>	Black-footed ferret	Experimental population (non-essential)
<i>Pinus albicaulis</i>	Whitebark pine	Proposed threatened
<i>Aquila chrysaetos</i>	Golden eagle	Species of concern
<i>Charadrius montanus</i>	Mountain plover	Resolved taxon
<i>Lynx canadensis</i>	Canada lynx	Threatened
<i>Centrocercus urophasianus</i>	Greater sage grouse	Resolved taxon
<i>Anthus spragueii</i>	Sprague’s pipit	Resolved taxon

The Site does not provide the habitat necessary to independently sustain the species listed above. Nearby tracts of similar grasslands provide adequate habitat for listed mammals and birds. Abundant habitat for the whitebark pine exists northeast of the Site in the Big Snowy Mountains. The greater sage grouse is addressed separately in *Section 3.2.1.2*. The Proposed Action may deter transient wildlife from passing through the active land application area, but impacts to these species are anticipated to be minor.

3.2.1.2 SPECIES OF CONCERN

No impacts to species of concern are anticipated to result from the Proposed Action.

Designation as a species of concern is not a statutory or regulatory classification. Instead, these designations provide a basis for resource managers and regulators to make proactive decisions regarding species conservation.

The Montana Natural Heritage Program’s (MNHP) online databases were accessed for listed species (MNHP, 2021). The MNHP species and status listing for Township 11 North, Range 17 East is shown in **Table 5**.

Table 5: Montana Recognized Species List

Scientific Name	Common Name	Status	GRank/SRank
<i>Lasiurus cinereus</i>	Hoary bat	Species of concern	G3/S3

<i>Anthus spragueii</i>	Sprague's pipit	Species of concern	G3/S3
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The MNHP uses a standardized ranking system developed by The Nature Conservancy and maintained by NatureServe. Each species is assigned two ranks; one represents its global status (GRank), and one represents its status in the state (SRank). The scale is 1-5; 5 means common, widespread, and abundant; 1 means at high risk. Species with a GRank 5 are not included in **Table 5**.

Habitat for the hoary bat is not present within the premises of the Site. The Site is not located within a Core Area or any other recognized habitat level for the greater sage grouse, as designated by the Department of Natural Resources and Conservation (DNRC). Sage grouse habitat is present in Fergus County and its neighboring counties, but all recognized levels of habitat are separated from the Site by at least 15 miles.

3.2.2 SOILS AND VEGETATION

The impact of the Proposed Action to soils and vegetation will be minor.

The US Department of Agriculture (USDA) Natural Resources Conservation Service's (NRCS) National Cooperative Soil Survey databases were accessed for information about the shallow subsurface soils at the Site and surrounding area (**Figure 3** and **Table 6**).

Figure 3: Soil Resource Map
(Soil unit with delineation in orange, approximate Site in red, Section 19 in green)



Source: USDA, Natural Resources Conservation Service (NRCS), 2021 (**NOT TO SCALE**)

Table 6: USDA-NRCS, Custom Soil Resource Report, 2021

Map Unit Symbol	Map Unit Name	Soil Rating
692B	<i>Whitecow-Yaple complex, 0 to 4 percent slopes</i>	<i>Somewhat limited</i>
694C	<i>Whitecow gravelly loam, 2 to 8 percent slopes</i>	<i>Somewhat limited</i>
698B	<i>Judith-Kiev loams, 0 to 4 percent slopes</i>	<i>Somewhat limited</i>

The primary soil type where land application activities will occur at the Site is the Whitecow-Yaple complex, 0 to 4 percent slopes (692B). A small portion of the Site is comprised of Whitecow gravelly and Judith-Kiev loams. The ratings shown in **Table 6** are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the septage is applied, and the method by which the septage is applied. "Not limited" indicates that a soil type has characteristics which are favorable for the specified use. Good performance and low maintenance can be expected. "Somewhat limited" indicates that a soil type has characteristics which are moderately favorable for the specified use. "Very limited" indicates that a soil type has one or more characteristics which are unfavorable for the specified use (NRCS, 2021).

The Site currently supports grass varieties which are commonly found in the surrounding area. The MNHP online databases were also accessed for listed plant species in the Township 11 North, Range 17 East study area (MNHP, 2021). One species, the long-styled thistle (*circium longistylum*), was listed with a GRank of G2. This species thrives in montane-subalpine meadows and some grazing lands in the region; it is not known to exist at the Site. No impact on the long-styled thistle is anticipated to result from the Proposed Action.

Septage contains nutrients that can reduce the reliance of the farmer or land manager on chemical fertilizers to improve soil. The Proposed Action will add valuable moisture, organic matter, and nutrients to the topsoil, improving the Site's soil tilth and the vigor of its vegetation. The quantity and quality of soils and vegetation at the Site will be enhanced by the Proposed Action.

DEQ analyzed how the land application of septage will impact the Site's environment given the weather of the region. The weather in the area is typical of central Montana, classified as warm summer continental climate. The average pan evaporation rate is listed as 43.92 inches per year. The hot months of June, July, and August coincide with the average Montana septic tank pumper's busy season. Dry soils, vegetation, and crops in this semi-arid zone will benefit from the added moisture.

3.2.3 GEOLOGY

No geological impacts are anticipated due to the Proposed Action.

Periodic tilling of the surface topsoil to incorporate septage will not significantly affect the thickness or character of deeper glacial till found on the Site. Septage land application operations will not involve excavation.

