

7/19/2019

Environmental Assessment

The Benches Subdivision and
Planned Unit Development east of
Columbia Falls, Montana



by Land Solutions, LLC

for James McIntyre, Prairie Dog Development, LLC

**LAND
SOLUTIONS, LLC**

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FORMAT

Appendix B of the City of Columbia Falls Subdivision Regulations provides the required format for environmental assessments for subdivision applications submitted to the City of Columbia Falls. This environmental assessment has been prepared in accordance with Appendix B. The document is arranged with Appendix B's queries in **bold font** and the developer's responses in regular font (not bold).

INTRODUCTION

The Benches is a proposed major subdivision being presented as a mixed-use planned unit development (PUD) under the Columbia Falls Subdivision Regulations and Zoning Regulations. This is a commercial and residential development project on approximately 55.44 acres located 0.5 mile east of the City of Columbia Falls, Montana. The property may be legally described as Tract 3 of Certificate of Survey 20092, located in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ & W $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 16, Township 30 North, Range 20 West, Flathead County, Montana. Figure 1 is a vicinity map.

The property abuts and is accessed from state-maintained US Highway 2 along the north boundary. The property also abuts and is accessed from Flathead County-maintained Rogers Road along the south boundary.

The project is composed of two main parts: (1) a commercial development on a ± 4.15 -acre subdivision lot that will consist of up to 30 small cabins to be used for short-term tourist accommodations and an office building used for management of the rental cabins; and (2) 48 single-family residential lots ranging in size from ± 0.46 to ± 1.54 acres. The subdivision will also create lots for the development's parklands, internal road network, and water, sewer and stormwater infrastructure.

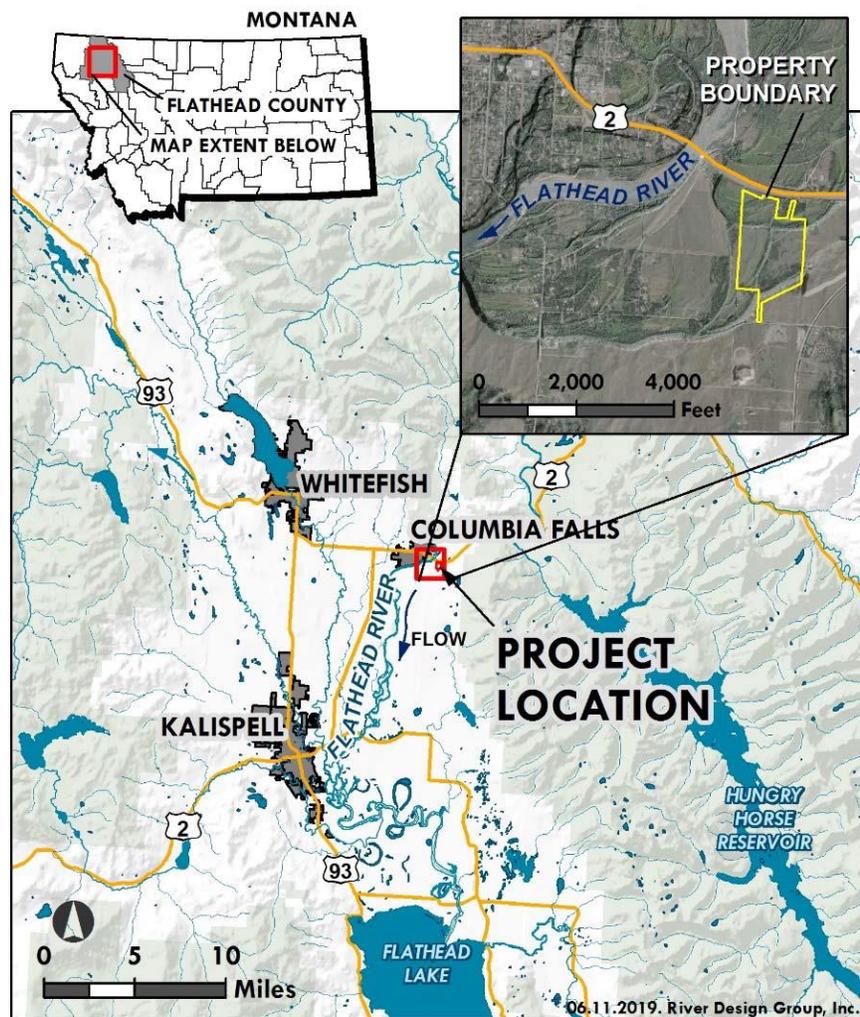


Figure 1: Vicinity Map

The entire development will be served by a proposed new on-site public water supply consisting of a minimum of two wells, pumps and pump house, distribution lines, and a water recharge tank for fire department use. The tourist cabins and commercial office are to be served by a proposed new on-site public wastewater treatment system with a drainfield area in the central park area. The 48 single-family residential lots will be served by individual wastewater treatment systems located on the lots they serve.

For access to the cabins and residential lots, a new internal road network is proposed to be developed from the approach to US Highway 2 at the northwest corner of the property and traverse the property south to the frontage at Rogers Road. As depicted on the preliminary plat, the internal road network would consist of a generally north-south oriented road that will connect with a looped road in the central portion of the subdivision. The roads are expected to be constructed with 24-foot wide asphalt surfaces.

I. GEOLOGY

A. Locate on a copy of the preliminary plat:

- 1. Any known hazards affecting the development which could result in property damage or personal injury due to:**
 - a. Falls, slides or slumps - soil, rock, mud, snow.**
 - b. Any rock outcropping.**

The property is broken into three distinct topographic areas or benches. The northern portion near Highway 2 is the lowest area, containing meadows, a pond, and wetlands. Moving to the south, the western meadow area is the middle bench, and the eastern meadow area is the upper bench. Each bench is separated from the others by treed slopes.

No hazards such as falls, slides, slumps or potential avalanche areas are known to exist on the property that could result in property damage or personal injury. The property does not contain any rock outcroppings. As such, the preliminary plat does not locate any such features on the subject property.

B. Describe any proposed measures to prevent or reduce the danger of property damage or personal injury from any of these hazards.

Because no such hazards are known to exist, no specific measures to prevent or reduce dangers of property damage or personal injury from such potential hazards.

II. SURFACE WATER

Locate on a copy of the preliminary plat:

A. Any natural water systems such as streams, rivers, intermittent streams, lakes or marshes (also indicate the names and sizes of each).

Figure 2 below depicts the results of a wetland delineation performed by River Design Group. The wetland delineation report is included with the preliminary plat application. The report indicates the property contains 4.98 acres of various wetland types including 0.52 acres of 'open water' wetlands in the form of a man-made pond, 2.49 acres of Palustrine Emergent wetlands, 0.99 acres of Palustrine Scrub-Shrub

wetlands, and 0.98 acres of Palustrine Forested wetlands. All ±5 acres of wetlands are located in the northern area of the property.



Figure 2: Wetland Delineation Map

B. Any artificial water systems such as canals, ditches, aqueducts, reservoirs and irrigation systems (also indicate the names, sizes and present uses of each).

