3.7. LAND USE AND RECREATION

This section describes the affected environment and addresses potential impacts of the No Action Alternative, the proposed Project, and the AMA on land use and recreation.

3.7.1. Analysis Methods

3.7.1.1. Land Use

The analysis area for land use encompasses the Project area for the mining facilities and adjacent lands. The impacts analysis determined how the Project may alter existing land uses on private land. Changes in land use were calculated based on the acreage of the Project area. The Meagher County City of White Sulphur Springs Comprehensive Plan (Meagher County Planning Board 1981) was reviewed to determine if there were any conflicts with the general plan, zoning regulations, or growth policies. Additionally, the Meagher County Draft Growth Policy (Meagher County 2015) and the City of White Sulphur Springs Growth Policy (City of White Sulphur Springs 2017) completed in February of 2017 were also reviewed.

3.7.1.2. Recreation

The analysis area for recreation impacts encompasses the Project area and an approximately 15-mile radius surrounding the Project area. Due to the large amount of public comments that were received during the Project scoping period, the analysis area also includes the Smith River. Publically available information on campgrounds, trails, angler data, and Smith River floating data within the analysis area was reviewed.

3.7.2. Affected Environment

3.7.2.1. Land Use

Northeastern Meagher County is a rural area with the nearest major population area being the City of White Sulphur Springs, approximately 15 miles to the south of the Project area. Large-lot residential properties, ranches, and cabins are present along U.S. Route 89 between the City of White Sulphur Springs and the Project area. All of the land located within the Project area is privately-owned. Of the approximate 1,888 acres within the proposed Project area, the majority consist of livestock grazing and ranching lands. A portion of Bar Z Ranch (approximately 3.7 acres) is located within the Project area. **Table 3.7-1** shows the existing land uses within the Project area. All water features, which are excluded from **Table 3.7-1**, fall within the existing land use category of fishing.

Table 3.7-1
Existing Land Use within Black Butte Copper Project Area

Land Use Type	Acres	Percent with the Project Area[a]
Livestock Grazing and Ranching	1,769.0	94%
Hay Production	118.7	6%

Notes:
[a] Percent totals are greater or less than 100% due to rounding.

Both the 1981 Meagher County City of White Sulphur Springs Comprehensive Plan and the 2017 City of White Sulphur Springs Growth Policy focus on land use within the City of White Sulphur Springs and do not provide any zoning restrictions or a land use plan for areas outside of the city. According to Montana Cadastral data, the land surrounding the Project area is primarily privately owned and consists of agricultural rural and farmstead rural lands with land uses including grazing and timber. Additionally, there are a few parcels owned by the U.S. Department of Agriculture located to the south and west of the Project area (Montana State Library 2018).

3.7.2.2. Recreation

There are no public recreation opportunities located within the Project area. Bar Z Ranch, located within the Project area, offers lodging and private fly-fishing expeditions along multiple waterbodies including Sheep Creek and the Smith River (Fly Fishing Montana 2017). Public recreational opportunities in the surrounding area include hiking, camping, fishing, hunting, boating, and river floating. **Table 3.7-2** lists the campgrounds located within 15 miles of the Project area (specifically the intersection of Sheep Creek and Butte Creek County Road).

Table 3.7-3 lists the hiking trails located within 15 miles of the Project area (specifically the intersection of Sheep Creek and Butte Creek County Road). In addition to hiking and camping, there are boating and fishing opportunities on Sheep Creek, Smith River, Newland Reservoir, Lake Sutherlin, and Bair Reservoir. While no statistical data is available, non-fishing recreational boating, kayaking, canoeing, and other boating also occur on these waterbodies. Montana Fish, Wildlife & Parks (FWP) collects angler use data every 2 years for Sheep Creek and Smith River. **Table 3.7-4** provides this data for the years of 1995 through 2015. For the Smith River, this data represents Section 2 of the river from Camp Baker to Hound Creek. With the exception of 2003 and 2009 for Sheep Creek and 2003, 2007, and 2011 for Smith River, the majority of angler use days were by residents versus nonresidents.