The analysis area for geology is the Site and the surrounding area (beyond a mile from site boundary in **Figure 4**). Some discussion of regional geology is provided. The analysis methods include:

1. Field work;
2. Reviewing geology field guidebooks including Geologic Time Scale v. 5.0: Geological Society of America (Geissman and Bowring) and Roadside Geology of Montana (Hyndman and Alt);
3. Current United States Geological Survey (USGS) and Montana Bureau of Mines and Geology (MBMG) publications; and
4. Associated online maps accessed via the MBMG and DEQ ArcGIS portals.

The Site is situated on native grassland north of Judith Gap. Central Montana is characterized by rolling high plains comprised of deeply eroded Mesozoic to Tertiary sedimentary rocks that are locally interrupted by isolated mountain highlands in the region approaching the Rocky Mountain Front range farther west.

From the Late Mesozoic Era to the Early Tertiary Era, a shallow inland sea flooded the continent to form basins and sedimentary deposits in Montana, Wyoming, and North Dakota. Sandy to shaly marine sedimentary rocks are found at the surface and at depth in the area surrounding the Site. The Late Cretaceous Laramide tectonic episode initiated magmatism and the formation of the ancient Rocky Mountains to the west by subduction of sea floor in an oceanic trench offshore of the western margin of Montana. Subduction beneath the continental margin eventually became shallower as the slab rose upward farther inland below the Site. This radical change generated a younger phase of Early Tertiary alkaline magma resulting in a network of isolated mountain groups exposed today in the nearby Little Belt Mountains and Big Snowy Mountains. The magma was emplaced between the shallow sedimentary strata to form large intrusive mounds (laccoliths) that domed the overlying layers (see purple oval in Little Belts along left edge in **Figure 4**).

The network of ancient streams flowing eastward off the extensive Rocky Mountains (Rockies) combined with the ancestral Missouri River drainage network is the primary depositional and erosional mechanism responsible for the physiography of Central Montana as we see it today. The isolated Bearspaw, Little Belt, Judith, and Big Snowy mountain groups were first subject to rapid and prolonged erosion by numerous streams rushing down to the ancient Missouri River, as the inland sea retreated and the Fort Union Formation prograded eastward. These outlier mountains and bordering foothills were deeply dissected and worn down during this first erosional episode. The pediments which formed around those mountains groups, and the surrounding foreland plains extending eastward, were later deeply buried by coarse paleo-gravels from prograding alluvial fans and bajadas as uplift and erosion of the ancient Rockies peaked sometime in the Oligocene (Alden, 1932).

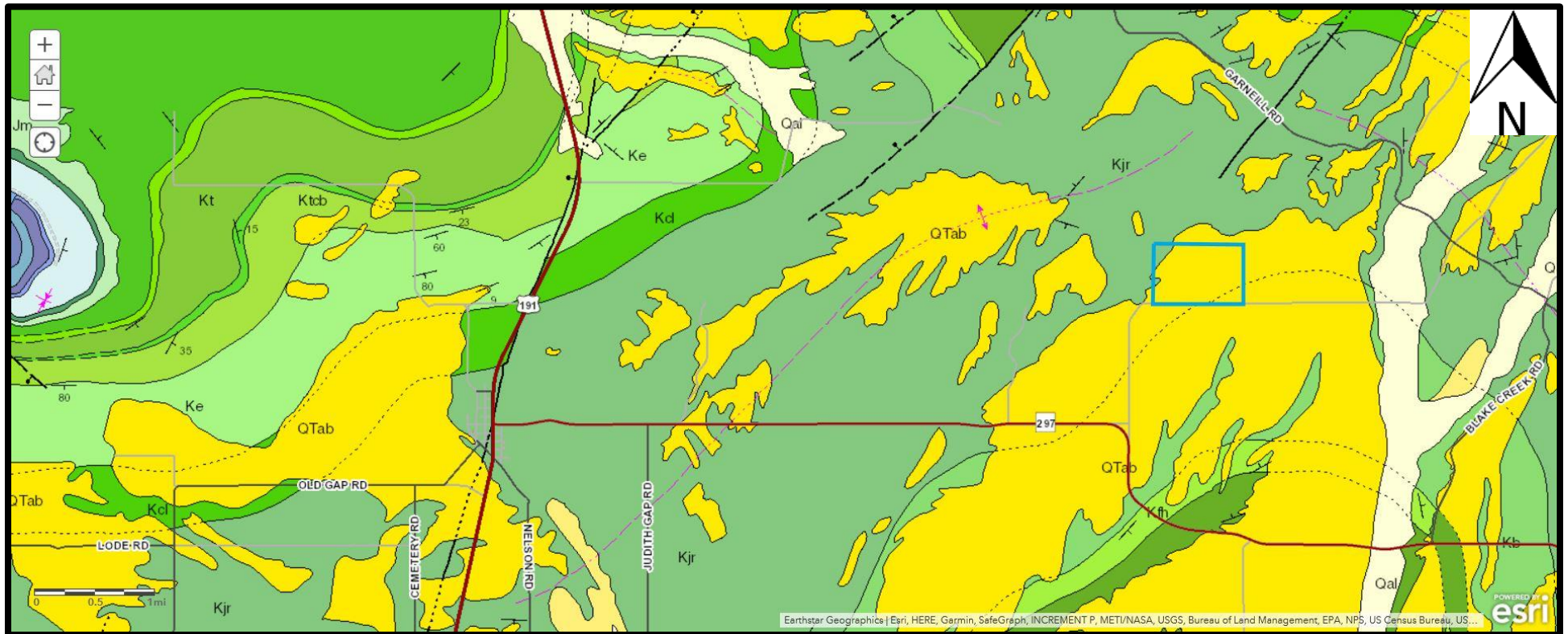
A second episode of deep erosion caused scattered exposure of the underlying older Paleozoic and Mesozoic sedimentary basement rocks such as those found at the Site today. The largely buried outlying mountain groups were further uncovered in the process. Several levels of paleo-terraces (dark to light yellow in **Figure 4**) resulting from further reworking of the gravel alluvium by the ancient Missouri and Judith Rivers now surround these isolated mountain groups. Erosion of loose paleo-fluvial terraces and underlying older sedimentary rocks was rejuvenated after the Pleistocene to expose the resistant laccolithic core of the isolated mountain groups. Numerous local plateaus, mesas, and terrace benches found throughout the foothills area, some still capped by thin remains of the paleo-fluvial gravels, are evidence of ongoing erosion caused by isostatic post-glacial uplift.

