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## **Introduction**

This Environmental Assessment (EA) has been prepared for Lazy KU Subdivision, 2<sup>nd</sup> Filing (the Project) and is required per Section 76-3-603 in the Montana Code Annotated (MCA). This EA addresses the undeveloped portion of the Subdivision and has been prepared per Chapter 9 of the 2019 Amended Yellowstone County Subdivision Regulations. The EA will be provided with the submittal of the applicable preliminary plat and has been prepared per the Yellowstone County Subdivision Regulations and follows the general format of Chapter 9 within the Regulations.

## **Location**

The Project is situated in the southeast quarter of Section 25, Township 1S, Range 24E in Yellowstone County, Montana. The site is generally located approximately 4 miles west of the Billings city limits. The Project is generally bound by unplatted property to the north; with Lazy KU Subdivision and 72<sup>nd</sup> Street east of the Project; Burlington Northern and Santa Fe (BNSF) Railroad tracks to the west; and Danford Road to the south.

## **Description of Property**

The total Project area is approximately 51 acres. Approximately 5.14 acres is proposed to be dedicated as right-of-way, 1.27 acres to parkland, and the remaining 44.59 acres will be developed into 32 lots (31 residential lots and 1 lot will have sanitary restrictions) with a minimum size of 1 acre and a maximum size of 5.89 acres.

## **Environmental Description**

### **A. Surface Water**

**1 - 4.** An upper private portion of the Danford Ditch is the only surface water located on the Project and has been identified on the plat. The Danford Ditch is an irrigation drainage ditch that is approximately 4 feet deep and 15 feet wide. It generally flows seasonally between April and October of each year. The canal will be protected by an existing easement. No bank alterations are proposed with this subdivision. The portion of the Danford Ditch within the property is private and the portion that is maintained via a Board of Directors is further east from the property.

**5.** The following water quality permits will be required: SWPPP

### **B. Groundwater**

**1.** Based on test pit data and groundwater monitoring performed in 2021, shallow groundwater has been identified on portions of the Project. Per Circular DEQ 4, Section 2.2.2.2, a minimum of 4 feet of natural soil separation from the bottom of the drainfield to the seasonally high groundwater level must be observed at each drainfield location.

Shallow groundwater is present in areas of the property lots requiring alteration of MDEQ drainfield designs.

Monitoring wells were installed in April 2023 and are being monitored from April 21, 2023 to present. With Lazy KU Subdivision, 1<sup>st</sup> Filing, monitoring showed the seasonal high groundwater to be between 5.5 and 8.0 feet below the ground surface across the subdivision, typically peaking around late October to early November in irrigation impacted locations. That is anticipated to be the same outcome with this subdivision.

Water for domestic use will be via individual wells. A beneficial water use permit will be obtained from DNRC for water use within this subdivision.

2. The proposed subdivision will be designed to meet MDEQ permitting requirements, to avoid the degradation of groundwater and groundwater recharge areas.

### **C. Geology/Soils/Slopes**

1 - 4.

According to the USGA National Geologic Map Database, <https://ngmdb.usgs.gov>, this subdivision area is within the gravel geology which means there are variable deposits that range from pebble to boulder size and include sand, silt, and clay. Dominantly alluvial terrace, abandoned channel and floodplain, remnant alluvial fan, and local glacial outwash.

There are no geologic hazards, such as rock falls or slides; land, mud, or snow slides; high water table, unstable or expansive soil conditions, or slopes greater than twenty-five percent (25%) within the area of this subdivision.

Table 1 includes a review of the Web Soil Survey (WSS) information from the United States Department of Agriculture (USDA), Natural Resource and Conservation Service (NRCS) on January 27, 2021 for the Project which includes the soil limitations for sanitary facilities (septic tank absorption fields), building site development (dwellings with basements), roads (local roads and streets), and water features (hydrologic group) for each soil type.

### **D. Vegetation**

1 - 2. According to the Natural Heritage Map Viewer (<http://mtnhp.org/>), most of the project is located in an agricultural cultivated area. There are some trees and other vegetation located along portions of Danford Ditch. A Dryland Prairie seed mix may be used in the park area and applied by either broadcast or drill method.

