



PRELIMINARY DETERMINATION
ON PERMIT APPLICATION

Date of Mailing: February 25, 2013

Name of Applicant: Stillwater Mining Company

Source: Underground platinum/palladium mine

Proposed Action: The Department of Environmental Quality (Department) proposes to issue a permit, with conditions, to the above-named applicant. The application was assigned Montana Air Quality Permit Application Number 2459-16.

Proposed Conditions: See attached.

Public Comment: Any member of the public desiring to comment must submit such comments in writing to the Air Resources Management Bureau (Bureau) of the Department at the above address. Comments may address the Department's analysis and determination, or the information submitted in the application. In order to be considered, comments on this Preliminary Determination are due by March 27, 2013. Copies of the application and the Department's analysis may be inspected at the Bureau's office in Helena. For more information, you may contact the Department.

Departmental Action: The Department intends to make a decision on the application after expiration of the Public Comment period described above. A copy of the decision may be obtained at the above address. The permit shall become final on the date stated in the Department's Decision on this permit, unless an appeal is filed with the Board of Environmental Review (Board).

Procedures for Appeal: Any person jointly or severally adversely affected by the final action may request a hearing before the Board. Any appeal must be filed by the date stated in the Department's Decision on this permit. The request for a hearing shall contain an affidavit setting forth the grounds for the request. Any hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for a hearing in triplicate to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, MT 59620.

For the Department,

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JM:DCK
Enclosure

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

DRAFT ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Stillwater Mining Company
2562 Nye Road
Nye, MT 59061

Montana Air Quality Permit (MAQP): 2459-16

Preliminary Determination Issued: 02/25/2013

Department Decision Issued:

Permit Final:

1. *Legal Description of Site:* The Stillwater Mine is located in Sections 1, 2, 10, 11, 15, 16, 21, and 23, Township 5 South, Range 15 East in Stillwater County, Montana.
2. *Description of Project:* The Stillwater Mining Company (Stillwater Mining) proposed a modification of MAQP #2459-15 to allow expansion of the Nye facility through two separate projects. Projects include the installation and operation of two, 3.0 Megawatt (MW) diesel-fired generator sets and material handling activities associated with two surface access locations.
3. *Objectives of Project:* The objective of the project would be to expand Stillwater Mining's facility mine activities into different location of the mine site. No additional production or throughput capacity was proposed.
4. *Alternatives Considered:* In addition to the proposed action, the Montana Department of Environmental Quality – Air Resources Management Bureau (Department) considered the “no-action” alternative. The “no-action” alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because Stillwater Mining demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the “no-action” alternative was eliminated from further consideration.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a Best Available Control Technology (BACT) analysis, would be included in MAQP #2459-16.
6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

Potential Physical and Biological Effects							
		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			X			yes
B	Water Quality, Quantity, and Distribution			X			yes
C	Geology and Soil Quality, Stability, and Moisture			X			yes
D	Vegetation Cover, Quantity, and Quality			X			yes
E	Aesthetics			X			yes
F	Air Quality			X			yes
G	Unique Endangered, Fragile, or Limited Environmental Resource			X			yes
H	Demands on Environmental Resource of Water, Air, and Energy			X			yes
I	Historical and Archaeological Sites				X		yes
J	Cumulative and Secondary Impacts			X			yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats:

The proposed expansion would result in increased emissions from operation the internal combustion engines associated with the surface portals. Conditions requiring control mechanisms for the engines would be required within MAQP #2459-16 to ensure significant air quality impacts would not occur. Additionally, limitations established within the air quality permit would minimize air pollution. Overall, any adverse impact on terrestrial and aquatic life and habitats would be anticipated to be minor.

B. Water Quality, Quantity, and Distribution:

This permitting action would have little or no additional effect on the water quality, water quantity, and distribution, as there would be no additional point source discharge to groundwater or surface water associated with the completed project and no significant consumption of water. Minor pollutant deposition on surface waters near the project area may occur from surface disturbances and roadways. Therefore, the project would be expected to have minor impacts to water quality, quantity or distribution in the area.