Figure 4: Regional Geologic Map*

(Site property in blue)

Symbols listed younger to older:

Symbols: Qal – Alluvium, Qab – alluvium, terrace levels a and b, QTab – alluvium, older terrace levels a and b, Kjr – Judith River Formation (Sandstone with interbeds of carbonaceous shale), Kb – Bearpaw Shale (numerous thin bentonite beds), Kcl – Claggett Shale, Ke – Eagle Formation (sandstone/shale/coal), Ktc- Telegraph Creek Formation, Ktcb – Telegraph Creek Formation through Belle Fourche Formation, Kt – Thermopolis Formation, Kk – Kootenai Formation.



* Fm (or Fms) means a Formation (or grouped Formations); purple fold axes; red crosses mafic volcanic dikes; solid red or orange igneous intrusive sills or laccoliths.
Source: MBMG, web mapping application and Montana Geologic Map 62 (2007); Montana Cadastral Map, NRIS; Esri/ArcGIS services (2020) (NOT TO SCALE)

3.2.4 HYDROLOGY AND HYDROGEOLOGY

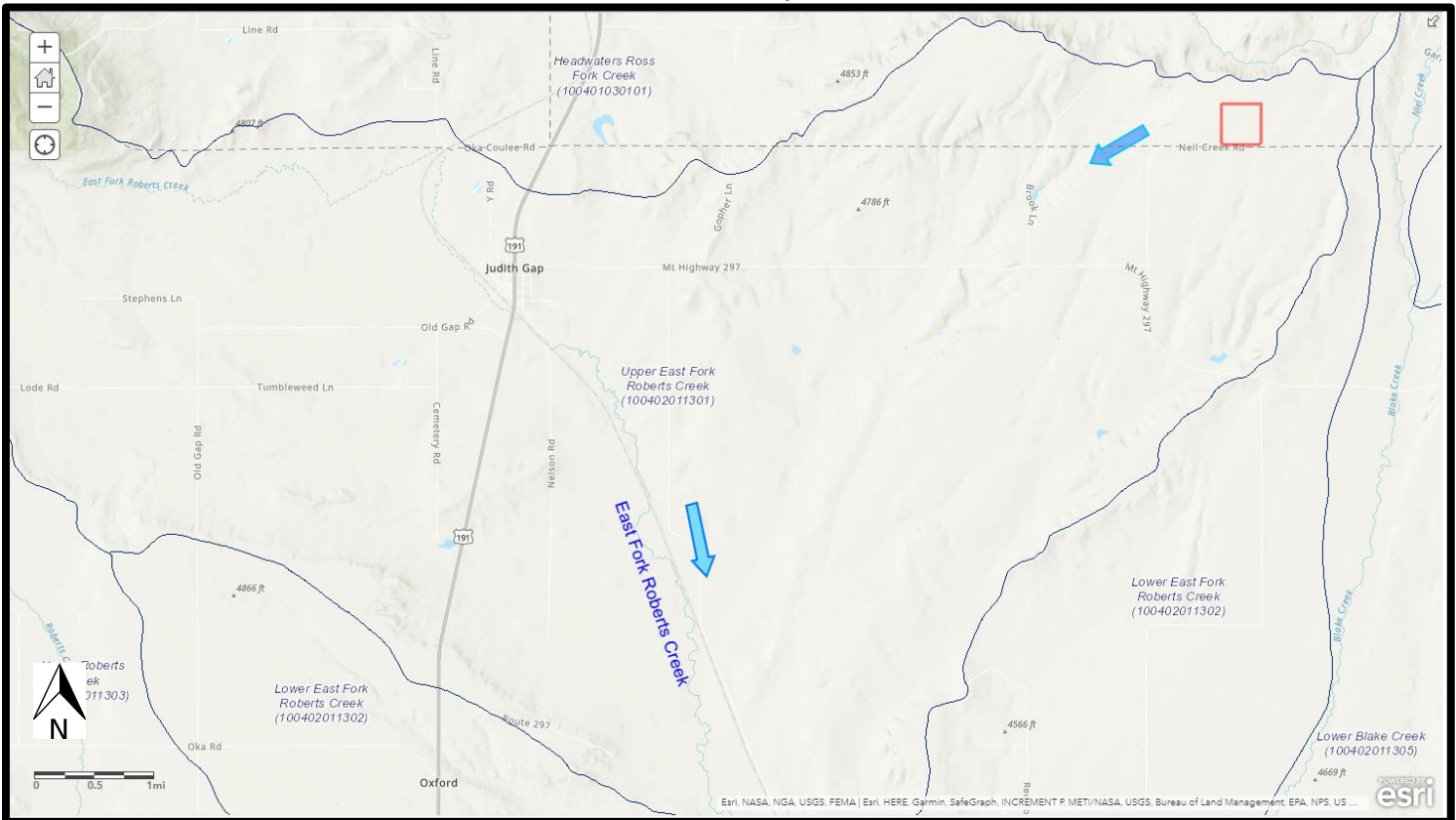
The analysis area for hydrology and hydrogeology is the Site and surrounding area (beyond a mile). Some discussion of regional geology, based upon published reports, is also provided. The analysis methods include reviewing wetland and jurisdictional waters information, onsite drilling reports, publications of the Montana Bureau of Mines and Geology (MBMG), and online maps (Esri/ArcGIS, 2021).