Table 3.7-2
Public Campgrounds within 15 miles of the Black Butte Copper Project Area

Name	Location	Distance and Direction from Intersection of Sheep Creek and Butte Creek County Road
Miller Gulch "Jeep" Trail – Coxcomb Butte – Butte Creek County Road - Sheep Ck. County Road – U.S. Route 89 Loop	NW ¼ Sec 16 T11N R7E	3.9 miles SE
Sheep Creek Campground	SW ¼ Sec 12 T12N R6E	2.0 miles N-NW
Moose Creek Campground	N ½ Sec 5 T12N R7E	3.4 miles N-NE
Jumping Creek Campground	NE ¼ Sec 36 T12N R7E	4.5 miles E
Newland Creek (Reservoir) Campground	W ½ Sec 12 T10N R6E	7.2 miles S-SW
Many Pines Campground	S ½ Sec 10 T13N R8E	9.5 miles NE
Camp Baker Campground	SW ¼ Sec 13 T12N R4E	10.4 miles W
Smith River Campground	NW ¼ Sec 13 T11N R6E	10.4 miles W-SW
Lake Sutherlin Campground	N ½ Sec 20 T10N R8E	10.1 miles SE
Grasshopper Creek Campground	N ½ Sec 17 T9N R8E	13.8 miles SE
Richardson Creek Campground	SW ¼ Sec 16 T9N R8E	14.3 miles SE
Showdown Winter Sports Area	S ½ Sec 33 T13N R8E	7.9 miles NE
Former Fort Logan Military Reservation	SW ¼ Sec 25 T11N R4E	11.4 miles SW
Montana Sunrise Lodge	E ½ Sec 32 T12N R8E	6.1 miles E

Source: Central Montana 2017a

Table 3.7-3
Public Hiking Trails within 15 miles of the Black Butte Copper Project Area

Name	Location	Distance and Direction from Intersection of Sheep Creek and Butte Creek County Road
Allan Trail	Sec 19 T13N R7E	6.0 miles N
Miller Gulch "Jeep" Trail Loop [a]	Sec 16 T11N R7E	3.9 miles SE
Island Park Trail	Sec 17 T13N R7E	8.0 miles NE
Tenderfoot Trail [a]	Sec 4 T13N R7E	9.6 miles NE
Williams Mountain Trail [b]	Sec 4 T13N R6E	9.8 miles NW
Memorial Falls Trail	Sec 4 T13N R8E	13.8 miles NE
Balsinger Trail	Sec 10 T14N R6E	14.7 miles NW
Lost Stove Trail [a]	Sec 27 T14N R6E	11.7 miles NW

Source: Central Montana 2017b

Notes:
[a] Notes trails that are completely open to motorized vehicles.
[b] Notes trails that are partially open to motorized vehicles.

Table 3.7-4
Angler Use Days for Sheep Creek and Smith River between 2001 and 2015

Year	Sheep Creek			Smith River		
	Total Angler Days	Resident Angler Days	Nonresident Angler Days	Total Angler Days	Resident Angler Days	Nonresident Angler Days
2015	679	454	225	18,997	11,517	7,480
2013	1,139	793	346	14,654	8,674	5,971
2011	347	300	47	11,480	5,402	6,078
2009	1,762	803	959	18,100	11,680	6,420
2007	1,383	1,002	381	8,375	3,751	4,624
2005	770	602	168	14,188	8,371	5,817
2003	849	276	573	6,854	2,742	4,112
2001	1,074	925	149	9,088	6,362	2,726
1999	1,173	1,097	149	7,645	6,422	1,223
1997	808	673	76	13,391	8,302	5,089
1995	514	312	135	11,272	6,425	4,847

Sources: FWP 2017a; McFarland and Hughes 1997; McFarland and Meredith 1998, 2000, 2002, 2005; McFarland and Dykstra 2007, 2008; Selby et al. 2015; and Selby et al. In prep.)

Hunting near the Project area includes elk, deer, black bear, mountain lion, and bobcat. FWP has collected hunting data for various species in the Project vicinity. The two nearest hunting districts are districts 416 and 446, which both have hunter day data for elk and deer going back to 2004. **Table 3.7-5** presents total hunter days and total number of hunters reported by year, district, and species. The data indicates that there has been an increase in reported hunter days for elk since 2014. No data was collected for deer in 2014, 2015, or 2016; however, trends also indicate an increase in reported deer hunter days.