A pond is located in the northeast portion of the property. Information in the Montana DNRC water rights file for the subject property indicates the pond was excavated in 1954, is spring-fed, and was at least one time stocked with fish. The unnamed pond is approximately ½ acre in size (22,835 square feet according to the wetland delineation by River Design Group). The pond is not used for anything at present, but will serve as an open space/recreational amenity as part of the subdivision park area. No other artificial water systems are located on the property.

C. Any areas subject to flood hazard, or if available, 100-year floodplain maps (using best available information).

According to the adopted FEMA Flood Insurance Rate Maps for Flathead County and the associated Flood Insurance Study (FIS), the subject property is located entirely outside the identified 100-year floodplain, also known as the special flood hazard area. The Flathead River is located approximately ¼ mile west of the subject property, and the FIS identifies the base flood elevation (BFE) of the river’s 100-year flood event. The subject property’s lowest areas are vertically above the BFE and the entire property is over 1,000 horizontal feet from the mapped 100-year floodplain.

III. VEGETATION

A. Locate on a copy of the preliminary plat the major vegetation types within the subdivision (e.g., marsh, grassland, shrub and forest).

As shown on Figures 3, 4, 5, and 6 the property contains a mixture of grassy meadows, forested hillside areas, and wetland vegetation. In terms of acreage, the predominant vegetation type on the property is grassy meadow. Forested slopes separate the benches. The wetlands are found along the edges and base of the lowest forested slopes to the north. Predominant tree species include Douglass fir, cottonwood, aspen, and ponderosa pine.

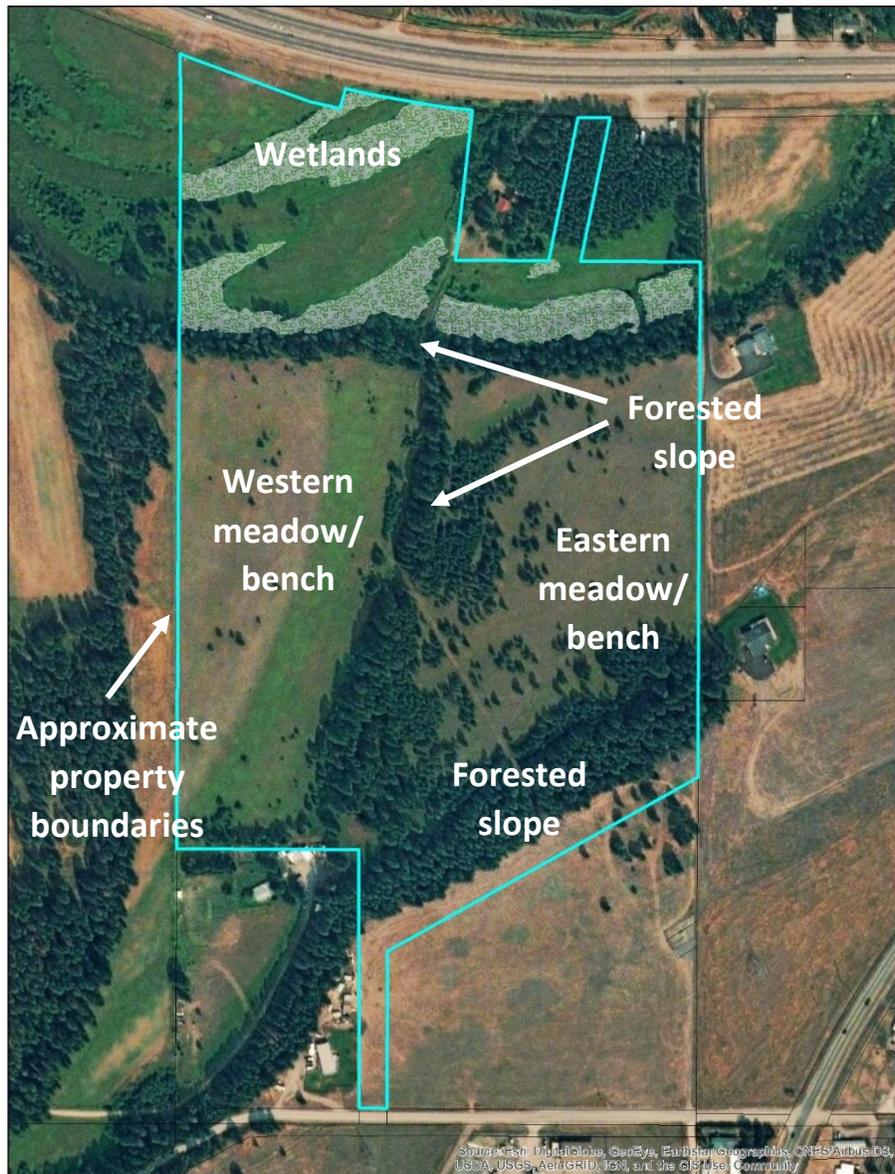


Figure 3: Aerial photo showing vegetation on the site of The Benches



Figure 4 Looking south across the grassy meadow on the upper western bench



Figure 5 Looking east from the upper western bench toward the upper eastern bench (behind the trees). Two generations of pine and fir trees are shown.



Figure 6 Looking south from the lower northern area at wetland vegetation (foreground) and the forested hillside (background).

B. Describe the amount of vegetation that is to be removed, or cleaned, from the site, and state the reasons for such removal.

Approximately 3.6 acres of forested areas will be cleared for the internal roads and wastewater treatment system that will serve the development. Other forested areas will experience some additional vegetation removal in the future for homesite development.

The developer proposes to fill approximately 0.29 acres of wetlands in the northwest portion of the property for road construction purposes. The property has an existing approach to US Highway 2, which is in a desirable location to access the development due to sight distance and highway design. To obtain approval to fill the wetlands from the U.S. Army Corps of Engineers, the 404 permit process under the Clean Water Act will require the developer to go through a sequenced process involving demonstrating avoidance of wetland resources if practical alternatives exist, minimizing adverse impacts to the wetland resources, and mitigating the impacts to the resources. The developer plans to mitigate the loss of wetlands by offering compensatory mitigation in-lieu of creation of new wetlands. Any road that would access the northern portion of the property would require tree removal and crossing a similar portion of the wetland complex. The key to such plans is to minimize the impact to the wetlands environment.

C. Describe any proposed measures to be taken to protect vegetative cover.

The entire development has been designed to minimize the removal of vegetative cover provided by the forested areas and wetlands. The internal roads are designed to follow the edges of tree lines except where the roads must cross the sloped, forested areas. Where the roads must impact the forested areas, they are designed to either cross vegetated areas at angles to minimize the area of disturbance or they traverse the slopes that are unavoidable to access the upper benches of the property. The road network has also been designed to minimize the amount of wetlands to be filled by crossing the wetland areas in strategic locations to minimize destruction of wetland vegetation and the amount of fill necessary for the roads.

After the subdivision improvements are completed and the final plat is filed, restrictive covenants are proposed that will reduce the future removal of trees without approval by the property owners association's architectural review committee and that encourages retention of healthy vegetation.

