

**UNITED STATES DEPARTMENT OF THE INTERIOR
OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT**

**Bull Mountains Mine No. 1
Federal Mining Plan Modification
Environmental Assessment**

Musselshell County and Yellowstone County, Montana

**Federal Coal Lease MTM 97988
October 2020**



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I.0 PURPOSE AND NEED

The development of this Environmental Assessment (EA) was based on the Bull Mountain Mine No. I Federal Mining Plan Modification Project (Project) EA, which the Office of Surface Mining Reclamation and Enforcement (OSMRE) published on May 11, 2018¹. Most of the information provided in the 2018 EA has not changed and, therefore, is herein incorporated by reference in this EA. Additional information has been incorporated into several sections of this EA that have changed as a result of continued mining operations or that specifically addresses the 2020 Court ruling provided by the U.S. District Court for the District of Montana (the Court) in *350 Montana v. Bernhardt*, No. CV 19-12-M-DWM, 2020 WL 1139674 (D. Mont. Mar. 9, 2020) about the potential for train derailment that may occur along the rail transportation route.

The content in the following subsections in Chapter I, as provided in the 2018 EA, has not changed and, therefore, has not been included in this chapter:

- Section 1.2, *Regulatory Framework and Necessary Authorizations*
- Section 1.5, *Public Comment*
- Section 1.6, *Crosswalk of Resource Areas*

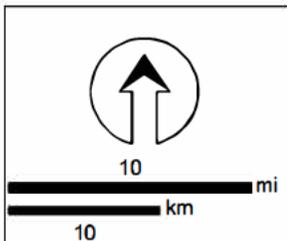
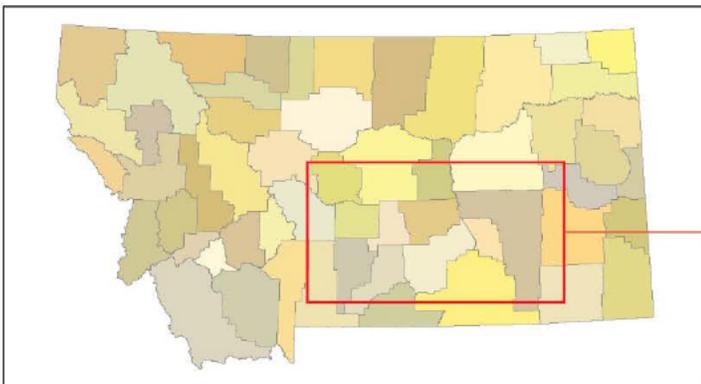
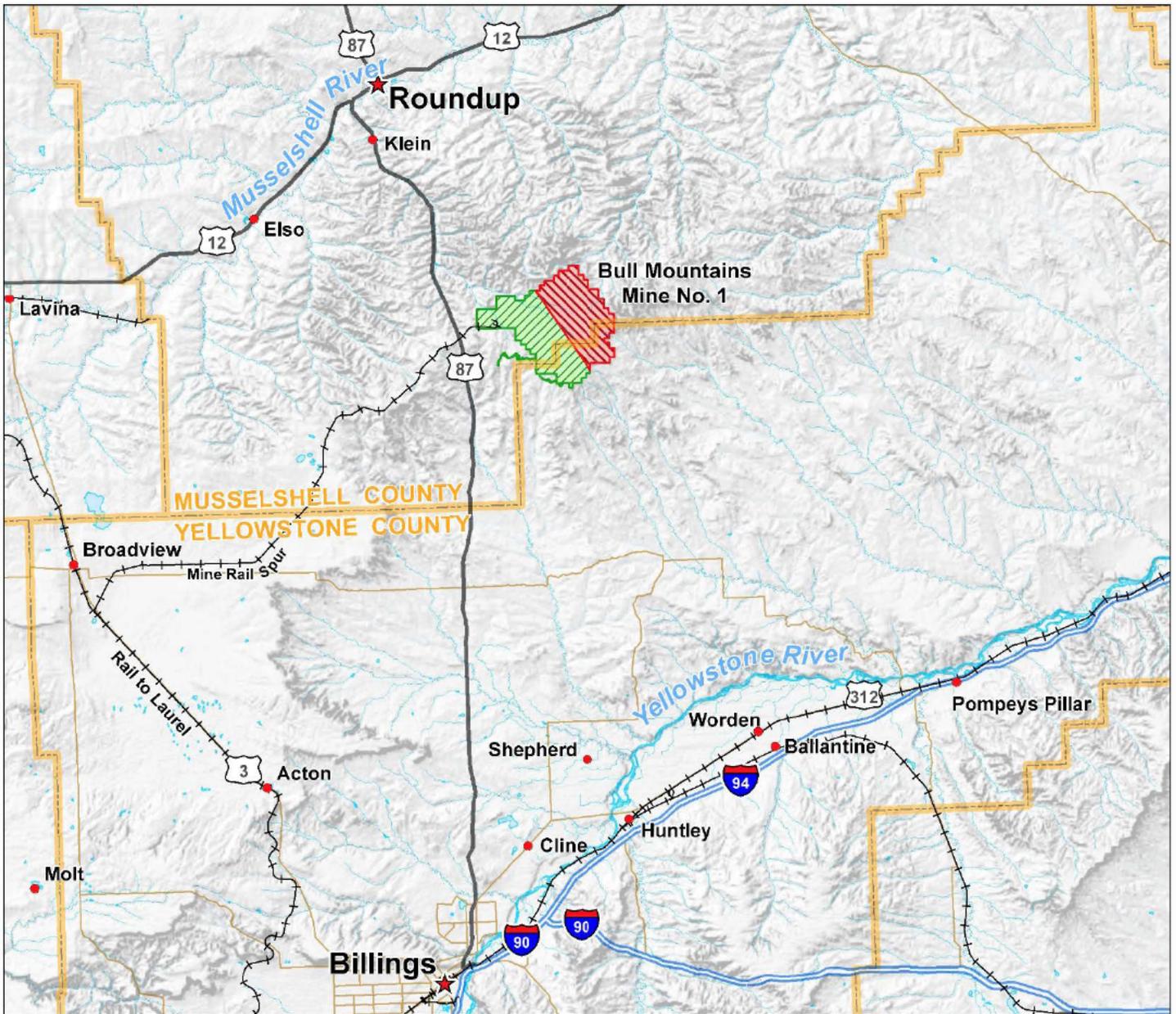
The following subsections were included in the 2018 EA and have been included in this EA with updated information based on continued mining operations that have occurred through March 31, 2020, or additional information incorporated to specifically address the 2020 Court ruling. The original subsection numbers as described in the 2018 EA have been changed for this EA; however, the subsection titles remain the same.

I.1 Introduction

Signal Peak Energy, LLC (SPE) owns and operates the Bull Mountains Mine No. I underground coal mine (Mine), located in the Bull Mountains of southcentral Montana (**Figure I.0-1**, to follow). The Mine is located in Musselshell and Yellowstone counties between the Musselshell and Yellowstone rivers, approximately 30 miles north of Billings, Montana, and 20 miles southeast of Roundup, Montana. The vast majority of coal is mined using the longwall method; the remaining development coal is mined using the room-and-pillar method. All coal is washed to improve coal quality and shipped from an onsite rail car loading facility (i.e., tipple).

On March 19, 2008, SPE filed an application with the Bureau of Land Management (BLM) to lease approximately 2,679.76 acres of Federal coal (MTM 97988) in Sections 4, 8, 10, 14, and 22, Township 6 North, Range 27 East, Musselshell County, under the Lease by Application (LBA) regulations (43 Code of Federal Regulations (CFR) § 3425.1) and the Energy Policy Act of 2005 (see the **2018 EA – Appendix A, Figure I.0-2**). BLM processed the lease application in accordance with regulations found at 43 CFR Subpart 3425 for LBA. The EA titled *Bull Mountains Mine No. I, Federal Coal Lease MTM 97988, Musselshell County, Montana, EA No. DOI-BLM-MT-CO10- 2009-0010-*

¹ Most of the information provided in the 2018 EA has not changed and, therefore, is herein incorporated by reference in this EA: <https://www.wrcc.osmre.gov/initiatives/bullMountainsMine.shtm>



- ★ County Seats (Administrative Center)
- Other Cities & Towns
- Bull Mountains Mine No. 1**
-  Amendment 2 (AM2) Mining Area
-  Amendment 3 (AM3) Mining Area

**Bull Mountains Mine No. 1
Federal Mining Plan
Modification EA**

Last Updated: 29 JAN 2018

**Figure 1.0-1
Project Location**

EA (BLM 2011) (hereafter BLM Coal Lease EA) was prepared to satisfy BLM’s requirements under the National Environmental Policy Act (NEPA). OSMRE served as a cooperating agency for the BLM Coal Lease EA. The BLM Coal Lease EA evaluated the application as it would be processed under the following Federal authorities:

- Mineral Leasing Act, 1920 (MLA), as amended
- NEPA, 1969
- Federal Coal Leasing Amendments Act, 1976 (FCLAA)
- Surface Mining Control and Reclamation Act, 1977 (SMCRA)
- Energy Policy Act, 2005

Both the BLM Coal Lease EA and Federal Mining Plan Modification EA incorporated prior analyses, including the Bull Mountains Exchange Final Environmental Impact Statement (EIS) (BLM 1990) and the Bull Mountains Mine No. 1 EIS (MDSL 1992), which analyzed the effects of proposed mining and connected actions.

The BLM Coal Lease EA analyzed potential impacts associated with leasing five tracts of Federal coal, totaling 2,679.76 acres, which would allow the Mine to continue producing coal instead of ceasing production as recoverable private coal reserves are exhausted. The BLM Coal Lease EA addressed two alternatives, the No Action Alternative and the Proposed Action. Under the No Action Alternative, current and future mining activities approved by the Montana Department of Environmental Quality (MDEQ) would continue for a short time on private lands alone, and appropriate mitigation measures would be implemented to reduce or mitigate effects of mining on the environment. Under the Proposed Action, the subject Federal coal would be mined according to the Life of Mine (LOM) plan, and the same mitigation measures that apply to the No Action Alternative would be applied to the lease areas. The Proposed Action would be a continuation of mining activity at Bull Mountains Mine, and the level of annual coal production would remain the same.

On April 15, 2011, based on a review of the BLM Coal Lease EA, BLM’s Billings Field Office issued a Finding of No Significant Impact (FONSI) for implementing the proposed leasing action. The FONSI was based on the information contained in the BLM Coal Leasing EA and consideration of the Council on Environmental Quality’s (CEQ) criteria for significance (40 CFR § 1508.27). The BLM determined that: 1) the implementation of the Proposed Action would not have significant environmental impacts; 2) the Proposed Action is in conformance with the BLM Billings Resource Management Plan; and 3) the Proposed Action does not constitute a major Federal action having significant effect on the human environment; therefore, an EIS was not required.

The State of Montana has a Federally approved coal regulatory program (hereafter “Montana State program”) administered by MDEQ. The Mine permit (CI993017) was approved by MDEQ in 1993 in accordance with the Montana Strip and Underground Mine Reclamation Act (MSUMRA). Mining and reclamation methods specified in the permit are consistent with requirements of SMCRA (30 United States Code (U.S.C.) Chapter 25) and the implementing Federal regulations (30 CFR Chapter VII) as required by the Montana cooperative agreement with OSMRE (30 CFR § 926.30).

On October 4, 2012, MDEQ approved SPE’s application for Amendment 2 to the Mine permit to include a portion of the Federal coal lease area and adjacent private lands and coal. On August

2, 2013, the DOI’s Assistant Secretary, Lands and Mineral Management (ASLM) signed a mining plan approval document authorizing mining of 140 acres of Federal coal lands within the Amendment 2 boundary, as described below (see the **2018 EA – Appendix A, Figure I.0-2** inset detail).

Township 6 North, Range 27 East, PMM, Musselshell County, Montana

Sec. 8, SW¹/₄ SW¹/₄, and portions² of SE¹/₄ SW¹/₄, N¹/₂ SW¹/₄, SW¹/₄ NW¹/₄, and SW¹/₄ SE¹/₄ containing 140 acres more or less.

On October 5, 2012, SPE submitted a Permit Application Package (PAP) for Mine permit Amendment 3 to include the remainder of proposed future mining. MDEQ reviewed the permit application under the Montana State program, the Federal lands program (30 CFR Chapter VII, Subchapter D), and the Montana cooperative agreement (30 CFR § 926.30). Pursuant to the Montana State program and the cooperative agreement, MDEQ approved the permit application for Amendment 3 on October 18, 2013. The current State-approved Mine permit boundary (see the **2018 EA – Appendix A, Figure I.0-2**) includes the LOM area previously analyzed in the BLM Coal Lease EA, including the existing 140-acre mining plan and the proposed mining plan modification. The permit boundaries of Amendment 2 and Amendment 3 are shown in figures to reflect the permit boundary both before and after Amendment 3 approval. All lands within the Mine permit boundary (including Amendment 2 and Amendment 3) are collectively referred to as the *permit area*.

On November 22, 2013, SPE submitted a mining plan modification for Federal Lease MTM 97988 that would allow coal development and mining operations at the Bull Mountains Mine No. 1 in the remaining Federal coal lands as described in the Amendment 3 PAP. Federal coal lands included in lease MTM 97988 and proposed for mining, but not included in the existing mining plan, are identified in **Table I.0-1**:

Table I.0-1: Township 6 North, Range 27 East, PMM, Musselshell County, Montana.

Section Number	Acres
Sec. 4, lot 1, S ¹ / ₂ NE ¹ / ₄ , SE ¹ / ₄ NW ¹ / ₄ , and S ¹ / ₂ ;	479.76
Sec 8, NE ¹ / ₄ , NE ¹ / ₄ NW ¹ / ₄ , S ¹ / ₂ NW ¹ / ₄ , and S ¹ / ₂ ;	460.00
Sec.10, W ¹ / ₂ NE ¹ / ₄ , SE ¹ / ₄ NE ¹ / ₄ , NW ¹ / ₄ , and S ¹ / ₂	600.00
Sec 14, SW ¹ / ₄ NE ¹ / ₄ , NW ¹ / ₄ and S ¹ / ₂ ;	520.00
Sec. 22, W ¹ / ₂ and SE ¹ / ₄ .	480.00
Total	2,539.76

OSMRE prepared the 2015 Mining Plan Modification EA analyzing potential impacts associated with the proposed mining plan modification. A FONSI was signed on January 27, 2015. OSMRE prepared a mining plan decision document (MPDD), and the ASLM approved the mining plan modification on February 24, 2015. SPE continued mining in accordance with the Mine permit and approved mining plan modification and crossed the Amendment 2 boundary into the Amendment 3 area in approximately May 2015, in association with the East Mains development (see the **2018 EA – Appendix A, Figure I.0-2** inset).

² Portions include areas south and west of the Amendment 2 State permit boundary.

On August 14, 2017, the Court first identified deficiencies in OSMRE’s NEPA analysis, vacated and set aside the 2015 Mining Plan Modification EA, and remanded the matter back to OSMRE for further action (see *Montana Environmental Information Center v. U.S. Office of Surface Mining Reclamation and Enforcement*, 274 F. Supp. 3d 1074 (D. Mont. 2017)). The Court further ordered that mining of the Federal coal within the Amendment 3 permit area be enjoined pending compliance with NEPA. Subsequent orders dated October 31, 2017, and November 3, 2017, in that case allowed limited development work displacing and storing no more than 170,000 tons of Federal coal in Section 8. That coal was required to be stockpiled and stored at the Mine and could not be sold or shipped pending compliance with NEPA.

OSMRE prepared the 2018 EA to address the 2017 ruling by the Court and to satisfy OSMRE’s responsibilities under NEPA. In complying with those responsibilities, OSMRE did not reevaluate potential impacts previously analyzed as part of the BLM Coal Lease EA, which included analysis of all Federal coal lands identified in the proposed mining plan modification. Rather, the EA considered potential changes to the extent or nature of those impacts, based on the current Mine permit approved by the Montana State program and new information specific to this action. Because the BLM Coal Lease EA thoroughly described the environmental setting of the Mine’s LOM area (now the *permit area* or all lands within the *permit boundary*) and mining operations, it was incorporated by reference in the EA. OSMRE signed a FONSI on May 21, 2018. OSMRE prepared a MPDD, and the ASLM approved the mining plan modification on August 3, 2018.

On March 9, 2020, the Court identified a deficiency in OSMRE’s 2018 NEPA analysis, vacated and set aside the 2018 EA, and remanded the matter back to OSMRE for further action (see *350 Montana v. Bernhardt* Case 9:19-cv-00012-DWM, 2020 WL 1139674 (D. Mont. Mar. 9, 2020)). This EA was prepared to address the 2020 Court ruling and satisfy OSMRE’s responsibilities under NEPA. In complying with those responsibilities, OSMRE did not reevaluate potential impacts previously analyzed as part of the 2018 EA. Rather, this EA specifically addresses the potential for train derailment along the rail transportation route, as ordered in the 2020 Court ruling. Because the 2018 EA thoroughly described the affected environment and potential impacts to the various resources, it is incorporated by reference in this EA. The 2018 EA is available at:

<https://www.wrcc.osmre.gov/initiatives/bullMountainsMine.shtm#documents>

This EA was prepared in accordance with the requirements of NEPA and the CEQ regulations implementing NEPA. OSMRE is the lead Federal agency responsible for development of this EA because it makes a recommendation to the ASLM about whether the proposed mining plan modification should be approved, disapproved, or approved with conditions. As such, this EA follows OSMRE’s 516 DM 13, which is the DOI manual guiding OSMRE’s implementation of the NEPA process.

1.2 Purpose and Need

The EA is being prepared in response to the Court’s March 9, 2020, decision to vacate the 2018 EA and remand the decision back to OSMRE to correct the issue on train derailments.

The purpose of the action is established by the MLA and the implementing Federal regulations, which require evaluation of the PAP before SPE may take any action on the Federal leasehold that might

cause a significant disturbance of the environment, which includes conducting underground mining and reclamation operations in the Amendment 3 area of Federal coal lease MTM 97988. OSMRE is the agency responsible for making a recommendation to the ASLM to approve, disapprove, or approve with conditions the proposed mining plan modification. The ASLM will decide whether the mining plan modification is approved, disapproved, or approved with conditions. If approved, the MPDD would allow SPE to conduct coal mining and reclamation operations within the Amendment 3 area of the Federal coal lease and economically recover Federal, state, and private coal reserves through a logical mining unit.

The need for this action is to provide SPE the opportunity to exercise its rights granted by the BLM under Federal coal lease MTM 97988 to access and mine the Federal coal reserves located in the tract and approved by MDEQ as Amendment 3 to the state Mine permit. ASLM approval of the Federal mining plan modification is required to mine Federal coal reserves in the Amendment 3 mining area.

1.3 Issues Identification

OSMRE completed a thorough public scoping process and issues analysis for the project in 2017, as described in the 2018 EA. As a result, OSMRE determined that additional public scoping was not warranted for this EA.

After issuance of the Court's Decision for the 2018 EA on March 17, 2020, OSMRE received additional information from the Montana Environmental Information Center (MEIC) regarding the 2018 EA's consideration of the impacts related to increased train transportation on grizzly bears and the presence of northern long-eared bats in the project area (Western Environmental Law Center 2019; Robbins and Moore 2018). OSMRE reviewed the new information and determined that it did not change the conclusions reached in the 2018 EA. The 2020 Court ruling determined that additional information regarding the grizzly bear and northern long-eared bat that was provided by MEIC does not warrant revision of the NEPA analysis for the project's effects on threatened species in the project area.

The Court ruling, however, determined that OSMRE's 2018 EA was deficient in assessing the potential for train derailments along the rail transportation route and that additional analysis, as provided in this EA, was warranted to comply with NEPA.