C. Geology and Soil Quality, Stability, and Moisture:

This permitting action would have a minor effect on geology and soil properties with land disturbances associated with construction of the portals and associated material handling activity. Particulate matter (PM), PM less than 10 microns in aerodynamic diameter (PM₁₀), PM less than 2.5 microns in aerodynamic diameter (PM_{2.5}), emissions from this project may have a minor effect on the soil quality; however, the air quality permit associated with this project would contain limitations and conditions to minimize the effect of the emissions on the surrounding environment. The Department determined that any impacts from deposition would be expected to be minor due to dispersion characteristics of pollutants, the atmosphere, and conditions that would be placed within MAQP #2459-16.

D. Vegetation Cover, Quantity, and Quality:

The proposed project would have minor impacts on the surrounding vegetation due to construction of the surface access locations and associated roadways. The PM, PM₁₀, and PM_{2.5} emissions from this project may have a minor effect on the surrounding vegetation; further, the air quality permit associated with this project would contain limitations to minimize the impact on the surrounding environment. Overall, this project would expect to have minor effects on the vegetation cover, quantity and quality.

E. Aesthetics:

The expansion project would have minor impacts on the surrounding property from both a visual perspective, as well as noise pollution. The facility would be constructed within the current mine boundary and additional sound reducing actions were proposed to relieve noise pollution. The Department determined minor changes in the aesthetic value of the site would be experienced as the land use would be altered.

F. Air Quality:

The proposed expansion would impact the above listed physical and biological resources in the proposed project area because emissions of PM, PM₁₀, PM_{2.5}, nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), and sulfur dioxide (SO₂) would increase at the facility. However, based on representative modeling results, the dispersion characteristics of pollutants and the atmosphere, and the conditions placed in MAQP #2459-16, including, but not limited to, BACT requirements discussed in Section III of the permit analysis for this permit; the Department believes that any impacts would be minor due to Further, from 1988 through June 2002, Stillwater Mining operated ambient air samplers to measure PM₁₀ in the mine area and demonstrated that PM₁₀ levels in the area fell below all applicable ambient standards. The Department believes that the minor amount of particulate emissions resulting from the proposed project would not change this impact from Stillwater Mining operations. Overall, any impact to the above listed physical and biological resources in the proposed project area would be minor as a result of the current permit action.

G. Unique Endangered, Fragile, or Limited Environmental Resources:

In an effort to identify any unique endangered, fragile, or limited environmental resources in the area, the Department contacted the Montana Natural Heritage Program, Natural Resource Information System (NRIS). In this case, the area was defined by the section, township, and range of the proposed location with an additional 1-mile buffer zone. Search results identified the following animal species of concern may be present within the search radius: the Peregrine Falcon and the Northern Goshawk. The Department determined that based on the fact that the Stillwater Mine is an existing industrial facility and that the proposed project would occur within the facility boundary, any effects on the local populations would be expected to be minor.

H. Demands on Environmental Resource of Water, Air, and Energy:

The proposed project would necessitate an increase demand in fuel usage and would result in a minor increase in energy demand in the area. However, any impact on the environmental resource of energy in the area would be minor. The proposed project would not impact the demand for the environmental resource of water in the area as no water additional would likely be used to facilitate the expansion. Further, an increase in air pollution would result from the proposed project; however, the Department believes that any impacts would be minor due to dispersion characteristics of pollutants and the atmosphere, and conditions placed in MAQP #2459-16, including, but not limited to, BACT requirements discussed in Section III of the permit analysis for this permit.

I. Historical and Archaeological Sites:

The proposed project would take place within a previously disturbed industrial site. According to past correspondence from the Montana State Historic Preservation Office (SHPO), there would be a low likelihood of adverse disturbance to any known archaeological or historic site, given previous industrial disturbance within the area. Therefore, it would be unlikely that the current permit action would impact any known historic or archaeological site.

J. Cumulative and Secondary Impacts:

Overall, cumulative and secondary impacts from the proposed project would result in minor impacts to the physical and biological environment in the immediate area because emissions of PM, PM₁₀, PM_{2.5}, NO_x, CO, VOCs, and SO₂ would increase from the Stillwater Mining facility. Air pollution from the facility would be controlled by Department-determined BACT, as discussed in Section III of the permit analysis, and conditions in MAQP #2459-16. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as outlined in MAQP #2459-16.

