

**DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ)**  
Environmental Assessment

**WATER QUALITY DIVISION**  
Water Protection Bureau  
2025 Major Modification of MPDES Permit

**Name of Project:** Stillwater Mining Company East Boulder Mine MPDES Permit

**Type of Project:** Major Modification of Montana Pollutant Discharge Elimination System (MPDES) permit MT0026808 for treated wastewater discharge from an underground platinum and palladium mine.

**Location of Project:** Latitude/Longitude: 45.502896, -110.085706

**City/Town:** Approximately 32 miles south of Big Timber, Montana

**County:** Sweet Grass

**Description of Project:** Sibanye-Stillwater, dba, Stillwater Mining Company (SMC) is the owner and operator of the East Boulder Mine (hereinafter EBM or Facility), an underground platinum and palladium mine located within a 1,640-acre hard rock mining operating permit area. The state action is a major modification of the current MPDES permit which became effective on September 1, 2023, and expires on August 31, 2028 (2023 Permit). DEQ prepared a draft permit and fact sheet for the issuance of this major modification. The fact sheet describes the reevaluation of the TN final effluent limit for the Facility following a request made by SMC to implement revised nutrient standards pursuant to ARM 17.30.1361(2)(c) and under the Department's authority to reopen and modify the permit to implement water quality standards changes as described in Section IV.O of the 2023-issued permit. This environmental assessment is limited to a consideration of the impacts related to the modification of the existing discharge permit.

The Facility has permit coverage for three outfalls: Outfall 001, which has never been constructed but is permitted to be a future direct discharge of treated mine wastewater to the East Boulder River through a diffuser; Outfall 002, which is the infiltration of treated mine wastewater that mixes with groundwater before reaching the river; and Outfall 003, which is a septic system discharge upgradient of Outfall 002. Outfalls 002 and 003 discharge first to groundwater, then into surface water in a diffuse manner along 10,420 feet of stream length. The source-specific ground water and surface water mixing zones for Outfall 002 (including any contributions from upgradient Outfall 003 through groundwater) has been permitted to be nonsignificant at the boundary of the mixing zones.

**Alternatives:**

**No Action Alternative** – Under the no action alternative the DEQ would not modify the discharge permit. The interim TN limit of 15.1 lbs/day would go into effect on December 30, 2025, and the Nutrient Compliance Plan would be due on December 29, 2025. Permittee would continue to work toward achieving a water quality standard for TN that is no longer applicable under state or federal law. The no action alternative has already undergone MEPA review.

**Proposed Action Alternative** - The proposed action is to issue the MPDES permit modification with the proposed changes as discussed in the 2025 Major Modification Fact Sheet and as set forth in the Draft Permit. The issuance of the MPDES permit modification is preferred because the permit program provides the regulatory mechanism for protecting water quality by implementing applicable water quality laws and enforcing the terms of the MPDES permit.

No additional alternatives to the proposed action were considered.

**Applicable Regulations:**

ARM Title 17, Chapter 30, Subchapter 5 - Mixing Zones in Surface and Ground Water.  
ARM Title 17, Chapter 30, Subchapter 6 - Surface Water Quality Standards.  
ARM Title 17, Chapter 30, Subchapter 7 - Nondegradation of Water Quality.  
ARM Title 17, Chapter 30, Subchapter 12 – MPDES Effluent Limitations and Standards  
ARM Title 17, Chapter 30, Subchapter 13 – MPDES - Permits  
Montana Water Quality Act, Section 75-5-101, *et. seq.*, MCA.

**Summary of Issues:**

As a result of changes in applicable water quality standards for Total Nitrogen under both state and federal law, the MPDES permit will be modified to incorporate revised effluent limits for Total Nitrogen. House Bill 664, 2025 Mont. Laws ch.338, was passed into state law in May 2025. The bill revised Montana's nutrient standards approach by repealing the numeric nutrient criteria in DEQ-12A. EPA acted on Montana's water quality standards change on October 3, 2025, and approved Montana's decision to repeal DEQ-12A.

These permit changes include a revision of the applicable effluent limitations for Total Nitrogen, additional monitoring requirements, and the removal of the existing Total Nitrogen compliance schedule. These changes, as further described in the 2025 Major Modification Fact Sheet, are the extent of the changes made to permit MT0026808. All other aspects of the permit remain in full effect.