1.4 Consultation and Coordination

A description of consultation and coordination that was conducted for the 2018 EA was provided in **Appendix H** of the 2018 EA. Additional consultation and coordination conducted during the preparation of this EA is provided in **Appendix H**. The appendix also includes a list of preparers and contributors and information regarding distribution of the EA.

1.5 Public Comment

OSMRE announced the availability of the EA on their webpage and published a Public Notice for the EA and unsigned FONSI in Billings Gazette and the Roundup Record-Tribune on July 1, 2020. Public outreach and Tribal consultation letters were also sent out to interested parties, stakeholders and

tribes that could be affected by the project on June 26, 2020. The EA and unsigned FONSI were provided to the public for review and comment for a 30-day period, ending on July 27, 2020. Twenty-three (23) letters were received. OSMRE evaluated and considered these letters before the EA was finalized. Of the 23 letters, 20 were considered substantive. Within the 20 letters, 50 individual comments were categorized based on issues discussed. Of the 50 individual comments, 17 were on level of analysis, 14 were on train derailment analysis, 7 were on coal transportation, 3 were on threatened and endangered species, 3 were on air quality, 2 were on water resources, and the remaining comments were on other topics. OSMRE prepared responses to substantive comments as presented in the Public Comment Response in **Appendix I**. OSMRE did not provide specific individual responses if similar arguments were made by another party and responded to by the agency.

2.0 PROPOSED ACTION AND ALTERNATIVES

The content in the following subsections, as provided in the 2018 EA, has not changed. Therefore, these subsections have not been included in the EA:

- Section 2.1.2, *Surface Facilities Area*
- Section 2.1.3, *Other Surface Facilities*
- Section 2.1.4, *Subsidence and Associated Surface Repairs*
- Section 2.1.5, *Hydrological Impacts and Mitigation*
- Section 2.1.6, *Mining-Related Stipulations and Mitigation Measures*
- Section 2.1.7, *Coal Loadout*
- Section 2.1.8, *Coal Destinations*
- Section 2.3, *Alternatives Eliminated From Detailed Study*
- Section 2.3.1, *Subsurface Gas Control*
- Section 2.3.2, *Avoidance of Impacts to Surface Resources, Features, and Uses*
- Section 2.3.3, *Alternative Land Uses*
- Section 2.3.4, *Conditioning Mining on Domestic Sale of Coal*
- Section 2.3.5, *Carbon Offsets*

The following subsections were included in the 2018 EA and have been included in this EA with additional analysis incorporated to specifically to address the 2020 Court ruling or the mining of coal through March 31, 2020.

2.1 Existing Condition

Section 2.1 of the 2018 EA presented a thorough description of the existing condition to support the analysis presented therein and is incorporated by reference. The 2018 EA is available to the public at:

<https://www.wrcc.osmre.gov/initiatives/bullMountainsMine.shtm#documents>.

The following updates to the existing condition since the 2018 EA was prepared, including updates to the permitted ongoing mining operations, are presented to support the analysis in this EA. Unless otherwise noted, this description reflects conditions as of March 31, 2020.

2.1.1 Mining Plan and Mining Operations

Section 2.1.1 of the 2018 EA presented a thorough description of the mining plan and mining operations to support the analysis presented therein and is incorporated by reference. Since the 2018 EA was prepared and Federal coal lease MTM 97988 was granted, underground mining and reclamation activities have continued at the mine. Total saleable coal production for the past 8 years (2012 to 2019) and the estimated saleable coal production for 2020 is provided in **Table 2.1-1**.

Table 2.1-1: Annual saleable coal production.

Year	Saleable Coal (Millions of Tons)
2012	5.72
2013	7.50
2014	8.03
2015	6.49
2016	5.96
2017	6.24
2018	7.52
2019	7.00
2020	6.20 ¹

Source: SPE 2020a.

¹ Estimated saleable coal production for 2020.

Approximately 73.4 million tons of saleable coal remain in the Mining Plan Area after December 31, 2019. SPE continues to mine using the longwall and room-and-pillar mining methods as described in the 2018 EA. For the purposes of this EA, saleable coal tons are 70 percent of the mined coal.

2.2 Description of Alternatives

2.2.1 No Action Alternative

Section 2.2.1 in the 2018 EA presented a thorough description of the existing condition to support the analysis presented therein and is incorporated by reference. Since the 2018 EA was prepared and Federal coal lease MTM 97988 was granted, underground mining and reclamation activities have continued at the mine. **Table 2.2-1** provides updated Mine-related information associated with the No Action Alternative.

Table 2.2-1: Comparative summary of the proposed action and no action alternative relative to the existing condition.

Condition Evaluated	Units	Existing Condition ¹	Additional ²		Difference
			No Action	Proposed Action	
Saleable Coal to be Mined	million tons ²	0	0	86.8	86.8
Saleable Federal Coal to be Mined	million tons ²	0	0	28.5	28.5
Federal Coal Lands in the Mining Plan Area	acres	140	140	2,679.76	2,539.76
Federal Coal Lands to be Mined	acres	0	0	1,725	1,725.0
Remaining Mining Term	years	0	0	8	8
Annual Mine Production (maximum saleable tons)	million tons per year	10	0	10	10
Annual Average Coal Shipment (maximum)	loaded trains per day	1.8	0	1.8	1.8
Surface Facilities Area	acres	574	0	316	316
Air Portals	acres	6	0	0	0
Subsidence Repairs ³	acres	19.6	0	19.6	19.6
Total Subsidence Area	acres	4,933	0	4,896	4,896
Borehole Pads	number	34	0	24	24
	acres	38	0	33.8	33.8
Roads (Outside of Facilities Area)	miles	14.5	0	8.9	8.9
	acres ⁴	53	0	32	32
Total Disturbance ⁵	acres	691	0	401	401

Source: SPE 2020b.

¹ – Existing condition as of March 31, 2020. Due to the checkerboard array of the Federal lands within this EA area, and because SPE is currently mining in the Proposed Action area, the No Action Alternative would immediately force SPE to cease existing mining operations (LW Panel 8 in T6NR27ES22 made impassable).

² – Estimated quantities after March 31, 2020. Saleable tons are 70 percent of mined tons.

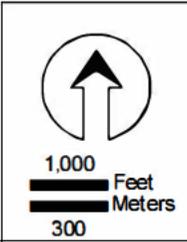
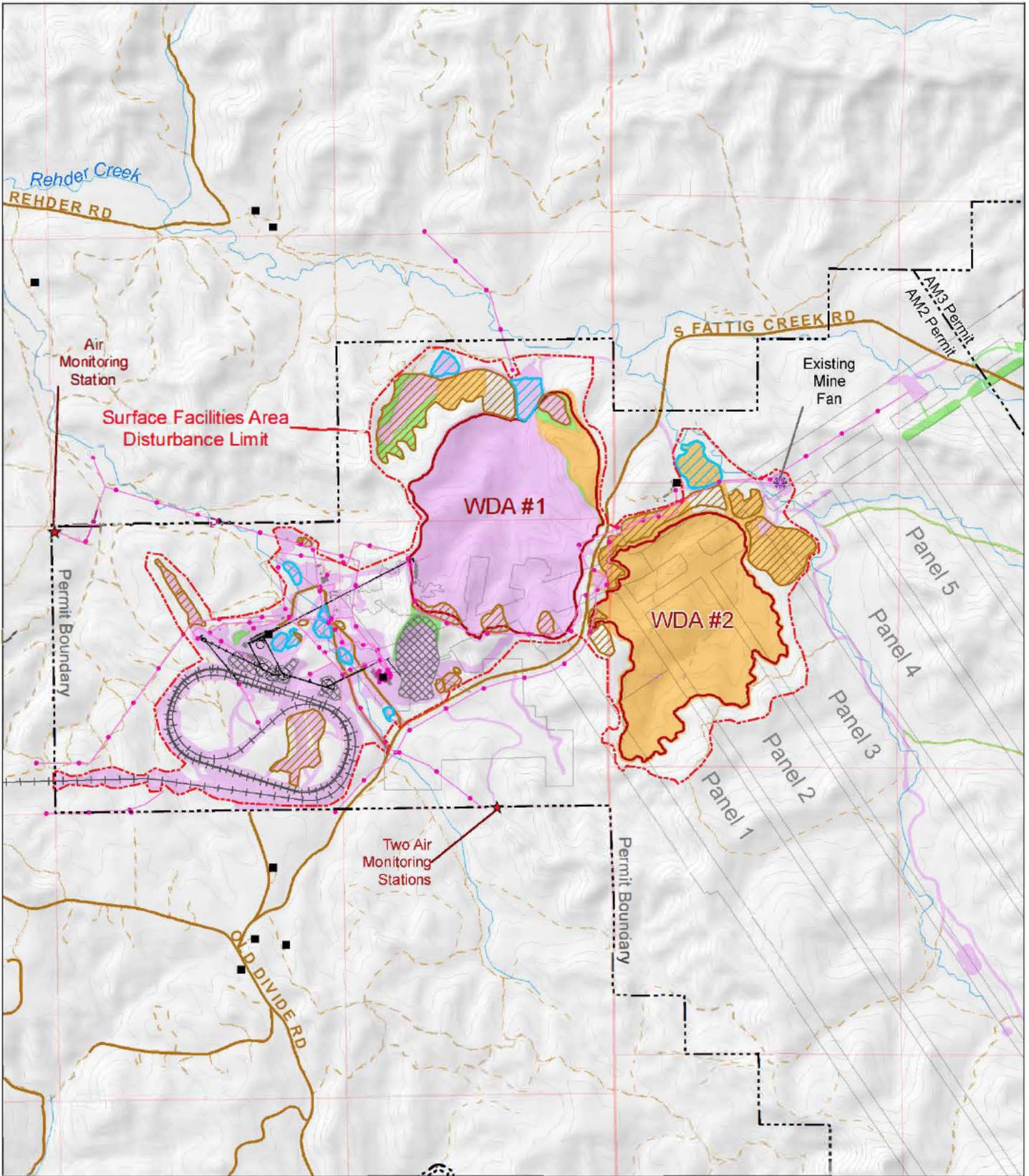
³ – A total of 14 acres of repair was needed in the first 3,533 acres in the subsidence area; therefore, an average of 0.004 acre of subsidence repair per acre of subsidence area was used to estimate acreage.

⁴ - 25 acres in the first 6.9 miles of road equates to approximately 3.7 acres per mile based on an average width of approximately 31 feet. These values were used to estimate the additional acreages for future roads.

⁵ - Total disturbance may not precisely match the total of component values due to rounding of acreage values.

2.2.2 Proposed Action

Section 2.2.2 in the 2018 EA presented a thorough description of the Proposed Action to support the analysis presented therein and is incorporated by reference. Since the 2018 EA was prepared and Federal coal lease MTM 97988 was granted, underground mining and reclamation activities have continued at the mine. **Figure 2.1-1** illustrates the Surface Facilities Area associated with the Proposed Action. SPE would primarily utilize the southern rail transportation route for the transportation of coal, which would comprise approximately 90 percent of total rail traffic associated with the Proposed Action. The remaining 10 percent of the rail traffic would occur along the Highline Route, which extends between Laurel, Montana, and Sandpoint, Idaho (SPE 2020c). **Figure 2.1-3** illustrates the rail transport route for the project.



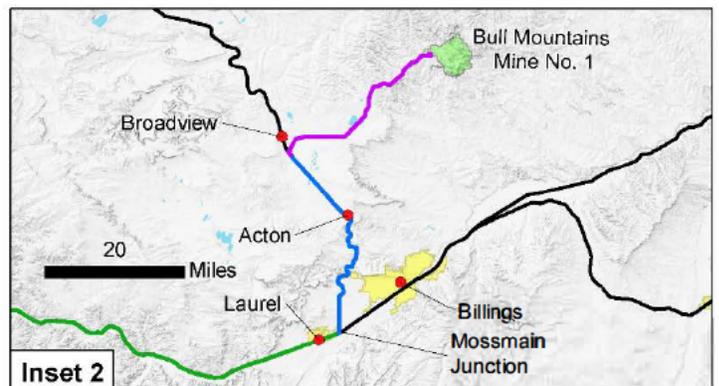
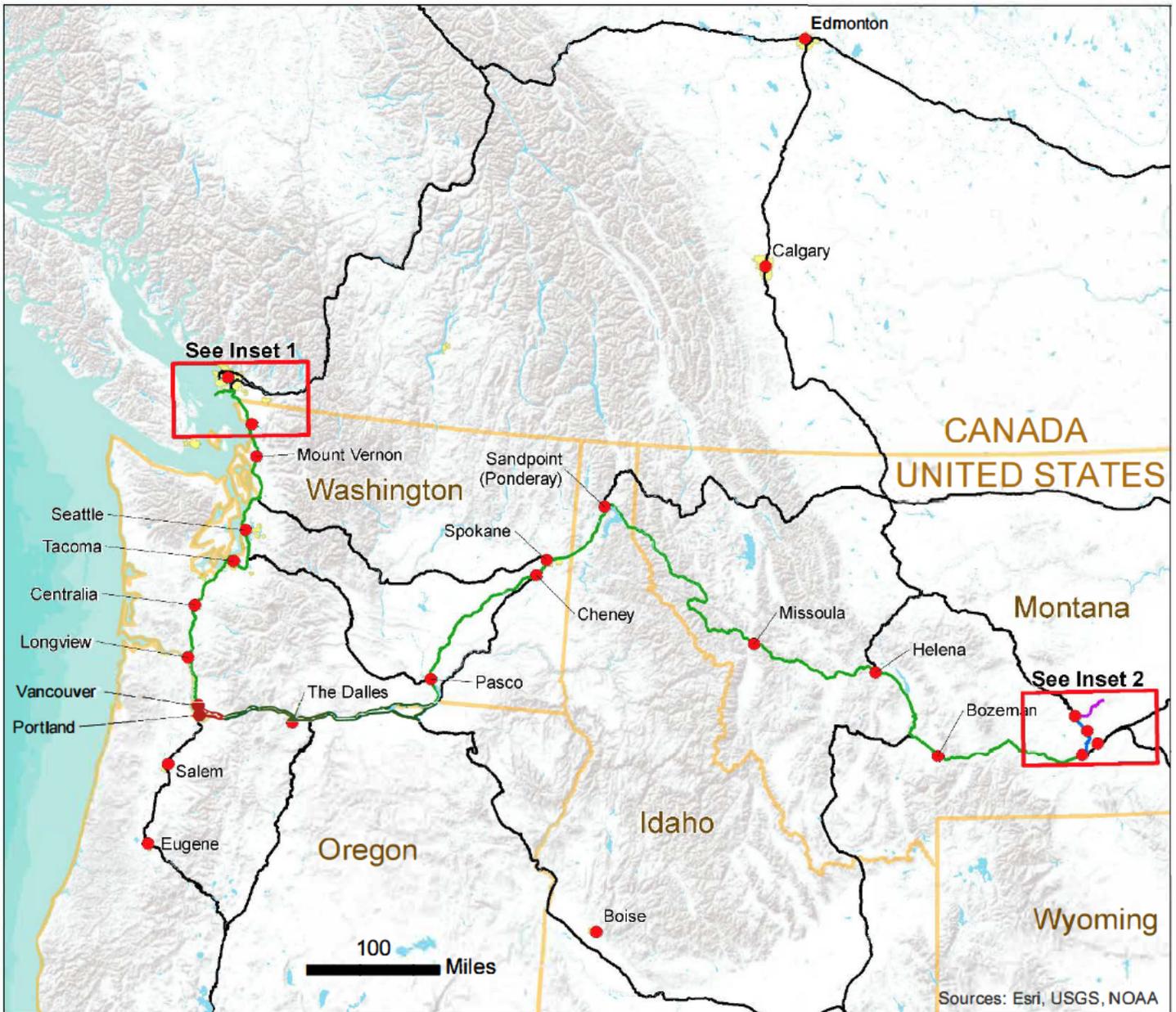
- Dwellings
- Powerlines
- Mine Structures
- +— Railroad
- Public Roads
- Ranch Trails
- Permit Boundary
- ◇ Underground Mine Plan
- Soil Stockpiles
- Mine Ponds
- WDA Fill Limit
- Coal Stockpiles

- Disturbance/Activity
- Existing
 - No Action
 - Proposed Action

NOTE: Surface facilities details are shown in the Mine permit, Map 3082 (SPE 2017a).

**Bull Mountains Mine No. 1
Federal Mining Plan
Modification EA**
Last Updated: 08 FEB 2018

**Figure 2.1-1
Surface Facilities Area**



	<ul style="list-style-type: none"> ● Cities Urban Areas State Lines Westshore Terminal 	<ul style="list-style-type: none"> Other Major Railroads <p>Rail Transport Route</p> <ul style="list-style-type: none"> Rail Spur, Mine to Broadview Short Line from Broadview to Laurel Main Line*, Laurel to Westshore Terminal 	<p>Bull Mountains Mine No. 1 Federal Mining Plan Modification EA</p> <p>Last Updated: 16 FEB 2018</p>
	<p>* Main Coal Line as identified by BNSF (2013)</p>		<p>Figure 2.1-3 Rail Transport Route</p>

3.0 AFFECTED ENVIRONMENT

Section 3.0 in the 2018 EA presented a thorough description of the Affected Environment to support the analysis presented therein and is incorporated by reference. Since the 2018 EA was prepared and Federal coal lease MTM 97988 was granted, underground mining and reclamation activities have continued at the mine, and mine revenues have remained the same throughout mining operations. The baseline conditions and descriptions of the following resources would be same as described in the 2018 EA since the project area has not changed. As a result, these resources were not included in this section of the EA.

- Section 3.2, *Air Quality*
- Section 3.3, *Climate*
- Section 3.4, *Water Resources*
- Section 3.5, *Soils*
- Section 3.6, *Vegetation*
- Section 3.7, *Wildlife*
- Section 3.8, *Threatened, Endangered, and Special Status Species*
- Section 3.9, *Cultural and Paleontological Resources*
- Section 3.10, *Noise & Vibration*
- Section 3.11, *Socioeconomics*
- Section 3.12, *Environmental Justice*
- Section 3.13, *Visual Resources*

Subsection 3.1, *Transportation & Electrical Transmission*, has been included in this section because baseline conditions associated with rail transportation have changed since the 2018 EA was published.

3.1 Transportation & Electrical Transmission

3.1.1 Vehicle Transportation

Information regarding vehicle transportation would be the same as described in the 2018 EA.

3.1.2 Electrical Transmission

Information regarding electrical transmission would be the same as described in the 2018 EA.

3.1.3 Rail Transportation

Regulatory Environment

The regulatory environment would be the same as described in the 2018 EA.

Coal Transport Routes and Rail Traffic

The existing (and planned) routes would be the same as described in the 2018 EA. The routes and number of train trips are briefly summarized below as parameters that were used in the rail safety (including derailment) analysis. The primary focus of the analysis was based on the routes extending from Montana to British Columbia, which would receive over 96 percent of SPE shipments. No more than 4 percent of transported coal is expected to be used domestically. As the STB applies a threshold of an increase of eight trains per day—or a 100 percent increase in rail traffic when assessing the need to evaluate freight rail safety (STB 2015a, Chapter 17)—the small number of trains headed to various domestic locations was not analyzed further. In order to provide a conservative estimate from the rail safety analysis, 100 percent of the Mine’s coal transported volume was analyzed based on the route to British Columbia.

- Coal from the Mine would be shipped to markets by railroad, beginning with the 30-mile Class III short-line rail spur connecting the tipples in the Surface Facilities Area to the BNSF Railway at Broadview, Montana (**Figure 2.1-3**). Loaded and empty coal trains travelling to and from the Mine comprise all traffic on the rail spur. This represents 1.8 round-trip trains per day as a maximum, with a planned average of 1.4 round-trip trains per day for both current operations and the Proposed Action based on 125 coal cars per train.
- From Broadview, trains travel a Class I railroad 33 miles to Laurel, Montana where they would join the railway system, with alternative routes that may be used in response to inclement weather, maintenance issues, or other factors (**Figure 2.1-3**). Train count data reported for a rail crossing near Acton, Montana, a midway point along the Broadview to Laurel (Mossmain) segment, estimated six trains per 24-hour period in 2013. Round-trip rail traffic associated with the Mine averaged approximately 2.7 trains per day in 2013, which suggests that rail traffic excluding the Mine-related rail traffic was approximately three trains per day in 2013 and that Mine-related traffic comprised approximately half of traffic on that segment. With an average of 2.8 trains per day under the Proposed Action (1.4 round-trip trains per day), this distribution of usage remains approximately the same.
- Most coal transported to Westshore would be hauled along BNSF’s Main Line, as the northern route through Glacier Park involves higher gradients and would thereby only be used by a fraction of the returning empty trains (10 percent of all trains, which is 20 percent of empty trains). The Main Line between Laurel and Westshore Terminal traverses Montana, Idaho, and Washington and enters British Columbia (**Figure 2.1-3**), for roughly 1,327 miles one way. Baseline traffic (i.e., average number of trains per day) estimates of train traffic on the United States segments range from 14.5 (2012 estimate for Mossmain Junction to Sandpoint, Idaho) trains per day to 70 (2015 estimate for segments in Washington, east of Spokane) trains per day. The portion of existing rail traffic related to the Mine’s coal transport (2.1 trains round-trip per day in 2016) was highest from Laurel, Montana to Sandpoint, Idaho. Mine-related rail traffic on that segment was estimated to be less than 15 percent of all rail traffic. With lower numbers of trains per day under the Proposed Action (1.4 round-trip trains), the percentage of all rail

traffic represented by coal-related transport for the Mine also decreased for both current conditions and the Proposed Action.

The 2018 EA described the Montana, Idaho, and Washington rail plans and the projected increase in rail traffic and utilization on all Main Line segments, which further indicates the relatively small fraction of the overall traffic represented by the Mine’s coal transport.

Accident History

As of March 31, 2020, SPE had transported 4,399 trains of coal, representing approximately 549,875 loaded train cars (SPE 2020a). There were also 4,399 unloaded trains. Other than minor incidents involving mechanical issues to train engines and/or to train cars that may have occurred, only one SPE loaded or unloaded train is known to have been involved in an accident or incident of any type. In that one incident, SPE’s records indicate that a minor derailment may have occurred on February 28, 2017. A train, with a destination listed as RBG009, indicated “derail” and had a -119.08 tons listed in the records. SPE currently does not have any additional information related to this possible incident (SPE 2020a). The amount of coal listed is approximately the same amount of coal that could be loaded into one rail car, indicating that it may have been a derailment of one car that slipped off the track, but remained upright, and that was the volume that effectively left the train when the car left the track. The available information does not indicate that any coal was spilled, as would be expected in a derailment where the car remained upright.

Montana experiences train accidents each year—defined by the Federal Railroad Administration (FRA) as:

Collisions, derailments, fires, explosions, acts of God, or other events involving the operation of railroad on-track equipment (standing or moving) and causing reportable damages greater than the reporting threshold for the year in which the accident/incident occurred.

The FRA reporting threshold was \$10,700 in 2018 and nothing different has been reported for 2019. With this low of a threshold for reporting, accidents include a wide variety of incidents and are not limited to the types of collisions or derailments that are reported in the media.

Montana’s accident experience for the last four years is shown in **Table 3.1-1**; this covers all trains operating in the state.

Table 3.1-1: Rail accidents in Montana.

Year	Number of				
	Accidents on All Track Types ¹	Accidents on Mainline Track	Deraillments on All Track Types ¹	Deraillments on Mainline Track	Collisions on Mainline Track
2016	17	9	12	6	1
2017	24	11	20	9	0
2018	26	9	18	7	0
2019	15	6	9	4	0

Source: FRA 2020.

¹ Includes mainlines, industry tracks, sidings, and yards.

Across all track types there was one collision each year for 2016, 2017, and 2018 and four collisions in 2019; almost all of these occurred in yards, which would be at low speeds. As shown in **Table 3.1-1**, the number of accidents of all types on mainline track is approximately 10 per year, of which 4 to 9 are derailments. Only one mainline collision occurred during the 4-year period. **Table 3.1-1** also shows that Montana experienced approximately half of its accidents on mainline track, with the remainder occurring on sidings, industry track, and yard track. Derailments were the major cause of accidents for all track types combined and for mainline track.

As a comparison, the total number of accidents on all track types in Idaho varied from 8 to 13 per year over the same 4-year period. For Washington, the range was 37 to 45 accidents per year (FRA 2020) overall with 6 to 17 accidents per year having occurred on mainline track.

4.0 ENVIRONMENTAL CONSEQUENCES

Section 4.0 in the 2018 EA presented a thorough description of the Environmental Consequences to support the analysis presented therein and is incorporated by reference. Since the 2018 EA was prepared and Federal coal lease MTM 97988 was granted, underground mining and reclamation activities have continued at the Mine. **Table 2.2-1** provides updated Mine-related information associated with the No Action Alternative and Proposed Action.

The impacts for the following resources and sections are the same as described in the 2018 EA because the project area and mining operations have not changed. As a result, these resources or sections were not included in this section of the EA.

- Section 4.2, *Air Quality*
- Section 4.3, *Climate*
- Section 4.4, *Water Resources*
- Section 4.5, *Soils*
- Section 4.6, *Vegetation*
- Section 4.7, *Wildlife*
- Section 4.8, *Threatened, Endangered, and Special Status Species*
- Section 4.9, *Cultural and Paleontological Resources*
- Section 4.10, *Noise & Vibration*
- Section 4.11, *Socioeconomics*
- Section 4.12, *Environmental Justice*
- Section 4.13, *Visual Resources*
- Section 4.14, *Short-term Uses and Long-term Productivity*
- Section 4.15, *Unavoidable Adverse Effects*

Subsection 4.1, *Transportation & Electrical Transmission*, includes information regarding the potential for train derailment and spills along the rail transportation route, which specifically addresses the concern described in the March 9, 2020, Court ruling on the 2018 EA.

4.1 Transportation & Electrical Transmission

4.1.1 No Action Alternative

Vehicle Transportation & Electrical Transmission

Impacts from vehicle transportation and electrical transmission would be the same as described in the 2018 EA.

Rail Transportation

SPE expects the maximum and expected trains/day would be the same under the No Action Alternative as the Proposed Action (SPE 2020a). Moreover, the duration of continued train shipments would be very short term under the No Action Alternative, as SPE would continue shipping coal only until the existing (i.e., already mined) coal stockpiles at the mine site were emptied, which would involve less than a month of shipping. Thus, the estimated chances of a derailment per year for the Proposed Action can be scaled down by a factor of 10 in order to estimate the chances of a derailment occurring during the shorter period associated with the No Action Alternative.

4.1.2 Proposed ActionVehicle Transportation & Electrical Transmission

Impacts from vehicle transportation and electrical transmission would be the same as described in the 2018 EA.

Rail Transportation*Analysis Approach and Data Sources*

The rail safety analysis used existing rail accident data from FRA for 2016 through 2019 as the basis. Although state agencies typically gather information on the accidents that occur in their state, neither the states nor the FRA have enough corresponding data on train-miles within each state for reliably determining accidents per million train-miles for each state. Instead, the FRA provides national accident rates, including rates for individual railroads. The accident rates provided by the FRA have been adjusted by track class to serve as the basis of the rail safety analysis. For the likelihood of an accident, the analysis included both loaded coal trains and unloaded train returns. The analysis was based on BNSF's national accident rates for rail accidents on all track classes, taking into consideration the impacts of unit trains, which are less likely to spend time in yards. **Table 4.1-1** presents the overall national rates as well as the national rates for BNSF. The BNSF experience is slightly better than all railroads on average nationwide. Train accident rates were not available for specific cargoes, such as coal.

Table 4.1-1: Nationwide train accident rates.

Year	Accident Rate per Million Train-Miles			
	All Railroads (Passenger and Freight Trains)		BNSF (Freight Trains)	
	All Track Types	Mainline and Siding Tracks	All Track Types	Mainline and Siding Tracks
2016	2.50	0.89	2.07	0.68
2017	2.53	0.91	2.01	0.59
2018	2.73	0.94	2.10	0.58
2019	2.74	1.00	2.11	0.58

Source: FRA 2020.

These accident rates are based on the experience for all track types—mainlines, sidings, industry

tracks, and yards. Both the rates for the full set of track types and the rates combining mainline and siding tracks are included in **Table 4.1-1**. As the unit trains would not be expected to stop in any yards, rather to stay on mainlines and possibly use sidings, the combined rate for mainline and siding tracks was used in the safety analysis. Based on the last 2 years of BNSF experience, the selected starting point for the accident rate in this analysis was 0.6 accidents per million train-miles.

The analysis estimated the incremental addition to the base accident frequency attributable to the SPE rail traffic, based on train-miles and route length for each route segment analyzed. There was obviously no way to predict exactly where an accident might occur, be it a collision or a derailment, which are the two accident types of primary concern. By predicting accidents per segment, there was some level of information on the general areas in which an accident may occur. Potential consequences (e.g., number of cars derailed and potential for a coal spill) are discussed qualitatively.

The predicted number of accidents per year was calculated by multiplying segment length by the number of trains per year by the appropriate accident rate. Accident rates have been shown to vary considerably by track class, with higher accident rates (i.e., yielding more accidents for a given number of train-miles) occurring on lower track classes. Train accidents are more likely to occur on lower track classes (which have lower maximum allowable speeds) because lower track classes are not designed and maintained to the same standards as higher track classes. FRA's track safety standards establish nine specific classes of track (1 to 9). The selected routes are likely a mix of track classes 3 and 4, with respective maximum operating speeds of 40 and 60 mph. As a conservative approach, all the route except the initial spur was assumed to be track class 3. The spur was assumed to be track class 2, with a maximum speed of 25 mph.

Derailment rates by track class were derived by Liu et al. (2011). Track class 3 was found to have derailment rates that were twice the overall average considering all track classes. Track class 2 was determined to have six times the overall average rates. Likewise, Anderson and Barkan (2004) had found the overall accident rate (i.e., collisions, derailments, and all other types of accidents) on track class 3 was approximately twice the overall average rate for all track classes. These findings continue to be applied in more recent rail safety analyses because the FRA-calculated rates by track class use the same number of train-miles as the denominator in the calculations, rather than the specific number of train-miles that were actually traveled on the different classes of track. Thus, the base rate of 0.6 accidents per million train-miles was doubled to better represent track class 3, resulting in a rate of 1.2 accidents per million train-miles for the majority of the route traveled by the Mine's trains. For the rail spur, the adjusted rate used in the analysis was 3.6 accidents per million train-miles.

Predicted Mine-Related Train Accidents

Table 4.1-2 provides the predicted number of train accidents on each segment for both the loaded and unloaded coal trains associated with the project. As described earlier, the number of trains averages 1.4 per day each for loaded and unloaded trains. The analysis assumed operation would occur 365 days per year.

Table 4.1-2: Predicted train accidents for loaded and unloaded trains.

Segment	Length (miles)	Accident Rate per Million Train-Miles	Mine-Related Coal Train Accidents/Year
<i>Loaded Trains</i>			
Rail Spur to BNSF	30	3.6	0.06
Broadview to Laurel	33	1.2	0.02
BNSF Main Line	1,327	1.2	0.81
<i>Empty Trains</i>			
BNSF Main Line	1,327	1.2	0.81
Broadview to Laurel	33	1.2	0.02
Rail Spur to BNSF	30	3.6	0.06

The results in **Table 4.1-2** show that along the entire route traveled by the Mine-related trains, the analysis predicted less than one accident involving a loaded train per year, using the FRA definition of an accident. For the entirety of the spur and the local line down to the BNSF Main Line, considering both loaded and unloaded trains, the estimate was 0.16 per year or approximately one accident every 6 years. These estimates are higher than the known experience to date, likely due to the BNSF Main Line track classes being a mix of class 3 and class 4, not just class 3 as was assumed in the analysis. Class 4 was determined to have an accident rate of approximately half that for all track classes combined; this would give a factor of four difference between the accident rates for track classes 3 and 4 and reduce the predicted number of accidents per year on the Main Line.

The estimated number of accidents in **Table 4.1-2** are those associated with Mine-related trains. For the mainline to Broadview, there would be roughly twice as many accidents if the other (existing) traffic is also considered along with both loaded and unloaded Mine-related trains. On the BNSF Main Line, the Mine-related trains (loaded and unloaded) had been estimated as approximately 4 to 15 percent of the overall traffic. Thus, the overall number of accidents expected would be much higher than the estimates associated with just the Mine-related trains.

Notably, the chance of an accident in any one location would be very low. As discussed earlier, accidents include derailments, collisions, and other types of events, some with as little as \$10,700 in damage. Smaller events might not even be discernable as an accident to a passerby.

Impacts of Accidents

Not every accident of a loaded Mine-related train would result in a coal spill, and any spills that might occur would vary in size. A collision or derailment could involve only a few rail cars or lead to a greater number of rail cars being derailed in certain circumstances. Furthermore, even when rail cars are derailed, not all of the derailed cars would end up in a position where some or all of their contents could be spilled, depending on the severity and speed of the accident, as well as the levelness of the surrounding terrain.

Any spills that did occur on the initial spur would be expected to be small given the lower operating speeds, which yield less energetic derailments, therefore resulting in fewer rail cars derailing and even fewer releasing cargo. Available data from Liu et al. (2012) indicates that the average number of rail

cars derailed on main line track (all classes and speeds) for 2001 through 2010 was 8.4 cars; the number of rail cars on yard, siding, and industry track ranged from 4.3 to 5.7 rail cars. These types of track provide a better indication of the consequences of derailments at very low speeds.

If an accident caused a significant release of coal, the actual impacts to the environment would depend on the amount of coal released, the length of time that the spilled coal remained in the area before being recovered or cleaned up, the location of the spill relative to areas of environmental concern, and whether the coal ignited, possibly due to the forces involved in the accident. As an example, a derailment of several cars might result in the need to reset the cars in the train and quickly clean up any coal that may have spilled, which would result in minimal or no damage to the environment. A large derailment would require more effort to clear the damaged cars and remove the spilled coal, possibly resulting in damage to the environment around the spill area. If a large derailment occurred and released coal into a stream or sensitive habitat (e.g., wetland) or resulted in a fire, the damage to the environment would be more extensive.

Given that derailments could occur anywhere along the route and that the number of cars involved also could range from very few to a larger fraction of the train, each accident would be unique. OSMRE finds it too speculative to attempt to specify the exact location and consequences of a derailment, it notes that the railroads' procedures and policies cover the range of potential accident scenarios. OSMRE used the best information available to the agency to calculate the likelihood of a derailment and describe the likely number of cars involved in possible derailments (averaging less than 10, as presented above for different types of track).

Potential impacts to the human and natural environment would be mitigated by existing FRA, railroad, and state/local rail emergency response and risk management plans. BNSF has emergency responders in seven locations in Montana (Billings, Chester, Glendive, Great Falls, Havre, Helena, and Whitefish) and additional responders in other locations along their routes (BNSF 2020a). They pre-position response equipment and share emergency response plans specific to different geographic areas with appropriate state and local emergency response organizations along their routes (BNSF 2020b).

Cumulative effects from vehicle transportation and electrical transmission associated with the No Action Alternative and Proposed Action would be the same as described in the 2018 EA. Given the uncertain nature of the number and location of accidents (including train derailments and spills) that may occur along the rail transport route, cumulative effects associated with the No Action Alternative and Proposed Action, in combination with other past, present, and reasonably foreseeable future actions, cannot be determined.

4.1.3 Mitigation Measures

Impacts of coal dust on rail safety would continue to be mitigated under the No Action Alternative through dust control and track maintenance, thereby ensuring effects are negligible in both the short- and long-term.

5.0 APPENDICES

Figures previously provided as **Appendix A** in the 2018 EA have been included in Sections 1 and 2 of the EA. The following appendices provided in the 2018 EA presented a thorough description of air quality, air emissions, climate change, hydrology, wildlife species, and socioeconomics to support the analysis presented therein and are incorporated by reference. Therefore, following appendices have not been included in this EA:

- **Appendix B** – Air Quality
- **Appendix C** – Air Emissions
- **Appendix D** – Climate Change
- **Appendix E** – Hydrology
- **Appendix F** – Wildlife Species List
- **Appendix G** – Socioeconomics

Appendix H – Consultation and Coordination

Consultation & Coordination

Information regarding consultation and coordination is the same as described in the 2018 EA. Since public scoping and thorough review and identification of issues for the project was completed from October 20 to November 20, 2017 and described in the 2018 EA, OSMRE determined that additional public scoping for this EA was not warranted.

Preparers and Contributors

OSMRE personnel who contributed to the development of this EA are included in **Table H-1**.

Table H-1: OSMRE personnel.

Name	Organization	Project Responsibility
Marcelo Calle	OSMRE	NEPA Project Lead
Elizabeth Shaeffer	OSMRE	Field Operations Branch Manager - OSMRE Western Region

Third-party contractors who contributed to the development of this EA are included in **Table H-2**.

Table H-2: Third-party contractor personnel.

Name	Organization	Project Responsibility
Jon Alstad	ICF	NEPA Project Manager / Document Preparation / Technical Review / Quality Assurance / Quality Control (QA/QC)
Lisa Bendixen	ICF	Rail Transportation Safety Analysis
Meghan Heneghan	ICF	Biologist / Document Preparation / QA/QC
John Priecko	ICF	Document Review / QA/QC

Distribution of the EA

This EA will be distributed to individuals who specifically request a copy of the document. It will also be made available electronically on the OSMRE website at the following link:

<https://www.wrcc.osmre.gov/initiatives/bullMountainsMine.shtm>

Appendix I - Public Comment Response

Table I-1: List of commenters.

Submission Document #	Name and Organization
1A	Alex Cunha, Northern Plains Resource Council
1B	Alex Cunha, Northern Plains Resource Council
2A	Dusty R. Weber, Signal Peak Energy
2B	Dusty R. Weber, Signal Peak Energy
2C	Dusty R. Weber, Signal Peak Energy
3	Shiloh Hernandez, Western Environmental Law Center
4	Elizabeth Madden
5	Ellen Pfister
6	Ita Killeen
7	Adela Awner
8	Charlene Woodcock
9	Lauran Emerson
10	Margo Wyse
11	Gwen Sensenig
12	Bob Shippee
13	Lee Bartlett
14	Rosemary Graham-Gardner
15	Lori Byron
16	Tana Canen
17	Norman Bishop
18	David and Laurie Gano
19	Georgia Brown
20	Steve Harper

Table I-2: List of comments and responses.

