

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
Environmental Assessment

WATER PROTECTION BUREAU

Name of Project: Big Sky Coal Company, Big Sky Mine

Location of Project: Big Sky Mine located approximately 3 miles south of Colstrip, MT;
Outfall Locations:

Outfall	Latitude	Longitude
001	45° 48' 44" N	106° 35' 42" W
002	45° 49' 45" N	106° 36' 01" W
003	45° 49' 46" N	106° 35' 32" W
005	45° 49' 34" N	106° 34' 32" W
006	45° 49' 03" N	106° 35' 53" W
007	45° 48' 06" N	106° 36' 37" W
008	45° 48' 03" N	106° 39' 20" W
009	45° 48' 09" N	106° 39' 29" W
010	45° 48' 16" N	106° 40' 04" W
011	45° 48' 23" N	106° 40' 08" W
012	45° 48' 33" N	106° 40' 39" W
013	45° 48' 07" N	106° 40' 25" W
014	45° 48' 03" N	106° 40' 00" W
015	45° 48' 02" N	106° 40' 01" W
016	45° 47' 52" N	106° 39' 04" W
017	45° 47' 53" N	106° 38' 41" W
018	45° 48' 36" N	106° 40' 43" W
019	45° 50' 01" N	106° 34' 26" W
020	45° 48' 06" N	106° 40' 28" W
021	45° 48' 38" N	106° 41' 17" W
022	45° 48' 53" N	106° 41' 28" W

County: Rosebud County

Description of Project: This is a reissuance of MPDES permit MT0000884 for Big Sky Coal Company which discharges treated stormwater from an approximately 7,600 acre reclaimed coal mine to Miller, Lee, Emile, and Hay Coulees, which are tributaries to Rosebud Creek. Mining ceased in Mine Area A in 1989 and Mine Area B in 2004; all disturbances within the permit boundaries have since been reclaimed and are in various stages of the four-phase process leading to final reclamation bond release. Effluent treatment consists of an approved Sediment Control Plan designed to limit average annual sediment yields at or below pre-mine levels.

Influent flow to outfalls consists of storm water runoff from reclaimed mine areas. Best management practices employed at the mine prevent solids from leaving the mine sites at greater than pre-mine yields, thus preventing impacts to downstream water quality. Outfall 001 discharges to Miller Coulee, Outfalls 002-006 discharge to Emile Coulee, and Outfall 019 discharges to Hay Coulee. Outfalls 007-018 and 020-022 discharge to Lee Coulee. During the term of the previous permit, no discharges occurred at the facility.

Agency Action and Applicable Regulations: The proposed action of the Department is to reissue the MPDES permit for another five-year cycle.

Applicable rules and statute:

Administrative Rules of Montana (ARM) Title 17, Chapter 30 – Water Quality

Subchapter 2 - Water Quality Permit and Authorization Fees

Subchapter 5 - Mixing Zones in Surface and Ground Water

Subchapter 6 - Surface Water Quality Standards and Procedures

Subchapter 7 - Nondegradation of Water Quality

Subchapters 12 & 13 - Montana Pollutant Discharge Elimination System (MPDES) Standards

Montana Code Annotated (MCA), Title 75-5-101 et. seq., “Montana Water Quality Act”

Summary of Issues: The reissued permit authorizes 21 outfalls as discussed above. Effluent limitations remain unchanged from the previous permit and are based upon Western Alkaline Coal Mining Effluent Limitations found at 40 CFR Part 434, Subpart H. Effluent limits for all outfalls consist of restrictions on average annual sediment yield via the requirement for a Sediment Control Plan.

Affected Environment & Impacts of the Proposed Project:

The Proposed Project consists solely of reissuance of an MPDES permit as discussed above and the scope of consideration of potential impacts on the physical and human environment is confined to only those impacts associated with reissuance of the MPDES permit. Potential impacts associated with mining, reclamation and other activities have been addressed previously associated with issuance of state mining permits and amendments.

Y = Impacts may occur (explain under Potential Impacts). *Include frequency, duration (long or short term), magnitude, and context for any significant impacts identified. Reference other permit analyses when appropriate (ex: statement of basis). Address significant impacts related to substantive issues and concerns. Identify reasonable feasible mitigation measures (before and after) where significant impacts cannot be avoided and note any irreversible or irretrievable impacts. Include background information on affected environment if necessary to discussion.*

N = Not present or No Impact will likely occur. *Use negative declarations where appropriate (wetlands, T&E, Cultural Resources).*