### **E. Wildlife**

1 - 3. According to the Natural Heritage Map Viewer (<http://mtnhp.org/>), there were no species of concern documented in or adjacent to the Project area. The Montana Sage Grouse Habitat Conservation Map (<https://sagegrouse.mt.gov/ProgramMap>) identified that the Project is not located in or adjacent to a sage grouse conservation area.

The United States Fish and Wildlife (USFWS) Information for Planning and Consultation (IPaC) website (<https://ecos.fws.gov/ipac/>) identified that “there are no endangered species expected to occur at this location.”

Table 1 Soil Limitations (USDA, NRCS Web Soil Survey information)

| Map Symbol and Soil Name | Dwellings with basements             | Local Roads and Streets                              | Septic tank absorption fields           | Hydrologic Group                                                            |
|--------------------------|--------------------------------------|------------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------|
| Bm – Bew                 | Very limited<br><br>Shrink-swell     | Very limited<br><br>shrink-swell<br><br>low strength | Very limited<br><br>slow water movement | C (slow infiltration rate when thoroughly wet)                              |
| Ke - Keiser              | Not limited                          | Very limited<br><br>Low strength<br><br>Frost action | Very limited<br><br>slow water movement | C (slow infiltration rate when thoroughly wet)                              |
| KI - Kyle                | Very limited<br><br>Shrink-swell     | Very limited<br><br>shrink-swell<br><br>low strength | Very limited<br><br>slow water movement | D (very slow infiltration rate; high runoff potential; when thoroughly wet) |
| Lr - Lohmiller           | Somewhat limited<br><br>shrink-swell | Very limited<br><br>shrink-swell<br><br>Low strength | Very limited<br><br>Slow water movement | C (slow infiltration rate when thoroughly wet)                              |
| Ls - Lomiller            | Very limited,<br><br>flooding        | Very limited<br><br>shrink-swell<br><br>Low          | Very limited<br><br>slow water movement | C (slow infiltration rate when thoroughly wet)                              |

| Map Symbol and Soil Name | Dwellings with basements                    | Local Roads and Streets                              | Septic tank absorption fields               | Hydrologic Group                                                            |
|--------------------------|---------------------------------------------|------------------------------------------------------|---------------------------------------------|-----------------------------------------------------------------------------|
|                          | shrink-swell<br><br>depth to saturated zone | strength<br><br>Flooding                             | Depth to saturated zone<br><br>Flooding     |                                                                             |
| Te - Toluca              | Not limited                                 | Somewhat limited<br><br>Frost action                 | Somewhat limited<br><br>Slow water movement | B (moderate infiltration rate when thoroughly wet)                          |
| Va – Vananda             | Very limited<br><br>Shrink-swell            | Very limited<br><br>Shrink-swell<br><br>Low strength | Very limited<br><br>Slow water movement     | D (very slow infiltration rate; high runoff potential; when thoroughly wet) |

## Community Impact

### A. Impact on Agriculture / Agricultural Water User Facilities

**1 - 4.** The property is currently being used for crop production. Land uses within the immediate vicinity of the proposed subdivision include agricultural and residential uses.

A private portion of Danford Ditch is located along the perimeter of the Subdivision and appropriate easements will be maintained.

### B. Impact on Local Services and Public Health and Safety

#### Water Supply

**A – F.** Connection to a public system is not proposed at this time. Individual wells are proposed for the 31 residential lots, and will be installed at the expense of the lot owner.

Water for fire protection will be provided in accordance with the Laurel Fire Service Area (Laurel FSA) requirements. There was a dry hydrant installed with the previously filed subdivision and dedicated for fire use within the subdivision.

This subdivision will require approximately 180 gallons per day per three-bedroom home based on statistics from the 2000 census and the American Water Works Association (AWWA). There are 31 lots proposed under the coverage of this EA. Therefore, approximately 5,580 gallons per day will be required the subdivision for domestic uses, not including irrigation usage.