3.2.4.1 SURFACE WATER

No impacts to surface waters are anticipated to result from the Proposed Action.

The Site is located entirely within the Upper East Fork Roberts Creek watershed, hydrologic unit code (HUC) 100402011301 (Figure 5). During a major runoff event, surface water from the Site will travel west-southwest toward ephemeral drainages and through a series of small dams leading to East Roberts Creek. East Roberts Creek flows to Roberts Creek, which in turn outlets to Careless Creek prior to its confluence with the Musselshell River, approximately 35 miles southeast of the Site.

Figure 5: Surface Water
(approximate Site in red, flow direction arrow in blue, HUC-12 watershed boundaries in dark blue)



Source: Esri/ArcGIS, Montana State Library, USGS, and NRCS (NOT TO SCALE)

Periodic inspections by DEQ for compliance with setbacks near the Site borders, slope restrictions, and runoff patterns will ensure no septage enters any nearby ephemeral or permanent drainages.

3.2.4.2 GROUNDWATER

No impacts to groundwater or groundwater wells are expected to result from the Proposed Action.

The Montana Bureau of Mines and Geology's Ground Water Information Center (GWIC) is DEQ's reference for well data in Montana. All wells located within one mile of the Site and documented by GWIC when this Final EA was written were considered. Any well not documented in GWIC is not included in this Final EA, but if wells are proven to be within setbacks, the Site's boundaries will be adjusted to maintain the setbacks. See *Section 3.2.3* of this report for descriptions of the depositional environment beneath the Site.

There are no documented groundwater production wells within a 1-mile radius of the Site. No wells exist on the Site. Near the Site, groundwater flow direction is assumed to be south-southwest, mimicking the surface water drainage patterns (**Figure 6**). Nearby well logs indicate that low permeability clays with fine to medium gravels (paleo-fluvial terrace material), transitioning to a sandy clay layer just above the sandstone bedrock, are the predominant deposits present in the subsurface. The nearest downgradient production well (stock water) is located approximately 1.2 miles southwest of the Site, and the static water level reported in GWIC #23870 (**Figure 6**) is approximately 35 feet below ground surface (BGS). It can be assumed that the depth to groundwater at the Site is greater than the six feet minimum required by ARM 17.50.809(8).

Inspections and possible monitoring by DEQ will validate compliance with requirements for land application of septage at the AAR for the crops planted on the Site. This practice will be followed at the Site to ensure the absence of vertical percolation of septage below the soil treatment zone.

No impacts to groundwater or groundwater wells are expected to result from the Proposed Action.

**Figure 6: Location of Nearby Groundwater Production Wells
(GWIC wells in blue circles, 1-mile radius yellow shaded circle)**



Source: Esri/ArcGIS and GWIC/MBMG (**NOT TO SCALE**)

3.2.5 AESTHETICS AND NOISE

The impact to aesthetics and noise from the Proposed Action will be minor.

The Site will be accessed via Neil Creek Road. The Site is not located on a prominent topographical feature. No other development is anticipated at the Site. The Site is located a rural area, with very few homes within a mile.

DEQ and/or the local county sanitarian will respond to complaints about odor to determine if wastes were not properly managed. With proper management, odors will be minimal. The naturally occurring bacteria in the soil use carbon in the waste as a fuel source. This activity results in the breakdown of wastes, which include odors. Usually, odors are only detected at the time and immediate vicinity (within feet) of the land application activity and are further mitigated by tilling within six hours. Land application could occur daily. Dust caused by tillage activities during the dry season will be reduced by the moisture content of septage.

The Proposed Action will be visible from Neil Creek Road and resemble agricultural activities occurring in the surrounding area. Pumper trucks will access the Site to conduct land application activities. However, only one truck will access the Site at a time. Noise from the truck at the Site will resemble noises from agricultural activities currently occurring in the area. Therefore, impacts to aesthetics and noise will be minor.

3.2.6 HUMAN HEALTH & SAFETY

No impacts on human health and safety are expected to result from the Proposed Action.

Septage will be land applied at the Site. Septage will be incorporated into the soil surface within six hours of application and dust will be controlled. Livestock grazing is not anticipated at the Site. If grazing was to occur, it will not be permitted while land application activities occur or within 30 days of the most recent application, as per ARM 17.50.811 (5)(a).