**Benefits and Purpose of Action:** The modified permit ensures adequate treatment of wastewater prior to discharge to remove nitrogen sufficient to meet applicable water quality standards and related nonsignificance criteria. It includes monitoring and reporting requirements for the quality and quantity of effluent discharged from the facility.

**Affected Environment & Impacts of the Proposed Project:**

Y = Impacts may occur (explain under Potential Impacts).

N = Not present or No Impact would likely occur.

| IMPACTS ON THE PHYSICAL ENVIRONMENT                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| 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?             | <p>[N] The discharge of treated wastewater to surface or ground water would not have an effect on geology or soils.</p> <p>No new construction would take place as a result of this major modification.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 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? | <p>[N] The modification would update QWBELs for TN that are based on Montana water quality standards promulgated in ARM 17.30.601 – 670 and Montana’s nondegradation provisions set forth in 75-5-703, MCA and ARM 17.30.701-715. QWBELs for the three (3) point source discharges regulated under the MPDES permit are based on protection of existing water quality and would maintain water quality close to pre-mine conditions. Specifically, these QWBELs are based on nonsignificance which is much more stringent than the water quality standard levels needed to protect all beneficial uses.</p> <p>Downstream, the Boulder River below the confluence with the East Boulder River is listed as impaired for nitrite plus nitrate and total nitrogen.</p> <p>In addition, although the segment of the East Boulder River that receives the Mine’s discharge has no impairment listings, the downstream segments of the East Boulder River are listed as impaired for <i>chlorophyll-a</i>. The 303(d) list has included the listing for these impairments since the mid-1990’s; it has not been re-assessed and the causes and sources have not been identified.</p> |
| 3. AIR QUALITY: Would pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?                                                                                                         | [N] There are no activities resulting from the permit modification that would affect air quality. No new construction would take place.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4. VEGETATION COVER, QUANTITY AND QUALITY: Would vegetative communities be significantly impacted? Are any rare plants or cover types of present?                                                                                                     | [N] There are no activities regulated by the wastewater discharge permit that would affect vegetation. No new construction would take place as part of this permit modification.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?                                                                                                                       | <p>[N]</p> <p>There are seventeen species of concern and sensitive species in/near the East Boulder River Drainage (FEIS 2012) including aquatic species: Montana arctic grayling, Westslope cutthroat trout, Yellowstone cutthroat trout, and Striate disc.</p> <p>This modification would not significantly impact terrestrial, avian, or aquatic life and habitats. Final effluent limitations for TN assessed in this modification are protective of beneficial uses, including the growth and propagation of salmonid fishes and associated aquatic life.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 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 no activities regulated by the wastewater discharge permit that would affect endangered, fragile, or limited resources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?                                                                                                                                      | [N] There are no activities regulated by the wastewater discharge permit that would affect historic or archaeological sites.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| <b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>                                                                                                                                                                                                                                                                                 |                                                                                                                                              |
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| <b>RESOURCE</b>                                                                                                                                                                                                                                                                                                            | <b>[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES</b>                                                                                       |
| 8. AESTHETICS: Is the project on a prominent topographic feature? Would it be visible from populated or scenic areas? Would there be excessive noise or light?                                                                                                                                                             | [N] There are no activities regulated by the wastewater discharge permit that would affect aesthetics or visual resources.<br><br>wouldwould |
| 9. LAND USE: (waste disposal, agricultural lands [grazing, cropland, forest lands, prime farmland], recreational lands [waterways, parks, playgrounds, open space, federal lands), access, commercial and industrial facilities [production & activity, growth or decline], growth, land-use change, development activity) | [N] The mine is located on an existing mine site on private mining claims and national forest land.                                          |
| 10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that would affect the project?                                                                                                                                                                                                             | [N] There are no nearby activities regulated by the wastewater discharge permit that would affect the project.                               |