#### Sewage Disposal

**A - E.** The proposed method of sewage disposal is through septic systems (individual systems). Per the MDEQ Circular DEQ 4, Montana Standards for Subsurface Wastewater Treatment Systems, the design standard is 300 gallons per day of effluent will be produced by each three-bedroom home. There are 31 lots proposed as part of this EA, therefore assuming a three-bedroom home is built on each lot; approximately 9,300 gallons of effluent will be produced by this portion of the subdivision each day.

These systems will be designed in accordance with applicable rules and regulations. The on-site wastewater systems will require approval by the Montana Department of Environmental Quality (MDEQ) and the local health department prior to approval of the final plat. The site plan indicates the location and specifications of proposed septic systems.

#### Solid Waste Disposal

**A - C.** Republic Services and MacKenzie Disposal, Inc. currently offer waste collection services in the area. Solid waste is disposed of at the Billings Regional Landfill operated by the City of Billings. According to the Billings Regional Landfill website (<http://ci.billings.mt.us/2551/Landfill>), if the landfill continues to receive the same amount of waste it will be full in approximately 50 years. The MDEQ recognizes the Billings Regional Landfill as a permitted solid waste disposal facility.

#### Stormwater

**A - B.** The amount of stormwater run-off that will be generated by the Project is to remain unchanged from pre-development discharge to meet DEQ stormwater design standards. The proposed storm water collection and drainage systems will be designed to satisfy the standards set forth by DEQ.

#### Roads

**A - J.** The portion of the subdivision covered by this EA will require the construction of roads that will be paved to county standards. The design and construction of new roads will be reviewed and approved by the Yellowstone County Public Works Department. Roads will be designed to prevent water pollution and erosion. Dust control will be provided as needed during construction.

#### Utilities

**A – C.** There is currently an overhead power line and a fiber optic line along 72<sup>nd</sup> Street West. Utilities were installed to service the lots within the previously filed subdivision near the eastern border of this subdivision. Utility easements would be maintained as required. The preliminary plat will be submitted to affected utilities for review.

The following utilities will serve the subdivision and currently offer services on the developed portion of the subdivision:

- NorthWestern Energy for electricity

- Montana Dakota Utilities for gas

Utility installation will progress as required by development and would be installed prior to surface implementation.

#### Emergency Services

**A – E.** Emergency services available to the subdivision include the following:

- Laurel Volunteer Fire Department (subdivision is located within the Laurel Fire Service Area according to the Yellowstone County Interactive Mapping)

- Yellowstone County Sheriff's Department

- Ambulance service will be provided by the City of Laurel. American Medical Response (AMR) in Billings is the secondary response in the event that the City of Laurel cannot respond. Transports are made to Billings Hospitals.

According to the Bureau of Justice, in 2011, an estimated 1 in 8 U.S. residents age 16 or older, or 31.4 million persons, requested assistance from police at least once, most commonly to report a crime, suspicious activity, or neighborhood disturbance (<https://www.bjs.gov/index.cfm?ty=pbdetail&iid=4780>).

According to the National Fire Protection Agency (NFPA), in 2021 there were 36,627,000 calls made to fire department with 1,353,500 of the calls being a fire in the United States (<https://www.nfpa.org/News-and-Research/Data-research-and-tools/Emergency-Responders/Fire-department-calls>).

According to the National Association of State EMS Officials (NASEMSO), in 2021 there were an estimated 43,488,767 EMS events (responses) in the U.S., resulting in approximately 19,533,036 transports (<https://www.ems.gov/pdf/811723-National-EMS-Assessment-2011.pdf>.)

Based on the previous data it would be conservative to estimate that 25% of the proposed households (31 lots) will require one emergency response per year; resulting in approximately 8 responses per year.

As identified on Department of Natural Resources & Conservation (MDNRC) Wildland Urban Interface (WUI) Map of Yellowstone County the proposed subdivision is located in a WUI area (<https://leg.mt.gov/content/Services%20Division/Lepo/statreports/wildland-urban-parcels/2012-wildland-urban-parcels.pdf>).

#### Schools

**A – C.** According to the Yellowstone County Interactive Mapping tool, the subdivision is served by Laurel for elementary, middle school, high school.