Regarding COVID-19, the Environmental Protection Agency (EPA) expects a properly managed septic system to treat COVID-19 the same way it safely manages other viruses often found in wastewater. The World Health Organization (WHO) has indicated that “there is no evidence to date that COVID-19 virus has been transmitted via sewerage systems, with or without wastewater treatment.” (EPA, 2020)

The Site is on private property and is accessed from Neil Creek Road.

3.2.7 INDUSTRIAL, COMMERCIAL, AND AGRICULTURAL ACTIVITIES

No impacts to industrial and commercial activities are expected to result from the Proposed Action. Minor positive impacts to agricultural activities are expected due to the Proposed Action.

The Site is zoned as rural land and will not accommodate industrial or commercial activities. When land application occurs on an annual rotation (*Section 2.2.3*), crop production can occur and agricultural activities on the Site can continue. Land application of septage will improve soil health.

3.2.8 CULTURAL UNIQUENESS AND DIVERSITY

No impacts to cultural uniqueness and diversity are expected to result from the Proposed Action.

The State Historic Preservation Office (SHPO) conducted a resource file search for Section 19, Township 11 North, Range 17 East, which indicated there have been no previously recorded sites within the area. Based upon ground disturbances in Section 19, Township 11 North, Range 17 East associated with agricultural activities and residential development, SHPO determined there is a low likelihood that cultural properties will be impacted.

3.2.9 DEMAND FOR GOVERNMENT SERVICES

The impact to demand for government services from the Proposed Action will be minor.

DEQ staff will provide guidance to LI for septage land application activities at the Site, with assistance from the Fergus County sanitarian as needed. Disposal logs showing volumes of waste applied by LI at the Site are submitted to DEQ twice a year. Disposal logs will be reviewed by DEQ to ensure the AAR is not exceeded. Periodic inspections are performed by DEQ at all septic tank pumper land application sites. DEQ may obtain periodic soil samples for testing of nutrient levels to ensure compliance with the AAR for the Site.

3.2.10 SOCIOECONOMICS

No impacts to socioeconomics are expected to result from the Proposed Action.

No additional employees will be hired because of the Proposed Action. Employees currently employed by LI will conduct necessary operations at the Site.

3.2.11 TRAFFIC

The impact to traffic from the Proposed Action will be minor.

There will be no significant increase in traffic on Neil Creek Road. One pumper truck will access the Site at a time. The Site will be accessed from Neil Creek Road. Neil Creek Road currently supports daily traffic to homes in the area.

3.3 REGULATORY RESTRICTIONS

MEPA requires state agencies to evaluate regulatory restrictions proposed for imposition on private property rights because of actions by state agencies, including alternatives that reduce, minimize, or eliminate the regulation of private property (Section 75-1-201(1)(b)(iii), MCA). Alternatives and mitigation measures required by federal or state laws and regulations to meet minimum environmental standards, as well as actions proposed by or consented to by the applicant, are not subject to a regulatory restrictions analysis.

No aspect of the alternatives under consideration will restrict the use of private lands or regulate their use beyond the permitting process prescribed by the SDLA. The conditions that will be imposed by DEQ in issuing the license will be designed to ensure conformance of the Proposed Action to minimum environmental standards or to uphold criteria proposed and/or agreed to by LI during application review. Thus, no further DEQ analysis is required beyond the LI application review for protection of human health and the environment.

3.4 CUMULATIVE IMPACTS

Cumulative impacts are the collective impacts on the human environment when a specific action is considered in conjunction with other past, present, and future actions by location

and type. Cumulative impact analysis under MEPA requires an agency to consider all past and present state and non-state actions. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impact statement evaluation, or permit processing procedures. Cumulative impact analyses help to determine whether an action, combined with other activities, would result in significant impacts.

The Site is currently native grass. The surrounding area consists of agricultural activities and residential homes. The cumulative impacts of the Proposed Action will include limitations on the utilization of the Site for agricultural, recreational, and other activities, upheld until the Proposed Action ceases (ARM 17.50.811(4) and (5)).

4. FINDINGS

The depth and breadth of the project are typical of a septage land application site. DEQ's analysis of potential impacts from the Proposed Action are sufficient and appropriate for the complexity, environmental sensitivity, degree of uncertainty, and mitigating factors provided by the Septic Rules for each resource considered.

To determine whether preparation of an EIS is necessary, DEQ is required to assess the significance of impacts associated with the Proposed Action. The criteria that DEQ is required to consider in making this determination are set forth in ARM 17.4.608(1)(a) through (g):

- (a) The severity, duration, geographic extent, and frequency of occurrence of the impact;
- (b) The probability that the impact will occur if the Proposed Action occurs; or conversely, reasonable assurance in keeping with the potential severity of an impact that the impact will not occur;
- (c) Growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts;
- (d) The quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources or values;
- (e) The importance to the state and to society of each environmental resource or value that would be affected;
- (f) Any precedent that would be set because of an impact of the Proposed Action that would commit DEQ to future actions with significant impacts or a decision in principle about such future actions; and
- (g) Potential conflict with local, state, or federal laws, requirements, or formal plans.

The Site's location is described in *Section 1.4* of this Final EA, and includes approximately 80 acres of Briggs property located approximately six miles northeast of Judith Gap in Fergus County,

Montana. If LI renews their license and operations comply with the SDLA and its implementing rules, land application activities and DEQ site inspections will continue indefinitely. The Site is not within sage grouse core habitat, general habitat, or connectivity area. It has no special agricultural designation. Operations will not adversely affect any threatened or endangered species.