IV. WILDLIFE

A. What major species of fish and wildlife, if any, use the area to be affected by the proposed subdivision?

According to an Environmental Assessment prepared by the Montana Department of Fish, Wildlife & Parks in 2015 for improvements to the nearby Teakettle Fishing Access Site located $\pm\frac{1}{4}$ mile west of the property, common wildlife species found in this vicinity include the following: white-tailed deer, elk, moose, black bear, grizzly bear, mountain lion, red fox, coyote, badger, beaver, northern river otter, American mink, and a variety of small mammals¹. That EA also indicates a wide variety of resident and migratory bird species use or travel through the area on a seasonal basis, including Canada geese, golden eagle, bald eagle, osprey, great horned owl, and a variety of other raptors, waterfowl, and songbirds. Common game fish found in this reach of Flathead River include rainbow trout, bull trout, westslope cutthroat trout, lake trout, lake whitefish, pygmy whitefish, and mountain whitefish.

B. Locate on a copy of the preliminary plat any known important wildlife areas, such as big game winter range, waterfowl nesting areas, habitat for rare and endangered species and wetlands.

The preliminary plat depicts the wetlands on the property. Given the property is primarily a cultivated field approximately ½ mile from the city limits and surrounded by suburban development, including multiple residences, a waterpark and lumbermill all within ½ mile, its wildlife habitat has already been compromised to some extent by area development. However, the property provides winter range for whitetail deer and contains a small complex of natural and man-made wetlands. It is also likely that various species of waterfowl and birds use the riparian areas for nesting.

C. Describe any proposed measures to protect wildlife habitat or to minimize habitat degradation.

The proposed project has been designed to minimize its impacts on the most sensitive areas of the property that provide the highest quality wildlife habitat – primarily the forested areas and wetlands. The filling of wetlands and areas of necessary tree removal have been planned to minimize the disturbance while still providing the most reasonable access configuration. In the long run, providing this area for new homesites and tourist cabins in close proximity to the City of Columbia Falls, a major federal highway, and other development may alleviate alternative development in more wildlife-sensitive areas of the Flathead Valley.

Future impacts associated with individual homesite development and added human activity are addressed in the proposed covenants, conditions, and restrictions to be filed with the final plat, which will prohibit feeding of wildlife and encourage lot owners to contact the Montana Department of Fish, Wildlife & Parks for stewardship practices as they relate to interactions with wildlife.

V. AGRICULTURE AND TIMBER PRODUCTION

A. State the acreage, type and agricultural classifications of soils on the site.

A Custom Soil Resource Report for the site was obtained from the United States Department of Agriculture Natural Resource Conservation Service's web soil survey mapping programⁱⁱ. Figure 7 is a soils map that was generated depicting the six soil types present on the site according to the soil survey:

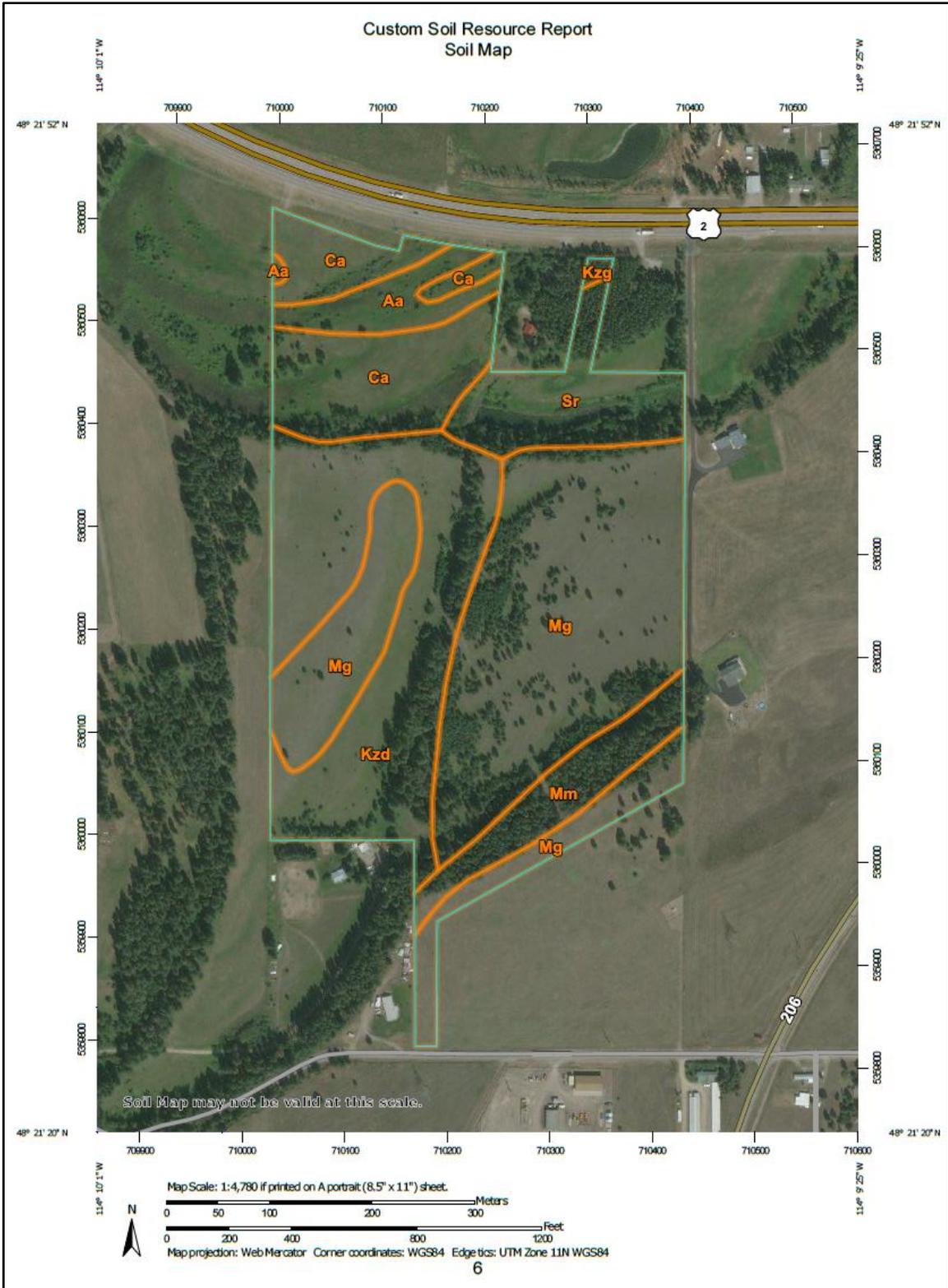


Figure 7: Soils Map

The following table indicates the acreage, type and agricultural (farmland) classifications of soils on the site:

Table of Soils Occurrences in 'The Benches'				
Map Unit Symbol	Map Unit Name	Acres in AOI	% of AOI	Agricultural Classification
Aa	Alluvial land, poorly drained	2.3	4.2%	Not prime farmland
Ca	Chamokane soils, 0 to 3 percent slopes	7.7	13.9%	Prime farmland if irrigated
Kzg	Kiwanis-Birch fine sandy loams, 0 to 5 percent slopes	0.1	0.3%	Prime farmland if irrigated
Mg	Mires gravelly loam, 0 to 3 percent slopes	23.1	41.9%	Not prime farmland
Mm	Mires gravelly loam, 12 to 30 percent slopes	3.3	5.9%	Not prime farmland
Sr	Swims silty clay loam, 0 to 4 percent slopes	4.5	8.2%	Prime farmland if irrigated
Totals for Area of Interest		55.2	100.0%	All Soils
Potentially Important Agricultural Soil Per Farmland Classification		12.3	22.3%	Prime Farmland if Irrigated

In summary, according to the USDA web soil survey, approximately 12.3 acres (22.3%) of the ±55-acre site are classified as “Prime farmland if irrigated”. The subject property is currently not irrigated, and the 12.3 acres with that classification are located in portions of the property that are difficult to farm without continuous disturbance to the wetlands on site, and which are primarily in an area that will remain undeveloped.