Table 3.7-5
Montana Fish, Wildlife & Parks Hunter Days Data for Deer and Elk

Year	District	Species	Hunter Days [a]	No. Hunters
2016	416	Deer	N/A	N/A
		Elk	13,209	2,055
	446	Deer	N/A	N/A
		Elk	12,752	2,183
2015	416	Deer	N/A	N/A
		Elk	10,411	1,667
	446	Deer	N/A	N/A
		Elk	15,412	2,689
2014	416	Deer	N/A	N/A
		Elk	10,662	1,790
	446	Deer	N/A	N/A

Year	District	Species	Hunter Days [a]	No. Hunters
		Elk	7,391	1,352
2013	416	Deer	9,037	1,356
		Elk	N/A	N/A
	446	Deer	4,939	885
		Elk	N/A	N/A
2012	416	Deer	N/A	N/A
		Elk	12,368	1,986
	446	Deer	N/A	N/A
		Elk	6,607	1,237
2011	416	Deer	6,022	1,155
		Elk	9,572	1,742
	446	Deer	5,369	764
		Elk	7,196	1,199
2010	416	Deer	6,942	1,190
		Elk	9,559	1,618
	446	Deer	4,040	706
		Elk	6,177	1,044
2009	416	Deer	5,481	1,003
		Elk	8,513	1,565
	446	Deer	3,314	640
		Elk	5,208	909
2008	416	Deer	6,144	1,082
		Elk	8,921	1,663
	446	Deer	4,466	752
		Elk	5,960	979
2007	416	Deer	5,506	952
		Elk	8,974	1,608
	446	Deer	4,711	750
		Elk	5,358	1,039
2006	416	Deer	5,248	977
		Elk	6,863	1,302
	446	Deer	4,451	854
		Elk	6,142	1,135
2005	416	Deer	4,783	960
		Elk	7,787	1,360
	446	Deer	3,191	577
		Elk	5,541	982
2004	416	Deer	4,827	992
		Elk	7,182	1,400

Year	District	Species	Hunter Days [a]	No. Hunters
	446	Deer	3,628	699
		Elk	5,509	1,044

Source: FWP 2016

Notes:
[a] Hunter days reported for deer and elk may be inclusive or overlap could occur.

3.7.3. Environmental Consequences

3.7.3.1. No Action Alternative

Under the No Action Alternative, the Project would not be constructed and no direct or secondary impacts on existing land uses or recreation areas would occur. Recreational opportunities and use levels, patterns, and growth trends would be expected to continue at current rates.

3.7.3.2. Proposed Action

Land Use

Under the Proposed Action, impacts on land use would include the direct long-term loss of approximately 311 acres of ranching/livestock grazing and hay production lands from construction and operations of the Project. These direct impacts would last about 19 years through mine construction, operations, closure, and reclamation. No direct impacts on land use for lands adjacent to the Project area would occur as a result of the Project. No conflicts with adjacent land uses are anticipated given that there are no zoning restrictions in this area.

The Proponent would install a fence around the surface facilities, which would allow existing grazing land uses to continue within the Project area outside of the fence line during operations of the mine.

Long-term impacts on land use would occur to the area proposed for disturbance during mine construction, operations, and reclamation due to the loss of livestock, ranching, and grazing lands from ground disturbing activities, construction, and operations of mine facilities, as well as revegetation efforts. After mine closure, the disturbed land would be reclaimed back to pre-mine land uses, including the removal or closure of Project facilities. Given the proposed reclamation plan and the Proponent's commitment to work with private land-owners, no residual impacts on current existing livestock, ranching, and hay production land uses are anticipated.

Recreation

Under the Proposed Action, no direct impacts on recreation would occur in the proposed disturbance footprint (i.e., approximately 311 acres) as this area is private ranch lands. The only recreation area located within the Project area is Bar Z Ranch, which is not located within the disturbance footprint and would not be directly impacted by the construction or operations of the mine. Potential secondary impacts on recreation opportunities would be related to visual and noise impacts, as discussed in Sections 3.8.3 and 3.11.3, respectively. Hunting does not occur in

the disturbance footprint for the proposed mine; therefore, no direct impacts on hunting opportunities would occur as a result of the Project. Potential secondary impacts on hunting opportunities would be directly related to wildlife impacts. As discussed in Section 3.15.3.2, Wildlife and T&E Species Proposed Action, there is abundant adjacent habitat for big games species.

As discussed in Section 3.5.3.1, Surface Water Hydrology Quantity, Section 3.5.3.2, Surface Water Hydrology Quality, impacts on base flow of Sheep Creek as a result of mine dewatering and disposal of treated water to the UIG are expected to be nominal and to partially offset one another. Therefore, no secondary impacts on recreation from surface water would occur. As discussed in section 3.16.3.2, Aquatic Biology Proposed Action, impacts associated with both water quantity and water quality in Sheep Creek would have minor impacts on fisheries and aquatic life in Sheep Creek. Therefore, secondary impacts on recreation associated with fishing within Sheep Creek would also be minor.