Census data from 2017-2021 indicates that there were 2.41 people per household in Montana. Population estimates in July, 2022, indicate that Montana had a population of 1,122,867 with 20.8% under 18 years. A conservative estimate would be 0.5 child per household or approximately 16 total children.

#### Parks and Recreation Facilities

**A – B.** A 1.27 park will be dedicated with this subdivision.

### **C. Land Use**

**1 – 4.** The proposed subdivision is located in an unzoned area within Yellowstone County.

The subdivision is not anticipated to impact access to public lands and complements existing adjacent land uses (agricultural and residential subdivisions). Based on existing and known proposed land uses, nuisances such as unpleasant odors, dust, and smoke are not expected. The use of an adjacent BNSF line is expected to generate noise when being used.

### **D. Historical Features**

WWC contacted Mr. Murdo on January 28, 2021 and requested a file search for the overall property of Lazy KU Subdivision, including this portion of the project. No changes have occurred since that timeframe to the portion of the property that encompasses this subdivision. Mr. Murdo conducted a cultural resource file search on January 28, 2021 and identified "Site 24YL0664", the Historic Irrigation System, Danford Ditch, within the proposed project area. He states that it is SHPO's position that any structure over fifty years of age is considered historic and is potentially eligible for listing on the National Register of Historic Places. If structures are to be altered and are over fifty years old, we would recommend that they be recorded and a determination of their eligibility be made. Mr. Murdo stated that the "absence" of cultural properties in the area does not mean that they do not exist but rather may reflect the absence of any previous cultural resource inventory in the area, as our records indicated none. Based on the lack of previous inventory and the ground disturbance required by this undertaking Mr. Murdo feels that this project has the potential to impact cultural properties and therefore, recommends that a cultural resource inventory be conducted in order to determine whether or not sites exist and if they will be impacted; and

stated that it is ultimately up to the County whether or not a cultural resource inventory needs to be conducted or not.

## **E. Visual Impact**

**1 - 3.** The land being developed for this subdivision has been used for agricultural purposes for many years. With the growth of Yellowstone County consistently moving west, this subdivision will stay with the trend of the direction of the growth.

## **Summary of Probable Impacts**

### **A. Description of Project Effects**

#### **1. Agriculture**

The land in the proposed subdivision is being utilized for agricultural use.

#### **2. Agricultural water user facilities**

There are no definitive plans for connecting to agricultural irrigation.

#### **3. Local Services**

There appears to be adequate available local services to service the proposed subdivision (increase in lots/residences).

#### **4. The natural environment**

The high-water table was considered during siting and design. Proper siting and design is believed to adequately protect water quality.

#### **5. Wildlife and wildlife habitat**

There are no known protected species or special status habitats within the proposed subdivision.

#### **6. Public health and safety**

Proper siting and design is believed to adequately protect public health and safety.

### **B. Description of Compliance**

Survey Requirements Provided in Part 4 of the Montana Subdivision and Plating Act (MSPA)

The application submittal process is consistent with the MSPA and a review is required.

Subdivision Regulations

This EA and associated plat have been prepared per the Laurel Subdivision Regulations.

Subdivision Review Process as described in Chapter 3 of the Subdivision Regulations

This EA is to be provided with the "Preliminary Plat Application". The proposed subdivision is believed to be consistent with the adopted Growth Policy and Transportation Plan.

### **C. Description of Utilities and Related Easements**

Fiber optic and overhead power lines are located at the eastern border of the subdivision and will be protected in an easement. Natural gas and electric lines are located at the western and northwestern border of the subdivision. Storm drainage easements are also provided in multiple places throughout the subdivision. The plat will identify required utility easements.

### **D. Description of Legal and Physical Lot Access (Notation of Access Required on Plat)**

Each lot has been provided with legal and physical access as identified on the plat.

## **References**

Billings School District. <https://www.croppermap.com/billings/>.

Bureau of Justice Statistics. <https://www.bjs.gov/>.

City of Billings. 2018. Landfill webpage, <https://www.billingsmtpublicworks.gov/236/Billings-Regional-Landfill>.

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