B. State the history of production of this site by crop type and yield.

The property is not currently used for hay or crop production and based on aerial photos, has not been in recent history. Historic crop production data is unknown.

C. State the historical and current agricultural uses which occur adjacent to the site.

Based on aerial photos of the area dating back to 1990 available on Google Earth, agricultural uses have occurred surrounding the proposed subdivision property throughout the past 29 years, and presumably for many years prior. It appears the primary agricultural uses include hay production and similar cropland to the east and west.

D. Explain any steps which will be taken to avoid or limit development conflicts with adjacent agricultural uses.

The surrounding agricultural uses are protected by state law. No conflicts with adjacent agricultural uses are expected so no specific steps are planned to address potential conflicts. The Columbia Falls Growth Policy cites certain issues, goals, and policies related to agricultural land. In general, these statements encourage continued use of agricultural land until such time as urban services are available. In this case, the City of Columbia Falls would not be providing water and sewer services, but the future residents would be served by public water system and private septic/sewer systems. The systems would be built by the developer and maintained by a property owners association. The C-3 zoning regulations that govern development and use of the property are intended to provide area for urban residential development with lots as small as 9,600 square feet.

E. If the site is timbered, state any timber management recommendations which may have been suggested or implemented by the U.S.D.A. Division of Forestry in the area of this proposal.

Approximately 16 acres ($\pm 29\%$) of the 55.44-acre site are timbered, with the rest of the property being grass meadows. The developer has not sought timber management recommendations from the USDA due to the lack of surrounding national forest lands, the closest of which are located nearly 1.5-miles east of the site.

In terms of plans for timber management, portions of the existing forested areas on site will be disturbed for road construction and various utility installations. This will include selective tree removal over ± 3.6 acres of the forested areas of the site. The roads and utilities have been laid out to minimize tree removal. Upon filing the final plat, the remaining forested areas will be located on the private lots, within the park areas, and included in the private road right-of-way. The forested areas that are to be located in the private park areas and road easements will be managed by the property owners association, and the forested areas on individual private lots will be managed by future lot owners. The developer intends to include restrictive covenants requiring most vegetation removal subject to review and approval by the architectural review committee.

VI. HISTORICAL, ARCHAEOLOGICAL OR CULTURAL FEATURES

A. Locate on a copy of the preliminary plat any known or possible historic, archaeological or cultural sites which exist on or near the site.

No such archaeological or cultural sites are known to exist on or near the site. The Montana State Historic Preservation Office (SHPO) was contacted and asked to do a file search for such resources in the area. According to a response from Pete Brown at SHPO dated July 19, 2019, the search by that office revealed no such sites on or adjacent to the property.

B. Describe any known or possible sites delineated on the preliminary plat.

Because no such sites exist on site, the preliminary plat does not depict any.

C. Describe any measures that will be taken to protect such sites or properties.

Because no such historic, archaeological or cultural sites are known to exist on the site, no plans for their protection are necessary.

VII. SEWAGE TREATMENT

A. Where individual sewage treatment systems are proposed for each parcel:

1. Indicate the distance to the nearest public or community sewage treatment system.

The nearest public sewage treatment system that may have capacity to serve the subdivision is an 8-inch line within the City of Columbia Falls. According to Public Works Director Tyler Bradshaw, the sewer line is located along US Highway 2 at 3rd Avenue East, approximately 3,310 feet west of the NW corner of the subject property. It is suspected that the Big Sky Waterpark, located approximately 1,300 east of the subject property, is served by a sewage treatment system that is classified as 'public', but likely does not have capacity to accommodate the wastewater flows for this development. Given the fact that the distances to these public systems are well in excess of the 500' distance required for them to be explored as an option under ARM 17.36.328, potential connections to the systems are not being pursued.

2. Provide as attachments:

- a. **Two (2) copies of the plat which show the proposed suitable location on each lot for a subsurface treatment system and a 100% replacement area for the subsurface treatment system. Show the location of neighboring wells and subsurface treatment systems and the distances to each.**

Included with the preliminary plat application are the preliminary DEQ lot layouts that show the proposed locations of the subsurface drainfields and replacement areas for the individual wastewater treatment systems for Lots 2 through 49. The individual drainfields for each of those single-family residential lots are proposed on the lots they will serve. The subsurface drainfield for the proposed 'public' wastewater treatment system that would serve the vacation rental cabins on Lot 1 are also depicted on the lot layout within the central park area. The lot layout drawing also depicts the locations of neighboring wells and subsurface drainfields.

- b. **The results of percolation tests performed in representative areas for drainfields in accordance with the most recent Department of Environmental Quality Bulletin. Each percolation test shall be keyed by a number on a copy of the plat with the information and results provided in the report. The number of preliminary percolation tests required shall be one-fourth (1/4) of the total number of proposed lots and these tests shall be performed in the different soil types, or evenly spaced throughout the subdivision in the absence of soil variability.**

Soils test holes were dug and subsequently monitored for groundwater in nine representative locations on the property. The test hole layout exhibit included with the sanitation portion of the application submittal shows the location of the test holes, keyed by numbers consistent with the soils descriptions for the test holes. Percolation tests were not performed because they are rarely required by DEQ.

- c. **A detailed soils description for the area shall be obtained from test holes at least seven feet in depth. The number of test holes will depend upon the variability of the soils. The U.S. Department of Agriculture's "Soils Classification System" shall be used in the descriptions.**

Information on the internal and surface drainage characteristics shall be included. Each test hole shall be keyed by a number on a copy of the plat with the information provided for in the report.

Detailed soils descriptions are provided in the sanitation portion of the submittal for all of the soils encountered in the nine test holes, with summaries of the various soils types through the soils horizons to depths of 96" (eight feet).

d. A description of the following physical conditions:

(1) Depth to groundwater at time of year when water table is nearest the surface and how this information was obtained.

Monitoring pipes were installed in the test holes to allow observation of potential groundwater within eight feet of the surface. These monitoring pipes were checked on a weekly basis from March 29, 2019 through July 1, 2019 by the developer, Jim McIntyre. Groundwater was not evident in any of the nine monitoring pipes during the entire groundwater monitoring period. In the northern wetland portions of the property groundwater is at ground level during springtime and a spring feeds the pond located in the northwestern portion of the property.

(2) Minimum depth to bedrock or other impervious material, and how this information was obtained.

No bedrock or other impervious materials were observed during excavation of the test holes to the depths of eight feet below the surface. Rick Hensley of Foley Engineering provided the soils descriptions, which state there was no indication of groundwater or bedrock in all nine test holes on March 29, 2019 at the time they were excavated. Soils exposed on the northern portion of the site contain round, smooth stones indicative of river gravel.