| <b>IMPACTS ON THE HUMAN ENVIRONMENT</b>                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| <b>RESOURCE</b>                                                                                                                                                                                    | <b>[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 11. HUMAN HEALTH AND SAFETY: Would this project add to health and safety risks in the area?                                                                                                        | [N] There are no activities regulated by the wastewater discharge permit that would affect human health or safety.<br>No new construction would take place with this permit modification.                                                                                                                                                                                                                                                                                                                                                                                       |
| 12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Would the project add to or alter these activities?                                                                         | [N] There are no activities regulated by the wastewater discharge permit that would affect industrial, commercial, and agricultural activities and production.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Would the project create, move or eliminate jobs? If so, estimated number.                                                                            | [N] No jobs would be created, moved or eliminated by the modification of this permit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Would the project create or eliminate tax revenue?                                                                                                  | [N] The modification of this permit has no effect on tax revenues.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 15. DEMAND FOR GOVERNMENT SERVICES: Would substantial traffic be added to existing roads? Would other services (fire protection, police, schools, etc.) be needed?                                 | [N] The modification of this permit would not affect the demand for government services.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?                                                    | [N] The operation of the mine was analyzed in the 1992, 2012, and 2025 Environmental Impact Statements. The issuance of the MPDES discharge permit was discussed and considered in these analyses.<br><br>The Facility has continued to work with the Good Neighbors to ensure conformance with the Good Neighbor Agreement (GNA), including open meeting discussions and cooperative review of permitting decisions. The Good Neighbor Agreement is a private agreement between a company and non-governmental organizations and is non-regulatory and not enforceable by DEQ. |
| 17. 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] The modification of this permit would not affect the access or quality of recreational or wilderness activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| IMPACTS ON THE HUMAN ENVIRONMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| RESOURCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | [Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES                                                        |
| 18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Would the project add to the population and require additional housing?                                                                                                                                                                                                                                                                                                                                                                                               | [N] The modification of this permit would not add to the population or require additional housing.     |
| 19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?                                                                                                                                                                                                                                                                                                                                                                                                              | [N] The modification of this permit would not disrupt native or traditional lifestyles or communities. |
| 20. CULTURAL UNIQUENESS AND DIVERSITY: Would the action cause a shift in some unique quality of the area?                                                                                                                                                                                                                                                                                                                                                                                                                     | [N] The modification of this permit would not cause a shift in some unique quality of the area.        |
| 21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | [N] The modification of this permit would not impact other social and economic circumstances.          |
| 22(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] The modification of this permit would not have private property impacts.                           |
| 22(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] The modification of this permit would not have private property impacts.                           |
| 22(c). PRIVATE PROPERTY IMPACTS: If the answer to 22(b) is affirmative, does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction would 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. | [N] The modification of this permit would not have private property impacts.                           |

23. **Description of and Impacts of other Alternatives Considered:** Under the no action alternative the DEQ would not modify the discharge permit. The interim TN limit would go into effect on December 30, 2025, and the Nutrient Compliance Plan would be due on December 29, 2025. Permittee would continue to work toward achieving a water quality standard for TN that is no longer applicable under state or federal law. The no action alternative has already undergone MEPA review.
24. **Summary of Magnitude and Significance of Potential Impact:** The modification of the 2023 permit would continue to provide a regulatory framework for the Facility to treat and discharge industrial and sanitary wastewater in conformance all regulatory requirements, which would protect beneficial uses of the receiving waters and meet all nondegradation requirements.
25. **Cumulative Effects:** In addition to the treated adit water and the facility septic discharge permitted under MPDES permit MT0026808, the facility has non-point discharges of TN that are regulated under the Metal Mine Reclamation Act (MMRA), Section 82-4-301, *et seq.*, MCA as Operating

Permit 00149. Because the treated adit waster is infiltrated into groundwater that flows below the Tailings Storage Facility (TSF), the facility-wide mixed groundwater must meet the nonsignificance values at the end of the MMRA operating permit boundary.

26. **Preferred Action Alternative and Rationale:** The preferred action is to modify MPDES permit MT0026808 to reflect updated TN limits and monitoring requirements, and remove the TN compliance schedule.

**Recommendation for Further Environmental Analysis:**

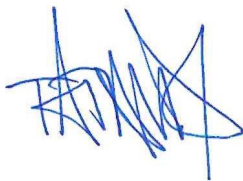
☐ EIS      ☐ More Detailed EA      ☒ No Further Analysis

**Rationale for Recommendation:** An EIS is not required for the issuance of this modified MPDES permit under the Montana Environmental Policy Act because the action to modify the permit lacks significant adverse effects to the human and physical environment. All of the anticipated effects to the physical and human environment would be mitigated or eliminated during the project implementation.

27. **Public Involvement:** The DEQ will provide for a 30-day public comment period on the modified draft permit, fact sheet and environmental assessment.
28. **Persons and agencies consulted in the preparation of this analysis:** None

**EA Checklist Prepared By:** EA prepared by Alanna Shaw, October 2025

**Approved by:**



Tatiana Davila, Bureau Chief  
Water Protection Bureau

November 26, 2025

Date