The Proposed Action is expected to improve soils and vegetation at the Site, as described in *Section 3.2.2*.

The Proposed Action is not expected to impact surface water resources. Operational standards ensure that all the setback requirements from surface water are met and that no slopes exceed 6%, as described in *Section 3.2.4.1* of this Final EA.

The Proposed Action is not expected to impact groundwater. The depth to groundwater is greater than six feet as required. Land application at agronomic rates will ensure that no septage could percolate below the surface treatment zone.

DEQ has not identified any growth-inducing or growth-inhibiting aspects of the Proposed Action. However, access to the parcels on the Site for utilization by human recreation, crops, and livestock will be limited to meet the regulatory restrictions necessary to protect human health (ARM 17.50.811(4) and (5)). DEQ's approval is not a decision regarding, in principle, any future actions that DEQ may perform. Furthermore, approval doesn't set any precedent or commit DEQ to any future action. Finally, the Proposed Action does not conflict with any local, state, or federal laws, requirements, or formal plans.

The Proposed Action will meet the requirements of the SDLA, the Clean Air Act of Montana, the Montana Water Quality Act, ARM, and county ordinances. Based on a consideration of the criteria set forth in ARM 17.4.608, DEQ has determined that LI's proposal to add the Site to its septic pumper license is not anticipated to significantly impact the quality of the human environment. Therefore, preparation of an EA is the appropriate level of review under MEPA.

5. OTHER GROUPS OR AGENCIES CONTACTED OR CONTRIBUTING TO THE EA

Fergus County Environmental Health Department
United States Environmental Protection Agency
World Health Organization
United States Department of Agriculture
Montana Natural Heritage Program
Montana Historical Society State Historic Preservation Office
United States Geological Survey
Montana Bureau of Mines and Geology
US Fish & Wildlife Service
Montana Sage Grouse Habitat Conservation Program

6. AUTHORS

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Septic Tank Pumper Program

Date: April 28, 2021

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8. RESPONSE TO COMMENTS

The comment period on the draft EA started February 24, 2021. The comment period ended on March 25, 2021.

During the comment period, DEQ received one comment submission covering several topics from the Draft EA. DEQ read and considered the substantive elements from the unique comment themes, creating this document and making changes to the final EA in response. Commenter questions are shown in italics below section headings which refer to the Draft EA. DEQ's response is below each comment.

Question #1

1.2 Background

It's our understanding that the contents of septic tanks, which includes (mostly) liquid and solid material, will likely be approved for application at the proposed Briggs site. Further, this material is not treated like it would be if it originated from a treatment facility, so whatever has been put down a drain or toilet could end up at the application site. We ask DEQ to please confirm if our understanding is correct.

Commenter's understanding is correct.

The material (septage) which would be land applied at the Briggs property include liquid and solid materials (septage) pumped from septic tanks or similar on-site *treatment* works. Septic tanks receive domestic wastewater from households or commercial operations.

Naturally occurring bacteria within wastewater reside in the typical septic tank, digesting organic matter over time. Pre-treated liquid (effluent) typically exits the septic tank through a perforated pipe and enters its leach field, leaving floating materials and solids in the tank for further digestion. This method of treatment differs from that provided by publicly owned treatment works (POTWs). However, treatment of septage occurs in septic tanks, nonetheless. The liquid leaving the tank is further treated in the drain field by soil microbes and sunlight.

Septic tanks are commonly pumped every two to five years depending on tank capacity and number of users. Septage is then either delivered to a POTW for secondary treatment, land applied as proposed in the Draft EA, or dewatered and landfilled at a licensed Class II municipal solid waste landfill facility.

Question #2

2.2.2 Equipment Available & Pumper Truck Requirements

How often will LI's vehicles and equipment screens be inspected and certified by the county health officer to ensure non-putrescible litter is not spread on the site? It is our understanding that if litter

does blow onto neighboring property, LI is required to clean-up this litter within six (6) hours of application.

Vehicles are required to be inspected by the county health officer or designated representative (sanitarian) prior to being used for land application activities. The health officer or sanitarian may perform periodic inspections of the land application site and equipment as frequently as they deem is necessary. DEQ staff will also periodically inspect the site and equipment. Any violations noted must be immediately corrected.

Commenter's understanding of litter removal rules is correct, in accordance with Administrative Rule of Montana (ARM) 17.50.809(10).

Question #3

3.2.1 Wildlife and Habitats

The EA suggests there would be minimal impact to wildlife. We want to let DEQ know that mule deer and elk are known to frequently travel between the Little Belt and Big Snowy mountains, which includes passing through the areas immediately surrounding the proposed application site and the neighboring properties. Therefore, it is an important concern to us that the application of septage will likely impact the long-established wildlife corridor and permanently change their migratory behavior. The neighboring properties are scenic and provide excellent habitat for ample wildlife, including: deer, elk, badgers, sandhill cranes (that nest in the Hyde Creek drainage), owls, eagles, blue herons, coyotes (that den along Hyde Creek), and the occasional bear. As property owners and neighbors, we enjoy watching the wildlife that usually travel through this area, so we are concerned that the wildlife will change their migration routes due to the human scent of the application site.