Commenter	Submission #	Comment #	Comment Topic	Comment	Response
Northern Plains Resource Council	IA	IA-01	Train Derailment Analysis - Train Accident Data	<p>The EA is deficient in the amount and type of accident data considered for train traffic along routes in the Proposed Action. Train derailment and accident data considered in Section 4.1.2 only include data reported by Burlington Northern Santa Fe (BNSF), however a large portion of train traffic along the routes that Signal Peak Mine proposes to ship coal through are controlled by Montana Rail Link (MRL). OSMRE must gather and analyze MRL data in order to take a “hard look” at how the Proposed Action will increase the likelihood of trail derailments and accidents.</p> <p>Furthermore, a “worst-case” scenario for major coal train derailments or accidents must be included as part of the EA. Coal train accidents, derailments, and spills can be major disasters, with permanent consequences for watersheds and communities where the accidents occur. OSMRE does not include enough analysis in the EA of what a “worst-case” scenario for a coal train derailment looks like, and how the Proposed Action impacts the likelihood of such an event happening.</p> <p>The EA is providing data to justify SPE’s estimate that 96% of coal trains are destined for Vancouver, BC as the final destination. OSMRE should investigate if 96% is a true estimate and verify that coal volumes are not being shipped out of other Canadian ports, such as the port in Prince Rupert, BC. Verifying this data is critical to understanding how the Proposed Action will influence how many coal trains are traveling on which rail lines in the Pacific Northwest. For example, the EA notes that most coal trains will avoid the higher grades along BNSF’s northern line thru Glacier National Park, however, if the final destination of SPE’s coal is farther north than Vancouver, BC (for example Prince Rupert, BC) it is likely that the Proposed Action will result in more coal train traffic passing along the BNSF northern route.</p> <p>OSMRE should evaluate the impact of increased coal train traffic along a different route than the BNSF Mail Line, and discuss how steeper grades and accident data from other routes affect the likelihood of a derailment caused by the Proposed Action.</p>	<p>Only BNSF engines and crews are used to move the coal cars to and from the mine; MRL staff and equipment are not used even on the portions of the route owned by MRL. The crews follow BNSF safety and operations procedures, receive training from BNSF, and perform maintenance according to BNSF requirements. As such, the use of BNSF accident data is considered most appropriate. See response to Comment IB-03 for a comparison with MRL data.</p> <p>The EA considers several potential derailment sizes. The scope of the EA was based on the likelihood of a train derailment and potential spill. We did not include the specific consequences of such a spill because the combinations of spill sizes and locations ranges from very small, localized releases in relatively benign areas to larger spills in sensitive areas. The likelihood of any specific consequence and location is very low. Consistent with the CEQ regulations, this NEPA analysis is focused on reasonably foreseeable impacts, instead of the consequences of a hypothetical worst-case scenario that would “distort [] the decision-making process by overemphasizing highly speculative harms.” <i>Robertson v. Methow Valley Citizens Council</i>, 490 U.S. 332, 356 (1989).</p> <p>SPE coal is only transported by rail to the Westshore Terminal, which is located on the west coast of British Columbia, Canada. SPE only has contracts with Westshore; they do not have any contracts with other ports in the Pacific Northwest.</p> <p>The Main Line is used the vast majority of the time for the rail transportation of loaded cars of SPE coal. The northern route is used roughly 20% of the time for unloaded cars returning to the mines where the weight of the train is lower, and it is easier to handle the steeper grade. Only in special cases where the Main Line was unavailable for some reason would the northern route be used to transport coal.</p>
		IA-02	Coal Transportation and Effects to Air Quality, Human Health, and Noise	<p>The EA includes analysis on the potential for train derailments, but does not include any discussion of other impacts to rail line communities from the additional 1.8 trains per day that SPE estimates will be traveling through Montana communities under the Proposed Action.</p> <p>The impacts to Montanans and Montana communities from increased rail traffic are real and significant – and these impacts go far beyond inconveniences. There are health, safety, quality of life, as well as actual financial costs to Montana citizens and communities from an increase in coal train traffic. Many Montana communities as well as out-of-state communities, are affected by coal train traffic.</p> <p>More trains means more noise, a greater potential that emergency responders are delayed at at-grade crossings in reaching residents when there is a medical emergency (or a fire or the need for police), and a greater potential for vehicle collisions with trains and for pedestrian accidents. More trains mean an increase in the amount of airborne pollutants (particulate matter) from diesel engines as well as from coal dust, and an increased risk of derailments. All of these impacts need to be addressed in OSMRE’s review.</p>	<p>OSMRE maintains it is appropriate to rely on Surface Transportation Board (STB) (as the primary railroad regulatory authority) thresholds and conclusions as a basis for analysis. STB stated that “the potential for adverse impacts to result from increased rail traffic on existing lines is usually limited to rail safety, air quality (including an increase of at least three trains per day in nonattainment areas), noise and vibration, grade-crossing delay and safety, and environmental justice” (STB 2015a, Chapter 17, as provided in the 2018 EA). As outlined in Chapter 4.1 of the 2018 EA, STB’s threshold for environmental analysis of air and noise is an increase of eight trains per day or a 100 percent increase in rail traffic (49 CFR 1105.7). STB also applied (which OSMRE adopted) this threshold when assessing the need to evaluate freight rail safety, grade-crossing safety and delay, and environmental justice (STB 2015a, Chapter 17, as provided in the 2018 EA).</p> <p>Air quality impacts from rail transport are discussed in the 2018 EA, Section 3.2, Section 4.2 and Appendix B.</p> <p>Appendix B in the 2018 EA provides federal concentration thresholds for criteria pollutants (including particulate matter) represented by the National Ambient Air Quality Standards (NAAQS), as well as Montana’s Ambient Air Quality Standards (MAAQS)</p> <p>As discussed in Appendix B, Section 1.2 of the 2018 EA, PM₁₀ and PM_{2.5} emissions from diesel fuel combustion may also be referred to as diesel particulate matter (DPM), which is composed of elemental carbon particles with adsorbed organic compounds as well as condensed aerosols. EPA (2003, pg. 11, as provided in the 2018 EA) evaluated toxic effects of diesel exhaust, which includes DPM, and determined it is “likely to be carcinogenic to humans by inhalation from environmental exposures.” EPA (2003, pg. 9 as provided in the 2018 EA) also observed that DPM is a portion of ambient PM_{2.5} and that the PM_{2.5} NAAQS “would be expected to offer a measure of protection from effects associated with DPM.”</p>

Commenter	Submission #	Comment #	Comment Topic	Comment	Response
					<p>With regard to coal dust, WDOE and Cowlitz County (2017, as provided in the 2018 EA) and STB (2015a, as provided in the 2018 EA) analyzed projects involving coal transport by rail at daily rates and a total duration greater than what would be undertaken by the Proposed Action (a continuation of 1.4 loaded and 1.4 empty trains per day on average). These analyses concluded that impact of coal dust is below regulatory standards for air emissions and below human health and ecological screening levels associated with subsequent deposition to soil and water. As such, there would be no measurable effect on human or ecological health.</p>
		IA-03	Rail Impacts - General	<p>The financial costs of increased train traffic to downrail communities also needs to be discussed. It is true that if a rail company needs to upgrade their track or a bridge or a crossing in order to facilitate current or increased train traffic, they will do so and they will pay for it. However, if a city or county wants to have a particular crossing in their community upgraded to deal with local impacts and the rail company doesn't need to do this in order to facilitate increased train traffic, under existing law the railroads do not have to respond to these local government concerns. The only choice citizens have at that point is to pay for any upgrade with public money – taxes from somewhere be it federal, state, county, or municipality taxes. Taxpayer costs in overpasses, underpasses, quiet zones, and other issues should be included in OSMRE's review.</p>	<p>Rail-related topics addressed in the 2018 EA were consistent with STB regulations and did not extend to taxpayer costs. Exact costs to taxpayers from rail improvement projects would be dependent on the funding type (state, private, or federal), location, and final design of the projects outlined in each state rail plan as discussed in the 2018 EA, Section 3.1.3. Without this information any further analysis would be too speculative and not useful to the decision maker.</p>
		IA-04	Coal Transportation and Effects to Air Quality and Human Health	<p>The review does not include health impacts of coal train traffic. Medical studies have shown a clear link between both diesel air pollutants and coal dust and disease. While those with chronic disease, the elderly, young children, and pregnant women are most at risk, the health effects from particulate matter exposure may occur years later, so even healthy individuals need to be concerned. OSMRE's review must thoroughly examine the health impacts of diesel exhaust and coal dust resulting from coal train traffic.</p> <p>In a paper titled, "PRB Coal Degradation, Causes and Cures," Roderick J. Hossfeld and Rod Hatt explain that "PRB coal is extremely friable [crumbly] and will break down into smaller particles virtually independent of how the coal is transported or handled." They go on to say that "once PRB coal is exposed by mining, the degradation process begins – the majority of the damage can occur in a very short time, even as short as a few days. The extent of the degradation that occurs depends in large part on . . . how long the coal is exposed to the atmosphere during transportation."</p> <p>Previously, on the Burlington Northern Santa Fe (BNSF) website, it was stated that as much as 500 pounds of coal dust could be lost from each coal car in a train (there are typically 115-140 cars in a coal train). In 2011, Northern Plains began using this information in its presentations opposing the proposed increase in the number of coal trains through Montana communities that would result as a result of proposals for increased coal exports. Soon after Northern Plains began using this number, that piece of information was removed from the BNSF website.</p> <p>There are many scientific studies available that establish the link between fugitive coal dust and human health impacts. On page 12 of a study prepared by the Multnomah County [Oregon] Health Department, which used available literature in its analysis, it is reported that "coal dust may travel approximately 500 meters to 2 kilometers (1/3 to 1 1/4 miles or 1,640.42 feet to 6,561.68 feet) from the tracks, depending on weather conditions and train speed." The study found that coal dust from rail transport has the potential to result in growth and development problems, heart and lung problems, cancers, and safety-related injury and death.</p> <p>The same Multnomah County study identified that "coal dust may contain traces of heavy metals, such as lead, mercury, chromium, and uranium that are toxic to the human nervous system. Children are particularly vulnerable to heavy metals . . ." (page 7) and that the populations living within 500 meters of the rail lines in the county are "communities of color, children, older adults, and people earning low incomes" (page 17).</p> <p>Another study by Daniel A. Jaffe et al. measured particulate matter (PM) emissions at two rail sites in Washington State. The "measurements demonstrate that rail traffic emits substantial quantities of diesel exhaust and that PM_{2.5} concentrations are significantly enhanced for residents living close to the rail lines.</p>	<p>See Response to Comment IA-02.</p>

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				<p>... after passage of coal trains there was a statistically significant enhancement in large particles ... [that] most likely consist of aerosolized coal dust.” the Jaffe study goes on to state that “the enhancement in PM_{2.5} is not only due to the [emission] spikes that occur as a train passes, but also the residual that accumulates in the local airshed.”</p> <p>Additionally, a report by Dr. Alan Lockwood, found that coal trains are responsible for releasing coal dust particles and diesel fumes “into the air, degrading air quality and exposing nearby communities to dust inhalation,” and the report specifically noted that “railroad engines and trucks release over 600,000 tons of nitrogen and 50,000 tons of particulate matter into the air every year in the process of hauling coal, largely through diesel exhaust. Diesel engines currently produce approximately 1.8 million tons of NO_x [nitrogen oxides] and 63,000 tons of small particles (less than 2.5 microns in diameter) each year. These emissions adversely affect many organ systems.” It is worth noting that children often face the most severe health risks from coal dust pollution, with Dr. Lockwood noting that children and infants are the most vulnerable population in five of eleven enumerated diseases caused by coal dust pollution.</p> <p>More than 600 health professionals have spoken out about safety threats associated with increased coal train traffic. Dr. Melissa Weakland of the Washington Academy of Physicians stated, “We know from the data that the coal trains would negatively impact the health of our communities because of increased air pollution from diesel particulates and coal dust, delays in emergency response time because of long waits and railroad crossings, and increases in noise pollution in our communities.”</p>	
		IA-05	Train Derailment Analysis	<p>Coal Train Derailments</p> <p>OSMRE’s review does not fully consider the impacts of derailments. The Montana Rail Link coal train that derailed near Heron, Montana in 2011 (photo in Appendices), dumping cars of coal into the Clark Fork River and along its bank, is one of several poignant examples of the risk of such derailments. Speaking of Heron, the coal in question along the bank began to smolder in the days between its derailment and being cleaned up. Loose piles of coal are subject to spontaneous combustion and, once started, coal fires are notoriously difficult to extinguish.</p> <p>While the new EA includes analysis of coal train derailments, the serious consequences of a derailment are dismissed as unlikely. OSMRE provides data showing that between 4-9 mainline derailments happened each year from 2016-2019.</p> <p>The agency should look farther at the increased risk of general derailments resulting from coal train traffic. Fugitive coal dust emissions contribute to ballast fouling on railroad tracks, and the National Transportation Safety Board has concluded that coal dust on railroad tracks has been a contributor to derailments. Through trials, BNSF determined that shaping the profile of the loaded coal in rail cars combined with approved topper agents could reduce emissions of fugitive coal dust significantly (though far from wholly), and BNSF requires this of shippers (this is termed a tariff). It must be noted, however, that there is no independent verification or enforcement mechanism for this tariff. OSMRE must look at the impacts of fugitive coal dust on rail system safety.</p> <p>Released in April of 2017, the Washington Department of Ecology’s Final Environmental Impact Statement¹² on the proposed coal export terminal in Longview, Washington, found that the port would have “unavoidable and significant adverse environmental impacts” for nine environmental resource areas, including rail transportation, rail safety, vehicle transportation, noise and vibration, and air quality-including increased cancer risk along the railroad tracks, blocked railroad crossings, train-related accidents, and more.</p> <p>OSMRE must do a thorough analysis of the impacts that coal from the Bull Mountains would have on increased coal train traffic and those impacts on the rail system and communities traversed by those rails.</p>	<p>See response to Comment IA-01.</p> <p>OSMRE includes discussion of the potential impacts of coal dust on rail ballast and potential for derailments in Section 3.1.3 of the 2018 EA.</p> <p>As outlined in Section 3.1, Item 100 of BNSF Price List 6041-B (BNSF 2015a, 2017c, as provided in the 2018 EA) contains BNSF’s coal dust mitigation requirements; also known as the Coal Loading Rule. The current Coal Loading Rule has been in effect since October 2011 and requires all shippers loading coal at any Montana or Wyoming mine to take measures to load cars in such a way that ensures coal dust losses in transit are reduced by at least 85 percent compared to cars where no remedial measures have been taken.</p> <p>The Coal Loading Rule also has a “safe harbor” provision stating that a shipper will be deemed to be in compliance with BNSF’s Coal Loading Rule if it loads cars in compliance with BNSF’s published Load Profile Template and applies an approved in-transit dust suppressant agent to the loaded cars in the specified manner, as SPE does both at the mine site and again in Pasco, Washington. In May 2015, the STB issued a decision that affirmed the reasonableness of the Coal Loading Rule and upheld its enforceability (STB 2015b, as provided in the 2018 EA). Also, as discussed in Appendix B of the 2018 EA, since 2015, BNSF has also been operating a surfactant re-spray facility along its main line in Pasco, Washington to further limit coal dust. Coal trains traveling west along the main line route through the Columbia River Gorge are sprayed with a topper agent as it passes through to lessen potential coal dust release from rail cars (WDOE and Cowlitz County 2017, as provided in the 2018 EA).</p> <p>Continued implementation of BNSF’s Coal Loading Rule (BNSF 2015a, 2017b, as provided in the 2018 EA) would minimize coal dust emissions, and ongoing track maintenance ensures that rail conditions do not degrade to an extent that would affect rail safety (i.e., cause derailments). Notably, BNSF conducts regular inspections to ensure compliance with this requirement.</p> <p>Rail derailments are not a normal part of rail operation which is designed to minimize the risk of such events. While derailments do occur, the location and effects of such derailments would be highly speculative and are therefore not analyzed.</p>

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		IA-06	Level of Analysis	<p>Scope of Review, Need to complete an EIS</p> <p>While there has been prior environmental review of the impacts of coal mining in the Bull Mountains, we would argue that it is incumbent upon OSMRE to expand its review and, instead of preparing an EA, prepare a more thorough EIS for this project. Prior EISs, prepared many years ago, do not adequately address the mine expansion at issue here.</p> <p>In 1990, the BLM issued an EIS for a land exchange involving 3,647 acres between the federal government and Signal Peak Energy's predecessor in interest. The exchange was necessary to facilitate development of private mineral rights due to the area's "checkerboard" pattern of mineral ownership. BLM reviewed the environmental impacts of the federal land exchange, as the exchange was necessary to facilitate the opening of the Bull Mountain No. 1 Mine. The 1990 EIS assumed a much smaller mine footprint and analyzed the proposed mine's impacts based on a much smaller mine that used the room-and-pillar mining technique, not the large-scale longwall mining technique currently used by the mine today. For that analysis, the BLM projected an underground mine producing 0.5 million tons of coal per year. The EIS's maximum development scenario envisioned a mine producing up to between 1.2 and 3.0 million tons per year, significantly smaller than the existing Bull Mountain Mine. The 1990 EIS was prepared for a federal land exchange; it did not analyze site-specific environmental impacts resulting from longwall coal mining. The preferred alternative involved all or portions of just seven sections of land covering 3,674 acres. The 1990 EIS contains neither useful nor specific analysis of relevant impacts such as subsidence and effects on water quality and quantity.</p> <p>In 1992, the State of Montana prepared an EIS pursuant to the Montana Environmental Policy Act on the original Bull Mountain Mine's state mine permit, which has since been amended several times (included this instance currently in question). While the 1992 EIS contains more relevant analysis, it is still stale; it was also for a smaller mine; did not look at cumulative impacts; and, most notably, is a non-NEPA document that does not follow appropriate NEPA requirements and cannot be tiered to by OSMRE.</p> <p>Not only are these prior documents more than 20-years old and, therefore, stale, they are also not tierable under standards set by CEQ. All of these documents fail to adequately or contemporaneously address the mine's impacts to land and water or the climate. None of them examine reasonably foreseeable development scenarios, such as the mirror-image mining scenario to the north of the proposed mine expansion. The piecemeal analysis that has occurred in the Bull Mountains over the decades has produced a mine that has expanded incrementally by thousands of acres at a time without the benefit of comprehensive review.</p>	<p>OSMRE has determined that the level of documentation provided in the 2018 EA and this EA confirms that potential impacts do not rise to the significance level of preparing an EIS. Rationale and findings are included in OSMRE's FONSI for the 2018 EA and the FONSI associated with this EA.</p>
Northern Plains Resource Council	IB	IB-01	Train Derailment Analysis - Deficiencies in Train Accident Data	<p>OSMRE does not provide a "hard look" at train accident data in the EA and this underestimates the risks associated with the Proposed Action. As described in the attached Whiteside and Associates report, the EA lacks accident data from the Montana Rail Link (MRL) authority. MRL services roughly half of the rail line for coal shipped from the Signal Peak Mine to coastal coal terminals, with MRL covering a distance of 628.7 miles between Mossmain, MT to Spokane, WA, which is 47% of the projected 1,327 track miles from Laurel, MT to the coastal terminal.</p> <p>MRL data shows the true accident numbers on the railroad line carrying coal from the Signal Peak Mine to coastal terminals are much higher than described in the EA. For example, the Accident Rate Per Million Train-Miles was 10.44, according to MRL data submitted to Montana Public Service Commission and displayed in Table 1 of the Whiteside and Associates report. This number is far below the estimate in the EA of 0.81 Accidents Per Million Train-Miles for the 1,317 mile segment of track referred to in the EA as "BNSF Mail Line." Without justifying why, the EA attempts to predict the likelihood of future accidents along Montana rail sections by applying national averages for accident data, instead of using data from the Montana Rail Link, that is reported every month to the Montana Public Service Commission.</p>	<p>See responses to Comments IA-01 and IB-03. Please also note that the predicted number of accidents per year on one segment was 0.81, which was not an accident rate. The accident rates used are presented one column to the left in the table.</p>