B. For a proposed public or community sewage treatment system:

1. Estimate the average number of gallons of sewage generated per day by the subdivision when fully developed.

The 30 vacation rental cabins are proposed to be served by a new public sewage treatment system. The subsurface drainfield for the proposed public system will be located in the central parkland area, with the individual wastewater treatment systems for the 48 single-family residential lots located on the lots they serve; this discussion is in regards to the proposed new public system, not the individual systems for the single-family residential lots.

The wastewater treatment system flows will be determined in accordance with DEQ requirements. The daily flows of sewage (wastewater) for the vacation rental cabins on Lot 1 have been estimated based on 160 gallons per day (GPD) per cabin (using occupancy of four people per cabin) multiplied by 30 cabins for a total of 4,800 GPD. The overall daily sewage calculation of 4,800 GPD is intended to account for the appurtenant uses associated with Lot 1.

2. Where an existing system is to be used:

- a. Identify the system and the person, firm or agency responsible for its operation and maintenance.**

Not applicable: no existing sewage treatment systems are proposed to be used to serve the development.

- b. Indicate the systems capacity to handle additional use and its distance from the development.**

Not applicable: no existing sewage treatment systems are proposed to be used to serve the development.

- c. Provide evidence that permission to connect has been granted.**

Not applicable: no existing sewage treatment systems are proposed to be used to serve the development.

3. Where a new system is proposed:

- a. Attach a copy of the plat showing the location of all collection lines and the location and identification of the basic components of the treatment system.**

The preliminary DEQ lot layout shows the components of the proposed wastewater treatment system that will serve the cabins. The drainfield is to be located in the central parkland area. The system will have septic tanks located near the cabins. Collection lines from each cabin will carry the effluent to the septic tanks. After initial treatment, sewage will be pumped to the drainfield via collection lines along the road network from the septic tanks to the drainfield.

- b. If subsurface treatment of the effluent is proposed, give the results of the preliminary analysis and percolation tests in the area of the treatment site.**

The preliminary analyses of the subdivision's potential impacts on groundwater are included in the sanitation part of the submittal. Test hole #9 is representative of the drainfield site for the new public wastewater treatment system for the cabins. The soils in test hole #9 and in all of the test holes are mostly well-drained gravel, with no evidence of groundwater or bedrock in any of the 8-foot test holes. Percolation tests were not performed because they are rarely required by DEQ.

- c. Provide a description of the following physical conditions:**

- (1) Depth to groundwater at time of year when water table is nearest the surface and how this information was obtained.**

Soils test holes were dug in nine locations throughout representative areas on the property, and subsequently monitored for groundwater through the high groundwater season of late March – July 1, 2019. Test hole #9 is representative of the drainfield site for the new public wastewater treatment system for the cabins. No occurrences of groundwater within the 8-foot deep observation pipe were observed in any test hole, including Test Hole #9

(2) Minimum depth to bedrock or other impervious material, and how this information was obtained.

No evidence of bedrock or other impervious material was encountered during excavation of the nine test holes throughout the property.

d. Indicate who will bear the costs of installation and who will own, operate and maintain the system. Also, indicate the anticipated date of completion.

The developer will bear the costs of installation of the public wastewater treatment system that will serve the cabins. The system is anticipated to be installed by August 2020. This system will be privately owned, operated and maintained by the owner of Lot 1.

VIII. WATER SUPPLY

A. Where an individual water supply system is proposed for each parcel:

- 1. If individually drilled wells are to be used, provide evidence as to adequate quantity and quality of the water supply.**
- 2. If any other method of individual water supply is to be used:**
 - a. Explain why the alternate form of water supply is proposed instead of drilled wells.**
 - b. Identify the source of water supply and provide evidence that it is of sufficient quantity and quality to serve the development.**
- 3. Attach two (2) copies of the plat showing the proposed location of each spring, well, cistern, or other water source and indicate the distance to existing or proposed sewage treatment systems.**

A-(1) – (3) are not applicable: the development is proposed to be served by a new on-site public water system, not individual water supply systems for each parcel.

B. Where a public or community water system is proposed:

- 1. Estimate the number of gallons per day required by the development (including irrigation, if applicable).**

The entire development is proposed to be served by a new on-site public water system. Development on Lot 1 is estimated to require 4,800 gallons per day. The 48 single-family residential lots are expected to require 250 gallons per day per lot (based on the DEQ Circular 3 design standard of 100 gallons per capita per day, and an average of 2.5 persons per lot), or 12,000 gallons per day. Water usage for irrigation of the parkland areas and the lots is estimated to be approximately 75,000 gallons per day. Total water use is therefore expected to be 91,800 gallons per day during summer months when lawns require irrigation.

2. Where an existing system is to be used:

- a. Identify the system and the person, firm or agency responsible for its operation and maintenance.**

- b. Indicate the systems capacity to handle additional use and its distance from the development.**
- c. Provide evidence that permission to connect has been granted.**

2-(a) – (c) are not applicable: the development is proposed to be served by a new on-site public water system, and not an existing system. The nearest public water supply is owned by the City of Columbia Falls, approximately 3,700 feet from the subject property at the intersection of US Highway 2 and 2nd Avenue East.

3. Where a new system is to be used:

- a. Provide evidence that the water supply is adequate in quantity, quality and dependability.**

The sanitation portion of the submittal includes a preliminary assessment of groundwater availability using data for area wells available from the Montana Ground Water Information Center. The assessment provides data from 17 area wells, with an average well depth of 162 feet and an average yield of 57 gallons per minute. Many of these wells are used for domestic purposes.

As indicated in the sanitation submittal, Foley Engineering collected a water sample from a neighboring well to establish a total nitrate + nitrite level to be used in an analysis of the potential of the wastewater treatment systems to degrade state waters (non-degradation analysis). The total nitrate + nitrite level was 0.01 milligrams per liter, well below the maximum contaminant level of 10. Upon drilling water supply wells for the subdivision, additional water quality samples must be submitted to the Montana Department of Environmental Quality, whose engineers will review the results and proposed public water system prior to final plat approval to ensure the water supply is adequate in terms of water quantity, quality and dependability.

- b. Indicate who will bear the costs of installation, when it will be completed and who will own, operate and maintain the system.**

The developer will bear the costs of installing the new water system. The water system will then be managed by the property owners association. The association will hire a certified operator to operate and maintain the public system.

- c. Attach a copy of the plat showing the proposed location of the water source and all distribution lines.**

The DEQ lot layout, included in the sanitation portion of the submittal, shows the proposed locations of the two primary wells, possible four backup wells, distribution main lines, pump house, and 30,000 gallon tanker recharge point.

IX. SOLID WASTE

- A. Describe the proposed method of collecting and disposing of solid waste from the development.**

Evergreen Disposal will provide solid waste collection services as stated in a will-serve letter for the development dated July 9, 2019. The vacation rental cabins on Lot 1 will utilize at least one central collection area. Throughout the rest of the development, individual containers can be utilized on each lot,

with street-side collection provided by Evergreen Disposal. In the event lot owners wish to haul their own solid waste, county drop-off sites operated by Flathead County Solid Waste are available at various locations around the county, including a site in Columbia Falls that accepts some household refuse types for recyclingⁱⁱⁱ.

B. If central collection areas are proposed within the subdivision, show their location on a copy of the preliminary plat.

The only potential central collection area could be in the vacation rental cabins area of Lot 1. At this preliminary stage, the exact location and configuration is unknown.

C. If use of an existing collection system or disposal facility is proposed, indicate the name and location of the facility.

The nearest Flathead County Solid Waste drop-off site is located at 1073 Best Way in Columbia Falls.

X. DRAINAGE

A. Streets and Roads:

1. Describe any proposed measures for disposing of storm run-off from streets and roads.

Storm runoff from the internal road will be managed via roadside drainage swales and infiltration ponds.

2. Indicate the type of road surface proposed.

The internal road is proposed to be developed with an asphalt surface.

3. Describe any proposed facilities for stream or drainage crossing (i.e., culverts, bridges).

The internal road will cross over three segments of wetlands. Portions of these areas will be filled in accordance with requirements of the US Army Corps of Engineers through the 404 permit process. To ensure sound design and construction of the road, culverts will likely be placed under the road in these low drainage areas. The culverts will be sized appropriately in accordance with standards prescribed by the 404 permit and DEQ requirements, which will be determined through appropriate review by the involved agencies.

B. Other areas:

1. Describe how surface run-off will be drained or channeled from lots or common areas.

As individual lots are developed, storm runoff will be managed pursuant to the DEQ approval. On individual lots, stormwater from buildings and driveways will be detained within the confines of the lots with use of detention ponds or swales and/or infiltration chambers.

2. Indicate if storm run-off will be drained or channeled from lots or common areas.

On the individual lots, including the park lots, storm runoff from improvements will be contained within the confines of each lot's boundaries and not drained or channeled to other areas.

3. Describe any proposed sedimentation and erosion controls to be utilized both during, and after, construction.

During construction, sedimentation and erosion controls such as silt fencing and straw wattles will be installed using best management practices. The methods for sediment and erosion controls will be dictated by DEQ according to a future stormwater pollution prevention plan through DEQ's general permit program for stormwater discharges associated with construction activity.

4. Attach a copy of the plat showing how drainage on lots, road and other areas will be handled (include sizes and dimensions of ditches, culverts, etc.)

Storm drainage will be managed on-site through roadside ditches and direct infiltration of drainage from development on each lot. Please see the attached stormwater management plan, which includes the storm drainage facilities that are proposed as part of the plan for stormwater controls that will be reviewed and approved by Montana DEQ.

XI. ROADS

A. Estimate how much daily traffic the development, when fully developed, will generate on existing or proposed roads providing access to the development.

Vehicular traffic will result from the rental cabins and residential lots. The residential element of the development is expected to generate ± 10 trips per day per lot for a total of 480 vehicle trips per day associated with the single-family residential lots. For the vacation rental cabins, the project engineering firm, Foley Engineering, estimates 4.5 vehicle trips per day per cabin unit applying figures used from previous projects in the area the firm has worked on, for a total of 135 vehicle trips per day from the commercial vacation rental cabins. Therefore, a total of 615 average vehicle trips per day are estimated to be generated by the development split in some fashion between US Highway 2 and Rogers Road, depending on traffic volumes along US Highway 2 and the intended destination of each trip.

1. Discuss the capability of existing and proposed roads to safely accommodate this increased traffic (e.g., conditions of the road, surface and right-of-way widths, current traffic flows, etc.).

US Highway 2 is a paved, four-lane divided highway with a 55 miles per hour speed limit in this location. The highway is a federally-funded highway designed as a major thoroughfare that is part of the National Highway System (NHS)^{iv}. US Highway 2 is fully capable of accommodating the estimated 615 vehicle trips per day generated by the development.

As stated above, a portion of the estimated 615 vehicle trips per day generated by the development will utilize Rogers Road to the south. Most vehicular traffic that utilizes Rogers Road will use the 1100' segment between the property and MT Highway 206. This stretch of Rogers Road is a county-maintained, paved road in a 60' wide right-of-way with a 20' to 22' wide driving surface that is in relatively good condition and capable of accommodating the expected additional traffic.

2. Describe any increased maintenance problems and costs that will be caused by this increase in volume.

As stated above, US Highway 2 is fully capable of accommodating the increased traffic on the highway. The increase in traffic on county-maintained Rogers Road will increase maintenance needs primarily

on the segment of road between MT Highway 206 and the subject property. The small, incremental increase in maintenance needs for the county is expected to be offset by the increased tax revenue the county will receive as a result of the subdivision.

B. Indicate who will pay the cost of installing and maintaining dedicated and/or private roadway.

The developer will pay the costs of installing the internal private road network. The developer will establish a property owners association to maintain and administer the private roads.

C. Describe the soil characteristics, on site, as they relate to road and building construction and measures to be taken to control erosion of ditches, banks and cuts as a result of proposed construction.

Section V.A of this environmental assessment explains the various types of soils on the subject property and includes a soils map generated by the USDA Web Soil Survey. The soil survey provides information on the suitabilities and limitations for uses, such as road and building construction based on the soil characteristics.

There are several different soil types on the property that range from 'very limited' to 'not limited' for construction of local streets and roads and other building purposes. The more limited areas are the northern, wetland portions of the property due to shallow depth to the saturated zone while the less limited portions are on the majority of the property where the soils are generally well-drained gravelly sands. It should be noted that appropriate road design, site preparation, and construction techniques are planned to be engineered to overcome any site limitations.

D. Explain why access was not provided by means of a road within the subdivision if access to any of the individual lots is directly from City, County, State or Federal roads or highways.

All individual lots will be accessed directly from the internal road network, as opposed to state-maintained US Highway 2 or county-maintained Rogers Road.

E. Is year-round access by conventional automobile over legal rights-of-way available to the subdivision and to all lots and common facilities within the subdivision?

Yes. Year-round access by conventional automobiles to the site is provided by US Highway 2 and Rogers Road, with those public thoroughfares being located in established rights-of-way. The lots and units created through the subdivision and development process will utilize the internal road network, the rights-of-way for which will be established on the final subdivision plat, and the facilities installed by the developer prior to final plat approval¹. The developer will establish a property owners association to maintain the internal roads in a manner that will provide year-round access.

F. Identify the owners of any private property over which access to the subdivision will be provided.

The subdivision will not rely upon other private properties for access.

¹ The developer may request to bond for some of the road improvements by establishing a subdivision improvements agreement with the City of Columbia Falls to ensure installation occurs.

XII. EMERGENCY SERVICES

A. Describe the emergency services available to the residents of the proposed subdivision including the number of personnel and number of vehicles and/or type of facilities for:

1. Fire Protection:

The subdivision is located within the Bad Rock Fire District. According to information obtained from the Fire District, the Bad Rock Volunteer Fire Department and Quick Response Unit (QRU) is composed entirely of volunteer members, and operates under mutual agreements with other surrounding fire departments, including the City of Columbia Falls Fire Department.

