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August 9, 2022

Ref: ORA-N

Mary C. Erickson, Forest Supervisor
CGNF, Gardiner Ranger District, USDA Forest Service
Attn: East Boulder Mine Amendment 004 EIS
C/O: Robert Grosvenor
P.O. Box 5
Gardiner, MT 59030

Dear Supervisor Erickson,

The U.S. Environmental Protection Agency has reviewed the June 2023 Draft Environmental Impact Statement (EIS) for the East Boulder Mine Amendment 004 project (Project) by the US Department of Agriculture Forest Service (USFS) Custer Gallatin National Forest (CGNF) and Montana Department of Environmental Quality (MDEQ). The following comments were prepared in accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act (CAA). The CAA Section 309 role is unique to EPA. It requires EPA to review and comment publicly on any proposed federal action subject to NEPA's environmental impact statement requirement.

The Project will amend the current operational mining plan for the East Boulder Mine, an active platinum and palladium mine operated by Stillwater Mining Company in Sweet Grass County, Montana, located on federally managed lands within the CGNF approximately 16 miles south of McLeod, MT. This amendment would also amend the Montana state mine Operating Permit Number 00149. The proposed action would construct the new Lewis Gulch Tailings Storage Facility (LGTSF) and Dry Fork Waste Rock Storage Area (DFWRSA) near the current East Boulder Mine tailings facility along the East Boulder River. Construction, operation, closure, and reclamation of the Amendment 004 activities would occur alongside the activities outlined in the preexisting East Boulder Mine Plan of Operations.

EPA appreciates the detailed descriptions and visual tools used to describe the Project alternatives in the Draft EIS. The baseline conditions laid out in these descriptions clearly identify what is inside and outside of scope of the Draft EIS and has made public review of the action exceptionally clear. EPA also recognizes the efforts made in the Draft EIS to address our July 18, 2022, scoping comments, which recommended specific strategies for developing a comprehensive environmental analysis of air and aquatic resources.

Based on our review of the Draft EIS, EPA agrees that the Agency-Modified Alternative, Alternative 3, is likely more environmentally protective than Alternative 2 because, in addition to the mine waste re-management actions proposed in Alternative 2, it includes preventative measures for handling extreme storm water events. This consideration is especially important because an increase in the frequency of extreme precipitation events is a substantial risk of global climate change applicable to the Project area over the additional 11 to 14 years of mine life proposed under Alternatives 2 and 3. These precipitation

events would increase the risk of adverse impacts to surface water quality and downstream communities if stormwater handling infrastructure for the mine is not designed at this stage to handle such hydrologic extremes. Alternative 3 also more effectively mitigates potential impacts to the Project area's viewshed, slope stability, and terrestrial habitat through geomorphic landform design stipulations during the mine's reclamation phase.

While the environmental data analysis provided in the Draft EIS was clear and detailed overall, EPA identified two areas of concern within the document that should be addressed in the Final EIS. We are providing the enclosed recommendations to help provide clarity in the Final EIS and improve the assessment and environmental outcome of the proposed action.

Enclosed are our detailed comments. We thank you again for the work already put into the Draft EIS and for the opportunity to provide additional feedback during its development. If further explanation of our comments is desired, please contact me at (303) 312-6155 or mccoy.melissa@epa.gov, or Carolyn Gleason, Lead Reviewer for this project at (303) 312-6641 or gleason.carolyn@epa.gov.

Sincerely,

MELISSA MCCOY

Digitally signed by MELISSA MCCOY
Date: 2023.08.09 16:44:54 -06'00'

Melissa W. McCoy, Ph.D., J.D.
NEPA Branch Manager
Office of the Regional Administrator

Enclosure

Enclosure -EPA Comments
USFS East Boulder Mine Amendment EIS

Air Quality

EPA appreciates the information included in the Draft EIS to characterize air quality and document the air quality permitting process that has occurred for the East Boulder Mine. The emissions presented in the Draft EIS are based on those documented in Montana Air Quality Permit (MAQP) #2653-07, as we recommended in our July 18, 2022, scoping letter. Our review of those emissions, however, has revealed a potential area for which the document may benefit from additional information or potential mitigation.

Estimates of sulfur dioxide (SO_2) emissions from diesel generators and mine ventilation exhaust (pages 17 and 14 of MAQP #2653-07, respectively) reveal relatively high SO_2 emissions compared to other gaseous emissions reported in the permit. SO_2 emissions are directly related to the sulfur content of the fuel being burned. Emission estimates for diesel generators rely on estimation methods from AP-42. It appears that these estimates assumed a sulfur content in the fuel of 3,850 ppm sulfur. Although nonroad diesel fuel contained high levels of sulfur in the past, EPA has phased in requirements for the use of Low Sulfur Diesel (LSD) and Ultra-Low Sulfur Diesel (ULSD) ultimately reducing sulfur in the fuel to 15 ppm. Estimates in the permit of SO_2 emissions from mine ventilation exhaust relied on stack testing conducted in 2017 and appear to be elevated when compared to carbon monoxide (CO) and nitrogen dioxide (NO_2) emissions. Therefore, we recommend that the Final EIS include additional information regarding the sulfur content of diesel fuel used in nonroad (mobile and stationary) sources as well as used for blasting. We also recommend including information on the amount of diesel fuel used for blasting as this may also be a contributor to SO_2 emissions from the mine ventilation exhaust.

If sulfur content in the diesel fuel complies with the requirement for the use of ULSD (15 ppm sulfur content), then emissions of SO_2 may already be much lower than the estimates provided in MAQP #2653-07. If ULSD is not already used by the East Boulder Mine, however, then we recommend the Final EIS stipulate its use to conform with EPA requirements for the use of ULSD in nonroad applications. This recommendation will assist in accurately characterizing the potential impact from SO_2 and reducing any potential air quality impacts if ULSD is not in use under existing operational conditions for the East Boulder Mine.

Social Cost of GHGs

EPA recognizes and appreciates the efforts made in Section 3.1.4.3 to account for and discuss the Greenhouse Gas (GHG) emissions associated with the continued operation of the East Boulder Mine and encourage USFS to also include estimates of the Social Cost of Greenhouse Gases (SC-GHG). These estimates were also recommended in our July 18, 2022, scoping letter because they effectively monetize the value of the net changes in direct and indirect GHG emissions resulting from the additional operational years enabled by the Project and its connected actions (i.e., ore transportation and smelting). The inclusion of these values in the Final EIS would be beneficial because they can be used to weigh the potential costs of the Project with its projected economic benefits.

We therefore recommend that SC-GHG calculations be discussed and compiled into Section 3.1.4 and then referenced in Section 3.15.4 to connect the two topics of GHG emissions and potential economic impacts and to provide additional input into the conclusions drawn by the analysis. While we recognize that there are uncertainties involved in global cost estimates generated by a SC-GHG analysis, we

believe that the above recommendation could be accomplished in brief while adding value to the economic impacts analysis. Section 3.15.4 could likewise be further strengthened by briefly referencing the carbon offset initiatives and downstream impacts mitigation discussed in Section 3.1.4.3 in this analysis.

The February 2021 Social Cost of Greenhouse Gases Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990 (developed by the Interagency Working Group on Social Cost of Greenhouse Gases, United States Government) provides the most current information on generating SC-GHG calculations.[1] EPA also recommends that SC-GHG calculations give specific information regarding the social cost estimate related to individual gases (i.e., use SC-CO_2 to monetize CO_2 emissions changes, and use SC-CH_4 to monetize CH_4 emissions changes).

[1] *See* https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf