

Attn: Matthew Reece  
Minerals Program Manager  
United States Forest Service  
8510 Mendenhall Loop Road  
Juneau, Alaska 99801

22 May 2023

**GC North Extension Project DSEIS – Support for Alternative D**

Dear Mr. Reece:

I am writing in support of Hecla Greens Creek Mining Company's (HGCMC) request to expand their tailings disposal facility (TDF). I favor Alternative D described in the draft Supplemental Environmental Impact Statement (SEIS).

Since joining Greens Creek's Surface Operations team in 2017, I've witnessed firsthand the commitment of the people at Greens Creek to environmental responsibility. When he hired me, Brian Erickson, the former Surface Operations manager (now the General Manager), told me, "There are a lot of environmentalists out here who care tremendously about how we impact the environment." Having worked here for over six years, I can confirm the truth of that statement.

During my time at Greens Creek, I have actively participated in the operation, management, and design of the tailings facility. We have dedicated countless hours to exploring ideas, challenging assumptions, and asking, "How can we do this better?" We've never been afraid to question existing beliefs or consider thoughtful input from others. In the draft SEIS, all the action alternatives were chosen with the primary objective of being environmentally and economically efficient.

In our October 2020 Plan of Operations, we proposed Alternative B as our preferred action, but we were still internally discussing different options. Following the scoping process and taking into account feedback from cooperating agencies, we realized that if we relocated to the haul road to the west of the tailings stack, we could expand the TDF more efficiently compared to Alternative B and significantly increase the storage capacity. Alternative B disturbs 13.7 acres, including 5.7 acres of wetlands, providing 5 million cubic yards (MCY) of capacity (2.74 acres per MCY). Alternative D, with a slightly larger disturbance area of 23.9 acres but only 5 acres of wetlands, offers 10.5 MCY of capacity (2.28 acres per MCY). Therefore, with a minor adjustment to the project, we can minimize wetland disturbance while doubling the storage capacity.

This is just one example of how Greens Creek's team, both past and present, has consistently sought to enhance our economic and environmental efficiency. As an older instance, consider the 1988 environmental assessment when Greens Creek proposed changing the mining method to utilize tailings as backfill, which opened the door to the "dry stack" tailings disposal method and significantly reduced the overall environmental impact of the tailings storage facility.

By pursuing Alternative D, Greens Creek can continue the tradition of responsible practices at Greens Creek while meeting our storage needs effectively.

In addition to selecting an alternative, the Forest Service and cooperating agencies have the responsibility of developing appropriate, actionable, and responsible measures to mitigate the project's environmental impacts. The proposed AQ-1 mitigation measure in the draft SEIS requires a Forest Service-approved fugitive dust mitigation and monitoring plan to achieve "near-zero" dust detection at monitoring sites.

However, the proposed AQ-1 mitigation measure falls short of meeting these requirements and is also redundant and much more stringent than the mitigation measure included in the 2022 category 4b impaired waterbody designation for Tributary Creek.

The measure lacks clarity as it does not define "near zero," nor compare to other generally applicable metrics, leaving the level of protection uncertain. For example, strictly interpreting "near zero" as "zero" would be impractical (if not impossible with extant technologies), while measuring it on a range of 0 to, say, 1,000,000 renders it meaningless.

The proposed measure is inappropriate because the disclosed impacts in the draft SEIS do not warrant the implementation of technologies that do not currently exist. For example, recent aquatic biomonitoring reports from the Alaska Department of Fish and Game do indicate some impacts from Greens Creek Mine and the TDF. However, these reports do not suggest that the environment impacted by the TDF is significantly impaired or that the existing fugitive dust mitigation measures at Greens Creek are ineffective, as implied by the proposed measure.

Finally, the requirement to have the mitigation plan developed and finalized within 6 months following approval of the final record of decision (ROD) is unrealistic at best and impossible at worst even if only considering the length of time for a formal review process with the Forest Service and other relevant agencies.

Given these limitations, the Forest Service should provide a more reasonable timeline for the development of a "Forest Service approved" fugitive dust mitigation plan and should remove the pseudo quantified "near zero" limitation.

Thank you very much for considering my comments.

Sincerely,

Aaron Marsh, P.E.