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		IB-02	Train Derailment Analysis	<p>OSMRE does not adequately consider a worst-case scenario for train derailments and accidents in the EA. By not including MRL accident data in OSMRE's analysis, the EA misses serious accidents reported along the route. A total of 19 fatalities occurred on the MRL line in the 628 miles of track over the years 2004-2020. Surely, this figure should have been included in the EA.</p> <p>In conclusion, the analysis of the train accident data in the EA is inadequate and OSMRE's Finding of No Significant Impact for the project should be rescinded until a more thorough analysis is completed. Considering the number of accidents and fatalities along the proposed shipping route for Signal Peak Coal, a full Environmental Impact Statement should be prepared in order to satisfy requirements of the National Environmental Policy Act. Please also consider the data and conclusions contained in the attached report from Terry Whiteside and Associates.</p>	<p>As explained in the response to Comment IB-03, where a comparison of the use of BNSF and equivalent MRL data was made, the BNSF data used in the calculations produces similar results to the MRL data when the MRL data is used consistently and for a similar time period.</p>
		IB-03	Transportation Analysis and Review (separate attachment – Whiteside and Associates Letter)	<p>The Rail safety analysis utilized in the United States Department of the Interior Bull Mountain Mine No. 1, Federal Mining Plan Modification (Federal Coal Lease MTM 97988) appears to be flawed in its utilization of data from the BNSF system averages. This analysis ignores the fact that the movement route for the Bull Mining Coal movement is on the Montana Rail Link (MRL) system for roughly half of the movement. MRL is the railroad handling the movement from Mossmain, MT to Spokane, WA a distance of 628.7 miles of the projected 1,327 mile total movement to Westshore.</p> <p>The analysis suggests that “Although state agencies typically gather information on the accidents that occur in their state, neither the states nor the FRA have enough corresponding data on the train-miles within each state for reliably determining accidents per million train-miles for each state. Instead, the FRA provides national accident rates, including rates for individual railroads.1”</p> <p>The analysis then proceeds to utilize, in Table 4.1-1 Nationwide train accident rates, BNSF's national accident rates for rail accidents on all track classes and the overall national rates – leaving out the actual experience on the MRL. Why? – “The BNSF experience is slightly better than all railroads on average nationwide.2”</p> <p>All the while, the information was available for the actual movement and The Accident Rate per Million Train-Miles is much higher on MRL according to data at the FRA.</p> <p>In Table 3.1-1: Rail Accidents in Montana, the report suggest that it relies on statewide data that shows 15 to 26 Accidents on All track types per year. Yet, the data for MRL taken from the FRA database shows total Accidents range from a low of 18 to a high 77 – see below - Chart 1 – Montana Rail Link (MRL) – Accidents/Train Miles/Accident per Million Train Miles 2004-2019.</p> <p>The US Department of Interior report does not accurately reflect accident rates for this movement by severely understating the Accident Rates per million Train-miles. In Table 4.1-2: Predicted train accidents for loaded and unloaded trains, the report takes the flawed data from Table 4.1-1 continuing to utilize BNSF mainline and branchline data instead of FRA MRL data and predicts Accident rates that are below the actual number expected by the Proposed Action in the Bull Mountains EA.</p> <p>Importantly Accidents per million train-miles for MRL show that the analysis in Table 4.1-1 in the report utilizing BNSF system average greatly understates the historical Accident per million train-miles experienced on the MRL – the railroad utilized for the actual movement. One of the major decision points directing the remand by the Court was to correct the issue of train derailments. Yet the analysis undertaken does not utilize actual MRL data which is readily available from the FRA Accident dashboard or alternatively from the MRL monthly reports to the Montana Public Service Commission.</p> <p>For this analysis, your authors requested and received from the Montana Public Service Commission (MPSC), copies of the MRL filed accident reports for 2016-2019. This data seems to confirm the numbers utilized in the report greatly underreport the actual Rail Accidents in Montana and Idaho on this projected movement routing. Be mindful, that Montana Rail Link runs on this projected movement from Mossmain, Montana through southern Montana (Bozeman, Helena, Missoula) and then over mountains into the northern panhandle of Idaho and back down into Spokane, Washington where the</p>	<p>BNSF train accident rates are not available from FRA by state or specific line segment. The counts of all accidents/incidents provided in the table in the comment include other types of events that are not train accidents, mostly worker on duty injuries. The number of train accidents (6 to 10 train accidents per year since 2015) is provided in another portion of the referenced table, near the bottom.</p> <p>Given that the crews and equipment are from BNSF, BNSF rates were used as described in the response to Comment 1A-01. Even if the MRL data presented by the commenter had been used, the appropriate use of the MRL data would be to divide the train accidents by the train miles, not all MRL accidents for the year divided by train miles. For instance, in 2019, 7 train accidents divided by 5,556,945 train miles equals 1.3 train accidents per million train miles (MTM).</p> <p>As detailed in the EA, after considering type of track and track class, the final figures used in the analysis were 1.2 accidents per MTM for the majority of the route and 3.6 accidents per MTM for the initial spur. All of these rates are very similar to the cited MRL data, as provided by the commenter.</p> <p>As specified in the EA, Track Class 3 was used in the calculations for most of the rail transportation route and Track Class 2 was used for the spur. For segments where the track is Track Class 4, the expected accident rate would be lower due to the higher track standards for building and maintaining track that is rated for higher speeds.</p>

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				<p>movement is interchanged with the BNSF for its continuing movement through Washington state to the Westshore destination.</p> <p>This MPSC data (monthly reports by MRL) shows for example that in 2018, MRL reported to the MPSC – 10 accidents involving rail cars, including one death at a crossing summarize for accident reports 2018026, 2018028, 2018033, 2018042, 2018049, 2018058, 2018093, 2018116, 2018129, and 2018144.</p> <p>This EA report suggested that in table 4.1-2 again relies on data taken from BNSF Main Line data suggests that along the 'entire' route travelled by the Mine-related trains a prediction of less than one accident involving a loaded train per year. Again the report utilizes "BNSF Main Line" as the basis for drawing its low numbers of accidents not MRL. The report fails to recognize that the entire movement over MRL is on Class 3 not a mixture of Class 3 and Class 4, although the report suggests the analysis utilize just Class 3 track for the study. Yet in paragraph 1 on Page 17 of the report, the reports suggests to the extent that Class 4 movement would be involved, the predicted number of accidents per year on the Main line would be substantially reduced.</p> <p>Conclusion: Incorrect data utilizing BNSF mainline to build a basis for predicted rail accidents distorts and corrupts the prediction of future accident levels. The actual data was readily available but not utilized in this report to the Court.</p>	
Signal Peak Energy	2A	2A-01	Social Cost & Benefits of Carbon	<p><u>Conclusions</u></p> <p>Placing a value on carbon emissions is problematic for several reasons. First, the social cost of carbon varies enormously depending upon assumptions about the discount rate and whether one should follow cost-benefit guidelines from the US Office of Management and Budget that dictate consideration of only domestic US impacts.</p> <p>Secondly, the Integrated Assessment Models used to estimate the social cost of carbon are so fundamentally flawed that they are worthless. These flaws include perhaps unknowable values for the equilibrium climate sensitivity. Indeed, estimates for the equilibrium climate sensitivity have been steadily declining in recent years. Moreover, the climate models have been running "too hot" with predictions well above observed temperatures. Numerical models of the global climate systems are plagued with arbitrary adjustments to tune them to correspond with historical records. These adjustments have not been subject to rigorous peer review, which had led to some analysts to claim that climate modelers are policy advocates rather than dispassionate scientists. Besides controversy about the discount rate, the economic side of IAMs has similar problems, specifically the marginal damage functions that do not have any theoretical or empirical foundations.</p> <p>Third, while carbon permit markets discover observable prices for carbon dioxide, they are currently restricted to California and the Northeastern US. Why should Montana use these prices when its citizens have not reached a political consensus to limit carbon emissions? Prices for carbon permits in these markets are much lower than the SCC in the per reviewed literature.</p> <p>Fourth, Integrated Assessment Models do not include the social benefits of carbon, which are between \$382 and \$440 per ton of CO₂, much higher than many estimates of the social cost of carbon. Fifth and finally, Integrated assessment Models do not consider the positive externalities that low-cost carbon-based fossil fuels provide to modern high-tech societies, including</p> <ul style="list-style-type: none"> • stimulating economic development, • providing abundant low-cost energy, • inducing factor augmenting technical change and economic growth, • ensuring uninterrupted and reliable flows of electricity, and • reducing health care costs and raising agricultural output. 	<p>OSMRE reviewed the report submitted by the commenter titled "Evaluating the Social Costs and Benefits of Carbon for the Bull Mountain Mine Extension." (July 27, 2020). OSMRE considered the Social Cost of Carbon in the 2018 EA prepared for Bull Mountains Amendment 3 and maintains the conclusions put forth in that document. As stated in Appendix D, Section 2.4, of that document, a social cost of carbon analysis is not warranted for this project decision for several reasons including: the project is not a rulemaking, the technical supporting documents and associated guidance have been withdrawn, and it would present a skewed analysis as it would only analyze the costs (e.g., decrease in net agriculture productivity, health impacts, property damage from increased flood risk and changes in energy system costs), and not the benefits of coal-fired energy production (e.g., electricity generation).</p>

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				<p>For these reasons, the theoretical and empirical foundations for the social cost of carbon are questionable at best and, therefore, its use for project evaluations and perhaps even for national environmental rule-making should be seriously re-considered. Moreover, an exclusive focus on the social cost of carbon as defined by Integrated Assessment Models ignores the social benefits of carbon, which are likely considerably higher than the social cost of carbon. Indeed, if one were to take the unnecessary step of the considering the NET social cost of carbon for the Bull Mountain mine extension, it would likely be negative.</p>	
<p>Signal Peak Energy</p>	<p>2B</p>	<p>2B-01</p>	<p>Level of Analysis and Threatened and Endangered Species</p>	<p>On March 9, 2020, U.S. District Court Judge Molloy (D. Mont.) upheld the National Environmental Policy Act ("NEPA") review for the Bull Mountains Mine plan in all respects but one- holding that the Office of Surface Mining Reclamation and Enforcement ("OSMRE") should have quantified the risk of train derailment from coal trains transporting coal from the Mine to the export terminal in Vancouver, British Columbia. <i>350 Montana v. Bernhardt</i>, 2020 WL 1139674 (D. Mont. Mar. 9, 2020). On the question of whether OSMRE had adequately considered impacts of trains to grizzly bears, and whether OSMRE had adequately consulted under the Endangered Species Act ("ESA") regarding alleged effects to grizzly bears and northern long-eared bats, the court sided with OSMRE. Judge Molloy declined to consider extra-record evidence offered by the plaintiffs on both issues. Id. at *3, 10-11. Rather, based on the record before the agency, the court held that (1) "train collisions with wildlife are too attenuated from the mine expansion to warrant analysis under NEPA," (2) "the record does not demonstrate that grizzly bears[sic] collisions are 'reasonably certain to occur'" for purposes of the ESA, and (3) the record adequately supports OSMRE's determination that no northern long-eared bats exist in the vicinity of Mine. Id. at *3, 10-11.</p> <p>Since the 350 Montana decision, the plaintiffs have submitted to OSMRE the same extra- record evidence offered to the Court and requested that it be considered in the NEPA review on remand. We understand that the remand process is to be targeted at the specific NEPA deficiency identified by the Court (train derailments), but that OSMRE will evaluate the allegedly "new" grizzly bear and northern long-eared bat information, and any other "new" information for its significance to the NEPA analysis. Signal Peak Energy offers these comments to rebut the supposed significance of plaintiffs' proffered information.</p>	<p>In preparing this EA, OSMRE looked at all information available, including the "extra-record" information identified by the commenter related to threatened and endangered species as it determined the scope of the EA.</p> <p>Regarding the information submitted to OSRME since the 2018 EA on the grizzly bear (<i>Ursus arctos horribilis</i>), OSMRE determined that neither the grizzly bear nor its habitat is present with in the action area of this project. OSMRE did not increase the action area to include the hundreds of miles of rail lines outside the vicinity of the mine because doing so would be contrary to the Endangered Species Act (ESA) regulations. Specifically, action agencies are only required to consider "effects of the action", which are defined as "all consequences to listed species or critical habitat that are caused by the proposed actionA consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur." 50 C.F.R. § 402.02. The ESA regulations at 50 C.F.R. § 402.17 further explain that:</p> <p>(a) <i>A conclusion of reasonably certain to occur must be based on clear and substantial information, using the best scientific and commercial data available.</i></p> <p>(b) <i>To be considered an effect of a proposed action, a consequence must be caused by the proposed action (i.e., the consequence would not occur but for the proposed action and is reasonably certain to occur). A conclusion of reasonably certain to occur must be based on clear and substantial information, using the best scientific and commercial data available. Considerations for determining that a consequence to the species or critical habitat is not caused by the proposed action include, but are not limited to:</i></p> <p>(1) <i>The consequence is so remote in time from the action under consultation that it is not reasonably certain to occur; or</i></p> <p>(2) <i>The consequence is so geographically remote from the immediate area involved in the action that it is not reasonably certain to occur; or</i></p> <p>(3) <i>The consequence is only reached through a lengthy causal chain that involves so many steps as to make the consequence not reasonably certain to occur.</i></p> <p>Under these regulations, OSMRE has concluded that mere possibility of grizzly bear mortality as the result of train strikes during transportation is not "reasonably certain to occur" under the ESA. As the preamble to the rule at 84 FR 44976, 44981 (Aug. 27, 2019) states: "As the rule recognizes, however, there are situations, such as when consequences are so remote in time or location, or are only reached following a lengthy causal chain of events, that the consequences would not be considered reasonably certain to occur." For a grizzly bear located hundreds of miles away from the mine to be affected by this proposed action, it would require a lengthy causal chain with many steps. As such, OSMRE's review of the information provided regarding the potential for grizzly bear collisions along the rail transportation route did not demonstrate that grizzly bear collisions were reasonably certain to occur as result of SPE-loaded train traffic. As the commenter mentioned, the court in its 2020 decision agreed with OSMRE's prior rationale and ruled that train collisions with wildlife "are too attenuated from the mine expansion to warrant analysis under NEPA."</p> <p>As for the Northern Long-Eared Bat (NLEB) (<i>Myotis septentrionalis</i>), OSMRE used information obtained from the USFWS and the Montana Natural Heritage Program, which confirmed that the "mine is well outside of the known and predicted range of northern long-eared bat." In reaching this conclusion, OSMRE relied on Montana Natural Heritage Program's Field Guide habitat assessment for NLEB, where</p>

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					<p>all active season captures within the state have been within or near riparian forest dominated by cottonwood and green ash. This portion of the Bull Mountains area does not support cottonwood and green ash riparian forests. The Montana Natural Heritage Program is the state agency charged with maintaining Montana's information and expertise to support stewardship of native species and habitats and is in the best position to analyze data related to the NLEB. Yet, the Montana Natural Heritage Program was aware of the "extra-record" evidence presented to OSMRE and its limited value, particularly the acoustic recordings. The Montana Natural Heritage Program has not changed its conclusion that, using the best available information, the mine is not within the predicted range to the NLEB. Therefore, for this EA, OSMRE reasonably concluded there is no suitable habitat for NLEB occurs in the mine vicinity and mine expansion would not affect the species. Thus, no additional analysis was required beyond that completed in 2018.</p>
		2B-02	Level of Analysis	<p>NEPA's Supplementation Requirement</p> <p>Federal agencies are required to supplement an EIS if "the agency makes substantial changes in the proposed action that are relevant to environmental concerns" or "[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 40 C.F.R. § 1502.9(c)(1). The purpose of providing supplemental NEPA analysis is to ensure that the agency makes an informed decision based on environmental impacts without "blinders to adverse environmental effects." <i>Marsh v. Oregon Natural Resources Council</i>, 490 U.S. 360, 371 (1989).</p> <p>An agency need not, however, supplement in every instance when new information becomes available that may be relevant to the agency's decision. <i>Marsh</i>, 490 U.S. at 373. Whether an agency decides to supplement is governed by the "rule of reason." <i>Id.</i> "Application of the 'rule of reason' thus turns on the value of the new information to the still pending decisionmaking process." <i>Id.</i> at 374. "If there remains 'major Federal action' to occur, and if the new information is sufficient to show that the remaining action will 'affect the quality of the human environment' in a significant manner or to a significant extent not already considered, a supplemental EIS must be prepared." <i>Id.</i> (quotations omitted). Determining whether new information is "significant" generally requires some level of agency expertise to which the courts will likely defer. <i>Id.</i> at 377.</p> <p>The Ninth Circuit has held that "[w]hen new information comes to light the agency must consider it, evaluate it, and make a reasoned determination whether it is of such significance as to require [supplemental NEPA analysis]." <i>Friends of Clearwater v. Dombeck</i>, 222 F.3d 552, 558 (9th Cir. 2000) (citation omitted). Agencies can use non-NEPA procedures, such as environmental reports or re-evaluations, to determine whether new information or changed circumstances require additional NEPA analysis. <i>North Idaho Community Action Network v.</i></p> <p><i>US. Dept. of Transp.</i>, 545 F.3d 1147, 1157 (9th Cir. 2008) (NICAN). There is no requirement that agencies involve the public in the decision whether to prepare an SEIS. <i>Friends of Clearwater</i>, 222 F.3d at 560.</p> <p>The critical question the agency must ask in determining whether a supplemental analysis is required is whether the new circumstance "present a seriously different picture of the environmental impact of the proposed project from what was previously envisioned." <i>Sierra Club v. Froehlke</i>, 816 F.2d 205, 210 (5th Cir. 1987) (emphasis in original), cited in <i>Island Range Chapter of the Montana Wilderness Assoc. v. US. Forest Serv.</i>, 1997 WL 362161, *3 (9th Cir. 1997) (unpublished). See also <i>Price Road Neighborhood Assoc. v. US. Dept. of Transp.</i>, 113 F.3d 1505, 1510 (9th Cir. 1997) (Federal Highway Administration finding of "no discernible differences in the level of environmental impacts" from project redesign was sufficient to comply with NEPA and no supplemental EA was required).</p> <p>In this case, the information offered by the plaintiffs does not "present a seriously different picture of the environmental impact[s]" of the Bull Mountains Mine plan than the agency already considered in its May 2018 Environmental Assessment. OSMRE previously determined that grizzly bear effects were not reasonably certain to occur. That determination continues to hold true. And OSMRE previously</p>	<p>Comment noted.</p>

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				determined that no Iahern long-eared bats do not exist in the area of the Mine, and no new information undermines that determination.	
		2B-03	Threatened and Endangered Species	<p>Endangered Species Act Consultation Requirements</p> <p>Section 7 of the ESA requires that federal agencies consult with the U.S. Fish and Wildlife Service to ensure that any action authorized, funded, or carried out by the agency is not likely to jeopardize the continued existence of any threatened or endangered species. 16 U.S.C. § 1536(a)(2). Section 7 consultation may be formal or informal, depending on the anticipated effects to listed species. 50 C.F.R. §§ 402.13, 402.14. A threshold question for ESA consultation is whether the listed species exists in the potentially affected area. Usually, the action agency requests that the Service prepare a list of species in the action area for initial review. Final ESA Section 7 Consultation Handbook, March 1998, Fig. 3-1. If a species is not on the list, no consultation is required. Further, effects outside of the immediate area of the proposed action need not be considered unless they are "caused by the proposed action" and "reasonably certain to occur." 50 C.F.R. § 402.02. See also <i>Sierra Club v. Marsh</i>, 816 F.2d 1376, 1387 (9th Cir. 1987).</p> <p>If changes are made, or new information becomes available, after consultation is complete, the action agency may have to reinitiate consultation. Reinitiation may be necessary when the action is modified subsequent to the consultation "in a manner that causes an effect to listed species or critical habitat that was not considered in the biological opinion or written concurrence." 50 C.F.R. § 402.16(a).</p>	Comment noted.
		2B-04	Threatened and Endangered Species	<p>Grizzly Bears Impacts</p> <p>The plaintiffs submit the declaration of Dr. David Mattson along with his 2019 report <i>Effects of Trains and Railways on Grizzly Bears: An Evaluation of the Effects of Increased Train Traffic on the Burlington Northern Santa Fe & Montana Rail-Link Railways, Montana-Idaho</i>.</p> <p>Dr. Mattson makes bold claims regarding the mortality rates of bears from trains and the alleged impacts of increasing train traffic associated with the Bull Mountains Mine. His conclusions and projections, however, are based on (1) an incorrect assumption that the Bull Mountains Mine plan means more trains on the railways; (2) data from Canada and Europe that cannot readily be compared to train traffic and bear habitat in Idaho and Montana, and (3) uncited and undocumented mortality rates.</p> <p>First, Dr. Mattson's declaration betrays a fundamental misunderstanding of the Bull Mountains Mine plan. He assumes that its approval will increase the number of trains crossing grizzly habitat in Montana and Idaho by 3.6 trains per day. See Mattson Decl. 119, 15-16. But the mine plan only allows for the Mine to continue to produce at the same rate as current production, extending the life of the Mine, but not the Mine's capacity. The same number of trains as pass from the Mine to Vancouver, BC today will continue to travel the rail line tomorrow, without any increase. Thus, Dr. Mattson's assumption of a 10% increase in train traffic, Decl. 16, and the resulting alleged increase in bear impacts, is entirely incorrect.</p> <p>Second, train impacts across the BNSF in Idaho and Montana cannot be directly compared to trains traversing Banff National Park. As Dr. Mattson acknowledges, approximately 100 trains per day traverse Banff National Park in an area of high grizzly bear density. Trains on the Canadian railway can reach speeds of up to 37-50 miles per hour. By contrast, a maximum of 48 trains per day traverse some segments of the railway in Montana and Idaho (1.8 of which originate at the Bull Mountains Mine), 2019 EA at 23, and travel at maximum speeds of 37 miles per hour, Mattson Report at 5. Thus, to assert that train impacts, which are apparently the leading cause of mortality in Banff National Park, have the same impacts in Montana and Idaho is false.</p> <p>Further, Dr. Mattson fails to distinguish between bear/train interactions along the BNSF railway through Glacier National Park (depicted in orange on the map below) and the southern route through Missoula, referred to as the Montana Rail-Link (depicted in blue on the map below), and referenced</p>	See response to Comment 2B-01.