8. *The following table summarizes the potential economic and social effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.*

Potential Social and Economic Effects							
		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores				X		yes
B	Cultural Uniqueness and Diversity				X		yes
C	Local and State Tax Base and Tax Revenue				X		yes
D	Agricultural or Industrial Production				X		yes
E	Human Health			X			yes
F	Access to and Quality of Recreational and Wilderness Activities				X		yes
G	Quantity and Distribution of Employment				X		yes
H	Distribution of Population				X		yes
I	Demands for Government Services			X			yes
J	Industrial and Commercial Activity				X		yes
K	Locally Adopted Environmental Plans and Goals				X		yes
L	Cumulative and Secondary Impacts			X			yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS: The Department has prepared the following comments.

A. Social Structures and Mores:

The proposed project would not cause disruption to any native or traditional lifestyles or communities (social structures or mores) in the area because the proposed project would be located within the existing mine boundary. Additionally, the proposed project would not change the predominant use of the surrounding area.

B. Cultural Uniqueness and Diversity:

The proposed project would not affect the cultural uniqueness and diversity of the area because the proposed project would be located within the existing mine boundary. Additionally, the proposed project would not change the predominant use of the surrounding area.

C. Local and State Tax Base and Tax Revenue:

The proposed expansion would not result in any increase in production capacity or a need for additional employees; therefore no effect on the local/state tax base or tax revenue would occur as a result of this project.

D. Agricultural or Industrial Production:

The proposed project would not displace or otherwise affect any agricultural land or practices because the compressors would be installed and operated within the existing Stillwater Mining industrial site. In addition, the proposed operations would not result in any increase in production and thus no increase in the amount of product available for further processing/refinement at the Stillwater Mine – Base Metals refinery in nearby Columbus, Montana. Overall, there would be no additional impact on agricultural or industrial production as a result of the proposed project.

E. Human Health:

The proposed project would result in a minor increase in air pollution from Stillwater Mine. However, MAQP #2459-16 would incorporate conditions including, but not limited to, the BACT requirements discussed in Section III of the permit analysis, to ensure that the operations would maintain compliance with all applicable rules and standards. These rules and standards are designed to be protective of human health. Any impact to human health from the proposed project would be minor.

F. Access to and Quality of Recreational and Wilderness Activities:

The proposed modifications to the Stillwater Mining facility would take place within the existing facility boundary and would therefore not have any effect on any access to and quality of recreational and wilderness activities.

G. Quantity and Distribution of Employment:

The proposed project would not necessitate the hiring of additional employees, therefore no effect on the local/state tax base or tax revenue would occur as a result of the expansion

H. Distribution of Population:

The proposed project would cause no disruption to the above-listed economic and social attributes of the area of operation because the proposed project would not involve the hiring of any new employees, increase potential industrial production at the existing mine, or change the existing industrial nature of the site or any surrounding area.

I. Demands for Government Services:

Government services would be required for acquiring the appropriate permits from government agencies. Therefore, demands for government services would be minor.

J. Industrial and Commercial Activity:

The proposed project would not result in any increase in industrial or commercial activity at or near the Stillwater Mining site because there would not be an increase in ore production. Therefore, there would be no additional impacts as a result of industrial or commercial activity.

K. Locally Adopted Environmental Plans and Goals:

The Department is not aware of any locally adopted environmental plans or goals. The state standards would protect the proposed site and the environment surrounding the site.

L. Cumulative and Secondary Impacts:

Overall, cumulative and secondary impacts from this project would result in only minor impacts to the economic and social environment in the immediate area. As previously stated, the proposed project would not result in any change to Stillwater Mining personnel and would not result in any increase in ore production at the facility. The Department believes that Stillwater Mining could be expected to operate in compliance with all applicable rules and regulations as outlined in MAQP #2459-16.

Recommendation: No EIS is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permit action is for site expansion of mining activities and the installation and operation of diesel-fired generator sets to support the expansion. MAQP #2459-16 would include conditions and limitations to ensure the facility would operate in compliance with all applicable air quality rules and regulations. In addition, there would be no significant impacts associated with this proposal, as described above.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

EA prepared by: D. Kuenzli

Date: January 29, 2013