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	[N] Soil resources and geologic features have been surveyed for surface mine permits C1983004CR and C1988004B. All outfalls are regulated by an approved Sediment Control Plan (SCP) designed to limit average annual sediment yields from reclaimed mine areas at or below pre-mine levels. No impacts to geology and soil quality are anticipated from reissuance of the MPDES permit.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[N] Discharges from reclaimed mine areas are regulated via the implementation of an approved SCP which results in average annual sediment yields that will not be greater than yields from pre-mined, undisturbed conditions.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[N] No impacts to air quality are anticipated from reissuance of the MPDES permit.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[N] Plant communities have been surveyed for the surface mine permits, which contain commitments for reclamation of vegetation. No impacts to vegetation are anticipated from reissuance of the MPDES permit.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] Wildlife uses are monitored for the surface mine permits and mine areas are reclaimed to meet approved post-mining uses. No impacts to wildlife and habitat are anticipated from reissuance of the MPDES permit.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	[N] There are several wetlands within Big Sky Mine boundaries. Wildlife use is monitored for the surface mining permits; no known federally listed threatened or endangered species or species of special concern are present. See item #7 for a discussion of sage grouse. No impacts are anticipated from reissuance of the MPDES permit.
7. SAGE GROUSE EXECUTIVE ORDER: Is the project proposed in core, general or connectivity sage grouse habitat, as designated by the Sage Grouse Habitat Conservation Program (Program)? If yes, did the applicant attach documentation from the Program showing compliance with Executive Order 12-2015 and the Program's recommendations? If so, attach the documentation to the EA and address the Program's recommendations in the permit. If project is in core, general or connectivity habitat and the applicant did not document consultation with the Program, refer the applicant to the Sage Grouse Habitat Conservation Program.	<p>[Y] DEQ consulted the sage grouse Executive Order map; the area associated with the surface mine permits is located in general sage grouse habitat.</p> <p>Per Executive Order (EO) No. 12-2015, "[e]xisting land uses and activities (include those authorized by existing permit but not yet conducted) shall be recognized and respected by state agencies, and those uses and activities that exist at the time the Program becomes effective will not be managed under the stipulations of this Conservation Strategy. . . . Provided these uses and activities are within a defined project boundary (such as a . . . mine plan. . .) they may continue within the existing boundary, even if they exceed the stipulations of this Conservation Strategy" (EO No. 12-2015, Attachment A, Clause 20).</p> <p>All MPDES outfalls are located within the boundary of existing surface mine permits. Further, no surface disturbance is associated with the reissuance of the MPDES permit as the mine is inactive and all reclamation work is complete.</p>
8. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] Cultural sites exist within Big Sky Mine boundaries and are addressed by the surface mine permits. No impacts are anticipated from reissuance of the MPDES permit.
9. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[N] Outfalls are located in reclaimed mine areas and do not impact area aesthetics. No impacts are anticipated from reissuance of the MPDES permit.
10. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? Will new or upgraded powerline or other energy source be needed)	[N] No impacts to area resources are anticipated from reissuance of the MPDES permit.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
11. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N] There are no nearby activities that will affect the project. No impacts to other environmental resources are anticipated from reissuance of the MPDES permit.
IMPACTS ON THE HUMAN ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
12. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] No impacts are anticipated from reissuance of the MPDES permit.
13. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N] No impacts are anticipated from reissuance of the MPDES permit.
14. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] No impacts are anticipated from reissuance of the MPDES permit.
15. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N] No impacts are anticipated from reissuance of the MPDES permit.
16. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] No impacts are anticipated from reissuance of the MPDES permit.
17. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] No impacts are anticipated from reissuance of the MPDES permit.
18. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N] No impacts are anticipated from reissuance of the MPDES permit.
19. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] No impacts are anticipated from reissuance of the MPDES permit.
20. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] No impacts are anticipated from reissuance of the MPDES permit.
21. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N] No impacts are anticipated from reissuance of the MPDES permit.
22. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N] No impacts are anticipated from reissuance of the MPDES permit.
23(a). PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[N] No impacts are anticipated from reissuance of the MPDES permit.
23(b). PRIVATE PROPERTY IMPACTS: Is the agency proposing to deny the application or condition the approval in a way that restricts the use of the regulated person's private property? If not, no further analysis is required.	[N] No impacts are anticipated from reissuance of the MPDES permit.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
23(c). PRIVATE PROPERTY IMPACTS: If the answer to 21(b) is affirmative, does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives. The agency must disclose the potential costs of identified restrictions.	[not applicable]

- 24. Description of and Impacts of other Alternatives Considered: None
- 25. Summary of Magnitude and Significance of Potential Impact: None
- 26. Cumulative Effects: None
- 27. Preferred Action Alternative and Rationale: The preferred action is to reissue the MPDES permit. This action is preferred because the permit program provides the regulatory mechanism for protecting water quality by enforcing the terms of the MPDES permit.

Recommendation for Further Environmental Analysis:

EIS More Detailed EA No Further Analysis

Rationale for Recommendation:

- 28. Public Involvement: A 30-day public comment period will be held.
- 29. Persons and agencies consulted in the preparation of this analysis: None

EA Checklist Prepared By: Melissa Sjolund

Date: February 8, 2016

Approved by:

DRAFT

Jon Kenning, Chief
Water Protection Bureau

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Date