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				<p>on BNSF's Coal Map as the "Main Coal Line," see https://www.bnsf.com/s hip-with- bnsf/maps-and- shipping- location s/pdf/ coal energy.pdf.</p> <p>See Mattson, <i>Effects of Trains and Railways on Grizzly Bears</i> at 4 (2019). Loaded coal trains from the Bull Mountains train traffic traverse the southern Main Coal Line, which has significantly fewer bear interactions, and cannot be compared to either the northern BNSF route or Canadian rail traffic through the densely populated bear habitat of Glacier National Park and Banff National Park.</p> <p>Third, Dr. Mattson's claim that 56 grizzly bears have been killed by trains in Montana and Idaho between 1980 and 2018 is impossible to validate based on the cited authorities. The cited reports are not provided, and cannot be readily obtained. Further, Dr. Mattson's total contradicts other information submitted by the plaintiffs in their comments on the draft Environmental Assessment. In particular, the 2012 Cabinet-Yaak Grizzly Bear Recovery Area Research and Monitoring Progress Report concluded that only 3 of 65 known grizzly mortalities in 30 years (1982-2012) were caused by trains. Regardless, as Dr. Mattson acknowledges, 53 of the identified mortalities occurred on the BNSF railway between Browning, Kalispell, and other northern reaches. They did not occur along the southern route traversed by Bull Mountains coal, and so are irrelevant to OSMRE's analysis.</p> <p>Thus, for purposes of NEPA, the information presented by plaintiffs does not paint a "seriously different picture" of the environmental effects of the Bull Mountains Mine plan, and for purposes of the ESA, the information reinforces OSMRE's decision that grizzly bear take from Bull Mountains Mine coal trains is not "reasonably certain" to occur.</p>	
		2B-05	Threatened and Endangered Species	<p>Northern Long-Eared Bat Presence</p> <p>Plaintiffs submit the December 5, 2018 opinion of their expert Lynn Robbins who analyzed acoustic bat call data for an unspecified time period and determined that 7 of 232 bat calls "possessed the call parameters that are associated with Northern long-eared bat." Thus, Dr. Robbins concluded that northern long-eared bats were present in July and August 2015, August 2017, and May 2018. This information, however, is contradicted by two recent reports by Dan Bachen for the Montana Natural Heritage Program.</p> <p>First, in March 2018, Bachen and others authored a report entitled <i>Long-term Acoustic Assessment of Bats at Coal Mines across Southcentral Montana and Management Recommendations for Bats for the Montana Department of Environmental Quality</i>. The report details the bat monitoring program since 2012 at nine mine sites across eastern Montana. As part of the program, two acoustic monitors were installed at the Bull Mountains Mine in 2012 and remain operational today. Analysis of the bat call data definitively confirmed the existence of 12 species of bats in the vicinity of the monitors, but northern long-eared bats have not been identified as present. The report acknowledges that the U.S. Fish and Wildlife Service has identified nine counties in eastern Montana with possible northern long-eared bat presence, but acoustic data and capture studies have shown bat presence only along the Missouri River or downstream from Culbertson in extreme northeastern Montana. Even in Powder River County, far east of the Bull Mountains Mine, Bachen concludes, "given the number of surveys conducted in Power River County that have failed to detect the species, its presence appears unlikely." <i>Id.</i> at 12.</p> <p>Second, in December 2019, Bachen authored a second report entitled <i>Assessment of Presence, Range, and Status of the Northern Myotis in the Northern Great Plains of Montana</i>. Between 2016 and 2019, in response to the U.S. Fish and Wildlife Service's 4(d) Rule and identification of 9 counties in Montana with possible species presence, the Montana Natural Heritage Program undertook studies to determine the range of the species and whether it was resident or transient in Montana. The study applied direct capture and acoustic methods over the 9 counties. Limited captures along the Missouri and Yellowstone Rivers indicate that northern long-eared bats are a probable year-round resident in riparian forest on the Missouri River in the four northern-most counties in the study area. Acoustic data, however, did not</p>	<p>See response to Comment 2B-01.</p> <p>As stated in Section 3.8 of the 2018 EA, no confirmed observations of species listed, proposed for listing, or candidates for listing under the ESA have been recorded in the Mine permit area during the historical wildlife surveys. However, the list of historical species observations (Appendix F, as provided in the 2018 EA) includes a 2006 acoustic detection of northern myotis (a.k.a. northern long-eared bat, <i>Myotis septentrionalis</i>, ESA-listed as threatened). The Mine is located well outside of the known and predicted range of northern long-eared bat (USFWS 2018a, MTNHP & MFWP 2018, as provided in the 2018 EA), suggesting the record most likely is a misidentification. Currently, the occurrence of northern long-eared bat in Montana is considered accidental (MTNHP & MFWP 2018, as provided in the 2018 EA). OSMRE makes a finding of "no effect" for this species as a result of no species present and lack of suitable habitat.</p>

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				<p>identify a single northern long-eared bat. "We deployed seven acoustic detectors in 2016 and our acoustic detectors in 2017 at sites along the Missouri, Yellowstone, Little Missouri, and Powder Rivers.</p> <p>Across these deployments we found no call sequences that could be defined as probable or definitive for Northern Myotis." <i>Id.</i> at 8.</p> <p>In sum, analysis of acoustic data by the Montana Natural Heritage Center concludes that no northern long-eared bats exist at the Bull Mountains Mine. To the extent the species occurs in Montana, it exists along riparian corridors like the Missouri and Yellowstone distant from the Mine. Thus, plaintiffs' expert report does not in any way change OSMRE's original conclusion that the lack of species presence does not warrant consultation under the ESA.</p>	
Signal Peak Energy	2C	2C-01	Level of Analysis	<p>The Bull Mountain Mine No. 1 EA Fully Addresses the Purported Deficiency Identified by the Montana District Court</p> <p>As you are aware, this third Bull Mountain EA was prepared to address one specific deficiency identified by U.S. District Court Judge Donald Molloy in his March 9, 2020 Order remanding the second Bull Mountain Mine EA. See <i>350 Montana v. Bernhardt</i>, 2020 WL 1139674 (D. Mont. Mar. 9, 2020). Judge Molloy found OSMRE had erred by not including</p> <p>a sufficient analysis of the risk of train derailment for coal trains transporting Bull Mountain coal to market. Judge Molloy cited a specific formula applied in other environmental review (segment length x number of trains x accident rate = predicted accidents per year for segment) and suggested that, with the availability of such a formula and potentially severe effects of a derailment, "the agency should have analyzed the risk of train derailment." <i>Id.</i> at *6.</p> <p>OSMRE did just that in the EA. Applying existing data regarding national accident rates on BNSF tracks, OSMRE quantified the potential mine-related coal train accidents per year for both loaded and empty trains on the three segments of track traveled. The data projected approximately one train accident every 6 years. EA at 17. Given that there is only one known minor derailment involving a Bull Mountain coal train in the entire history of the Mine, this projected accident rate likely overestimates the potential for derailment. See EA at 12. Regardless, OSMRE goes on to discuss the potential effects of a train derailment, if one were to occur, noting that it is impossible to predict precisely where, when, or the severity and circumstances of a derailment. EA at 17-18. OSMRE's analysis takes the necessary "hard look" at the potential effects of coal transportation from the Mine, as the court directed.</p>	Comment noted.
		2C-02	Level of Analysis	<p>NEPA Does Not Require that OSMRE Consider Actions for Which Its Decision is Not a Legally Relevant Cause</p> <p>As the court demanded, OSMRE provides a thorough and quantitative analysis of train derailment risk. The analysis, however, goes well beyond what NEPA requires given that OSMRE has no regulatory authority over train travel from the Mine and cannot consider such downstream effects as part of its authorization of the Bull Mountain Mine Plan modification.</p> <p>"[W]here an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, ... the agency need not consider these effects" in its NEPA analysis. <i>Dept. of Trans. v. Pub. Citizen</i>, 541 U.S. 752, 770 (2004); see also <i>Vt. Yankee Nuclear Power Corp. v. NRDC</i>, 435 U.S. 519, 555 (1978). In other words, "[a]n agency has no obligation to gather or consider environmental information if it has no statutory authority to act on that information." <i>Sierra Club v. FERC</i>, 867 F.3d 1357, 1382 (D.C. Cir. 2017) (emphasis added).</p> <p>Building on <i>Public Citizen</i>, federal appellate courts have held that an agency is not required to "examine everything for which the [project] could conceivably be a but-for cause" in order to satisfy NEPA. <i>Sierra Club v. FERC</i>, 827 F.3d 36, 46 (D.C. Cir. 2016); <i>EarthReports, Inc. v. FERC</i>, 828 F.3d 949, 955 (D.C. Cir. 2016); <i>Sierra Club</i>, 867 F.3d at 1372. An agency's NEPA analysis need not address the indirect effects of activities that another agency "has sole authority" to regulate. <i>Sierra Club</i>, 827 F.3d at 47. The courts,</p>	Comment noted.

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				<p>including the Ninth Circuit, have held that lack of regulatory authority "breaks the NEPA causal chain and absolves [the agency] of responsibility to include in its NEPA analysis considerations that it 'could not act on' and for which it cannot be 'the legally relevant cause.'" <i>Id.</i> at 48 (quoting <i>Pub. Citizen</i>, 541 U.S. at 769); <i>Alaska Wilderness League v. Jewell</i>, 788 F.3d 1212, 1225-26 (9th Cir. 2015).</p> <p>The <i>Public Citizen</i> Court asked the fundamental question: "What factors can [the agency] consider when regulating in its proper sphere?" <i>Pub. Citizen</i>, 541 U.S. at 770. If the agency is "forbidden to rely on the effects ... as a justification for denying" the action, then its NEPA analysis need not consider the impacts. <i>Sierra Club v. FERC</i>, 867 F.3d at 1373 (emphasis in original). "[W]here an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant 'cause' of the effect." <i>Pub. Citizen</i>, 541 U.S. at 770. Mirroring this language, the new NEPA regulations provide that an agency need not consider effects that it "has no ability to prevent due to its limited statutory authority or would occur regardless of the proposed action." 40 C.F.R. § 1508.1 (g)(2) (2020). OSMRE's authority to approve, disapprove, or conditionally approve the mining plan (see 30 C.F.R. § 746.1) is derived from the Mineral Leasing Act and the Surface Mining Control and Reclamation Act. See 30 U.S.C. §§ 201(a)(3)(C), 121 I(c)(l), 1273(c); 30 C.F.R. § 746.13.</p> <p>Those Acts establish the factors that the agency may consider in reviewing a mine plan and the limits on the agency's regulatory authority, which in turn, establish the proper scope of NEPA review for a mine plan decision. The factors the agency may consider in its substantive mine plan approval process relate to <i>mining</i> of federally leased coal-not the transportation of the coal.</p> <p>By the time the OSMRE reviews a mine plan modification, the Bureau of Land Management has made its decision to lease the coal and the state agency has permitted the mining operation. The issuance of a coal lease grants both a right and an obligation under the Mineral Leasing Act to diligently mine commercial quantities of the coal. 30 U.S.C. §§ 201(a)(3)(C), 207(a), (b)(l); 43 C.F.R. § 3480.0-5(a)(21). While the agency can properly condition <i>mining</i> on compliance with environmental laws, it lacks authority to recommend modifications to, or disapprove Signal Peak's mining plan based on indirect impacts caused by transporting the coal away from the Mine, an activity over which the OSMRE has no regulatory control. See <i>WildEarth Guardians v. Zinke</i>, 368 F. Supp. 3d 41, 78 (D.D.C. 2019) (holding once BLM issues an oil and gas lease under the Mineral Leasing Act it lacks authority to preclude development). It follows, under <i>Public Citizen</i> and its progeny, that the OSMRE was not required to evaluate these downstream impacts over which it has no control. Nevertheless, as discussed above, OSMRE took a "hard look" at the risk of train derailments. No more is required.</p>	
		2C-03	Level of Analysis	<p>The EA is Properly Limited to Train Derailment Issues and Need Not Revisit Analysis Already Completed and Upheld by the Court</p> <p>Judge Molloy's decision in <i>350 Montana v. Bernhardt</i> upheld all other aspects of OSMRE's environmental review and analysis as satisfying both NEPA and the Endangered Species Act ("ESA"). Therefore, OSMRE's current analysis for Signal Peak's mining plan is protected from future NEPA challenges that should or could have been a part of the prior analyses and litigation. See <i>San Remo Hotel, L.P. v. City & Cty. of San Francisco, Cal.</i>, 545 U.S. 323, 336 (2005) ("Under res judicata, a final judgment on the merits of an action precludes the parties or their privies from relitigating issues that were or could have been raised in that action."); see also <i>Turtle Island Restoration Network v. US Dep't of State</i>, 673 F.3d 914, 917- 18 (9th Cir. 2012) (affirming holding that res judicata barred NEPA and ESA claims that could have been brought in prior litigation upon finding that the new NEPA and ESA claims arose under the same transactional nucleus of facts at issue in prior litigation); <i>W. Radio Servs. Co. v. Glickman</i>, 123 F.3d 1189, 1192 (9th Cir. 1997) (affirming holding that res judicata barred successive NEPA claims where claim in second NEPA challenge to permit could have been brought in first NEPA challenge).</p> <p>In addition, any concerns raised that are outside the limited scope of this remand analysis have been waived by the failure to raise them at the appropriate time-i.e. during OSMRE's prior NEPA analyses or in prior litigation. See <i>United States v. LA. Tucker Truck Lines, Inc.</i>, 344 U.S. 33, 37 (1952) (holding that courts should not "topple over administrative decisions unless the administrative body not only has</p>	Comment noted.

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				erred but has erred against objection made <i>at the time appropriate</i> under its practice." (emphasis added)); <i>Havasupai Tribe v. Robertson</i> , 943 F.2d 32, 34 (9th Cir. 1991) ("belatedly raised issues may not form a basis for reversal of an agency decision.").	
Western Environmental Law Center	3	3-01	Level of Analysis	<p>Scope of analysis</p> <p>The district court's decision vacated OSM's prior EA and mandated OSM to prepare a new EA. 350 <i>Mont. v. Bernhardt</i>, 19-cv-00012-DWM, 2020 WL 1139674, at *12 (D. Mont. Mar. 9, 2020). As the court explained in its prior ruling, this means that the "matter is back to square one." Is <i>MEIC v. OSM</i>, No. CV 15-106-M-DWM, 2017 WL 5047901, at *1 (D. Mont. Nov. 3, 2017). Accordingly, it is improper for OSM to forego scoping and immediately issue an EA. Further, it is improper for OSM to limit the scope of its premature EA to only train derailments. Furthermore, even though the district court did not expressly enjoin mining operations, the express terms of applicable NEPA regulations prohibit mining in the interim period while OSM conducts its NEPA analysis. 40 C.F.R. § 1506.1(a): "(a) Until an agency issues a record of decision as provided in § 1505.2 (except as provided in paragraph (c) of this section), no action concerning the proposal shall be taken which would: (1) Have an adverse environmental impact; or (2) Limit the choice of reasonable alternatives." Here, OSM's disregard of the clear language of the law continues the agency's ongoing unlawful conduct with respect to this outlaw mining operation.</p>	Neither NEPA nor the Department's NEPA regulations require scoping for environmental assessments. See, e.g., 43 C.F.R. § 46.235 ("[S]coping may be helpful during preparation of an environmental assessment, but is not required."). OSMRE, however, completed a thorough public scoping process for this proposed action and issues analysis for the project in 2017, as described in the 2018 EA. Given this recently completed scoping, as well as the fact that OSMRE was planning to (and did) release this EA for public comment, OSMRE determined that additional public participation in the form of scoping was not necessary for this EA.
		3-02	Non-Substantive/ General Preference	<p>OSM must recognize Signal Peak Energy's ongoing unlawful conduct</p> <p>Signal Peak Energy's Bull Mountains Mine has been marked by unlawful, criminal, and unethical conduct that casts significant doubt on the company's ability to operate within the bounds of the law. Given this lengthy track record, OSM must consider such unlawful conduct in its NEPA analysis. See 40 C.F.R. § 1508.27(b)(10) (agencies must assess "[w]hether the action threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment").</p>	Comment noted.
		3-03	Climate Impacts	<p>OSM must fully analyze climate impacts in light of significant new information and science that has developed over the past two years</p> <p>In the past two years multiple reports have been issued indicating that the impacts of climate change from burning coal and other fossil fuels are accelerating, the window of time to avoid disaster is rapidly closing, and there is little if any remaining space to accommodate additional greenhouse gas (GHG) emissions. In particular, in 2018 the IPCC published its report on the impacts that will occur if warming is not limited to 1.5° C. Further the US Global Change Research Program published the Fourth National Climate Assessment Volumes I and II. Additionally, in 2018, USGS issued a report demonstrating that federal fossil fuel development is one of the key drives of global climate change. The combined import of these documents is that the world is quickly approaching and may have already passed a point of no return and that to have any chance of avoiding the worst impacts of climate change, the federal fossil fuel programs must change rapidly.</p>	<p>OSMRE reviewed the additional GHG emissions reports provided in the exhibits and determined that information provided in these reports would not change the impact analysis completed as described in the 2018 EA. OSMRE presented substantial information in the 2018 EA describing direct, indirect and cumulative impacts associated with GHG emissions and the consequential relationship to climate, see Sections 3.3 and 4.3 of the 2018 EA. The analysis generated direct and indirect GHG emission rates resulting from mining, transporting, and combusting coal from the Mine (as outlined in Appendix C, Exhibit 6 as provided in the 2018 EA). What OSMRE cannot do with certainty, is to predict or describe exactly what the impact on climate change will be from the Proposed Action's GHG emissions.</p> <p>Predicting the degree of impact of any single emitter of GHGs may have on global climate change or on the changes to biotic and abiotic systems that accompany climate change, is not possible at this time. Given the cumulative nature of the GHG and climate change issue, and a lack of project specific impacts, please see the cumulative section (Section 4.3.2 and Appendix D as provided in the 2018 EA) for a general description of anticipated changes and impacts at the global, national and local [Montana] levels.</p>
		3-04	Train Derailment Analysis and Potential Impacts from Spills to Wildlife and Threatened and Endangered Species	<p>The EA's brief analysis of coal trains is inadequate</p> <p>As an initial matter, the draft EA's discussion of coal routes and traffic contradicts the agency's statements in the 2018 EA. The draft EA states that trains from the mine will comprise 25% of the rail traffic from Laurel, yet the draft EA reduces that figure to 15% of all rail traffic. This appears to be based on a decision to assess only the current rate of train traffic from the mine, rather than the projected increase in train traffic from the 2018 EA. The draft EA provides no basis for using this smaller number, which appears to be a transparent attempt to minimize the impacts of trains. This is unjustified because the draft EA recognizes that the maximum production from the mine will be 10 million tons. Further, the draft EA states that mining from the proposed action will only continue for 8 more years. This can only occur if the 86.8 million tons of coal are mined at a rate of 10 million tons per year. Thus, either</p>	<p>See responses to Comments 1A-01, 1A-02, 1B-03, and 3-05.</p> <p>The EA notes that the trains from the mine are roughly 50 percent of the rail traffic from Broadway to Laurel and 15 percent refers to the rail traffic from Laurel to Sandpoint where additional traffic already exists on the rail.</p> <p>Per Section 2.1 of the EA, only 73 million tons of saleable coal remained as of the end of 2019. Considering the shipments to date in 2020, there will be less than 70 million tons of saleable coal to be transported as of the end of this year. Approximately 10 additional years of rail operations are expected at the current number of trains per year.</p>

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				<p>the number of trains leaving the mine has to increase or the term of the proposed mining operation needs to increase to approximately 14 years.</p> <p>The draft EA's assertion that "[m]ost coal transported to Westshore would be hauled along BNSF's Main Line, as the northern route through Glacier Park involves higher gradients and would thereby only be used by a fraction of the returning empty cars" further contradicts the 2018 EA, which stated:</p> <p>OSMRE consulted with BNSF on November 20, 2017 regarding the likely rail transportation route. BNSF stated that they do not "pre-plan exact routes for trains". Although OSMRE analyzed the likely route used to transport coal from Mine, due to weather, construction, maintenance, or other unforeseen circumstances the route could change on a short or long-term basis. Therefore, any impacts OSMRE to an exact population for any length of time. cannot be known with any certainty.</p> <p>Both cannot be true. Unless BNSF has changed the way that it routes trains, it is apparent that over the decade or more of proposed coal shipping, the trains will be shipped over either route depending on the circumstances in light of conditions. As such, the draft EA's efforts to dismiss impacts from trains traveling the northern route are unavailing. It is noteworthy that draft EA states that Signal Peak keeps semi-detailed records of each train that it ships from the mine and its destination. It is likely that the company therefore keeps similar records regarding the ultimate destination and route of each coal shipment (including boats and ultimate power plants). Because OSM now has easy access to that information, it must disclose it in this EA.</p> <p>The draft EA also fails to document the numerous coal train derailments and spills that have occurred in Montana recently, including one coal train that derailed and spilled coal along and into the Clark Fork River near Heron (the coal later caught fire), Montana in 2017; a coal train derailment and spill near Columbus, Montana, that may have dumped coal into the Yellowstone River; a coal train that derailed near Terry, Montana, in 201480; a coal train that derailed in Missoula in 2013; a coal train that derailed in Kootenai, Idaho, in 2017. The risks of coal trains spilling into Montana's rivers cannot be understated. In November 2006 a coal train derailed near Trout Creek, Montana, spilling cars into the Clark Fork River, which resulted in an EPA superfund action. And in 2010 a coal train derailed near Drummond, Montana.</p> <p>The draft EA also fails entirely to discuss the impacts of coal train derailments beyond Montana, even though it is clear that OSM and SPE know the routes that the trains take to the export terminal in Canada. Coal trains have spilled in Washington. In 2012 a coal train spilled six million pounds of coal north of Pasco, Washington.</p> <p>As noted earlier, extreme weather related to climate change increases the likelihood of coal train derailments. It is worth noting that coal trains derailed on three consecutive days (in Washington, Texas, and Chicago) during the heat of summer in 2012—the derailment in Chicago killed two people. The EA must analyze the impacts of coal train derailments along the entire length of the known coal route.</p> <p>The draft EA notes that "a large derailment would require more effort to clear the damaged cars and remove the spilled coal, possibly resulting in damage to the environment around the spilled area. If a large derailment occurred and released coal into a stream or sensitive habitat (e.g., wetland) or resulted in a fire, the damage to the environment would be more extensive." In addition to traveling along numerous rivers, streams, and lakes for the length of the trip, the train route travels along portions of the wild and scenic Flathead River and Glacier National Park. A large coal spill into these waters would be disastrous. Similarly, if a coal spill were to occur in areas with limited accessibility (e.g., the Alberton Gorge), coal cars and spilled coal may never be recovered, as was apparently the case with the 2006 coal spill near Trout Creek, Montana, that resulted in a superfund action. Moreover, any response to a derailment could be significantly delayed by extreme weather conditions, such as flooding or winter storms. Given the potential for significant impacts to sensitive environments (as has occurred in the past when coal trains have spilled into the Clark Fork River and caught fire), it is necessary for OSM to prepare an EIS. <i>Blue Mountains Biodiversity Project v. Blackwood</i>, 161 F.3d 1208, 1212 (9th Cir. 1998) ("An EIS must be prepared if "substantial questions are raised as to whether a project ... may cause significant degradation of some human environmental factor.").</p>	

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				<p>The draft EA also fails to assess the impacts of a coal spill to wildlife, including fish. Studies have shown that coal deposited in aquatic environments can harm fish. There are numerous threatened and endangered fish and shore birds that could be affected by a coal train spill including: Pallied Sturgeon (<i>Scaphirhynchus albus</i>), White Sturgeon (<i>Acipenser transmontanus</i>), Piping Plover (<i>Charadrius melodus</i>), Bull trout (<i>Salvelinus confluentus</i>), Yellow-billed cuckoo (<i>Coccyzus americanus</i>), Sprague’s Pipit (<i>Anthus spragueii</i>), Whooping Crane (<i>Grus Americana</i>), Least Tern (<i>Sterna antillarum</i>), Lower Columbia River Chinook Salmon (<i>Oncorhynchus (=Salmo) tshawytscha</i>), Puget Sound Chinook Salmon (<i>Oncorhynchus (=Salmo) tshawytscha</i>), Upper Columbia spring-run Chinook Salmon (<i>Oncorhynchus (=Salmo) tshawytscha</i>), Columbia River Chum Salmon (<i>Oncorhynchus keta</i>), Lower Columbia River Steelhead (<i>Oncorhynchus (=Salmo) mykiss</i>), Puget Sound Steelhead (<i>Oncorhynchus (=Salmo) mykiss</i>), Upper Columbia River Steelhead (<i>Oncorhynchus (=Salmo) mykiss</i>), Southern Green Sturgeon (<i>Acipenser medirostris</i>). These impacts would be exacerbated by the cumulative effect of climate change stressing cold water fish, like salmon and trout. In addition to the impacts of the coal, fuel spills from a derailment could also significantly affect the environment, including these threatened and endangered species. Coal locomotives have 5,000 gallon tanks, which if spilled could result in significant impacts to wildlife. As the Washington Department of Ecology noted: “Oil spills from a vessel or train could have significant potential impacts on water quality.” This potentially significant impact requires preparation of an EIS. OSM’s EA must also address in detail the potential impacts of a worst case derailment—e.g., a coal and fuel spill into a sensitive water way in winter conditions when clean up could not easily occur. Further the EA has no basis for assuming that a derailment clean up would occur quickly, as prior experiences in Montana (the lost coal cars near Trout Creek and the coal that was not cleaned up for weeks near Heron) show that clean up can take does not necessarily happen quickly.</p> <p>The draft EA also fails entirely to address the cumulative impacts of coal train derailments. Analysis of cumulative impact is required by NEPA, NEPA caselaw, and NEPA regulations. 42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1508.7. While OSM may wish to apply the illegally weakened NEPA regulations devised by the Trump administration—those regulations do not apply (by their own terms). Accordingly, it is unlawful for OSM to entirely ignore cumulative impacts. Indeed, the draft EA’s statements about uncertainty regarding cumulative impacts is, if anything, basis for preparing an EIS and studying the issue further. <i>MEIC v. OSM</i>, 274 F. Supp. 3d 1074, 1104 (D. Mont. 2017) (“[U]ncertainty militates in favor of an EIS, not against it.”).</p> <p>It is also clear that the draft EA cannot rely on the 2018 EA to assess impacts to wildlife or cumulative impacts to public health from coal trains. The 2018 EA failed to address either issue, entirely. As noted in the Conservation Groups’ prior comments, these impact may be significant, especially when considered cumulatively. As such, OSM must address these impacts.</p>	
		3-05	Threatened and Endangered Species	<p>OSM must address impacts to threatened and endangered species</p> <p>If an action “may affect” a threatened or endangered species, the agency must consult with the Fish and Wildlife Service or National Marine Fisheries Service pursuant to the Endangered Species Act. 16 U.S.C. § 1536(a). Here, it is clear that coal trains and coal train derailments will adversely affect numerous threatened and endangered species. First, OSM must consult with respect to impacts to grizzly bears (<i>Ursus arctos horribilis</i>). Evidence from 2019 clearly shows that trains are a significant source of grizzly bear mortality—as eight bears were killed. Coal trains may adversely affect grizzly bears by striking and killing or injuring them, striking and killing other wildlife that then attracts bears, frightening bears away from the tracks, or impeding grizzly bear population movement and creating fracture zones. Despite OSM’s efforts to make it seem that the coal trains will not travel through grizzly bear habitat, it is clear that trains traveling either the northern or southern routes through Montana will adversely impact numerous populations of grizzly bears in the Northern Continental Divide Ecosystem, the Cabinet Yaak Ecosystem, the Selkirk Ecosystem, and the Bitterroot Ecosystem. Given the baseline impacts of trains and highways to bears, as well as the expected cumulative impacts from other train traffic, it is abundantly clear that the proposed mine expansion will adversely affect grizzly bears, necessitating consultation under the ESA. The draft EA erroneously states that “additional information regarding the grizzly bear and northern long-eared bat that was provided by MEIC does not warrant revision of the NEPA analysis for the project’s effects on threatened species in the project area.” The court made no such statement, but instead indicated that this new information (that OSM insisted it did not have access</p>	<p>See response to Comment 2B-01 regarding the grizzly bear and northern long-eared bat.</p> <p>See response to Comment 3-07 for potential impacts to water resources and impacts to special status fish species.</p> <p>The rail line beyond Broadview is an existing independent utility that is also used by other rail customers and is not interrelated to or interdependent with the proposed action as defined in the Endangered Species Act Consultation Handbook. Therefore, special status species that may occur along this portion of the coal transportation route were not included in the NEPA analysis.</p>

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				<p>to for the 2018 EA) will require full consultation (on grizzly bears and northern long-eared bats). 16 U.S.C. § 1536(a). Moreover, OSM must halt any mining operation during the pendency of the consultation. Id. § 1536(d).</p> <p>In addition to consulting on the impacts of coal trains on grizzly, OSM must consult on the impacts of coal mining on northern long-eared bats (<i>myotis septentrionalis</i>). The report by Dr. Lynn Robbins, Ph.D. and Patrick Moore, M.S., plainly identifies northern long eared bats in the project area and additional analysis by Robbins and Moore has determined that northern long-eared bats range is more widespread in Montana than previously believed. This analysis confirms prior reports by SPE's own consultants and BLM that northern long-eared bats are present in the project area, which contains significant bat habitat. 80 Fed. Reg. 17,974, 17,998 (Apr. 2, 2016). Dr. Lynn's analysis is all the more important because the U.S. District Court for the District of Columbia recently determined that FWS's decision to list the bats as threatened and not endangered was arbitrary and capricious. Ctr. for Biological Diversity v. Everson, 435 F. Supp. 3d 69, 81 (D.D.C. 2020). Moreover, white-nose syndrome, the principal threat to the species has recently been detected in Montana.⁹⁶ Because northern long-eared bats are present in the project area and coal mining may adversely affect the species, consultation is necessary. 80 Fed. Reg. 17,974, 17,998 (Apr. 2, 2016).</p> <p>As noted above, OSM must also consult with respect to the many species that may be adversely affected by coal trains, spills, derailments, and coal dust along the route from the mine to the coal export terminal, including: Pallid Sturgeon (<i>Scaphirhynchus albus</i>), White Sturgeon (<i>Acipenser transmontanus</i>), Piping Plover (<i>Charadrius melodus</i>), Bull trout (<i>Salvelinus confluentus</i>), Yellow-billed cuckoo (<i>Coccyzus americanus</i>), Sprague's Pipit (<i>Anthus spragueii</i>), Whooping Crane (<i>Grus Americana</i>), Least Tern (<i>Sterna antillarum</i>), Lower Columbia River Chinook Salmon (<i>Oncorhynchus (=Salmo) tshawytscha</i>), Puget Sound Chinook Salmon (<i>Oncorhynchus (=Salmo) tshawytscha</i>), Upper Columbia spring-run Chinook Salmon (<i>Oncorhynchus (=Salmo) tshawytscha</i>), Columbia River Chum Salmon (<i>Oncorhynchus keta</i>), Lower Columbia River Steelhead (<i>Oncorhynchus (=Salmo) mykiss</i>), Puget Sound Steelhead (<i>Oncorhynchus (=Salmo) mykiss</i>), Upper Columbia River Steelhead (<i>Oncorhynchus (=Salmo) mykiss</i>), Southern Green Sturgeon (<i>Acipenser medirostris</i>). OSM must also consult with FWS regarding the impacts to Canada lynx (<i>Lynx canadensis</i>) and lynx critical habitat, which is traversed by coal trains. As with grizzly bears, coal trains may adversely affect lynx by striking them or by striking other animals, which in turn attract lynx to feed on carrion.</p> <p>FWS must also assess and confer with FWS about impacts to wolverine (<i>Gulo gulo</i>), which also inhabit the area bisected by the trains and are prone to scavenge on carrion. 16 U.S.C. § 1536(a)(4).</p>	
		3-06	Water Resources	<p>The EA must address new evidence that impacts to water resources have proven more significant than stated in the 2018 EA</p> <p>New information shows that the impacts of mining on water quality are more significant than represented in the 2018 EA. In that document, OSM stated that fractures would only extend to overburden interval and the sandstone above the Rock Mesa coal. For shallower intervals, OSM concluded that "effects ... would be less likely." The Montana DEQ, however, recently concluded, albeit in preliminary manner, that based on the available evidence mining dewatered a well sourced in overburden intervals 1 and 2. Following mining the well in question has gone dry. While Signal Peak threw together a contrary report by a paid consultant, further expert analysis refutes Signal Peak's analysis. This uncertainty is basis for preparing an EIS. 40 C.F.R § 1508.27(b).</p> <p>This shows that virtually all water resources that have been undermined have been impacted, with the most reliable water sources being impacted the most (we well on Dunn Mountain and Litsky Spring).</p> <p>All of the springs that have so far been undermined and have been evaluated by DEQ have been impacted in terms of either water quantity or quality. The CHIA describes evaluations of impacts to water quantity and quality in 9 springs located above the first 5 panels mined. Four of the springs (17115, 17255, 17315, and 17515) are described as typically dry and were not evaluated. All 5 of the</p>	<p>As stated in Section 4.4.1, Direct & Indirect Effects for the Proposed Action in the 2018 EA:</p> <p>Although shallower springs may be adversely impacted, springs sourced by overburden interval 5 would be at a greater risk of impacts. The most likely effect to adversely impacted springs would be reduced discharge rates including the cessation of discharge, which could persist in the long-term. Minor short-term surface water impacts are expected as a result of subsidence and surface facility construction and reclamation.</p> <p>Long-term impacts to affected groundwater and surface water uses would be mitigated in accordance with the Mine permit, as described in Appendix E, ensuring that water is replaced and overall impacts of the Proposed Action do not rise to the level of significance. State regulations and permitting administered by USACE would ensure that impacts to waters of the US, including wetlands, would be short-term and would not be major.</p> <p>Based on OSMRE's review of the information related to the potentially impacted water resources (e.g., springs and well) in the project vicinity and MDEQ correspondence as presented in the exhibits, any potential impacts to these water resources would be mitigated with the implementation of the mitigation requirements as described in Appendix E in the 2018 EA and includes the following:</p>