There are currently 21 volunteer members of the Bad Rock Volunteer Fire Department and QRU. The fire district has two fire halls: the North Hall at 23 Columbia Pines, which is located ± 0.8 road miles south of the development's access to Rogers Road, and the South Hall at 2279 Middle Rd, which is ± 5 road miles south of the development's access to Rogers Road. The department has four fire trucks, two water tenders, and two support vehicles, one of which is a fully outfitted ambulance that does not provide transport services. (Three Rivers EMS in Columbia Falls provides ambulance transport services.) The City of Columbia Falls Fire Department has a fire station two miles from the property at 624 1st Avenue West in Columbia Falls.

a. Is the proposed subdivision in an urban or rural fire district? If not, will one be formed or extended?

Yes, the subdivision is located within the Bad Rock Fire District, a rural district.

b. In absence of a fire district, what fire protection procedures are planned?

Not applicable: the subdivision is within a fire district.

c. Indicate the type, size and location of any proposed recharge facilities.

A new public water system is proposed to serve the entire development, which will include development of a 30,000-gallon water tank and fill point for the fire departments. The facility will be located along the central looped road in the park area adjacent to Lot 30. The developer intends to work with the local fire district to ensure the water tanker recharge facility meets the needs of the district in terms of water pressures, flow, capacity, fittings, siting and access.

d. If fire hydrants are proposed, indicate water pressure capabilities and the locations of hydrants.

As stated above, a 30,000-gallon tanker recharge tank is proposed as a component of the public water system with a draft fire hydrant accessible to emergency responders. At this time, the water pressure capability of the fire department fill point is unknown and dependent on engineering design. The system will be designed for sufficient water pressure to meet the needs of the local fire district. It should be noted that the Bad Rock Fire District currently lacks fire hydrants within the district, and the addition of a new tanker recharge facility within one mile of the department's north hall will be an important contribution by the developer.

2. Police Protection.

With the subdivision being located outside the corporate limits of the City of Columbia Falls, police protection will be provided by the Flathead County Sheriff’s Office. According to the Flathead County Growth Policy (2012), the department had 37 patrol officers when the growth policy was written, and 79 other employees that work as support, court, or jail staff. The specific number of vehicles in operation by the Sheriff’s Office has not been determined by the preparers of this document, but the Sheriff’s Office has a record of providing excellent police protection services throughout the county during periods of growth and otherwise. If it is determined this subdivision contributes an incremental increase in demand for the police protection services, taxes and assessments are the appropriate mechanism to meet the demand.

3. Ambulance Service.

The Bad Rock Fire District provides non-transport emergency medical services to the area. Three Rivers EMS in Columbia Falls provides transport emergency medical services to the area. Three Rivers EMS is a private ambulance service in close proximity to the subdivision.

4. Medical Services.

Medical services are provided by small medical clinics in Columbia Falls (within one mile from the site) and hospitals in Whitefish (9 miles or 14 minutes from the property) and Kalispell (18.3 miles or 26 minutes from the property). Any of these facilities provide general medical services, and the hospitals in Whitefish and Kalispell are full-service hospitals. The exact numbers of staff and inventories of facilities are beyond the scope of this assessment, but the area is well served by area medical service providers.

B. Can the needs of the proposed subdivision for each of the above services be met by present personnel and facilities?

The subdivision occupants’ future needs for emergency services will be substantially met by present personnel and facilities. The development is reflective of the continued growth in the Flathead Valley, where needs for additional personnel and facilities increase continually as the population increases and development occurs in new places, both within and near existing cities and communities and in remote, rural areas. The most efficient types of development in terms of expanding services are those in closest proximity to cities, where service providers are based. With this subdivision being ±0.5 miles from the City of Columbia Falls, the expanded needs for emergency services should be provided in an efficient manner and in a location where the costs of service provision are lowest, possibly to the point that the increased tax revenue generated by the subdivision will offset the costs of expanded services.

1. If not, what additional expense would be necessary to make these services adequate?

Because it is expected that the increased tax revenue will efficiently and effectively offset the costs for additional services, no additional expenses have been identified.

2. At whose expense would the necessary improvements be made?

If additional improvements are found necessary for the emergency service providers to serve future occupants of the subdivision, the developer will evaluate the necessary improvements and associated

costs to determine what can be done by the developer as part of the project to provide the necessary improvements.

XIII. SCHOOLS

A. Describe the educational facilities which would serve the subdivision (school facilities, school personnel, bus routes and capabilities, etc.).

Public education in this area is provided by Columbia Falls School District 6. The Columbia Falls School District serves about 2,400 students in two elementary schools, one junior high school, and one high school^v. The School District operates multiple bus routes and will determine the best solution to provide school bus services via a modified bus route or new stops for students in the subdivision.

B. Estimate the number of school children that will be added by the proposed subdivision, and how they will affect existing facilities.

According to 2018 US Census data, there are 49,096 housing units in Flathead County. The Flathead County Statistical Report of Schools 2018^{vi} states there are 16,473 students enrolled in public, private, and home schools. The total number of students divided by the total number of households in the county indicates the number of average students per household is therefore approximately 0.34. With 48 single-family residential lots being created by the subdivision, and no students expected from the vacation rental cabins, the number of school-aged children expected to reside in the subdivision is approximately 16 at any given time.

The expected 16-student increase in the number of students from the existing 2,400 students currently attending Columbia Falls schools is a $\pm 0.7\%$ increase in total enrollment in the district (not accounting for the possibility that some students could attend private or home schools), and an average of ± 1.23 students per grade.

The increased number of students that will require public education services is minimal in terms of the impacts that will result from this subdivision alone. However, this subdivision is indicative of continual residential growth in the Flathead Valley that service providers like school districts accommodate. Along with increased residential lots and students, increased tax revenue will be generated to help offset the impacts associated with this growth.

The developer is working with the Columbia Falls School District to determine whether or not school buses will enter the subdivision to pick up and drop off students, and what improvements the district requires, such as a developed bus pullout along the road and/or student shelter at a bus stop. Preliminary conversations between the developer and transportation department of the district have included a potential pull-out along Highway 2 and pick-up along Rogers Road as opposed to a bus entering the subdivision. The details will be finalized prior to final plat application submittal.

XIV. ECONOMIC BENEFITS

A. Provide the present assessment classifications and range of the total assessed valuation of all land and structures.

B. Provide the anticipated assessment classification and range of the total assessed valuation of all structures (at 25% and 90% occupancy - also give estimated year of said occupancy).

C. Provide anticipated revenue increases, per unit, from water, sewer and solid waste fees.

Since this section of the City of Columbia Falls Environmental Assessment was established, the Montana Subdivision and Platting Act has been changed such that economic benefits are no longer part of the subdivision review criteria. As such, the information requested by this section is no longer required per Eric Mulcahy, the City's contract planner.

XV. LAND USE

A. Describe the existing historical use of the site.

The site is currently a vacant parcel not in agricultural production, but has likely seen some historic livestock grazing and similar agricultural practices.

B. Describe any comprehensive plan recommendations and other land use regulations on and adjacent to the site.

The property is within the planning jurisdiction area for the City of Columbia Falls, and as such, is subject to the 2013 Columbia Falls Growth Policy. The City of Columbia Falls zoning ordinance also has an extraterritorial zoning area surrounding the city limits that applies to the subject property.

