

MEMORANDUM

Date: February 16, 2023

To: Jim Coefield, Friends of the Jocko
Daniel Brister, Ferguson & Coppes, PLLC

From: Shane A. Bofto, MBA, Senior Chemical/Environmental Engineer, HydroSolutions Inc

Subject: **Comments on Air Quality Presented in the Riverside Contracting Draft Environmental Assessment and Application for Standard Opencut Mining Permit for the Marvin Rehbein Site, Lake County, Montana**

On behalf of the Friends of the Jocko, I reviewed the air quality resource information in the Draft Environmental Assessment (EA) and Application for Standard Opencut Mining Permit for the Marvin Rehbein Site, along with other relevant sources. My review focused on assessing the thoroughness of the air quality resource and environmental assessments presented in the EA and application. The documents I reviewed included:

- DEQ Draft Environmental Assessment, Marvin Rehbein Site, January 2023
- DEQ Application for Standard Opencut Mining Permit, Riverside Contracting, Inc, April 7, 2022

The purpose of the review is to provide comments on the EA and application for the mining permit. Overall, the air quality resource assessments are deficient in quantifying the air quality impacts, especially in Class I airsheds and other sensitive receptors identified in the EA. The estimation of the impact intensity is essential in assessing primary and secondary impacts particularly in Class I airsheds and other sensitive receptors identified in the EA.

The Montana Department of Environmental Quality (DEQ) EA has not provided sufficient information for a comprehensive review of the operational and mitigation plans. Therefore, a more detailed analysis of the proposed operation is necessary. Specific comments are outlined below.

DEQ Draft Environmental Assessment, January 2023 – Section 3 - Air Quality (Pages 10 & 11)

1. The proposed action described in the EA will extract 1,000,000 cubic yards of material from a 157.1-acre site on private land within the Flathead Reservation, near Arlee, MT. An asphalt facility is also proposed, but quantity of material processed, or operation

timeframe is not specified in the EA. The site is surrounded by residential properties within 1,000 feet of the permit boundary. It is located in a Class I airshed, which is protected under the Clean Air Act (CAA) Section 162(a) for its natural, scenic, and cultural resources. The CAA provides higher protection for Class I airsheds by limiting pollution and preserving its ecological and cultural value for future generations.

2. The EA impact analysis must be conducted to identify whether impacts are direct, which occur at the same time and place as the action that causes impact, or secondary, which are further impacts to human environment that may be stimulated, or induced by, or otherwise a result from the direct impact of the action (ARM 17.4.603(18)). The analysis must also determine the duration and intensity of those impacts.
3. Fugitive dust from point source mining activity are generated from mining, conveying, screening, and crushing particularly with dry processing. Fugitive dust from non-point source mining activity are generated from vehicle traffic on unimproved haul roads, insecure loads, and disturbed and unstabilized areas interacting with wind and precipitation. Stormwater eroded materials from disturbed and unstabilized areas, which can be finer in texture and dust prone, can be transported from the site and deposited in areas where the material can be an additional source of dust. The dust from the production of sand and gravel consists of several regulated pollutants such as Particulate Matter (PM) and particulate matter less than 10 microns (PM₁₀) (EPA, 2023). This pollutant can remain in the air or be deposited on land surface affecting local and regional air quality, drainages, surface water, vegetation, wildlife, and human health.
4. Asphalt plants mix gravel and sand with heated crude oil derivatives to make the asphalt used to pave roads, highways, and parking lots. The plants can use either natural gas or fuel oil to dry and heat the aggregate used to make the asphalt mix. Sources of emission include the dryer, truck loading, and hauling. Emissions consist of the following regulated pollutants: nitrogen oxides, sulfur oxides, carbon monoxide, and PM. Other toxic chemicals released include volatile organic compounds, hazardous air pollutants, and very fine condensed particulates. Carbon monoxide and organic compounds are a result of incomplete combustion of fuel (EPA, 2023). Carbon dioxide, some nitrogen oxides, and methane are considered greenhouse gases. These pollutants can affect local and regional air quality, vegetation, wildlife, and human health.
5. As presented in the EA, the proposed opencut operation was anticipated to have a negligible direct impact on air quality. The EA further states that the asphalt plant is expected to have minor impacts to air quality and odor, would emit limited amounts of air pollutants, and secondary impacts from the asphalt plant could be expected to be negligible. In addition, it states that any impacts to air would be short-term and negligible based on commitments and certifications made by the Applicant. The lack of basis, quantification, or specific mitigations for the assessment of impacts to air quality raises concerns regarding the reliability of the EA's conclusions.
6. Prevailing wind direction and velocity in the area of the proposed action was not considered, and their result on the intensity and/or deposition of the pollutants on the nearby residences was not determined.

7. The EA lacks crucial information on the amount of material to be processed by the asphalt plant, fuel used for the dryer, specific measures to minimize impacts, and the plant's operating schedule. This information is essential for determining the pollution generated, its intensity, the duration of impacts, and the direct and secondary effects on air quality.
8. Despite DEQ access to EPA procedures to quantify air quality impacts (EPA, 2023), no estimate of pollutant levels was made to assess their intensity. The DEQ also has EPA approved methods to determine the dispersal and fate of those pollutants (EPA, 2022). Moreover, without quantifying the impacts, identifying specific mitigation measures, and determining the fate of the pollutants, it is not possible to assess the intensity of impacts on this Class I airshed.

References

- EPA. (2022, August 9). *Air Quality Dispersion Modeling*. Retrieved from <https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models>
- EPA. (2023, January 9). *AP 42, Fifth Ed., Volume I, Chapter 11: Mineral Products Industry*. Retrieved from <https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-fifth-edition-volume-i-chapter-11-mineral-products-0>

DEQ Application for Standard Opencut Mining Permit, April 7, 2022

Page 15, Section D5-2(i): The application states that the proposed location of the asphalt plant is at the northwest corner of the site, adjacent and directly south of an occupied building, and approximately 1,500 feet east of another. Despite the fact that the asphalt plant is a source of air quality impacts and odor, the applicant did not make any restrictions or commitments regarding the location of the plant with respect to occupied buildings.

Page 22, Section G8: The application for an opencut mining permit did not address air quality as it is not typically regulated by a standard opencut mining permit. However, Section G8 of the application suggests contacting the DEQ Air Quality Bureau to determine if an air quality permit is necessary for the operation.