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				<p>springs showed impacts to either water quality or quantity. Four of 5 springs that were evaluated (17415, 17145, 17165, and 17185) showed diminished flow and/or water level drops after undermining and are thus impacted. At least 2 of these 4 have actually gone dry. The remaining spring (17275) has shown impacts to water quality after undermining.</p> <p>As noted, after mining flow at Litsky Spring dropped precipitously and has never recovered to historical flow levels, despite significant rain in the past decade. Further, the mitigation plans for impacted waters in the Bull Mountains—which rely on pumping deep aquifers to replenish stream flow—are entirely illusory, as the Montana DEQ has asserted to OSM that such mitigation is not permitted. As such, there is no means of replacing impacted stream segments and wetlands in the Bull Mountains. Worse, it appears that in its proffered attempt to provide replacement water for the well that it recently dewatered, Signal Peak provided tainted water. It is unclear whether the coal company knew the water was tainted. This is just the latest in a long series of outrages that this company has committed. OSM needs to take a hard look at this operation by preparing an EIS.</p>	<p>Potential Future Mitigation Requirements</p> <p>SMCRA, MSUMRA, and attendant Montana regulations (ARM 17.24.648) require replacement of water supplies used for domestic, agricultural, industrial, or other legitimate uses if such supply has been affected by contamination, diminution, or interruption as a result of mining operations. Impacts to wells, springs, streams, and ponds would potentially occur and be mitigated in accordance with the Mine permit. Mitigation requirements are consistent with those described in the BLM Coal Lease EA, except as noted in this section.</p> <p>Potential exists for some mined-out wells to require replacement and drawdown caused by mine dewatering could reduce the static water column in some wells. If such effects would occur, the most appropriate mitigation measure would be to drill a replacement well into the deep underburden sandstone, a reliable source of groundwater in the immediate vicinity of the Mine (SPE 2017a, Appendix 314-5 as provided in the 2018 EA). As discussed in Section 2.1.5 of the 2018 EA, the Mine bond includes a “Trust Fund” to address potential long-term costs associated with maintenance and operation of any necessary water replacement facilities in accordance with ARM 17.24.301.</p> <p>The Mine permit (SPE 2017a, as provided in the 2018 EA) includes plans for spring impact analysis (Appendix 314-2) and impact detection (Appendix 314-3) that would identify springs affected by mining and subsequent mining subsidence. Mitigation described in the Mine permit (SPE 2017a, Appendix 313-2, as provided in the 2018 EA) would be implemented if a given spring is affected to the degree that it cannot meet the use that existed prior to mining. The two most practical means of mitigation for spring flows include (in order of priority) spring redevelopment (e.g., repair) and construction of a replacement water source.</p> <p>If spring redevelopment proves to be infeasible, then the lost water supply would most likely be mitigated through construction of a new well and water distribution system (i.e., pipeline and storage tanks), whereby impacts to more than one spring could be mitigated by a single well feeding multiple water tanks. Wells would most likely be drilled into the deep underburden sandstone, although the mine pool and overburden aquifers may also provide suitable water. The Musselshell River is under administrative closure as of June 26, 1992 (ARM 36.12.1016). The closure area contains the mainstems of the North and South Fork of the Musselshell River, and the Musselshell River downstream to the mouth of Flatwillow Creek. Per the administrative closure, no new appropriations of surface water for consumptive use can be made during the period of July 1 – August 31 each year. During the period of September 1 – 30, the only applications of consumptive use that would be accepted would be for supplemental irrigation. If necessary, SPE could apply for consumptive use in the Musselshell River Basin outside of the administrative closure periods through the Montana Department of Natural Resources and Conservation (DNRC). Other methods described in the BLM Coal Lease EA would remain available for spring impact mitigation.</p> <p>Intermittent reaches dependent upon spring flow sources may be affected by mining and may require repair or replacement. Mitigation measures presented in the Mine permit (SPE 2017a, Appendix 313-3, as provided in the 2018 EA) and described in the BLM Coal Lease EA would be implemented to repair or replace damaged water sources; with a notable exception being that options to replace springs with continuously pumping and discharging wells are limited by State law. Depending on the site and degree of impact to spring discharge, some channel segments may not exhibit intermittent or perennial flow after mining. However, all water sources necessary to support the postmining land uses would be replaced in accordance with applicable regulations, thereby ensuring long-term Mine-related impacts to hydrologic conditions are not major.</p>
		3-07	Water Resources	<p>OSM must assess the impacts of coal spilled from coal trains on waters of Montana</p> <p>The district court held the OSM’s FONSI was not erroneous in part because there was no evidence in the record that coal trains had actually violated the CWA by discharging coal into the waters of the United States. Since the court’s decision, the Conservation Groups have obtained evidence that coal trains do, in fact, discharge coal into waters of Montana and other states.</p>	<p>The rail line beyond Broadview is an existing independent utility that is also used by other rail customers, including other rail customers that ship coal; therefore, it would be impossible to determine if any coal fragments potentially spilled from rail cars using this rail line and into waters of Montana would be attributable to the hauling of SPE’s coal.</p> <p>The rail is a linear system transporting multiple commodities making any known impact associated from one commodity being widely dispersed by wind and air too difficult to permit or regulate. BNSF as part</p>

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				<p>Recent photographs from the Clark Fork River, below the high water mark, show clear coal deposits in the river:</p> <p>These photos—taken in July 2020—are consistent with what other research has found along the same train route in the Gallatin River and in Washington state.</p> <p>This is clearly a significant problem that OSM must address, analyze, and disclose to the public.</p>	<p>of its employee safety rules incorporates a spill prevention and handling guidance to help address individual incidents.</p> <p>As outlined in Appendix B in the 2018 EA, coal dust release is limited by current practice and BNSF requirements. Specifically, BNSF currently enforces the Safe Harbor provision in the BNSF Coal Loading Rule (BNSF 2015a, 2017b as provided in the 2018 EA) to limit deposition (Section 3.1.3 of the 2018 EA). Since 2015, BNSF has also been operating a surfactant re-spray facility along its main line in Pasco, Washington to further limit coal dust. Coal trains traveling west along the main line route through the Columbia River Gorge are sprayed with a topper agent as it passes through to lessen potential coal dust release from rail cars. Furthermore, OSMRE discussed that under a recent consent decree, BNSF will conduct a study on the feasibility of physical covers for coal and petcoke rail cars and pay \$1 million to fund environmental projects across Washington State aimed at improving water quality or habitat.</p> <p>As further outlined in Appendix B, in its analysis, OSMRE considered recent STB (2015, as provided in the 2018 EA) analysis which examined the potential ecological impacts of additional airborne coal dust from a 'high production level (26.7 trains per day) [as compared to the maximum 3.6 trains per day associated with the Proposed Action] and estimated chemical concentrations in soil, water, and sediment for evaluation of potential ecological impacts. Consistent with the study related to human health (ingestion), none of the chemical concentrations estimated for soil resulted in values greater than the EPA ecological soil screening levels for plants, soil invertebrates, avian wildlife, or mammalian wildlife. The study also estimated that the average deposition from air over a modeled watershed and subsequent runoff and erosion into a modeled water body. Estimated values for water were well below available EPA freshwater screening benchmarks.</p> <p>Rail operation is outside the jurisdiction of OSMRE. All permits required for rail operation are obtained by the rail owner/operator through direct interaction with the permitting authorities, including EPA or state agencies with approved programs under the CWA, as appropriate. OSMRE is not aware of BNSF holding an NPDES permit for coal dust lost during transportation as the action would not require one under CWA. As stated in the Tongue River Railroad EIS, Chapter 6, Coal Dust, "OEA found that the concentration of most trace elements in dust, water, soil, and fish would be below the screening levels set by the U.S. Environmental Protection Agency, (USEPA). The results indicated, however, that the concentration of barium could exceed the USEPA screening level for surface water. Because OEA relied on conservative assumptions that tend to overstate the concentration of trace elements, OEA believes that the concentration of barium in surface water would actually be lower than the results predict. Also, because barium does not tend to remain dissolved in water, OEA concluded that coal dust from the proposed rail line would not cause the concentration of barium in surface water to exceed the USEPA screening levels." (TRR EIS page 6- 2).</p>
		3-08	Level of Analysis	<p>OSM must prepare an EIS</p> <p>As noted above, OSM must prepare an EIS because of potentially significant impacts to water quality from derailments, to threatened and endangered species, threatened violations of law by Signal Peak and threatened violations of the Clean Water Act, threatened impacts to unique lands, such as Glacier National Park and the wild and scenic Flathead River, uncertain impacts, cumulatively significant impacts from coal trains and climate change, and impacts to wetlands and water resources in the Bull Mountains. 40 C.F.R. § 1508.27.</p> <p>OSM should do the right thing and deny the AM3 expansion for the Bull Mountains Mine. Natural resource extraction does not lead to sustained growth, but the opposite, stagnation. Instead, it leads to higher prices that thwart other growth. The negative consequences of resource development include stymying of entrepreneurial activity, agency capture and corruption, rent-seeking, and weak government.</p>	See response to Comment IA-06.
		3-09	General Comment	The numerous reports about the conduct of Signal Peak and its parent companies tend to concretize the resource curse. Further, it is clear that the mine is leading to an inevitable bust, as noted in the 1992 EIS	Comment noted. The potential transition from an active mine to a reclaimed mine and transition to the community does not meet the purpose and need for the proposed project.

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				by the Montana Department of State Lands. The best course of action is to wind down this mine, focusing on reclamation and community transition.	
Elizabeth Madden	4	4-01	Train Derailment Analysis	A “worst case scenario” must be evaluated to understand the impact that coal train derailments have on our Montana communities.	See response to Comment IA-01.
		4-02	Level of Analysis	Any project affecting multiple communities across Montana warrants a full Environmental Impact Statement.	See response to Comment IA-06.
Ellen Pfister	5	5-01	Train Derailment Analysis	If shipments go to Prince Rupert, BC as well as to Westshore in Vancouver, BC, you have failed to analyze the whole scope of problems. Sources other than the mine and yours, probably provided you by the mine indicate there is a good probability that at least some of the coal from this Bull Mountain Mine will go North to Prince Rupert. If it does there will be a substantially higher risk of derailment in the Glacier Park area due to using a different rail line. The Great Northern line around Glacier Is famous for nasty derailments.	SPE does not have any contracts with terminals in Prince Rupert and only uses the Westshore Terminal.
		5-02	Level of Analysis	Your EA was very pro-forma that there would be no FONSI. nepa -mt just relied on what the mine submitted and that was that.	See response to Comment IA-06.
Ita Killeen	6	6-01	Level of Analysis	Please do not approve the expansion of coal train traffic across Montana without a full environmental impact statement.	See response to Comment IA-06.
		6-02	Air Quality/Human Health/Environmental Health	Montanan communities will suffer due to coal dust pollution along the train corridors and a derailment could have catastrophic impact on communities or rivers.	See response to Comment IA-02.
		6-03	Train Derailment Analysis	Please require that a “worst case scenario” is assessed in the evaluation of whether expanded coal train traffic is appropriate for Montana.	See response to Comment IA-01.
Adela Awner	7	7-01	Level of Analysis	The so-called analysis of impacts of shipping more coal from the Bull Mountains in Montana to West Coast terminals is totally inadequate. Such a large increase in coal shipments requires a full environmental impact study. This must come first to see if shipping more coal can be done safely with minimal impacts to land, water, air, and people and communities.	See response to Comment IA-06. Furthermore, both the current operations and the Proposed Action have a maximum of 1.8 roundtrips per day, and an average of 1.4 roundtrips per day. There is no projected increase in the number of coal trains per day compared to the from current operations.
Charlene Woodcock	8	8-01	Level of Analysis	It is essential that the hugely impactful proposal to double the already terribly polluting 100+car coal train shipments all across the state of Montana be subjected to a rigorous, scientifically-informed Environmental Impact Statement.	See response to Comment IA-06. There is no projected increase in the number of coal trains per day associated with the Proposed Action.
		8-02	Air Quality/Human Health	It is deeply irresponsible to ignore the increased harm the residents of Montana will suffer to their health, especially children and the elderly, from a doubling of the toxic, carcinogenic fine particulate matter spread in Montana’s atmosphere by the trains. Long coal trains, mostly uncovered, cross the state every day. This is especially a concern during the COVID-19 pandemic, since the effects of the virus are exacerbated among those whose respiratory systems are compromised.	See response to Comment IA-02.

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		8-03	Spontaneous Combustion	Another danger is that of spontaneous combustion. Most of the coal cars that cross the state are uncovered because of the threat of spontaneous combustion, to which Powder River Basin coal is particularly susceptible: (https://www.sightline.org/2012/04/11/coals-spontaneouscombustion-problem/)	The Bull Mountains Mine is not located in the Powder River Basin (PRB). In addition, based on review of the spontaneous combustion article referenced in the comment, the claims of the potential for the spontaneous combustion of coal was not substantiated with scientific studies.
		8-04	Train Derailment Analysis	And of course derailments are also an ongoing danger to the towns all across Montana through which coal trains pass daily.	See responses to Comments IA-01 and IA-02.
		8-05	Non-Substantive/ General Preference	It does not speak well for the Montana Office of Surface Mining Reclamation and Enforcement or the Federal Government that the owners of the Signal Peak Mine and coal buyers in China are given preference over the health and welfare of the people of Montana by this proposal.	Comment noted.
		8-06	Environmental Health	We know that the market for coal has fallen radically, now that clean, renewable energy sources are cheaper than coal, and especially when one considers the extreme environmental damage caused by the mining, transport, and burning of coal and the storage of toxic coal ash. Montana has great potential for increasing clean, sustainable solar and wind power. To give preference instead to a dirty, destructive dying industry is unacceptable.	Comment noted.
Lauran Emerson	9	9-01	Coal Transportation and Impacts to Human Health	The expansion of coal train traffic through Montana will have a major impact on the communities these trains transit, even without an accident or spill which could be disastrous.	See response to Comment IA-02. The Proposed Action does not involve an increase in the number of daily trains.
		9-02	Level of Analysis	This project needs an Environmental Impact Statement in order to assess the risks involved. As a Montana citizen, I ask the OSMRE to begin an EIS process for this project.	See response to Comment IA-06.
Margo Wyse	10	10-01	Non-Substantive/ General Preference	stop polluting/killing this planet & all life on it !!!!	Comment noted.
Gwen Sensenig	11	11-01	Level of Analysis/Coal Transportation	Please immediately begin a full EIS prior to implementing any increase in coal transportation through my state. I recently learned the amount of coal transported will double. This merits a clear evaluation of all worst case scenarios of this increase and an EIS for all communities across the state that this might effect.	See response to Comment IA-06. The Proposed Action does not include an increase in the number of daily trains.
Bob Shippee	12	12-01	Train Derailment Analysis	I am writing to encourage you to take another look at the proposed expansion of coal shipments from the Signal Peak Mine. Putting aside the questionable nature of increasing production or transportation of fossil fuels at this point in time, I strongly urge you to consider the impact of potential train derailments in the affected communities. This is a safety issue.	The Proposed Action does not involve an increase in the number of daily trains. The derailment analysis predicts the number of derailments along the entire rail transportation route.
		12-02	Level of Analysis	In addition, I believe a project of this type meets the criteria to warrant a full Environmental Impact Statement, and I encourage you to pursue same.	See response to Comment IA-06.

Commenter	Submission #	Comment #	Comment Topic	Comment	Response
Lee Bartlett	13	13-01	Train Derailment Analysis	The 4 page analysis of Coal Train Traffic is very insufficient in dealing with potential impacts. You need to do the following: A “worst case scenario” must be evaluated to understand the impact that coal train derailments have on our communities	See response to Comment IA-01.
		13-02	Level of Analysis	A project affecting communities across the state merits a full Environmental Impact Statement!	See response to Comment IA-06.
Dr. Rosemary Graham-Gardner	14	14-01	Train Derailment Analysis	A “worst case scenario” must be evaluated to understand the impact that coal train derailments have on our communities	See response to Comment IA-01.
		14-02	Level of Analysis	A project affecting communities across the state merits a full Environmental Impact Statement!	See response to Comment IA-06.
Lori Byron	15	15-01	Level of Analysis	Please do a full EIS on this matter - not just an EA.	See response to Comment IA-06.
		15-02	Air Quality/Human Health	As a pediatrician I worry about the several hundred pounds of coal dust from every coal car that traverses Montana.	See response to Comment IA-02.
Tana Canen	16	16-01	Non-Substantive/ General Preference	We welcome the fact that you will be shipping more coal through MT. Anything to help keep our economy moving is a good thing.	Comment noted.
Norman Bishop	17	17-01	Effects of Coal Transportation on Vehicular Traffic, Air Quality, Noise, and Climate	I am deeply concerned that the increased amount of coal proposed to be shipped from signal Peak will wreak havoc with our vehicle traffic, pollute our air, and double the noise we have to endure, not to mention its effect on the climate. Numerous studies tell us that unless we leave a huge amount of coal un-mined, we cannot hope to head off catastrophic global warming. It is irresponsible to proceed with mine expansion under these conditions. I hope you will reject the proposal to increase coal extraction and shipment from Signal Peak.	See responses to Comments IA-02 and 3-03.
David and Laurie Gano	18	18-01	Effects of Coal Transportation on Vehicular Traffic, Noise, and Pollution	I am writing to address the proposed increase in rail traffic to haul coal to the west coast. I live in Sweet Grass county, MT. There used to be 2 freight trains per day running through Big Timber, our county seat. I was told that there have been 2 trains PER HOUR for the last few years. Whoever wants more than that is not considering the impact of such traffic on a small town. The noise, pollution and disruption of car traffic will be even worse than it is now.	See response to Comment IA-02. The Proposed Action does not involve an increase in the number of daily trains.
Georgia Brown	19	19-01	Train Derailment Analysis	A “worst case scenario” must be evaluated to understand the impact that coal train derailments have on our communities	See response to Comment IA-01.
		19-02	Level of Analysis	A project affecting communities across the state merits a full Environmental Impact Statement	See response to Comment IA-06.
Steve Harper	20	20-01	Train Derailment Analysis	I am writing to oppose shipping more coal through Montana from the Bull Mountains. Since train derailments do happen, please examine the worst case scenario for Montana communities.	See response to Comment IA-01.

Commenter	Submission #	Comment #	Comment Topic	Comment	Response
		20-02	Effects of Coal Transportation on Climate	Besides, shipping coal makes the global warming problem become even worse for our children and grand children.	See response to Comment 3-03.

Appendix J – Acronyms, Abbreviations, and References

Acronyms and Abbreviations

ASLM	Assistant Secretary, Lands and Mineral Management
BLM	Bureau of Land Management
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DOI	U.S. Department of the Interior
EA	Environmental Assessment
EIS	Environmental Impact Statement
FCLAA	Federal Coal Leasing Amendments Act
FONSI	Finding of No Significant Impact
FRA	Federal Railroad Administration
LBA	Lease by Application
LOM	Life of Mine
MDEQ	Montana Department of Environmental Quality
MEIC	Montana Environmental Information Center
Mine	Bull Mountains Mine No. I Underground Coal Mine
MLA	Mineral Leasing Act
MPDD	Mining Plan Decision Document
MSUMRA	Montana Strip and Underground Mine Reclamation Act
NEPA	National Environmental Policy Act
OSMRE	Office of Surface Mining Reclamation and Enforcement
PAP	Permit Application Package
Project	Bull Mountain Mine No. I Federal Mining Plan Modification Project
SMCRA	Surface Mining Control and Reclamation Act
SPE	Signal Peak Energy, LLC
U.S.C.	United States Code

References

- Anderson, R. T., and C. P. L. Barkan. 2004. Railroad Accident Rates for Use in Rail Transportation Risk Analysis. *Transportation Research Record: Journal of the Transportation Research Board* 1863:88–98.
- BNSF Railway Company (BNSF). 2020a. Emergency Responders. Available: <https://bnsf.com/in-the-community/environment/responsible-care/emergency-responders.html>. Accessed: June 10, 2020.
- . 2020b. Rail Safety: Response. <https://bnsf.com/in-the-community/safety-and-security/railway-safety/approach-rail-safety.page#response>. Accessed: June 10, 2020.
- Bureau of Land Management (BLM). 2011. *Environmental Assessment, Bull Mountains Mine No. 1, Federal Coal Lease MTM 97988, Musselshell County, Montana*. DOI-BLM-MT-C010-2009-0010-EA. April.
- Federal Railroad Administration (FRA). 2020. Data Analyses. January 2016 through December 2019. Available: <https://safetydata.fra.dot.gov/OfficeofSafety/publicsite/query/TrainAccidentsFYCYWithRates.aspx>.
- Liu, X., C. P. L. Barkan, and M. R. Saat. 2011. Analysis of Derailments by Accident Cause: Evaluating Railroad Track Upgrades to Reduce Transportation Risk. *Transportation Research Record: Journal of the Transportation Research Board*. 2261:178–185.
- . 2012. Analysis of Causes of Major Train Derailment and Their Effect on Accident Rates. *Transportation Research Record: Journal of the Transportation Research Board*. 2289:154–163.
- Robbins, L., and P. Moore. 2018. *Bull Mountains Northern Long-eared Bat Acoustic Report*, December 2. 2 pp. Available: <https://www.brmconservancy.org/bat-survey>.
- Signal Peak Energy (SPE). 2020a. Electronic Data Transmittal from SPE to OSMRE Information/Data Request No. 2 (May 12, 2020 Request for Updated Annual Salable Coal Information for 2017, 2018, and 2019). May 13. 1 p.
- . 2020b. Electronic Data Transmittal from SPE to OSMRE in Response to OSMRE Information/Data Request No. 1 (April 22, 2020 Request for Rail Transportation Information and Updated Coal Mining Information). April 27. 2 pp.
- . 2020c. Personal Communication with Joe Farinelli (SPE) and Gretchen Pinkham (OSMRE) Regarding Rail Traffic Along the Southern and Northern Rail Routes. May 15, 2020.
- Western Environmental Law Center. 2019. Case 9:19-cv-00012-DWM Document 37-4, 350 *Montana et al. vs. David Bernhardt, et al.*, Declaration of David Mattson, as Filed in the United States District Court for the District of Montana, Missoula Division on June 28. p. 96.