On the Growth Policy Map (aka Future Land Use Map), the property proposed for subdivision is designated 'Urban Residential'. Surrounding properties to the north, west, and south are also designated 'Urban Residential', and land to the east is outside the planning area and not designated by the Map. The 'Urban Residential' designation provides the following description: *"Between 2 and 8 unit/acre. Primarily single family residential with limited quantities of multifamily units. Fully serviced by urban services."* The land use designations are general in nature, and the density of this proposal, being 1.4 units per acre is well under 2- to 8-units per acre in the Urban Residential area, and the development will provide primarily single-family residential lots. Furthermore, the development will comply with the zoning ordinance, which is the primary implementation tool to manage land use in the jurisdictional area.

Is zoning proposed? If located near an incorporated city or town, is annexation proposed?

Currently the property is zoned CR-3 (One-Family Residential). According to the definition for CR-3 (Section 18.326.010 of the zoning ordinance), the district is defined as follows:

"A district to provide adequate lot size for urban residential development; should have good thoroughfare access, and be in proximity to community and neighborhood facilities, i.e. schools, parks, shopping areas. This district will normally require all public utilities."

The development is in substantial compliance with this definition for CR-3. The subdivision provides adequate lot sizes for urban residential development (well over the minimum lot size of 9,600 square feet), will have good thoroughfare access with a new internal road network accessing two public roads at the north and south ends of the subdivision, and is within ½ mile of the city limits and associated community facilities. The development will have electrical and telecommunication facilities. Because annexation into the City of Columbia Falls is not proposed at this time due to the expenses associated with extending municipal water and sewer facilities this distance and over the Flathead River, a new on-site public water system is proposed along with a public wastewater treatment system for the vacation

rental cabins and individual wastewater treatment systems for each of the 48 single-family residential lots.

To address zoning for the commercial vacation rental cabins, the developer is proposing a Planned Unit Development (PUD) as part of the project.

C. Describe the present uses of lands adjacent to or near the proposed development. Describe how the subdivision will affect access to any adjoining land and/or what measures are proposed to provide access.

Land uses surrounding the development are residential and agricultural. Across county-maintained Rogers Road from the 80' wide southern extension of the subject parcel is a Montana Department of Transportation (MDT) maintenance shop/yard.

The subdivision will not affect access to any adjoining land in any manner. The internal road network is intended to be for access to the private development and not to adjoining lands. Service providers will use the internal road network to serve the development.

D. Describe any health or safety hazards on or near the subdivision (mining activity, high voltage lines, gas lines, agricultural and farm activities, etc.) Any such conditions should be accurately described and their origin and location identified.

A buried high-pressure natural gas transmission line crosses the property from southeast to northwest, as shown on the preliminary plat. This gas line is proposed to be located within subdivision parkland, not under developable lots. On the ground the gas line is marked with orange and yellow markers (Figure 9). The buried gas line does not pose an unusual health or safety hazard; the gas line operator is responsible for managing and maintaining the gas line in a safe manner.

Agricultural activities are a customary land use in the area. No unusual farming practices are known to occur in the vicinity that would pose special health or safety hazards to occupants of the subdivision. There is no active mining activity on or surrounding the subject property. High voltage electrical powerlines traverse county-maintained Rogers Road within 100 feet of the southern property boundary. These powerlines are well over 500 feet from any lot that will be occupied in the development so should pose no danger.



Figure 9 Gas pipeline marker

E. Describe any on-site uses creating a nuisance (unpleasant odor, unusual noises, dust, smoke, etc.). Any such conditions should be accurately described and their origin and location identified.

There are no uses occurring on site or nearby that create a nuisance, such as unpleasant odor, unusual noises, dust, smoke, etc.

XVI. PARKS AND RECREATION FACILITIES

A. Describe park and recreation facilities to be provided within the proposed subdivision and other recreational facilities which will serve the subdivision.

The preliminary plat depicts approximately 15.35 acres of park area within the development or more than 27% of the property. The property owners association may develop walking paths or other recreational amenities within the parkland areas. Surrounding recreational facilities likely to be used by subdivision occupants are discussed further below.

B. List other parks and recreation facilities or sites in the area and their approximate distance from the site.

This area of the Flathead Valley provides a large variety of parks and recreational facilities available to future occupants of the development. The City of Columbia Falls alone operates 11 parks ranging from a small sitting park and ball fields to a large riverfront park, an aquatic center park, and a park featuring an amphitheater^{vii}, all of which are located within approximately 2.5 miles of the property. Two fishing access sites (FASs) along the Flathead River are located within three road miles of the subdivision, including the Teakettle FAS that is less than ½ mile west of the property toward Columbia Falls. Glacier National Park, National Forest lands, and various state lands are all located within a short commute to this subdivision and provide excellent outdoor recreational opportunities on public lands.

C. If cash-in-lieu of park land is proposed, state the purchase price per acre or current market value (values stated must be no more than 12 months old).

Because parkland will be provided on-site, property values are not required.

XVII. UTILITIES

A. Indicate the utility companies involved in providing electrical power, natural gas, or telephone service. To what extent will these utilities be placed underground?

The following utility companies will serve the development:

- Electricity: Flathead Electric Cooperative
- Telephone and broadband internet service: CenturyLink
- Natural gas: North Western Energy

The utilities will be placed underground wherever practical in accordance with Section 17.14.150 of the Columbia Falls Subdivision Regulations. It is expected that all electrical powerlines, telecommunication lines, and natural gas lines will be installed by the utility companies in accordance with their policies. The primary infrastructure will be installed in the road rights-of-way to each lot.

B. Has the preliminary plat been submitted to affected utilities for review?

No. Arrangements will be made with the utility companies after preliminary plat review.

C. Estimate the completion date of each utility installation.

The estimated completion date for installation of utilities is August 2020.

SIGNATURE PAGE

The above Environmental Assessment for 'The Benches' major subdivision was prepared by Dave DeGrandpre and Joel Nelson of Land Solutions, LLC for James McIntyre of Prairie Dog Development, LLC.

Signatures:



July 19, 2019

Dave DeGrandpre, AICP
Principal Planner
Land Solutions, LLC

Date



July 19, 2019

Joel Nelson
Community Planner
Land Solutions, LLC

Date

James McIntyre of Prairie Dog Development, LLC
719 3rd St. W.
Whitefish, MT 59937

Date

SOURCES

ⁱ [Environmental Assessment](#) dated May 2015 for the Teakettle Fishing Access Site Proposed Improvement, by Montana Fish, Wildlife & Parks, downloaded June 2019

ⁱⁱ USDA/NRCS's web soil survey website: ([Link](#))

ⁱⁱⁱ Flathead County Solid Waste 'Drop-Off Sites' webpage: ([Link](#))

^{iv} MDT's Statewide Transportation Improvement Program (STIP) 2018-2020, June 2018 ([Link](#))

^v Columbia Falls Schools website: ([Link](#))

^{vi} Flathead County Statistical Report of Schools 2018, downloaded June 2018: ([Link](#))

^{vii} City of Columbia Falls' 'Recreation' webpage: ([Link](#))