- *There must be places better suited for the septic tank pumper program that are less productive, less scenic, have limited or no natural water resources within such a close proximity and that are not located within a long-established wildlife corridor.*
- *It is our understanding that the proposed septage site boundary is 'set' and cannot be expanded or moved unless a new license is applied for and approved. Please confirm this is accurate, and that ample notice will be given to neighboring property owners if a change has been requested by LI or Briggs.*

Comment noted. As commenter stated, the draft EA finds a minimal impact to wildlife would be expected to result from the proposed action. Wildlife tend to avoid land application sites due to the human scent and activities which would result. Some species may be forced to relocate or alter their migratory patterns. The impact was determined to be minor because abundant similar habitat is available in the surrounding area.

Activity at the Site would not significantly increase human impact beyond the existing level of development in the local area.

DEQ completed the draft EA for the specified area because it was the property identified by the applicant with signature certification from the landowner and county sanitarian. DEQ does not

restrict land application sites based on scenery or species present; rather, it assesses whether impacts to these resources have the potential to be significant or not.

The proposed Site boundary was determined based on applicable setbacks and conversations with the applicant. The property's landowner signed off on the proposed location of the Site. Expansion of the Site beyond the proposed boundaries would require a public notice of neighboring property owners.

Question #4

3.2.4.1 Surface Water

The EA references that "During a major runoff event, surface water from the Site would travel west southwest toward ephemeral drainages..."

- *Our concern is that Hyde Creek is located approximately 0.5 miles north and northeast of the proposed site and it flows west-northwest into Ross Fork Creek. There is a dam, pond and natural spring that are all sustained by Hyde Creek, which flows into Ross Fork Creek a bit further north. Ross Fork Creek then feeds into existing water wells – two of which are potentially located in Figure 6's 1-mile location radius zone to the north with multiple other wells located downstream outside the radius zone to the west. What assurances can DEQ provide that surface runoff (or groundwater) would typically only flow west-southwest as reported within the EA from the proposed site and away from Hyde and Ross Fork Creeks? Further, we anticipate there will be a future water well to the north for a potential home site(s) within/near this radius zone. We are concerned that these nearby water sources could become contaminated and impact human water consumption if the septage application activities go on indefinitely.*
- *As an example, recently we have been receiving more driving rain from the south and east as climate patterns have changed, so such a rainstorm could potentially push runoff toward the north and into the aforementioned creeks (rather than the assumed west-southwest direction).*

The EA references that "Periodic inspections by DEQ for compliance with setbacks near the Site borders, slope restrictions, and runoff patterns will ensure no septage enters any nearby ephemeral or permanent drainages."

- *Please confirm the frequency of the site inspections, as well as whether they will be scheduled or unscheduled with LI and Briggs.*

Comment noted. During the environmental review, watershed boundaries developed by the USGS were referenced to determine surface water drainage patterns. As shown in Figure 5 of the draft EA, the proposed site boundaries fall entirely within the Upper East Fork Roberts Creek watershed. The northernmost edge of the proposed Site boundary is over 1,700 feet away from Hyde Creek at its closest point. This exceeds the minimum setback of 150 feet from any state surface waters or ephemeral drainages. DEQ's periodic inspections would ensure that the anticipated surface water flow patterns match what is depicted in the USGS watershed

boundaries and that the pumper is not land applying outside of the licensed Site boundary. Slope restrictions and proper spreading of the septage as it exits the truck outlet must ensure that no septage would leave the Site through runoff of any kind. The frequency of DEQ's inspections varies; sites are typically inspected annually, but some are inspected more or less frequently as site conditions or operational practices dictate. Inspections may be scheduled or unscheduled, depending on the inspector.

Land application sites must be set back at least 100 feet from drinking water supply sources. As proposed, the Site meets this setback requirement. Restrictions on runoff of septage ensure that lateral migration of septage into surface drinking water sources would not happen. The 1-mile radius depicted in Figure 6 is intended to provide scale for a suitable study area. Site boundaries would be altered in the future if a well is drilled within 100 feet of the Site or if an existing well is proven to be within 100 feet.

Question #5

3.2.4.2 Groundwater

Can you please confirm the groundwater depth at the site?

The EA references that "No impacts to groundwater or groundwater wells are expected to result from the Proposed Action."

- *Please refer to the information and concerns mentioned within section 3.2.4.1 above regarding the water sources and existing wells that could be impacted.*

The commenter's concerns are noted, and we cannot confirm the actual groundwater depth at the Site. We can, however, access the Montana Bureau of Mines and Geology's Groundwater Information Center (GWIC) to verify nearby groundwater data and use this data with subsurface well logs to improve our understanding of the regional and local hydrogeologic setting. As stated in Section 3.2.4.2 of the draft EA, the nearest downgradient production well to the Site is approximately 1.2 miles southwest of the Site. The static water level for this well (GWIC #23870) is approximately 35 feet below ground surface. In its environmental review, DEQ used nearby wells to approximate the depth to groundwater at the Site and determined it is likely greater than the minimum of 6 feet required by ARM 17.50.809(8). Because the Site is not within 100 feet of any drinking water source or well (nearest is approximately 1.2 miles away) it can be safely assumed that there would be no impact to groundwater resources from the proposed action.

Question #6

3.2.6 Human Health & Safety

If neighboring livestock get out and accidentally graze on/near the application site, would it harm the livestock? Will the application boundary be fenced so as to avoid such a situation?