As discussed in Section 3.12.3.2, Transportation Proposed Action, during construction approximately 160 daily employee vehicle trips and 8 truck supply trips would be made each day. During operations these numbers would increase to a maximum of 400 daily employee vehicle trips and 48 truck trips. While traffic volumes would increase during Project construction and operation, the major roads in the Project area have additional available capacity to reduce these impacts, as discussed in Section 3.12, Transportation. Therefore, secondary impacts on accessing regional recreation areas by increased traffic along U.S. Route 89 during construction or operations of the Project are not expected.

During construction and operations of the mine, the population increase from mine employees and contractors may increase the number of people using recreation areas in the Project area (see the Socioeconomics Section 3.9.3.2, Proposed Action). Additionally, some of the mine employees could stay in the area after the life of the mine and may continue to engage in recreational activities in the area. Recreational resource demands may be higher during construction and operations given the increase in local population from construction workers and mine operators.

Smith River Assessment

Land Use

No direct or secondary impacts on existing land uses along the Smith River would occur as a result of the Proposed Action.

Recreation

The Smith River is the only river in Montana that requires a permit for both public and commercial floating. Sheep Creek's confluence with the Smith River is located approximately 19 river miles downstream from where Sheep Creek intersects with the northern edge of the Project area. River use data available from FWP was reviewed. In 2017, interest in private float permits increased for the seventh consecutive year and total river use was at an all-time high. **Table 3.7-6** shows the number of private float permit applications received and number of actual floaters by

year since 2008. As indicated in the data below, interest in floating the Smith River has nearly doubled in the past 10 years with 5,823 permit applications received in 2008 and 10,007 received in 2017. If the number of persons applying for a float permit increases significantly, it could lead to increased demand for the float permits, resulting in a smaller percentage of applicants receiving permits.

Table 3.7-6
Smith River Private Float Permit Applications by Year

Year	Number of Permit Applications	Number of Floaters	Number of Craft [a]
2017	10,007	5,599	2,591
2016	9,365	5,193	2,459
2015	8,096	4,355	2,113
2014	7,377	5,375	2,506
2013	6,662	4,588	2,232
2012	6,156	4,714	2,135
2011	5,633	3,999	1,967
2010	5,346	4,699	2,153
2009	5,704	5,078	2,323
2008	5,823	4,836	2,225

Source: FWP 2017b

Notes:
[a] Includes rafts, canoes, drift boats, kayaks, and other.

Smith River is the receiving waters for Sheep Creek. Secondary impacts on base flow of Sheep Creek as a result of mine dewatering and disposal of treated water to the UIG are expected to be insignificant and to partially offset one another. Therefore, no direct impacts on recreational opportunities in the Smith River from surface water would occur as a result of the Proposed Action. As discussed in Sections 3.5.3.1, Surface Water Hydrology Quantity, and Section 3.5.3.2, Surface Water Hydrology Quality, impacts on the Smith River associated with water quantity and water quality would both be insignificant. Therefore, potential secondary impacts on recreational opportunities of the Smith River due to changes in water quality or water quantity would also be insignificant.

3.7.3.3. Agency Modified Alternative

The potential direct impacts of the AMA on land use and recreation would be the same as described for the Proposed Action. The disturbance footprint would also be the same for the AMA; therefore, no additional direct impacts on land use or recreation would occur. Secondary impacts on recreation are anticipated to be similar to those described above for the Proposed Action. Secondary impacts on hunting would remain the same considering the amount of adjacent habitat would not change for the AMA. Secondary impacts on fishing would remain the same considering no changes in surface water impacts would occur as part of the AMA. Secondary impacts to traffic would change slightly with the AMA as added truck trips would be

required for the material needed for the additional cemented tailings. These additional trips would not meaningfully change the traffic impacts described for the Proposed Action.

Smith River Assessment

The potential direct impacts of the AMA on land use and recreation for the Smith River would be the same as described for the Proposed Action. The disturbance footprint would also be the same for the AMA; therefore, no additional direct impacts on land use or recreation along the Smith River would occur. Secondary impacts on recreation are anticipated to be similar to those described above for the Proposed Action.