The EA references a quote by the World Health Organization (WHO) that "there is no evidence to date that COVID-19 virus has been transmitted via sewerage systems, with or without wastewater treatment." (EPA, 2020)

- *We have read recent articles in 2020 and 2021 confirming that the virus can be detected in sewer treatment facilities, which local health boards have been using to estimate/anticipate potential virus outbreaks. It seems prudent there should be ongoing consideration as to the virus' potential impact and that periodic water testing should be conducted around the neighboring water sources. How does DEQ know that the septage LI will be applying has been treated adequately? It seems there should be some sort of ongoing third-party certification by someone who can confirm 'adequate treatment standards' have been met, which is then submitted to DEQ, before septage can be applied.*

Livestock are not permitted to graze in fields where land application has occurred for at least 30 days after the most recent application. Controlling access to the site by means of fencing or other methods to keep animals out of the Site would be the responsibility of the pumper.

Regarding the COVID-19 virus comment, the EPA, CDC, and World Health Organization have conducted research and have found no evidence to date that the SARS-CoV-2 virus can be *transmitted* to human hosts through wastewater. Remnant RNA (component virus proteins) in fecal matter has been used to track the relative prevalence of the virus in POTW systems. More research is needed in this area, but there is no evidence of COVID-19 transmission from exposure to treated or untreated wastewater to date.

Question #7

3.2.9 Demand for Government Services

How frequently will DEQ inspect the site for compliance, and are these visits scheduled or unscheduled with LI and Briggs? As previously mentioned, would DEQ please perform a baseline water test of Hyde and Ross Fork Creeks prior to license approval, as well as periodic testing going forward to ensure no septage-related contaminants are found in these water sources?

As noted previously in this document, the frequency of DEQ's inspections of land application sites varies; sites are typically inspected annually, but some are inspected more or less frequently as site conditions or operational practices dictate. Inspections may be scheduled or unscheduled, depending on the inspector and timing of the inspection trip.

Comment about water testing noted. Because minimum setbacks from surface waters and drinking water source wells at the proposed Site are exceeded, and controls on slope and runoff would be met, DEQ does not anticipate any impact to these resources from the proposed action and therefore will not conduct water testing at this time. Periodic monitoring of Site soils and inspections could determine a need for water testing.

Question #8

3.3 Regulatory Restrictions

The EA states "The conditions that would be imposed by DEQ in issuing the license would be designed to ensure conformance of the Proposed Action to minimum environmental standards or to uphold criteria proposed and/or agreed to by LI during application review. Thus, no further

DEQ analysis is required beyond the LI application review for protection of human health and the environment.”

- *We would like to request that DEQ please consider including the following conditions if DEQ proceeds with issuing the license:
 - (a) the addition of a term limit for the application site and corresponding license;
 - (b) re-consideration of the license if wildlife migratory behavior changes to a noticeable extent;
 - (c) periodic (annual/semi-annual?) water testing of the neighboring water sources to the north of Section 19 to ensure no contaminants are found in Hyde or Ross Fork Creeks or the groundwater, and if any changes occur, the site application will be revoked; and,
 - (d) certification the septage has met ‘adequate treatment standards’ prior to application.*

Comment noted. The following addresses the comments above:

- a. In its licensing process, DEQ does not establish term limits for land application sites. Rather, continued use of disposal sites is evaluated on an ongoing basis during annual renewals and routine inspections of licensed sites.
- b. Similarly, the minor impact to wildlife as determined in Section 3.2.1 of the draft EA establishes that some wildlife may be impacted due to human scent and activities at the Site, but that adequate habitat exists in the area to accommodate any displaced species. Once licensed, any impacts to wildlife that go beyond minor disruptions to migratory patterns would be evaluated and taken into consideration for continued use of the Site.
- c. Due to the distance between the proposed land application site and Hyde Creek (>1,700 feet) and the fact that runoff from the proposed Site would be restricted as noted above, sampling of the Ross Fork and Hyde Creeks would be highly unlikely to show any impact of land application activities. Neighboring property wells (nearest is approximately 1.2 miles) are separated by an adequate distance from the proposed Site; it is not anticipated that groundwater resources would be impacted and therefore DEQ does not anticipate sampling these wells.
- d. Pumpings from septic tanks are not currently required to be tested prior to disposal in the state of Montana. If licensed disposal sites are properly managed, minimum site setbacks are met, and rules pertaining to land application are adhered to, DEQ is confident that adequate treatment standards are being met.

Question #9

Rather than allowing the license to go on indefinitely, can DEQ please include a firm termination date?

See comment response (a) in **Question #8**.

Question #10

Would the septage application activity decrease the land value of neighboring properties?

There is no research that suggests a decrease to land value resulting from nearby land application of septage. Furthermore, DEQ has noted the continuance of development in land application areas surrounded by domestic properties. This practice is used as an agricultural alternative in Montana and nationwide to using chemical fertilizers to remedy soil conditions (Section 1.2 of the draft EA).

Question #11

Is the license transferable to another party if LI ceases to operate, or can their license to apply septage at this site be sold to another party? It is our understanding that if LI sells its business, the new pumper owner can apply for a new license for the same site. Is this correct, can DEQ deny the new license request?

If a septic tank pumper sells their business, a new septic tank pumper application would be required for the purchaser. To land apply septage at the sites listed on LI's license, the new pumper would need DEQ approval to add the site to their license. The application would require landowner and county health officer or sanitarian signatures.

Question #12

Will the septage site boundary be re-evaluated if a new home site(s) and corresponding well are built on neighboring property near the septage site at some point in the future?

Land application site boundaries are re-evaluated if a new home, well, or road is constructed nearby. Minimum setbacks would apply to these structures.