Greens Creek Mine Expansion Scoping
INFORMATION & TALKING POINTS

VIRTUAL PUBLIC MEETING FOR JUNEAU AND HOONAH: TUESDAY, OCTOBER 20TH . 5:30PM
VIRTUAL PUBLIC MEETING FOR ANGOON: THURSDAY, OCTOBER 29TH . 5:30PM

PUBLIC MEETINGS ARE INFORMATIONAL

- The two public meetings are an opportunity to hear from the Forest Service, ask questions, and share your concerns.
- **Comments made at these meetings will not be on the record.** These are information sessions.
- **Advanced registration required:** https://www.eventbrite.com/e/greens-creek-mine-north-extension-project-supplemental-eis-registration-124506884443

HOW TO SUBMIT OFFICIAL COMMENTS

- All **official public comments** on this plan must be **sent to the Forest Service by November 23rd**.
- Comments may be submitted **electronically** at https://www.fs.usda.gov/project/?project=57306
  or mailed to: Tongass National Forest, Greens Creek Mine NEP SEIS, 8510 Mendenhall Loop Rd, Juneau, Alaska 99801.

CONTEXT

- Greens Creek Mine is located adjacent to Hawk Inlet on Admiralty National Monument, which was established by an act of Congress in 1978. It is the only U.S. mine allowed to operate in a national monument because it was "grandfathered-in" when the monument was created. As a condition to this exception, the **mine must continually demonstrate that it is not causing "irreparable harm" to the Monument.**
- Many people from the nearby communities of Angoon, Hoonah, and Juneau rely on Hawk Inlet and surrounding waters for access to food and cultural practices.
- Greens Creek Mine opened in 1989 with a plan to operate for 15-17 years and create 3.4 million cubic yards (CY) of toxic waste.
- In 1995, the Hecla Greens Creek Mining Company (HGCMC) entered a 99-year land lease with the Forest Service to conduct mineral exploration, development, and production, called the *Greens Creek Land Exchange Agreement of 1995*, giving HGCMC the option of continuing to expand the mine until the year 2094.
- It has since been expanded twice, adding 42 years of operation and 8.5 million CY of toxic waste.
- HGCMC has recently amended its Plan of Operation (POO) for the Greens Creek Mine to expand yet again, increasing the current tailings dump on public lands in the Admiralty Island National Forest to 12.5-13.5 million CY.
- The Forest Service has begun the National Environmental Policy Act (NEPA) process to amend the 2013 Record of Decision (ROD) for the previous expansion. This 2013 analysis provides much of the impact analysis for this expansion.

EXPANSION PLAN

- The current waste storage capacity for toxic tailings and waste rock will be reached by the year 2031.

- The purpose of the expansion is to extend the mining time period for approximately 23 more years by adding more storage capacity for waste.
- The expansion would provide permanent disposal for an additional 4 to 5 million CY of acid-generating tailings and waste rock.
- If approved, the final amount of acid-generating tailings dumped on public lands would be approximately 12.5 to 13.5 million CY, or about 154-160 million tons.

CONCERNS ABOUT EXPANSION PLAN

Baseline Studies Have Never Been Repeated:

- Between 1979-1981, the mine collected extensive pre-mining baseline data on marine species population and diversity in Hawk Inlet. In addition, eagles, brown bears, and a control site in Young's Bay, were also sampled to create robust baseline data that could be compared to monitoring data once the mine began operating and determine if and how the mine was impacting the Monument.
- To-date, nearly 40 years later, neither the Forest Service nor the Alaska Department of Environmental Conservation (responsible for managing the health state waters, including Hawk Inlet) have ever repeated the baseline studies to measure the impacts of the mine.
- **It is critical that the Forest Service require the 1981 baseline assessments to be replicated in order to determine if harm has been done to the Monument *before* approving an expansion that could cause further harm to the Monument and all who depend on it.**
- Such a reassessment is necessary for the agency to reasonably determine whether continued mine operations are compatible, to the maximum feasible, with the protection of the [monument values]" and "utiliz[e] the best available technology for preventing or minimizing potential adverse impacts." *See* 36 C.F.R. Subpart D, § 228.80(c)(1) and (c)(2)(i).
- Such a reassessment could utilize the Monument as a "living laboratory" and provide the Forest Service and public an opportunity to evaluate the actual impacts mining has had on the resources and values of the Admiralty Island National Monument.

Tailings Are Acid-Generating:

- This area contains a volcanogenic massive sulfide (VMS) deposit.
- All sulfide mines produce acid mine waste, but wet climates like that of Admiralty Island intensify the risk of acid mine drainage - toxic, acidic wastewater leaching into the watershed.
- Impacts last forever. Acid mine waste requires treatment forever. The Forest Service already estimates that active water treatment will be required for hundreds of years, if not forever, after closure. Taxpayers may be on the hook for treating the acid mine waste long after the mining company is gone.
- Acid mine drainage makes heavy metals, such as arsenic, lead, and copper, in the waste become bio-available, meaning they can pass through biological membranes, such as fish gills and human stomachs. This impacts aquatic life and all who eat it, including humans.
- Once acid-generating rock is exposed to oxygen and the surface environment, acid generation is very difficult to contain or stop, and can continue thousands of years until the available sulfide minerals are exhausted. Roman-era mines have been identified which are still producing acid mine drainage.
- **The Forest Service must conduct a full analysis of the possible affects not for the life of the mine, but for the life of the *closure* including the entire term of the 99-year lease of public lands.**

Reliance on the 2013 Environmental Impact Statement (EIS) Is Inadequate:

- The main issue in 2013 was how to reconcile a permanent tailings dump in the Monument with the requirement prohibiting irreparable harm to the Monument mandated by Congress in the ANILCA. In the Record of Decision in 2013, the Forest Service declared that "the Tongass National Forest will work with other appropriate parties . . . to clarify how to apply the complex set of legal requirements . . . specific to Admiralty Island National Monument" and obtain from

Hecla "feasibility analyses regarding the construction and use of alternative tailings disposal facilities." **This has not occurred.**

- The last two expansions were based on the original EIS from 1984 that identified the greatest risk was to the aquatic life in Hawk Inlet and did not allow Hawk Inlet to be used for the dumping of waste water. That was changed for no apparent reason and the original baseline data ignored.
- Compounding the problems noted above is the Juneau-centric focus of the so-called socioeconomic analysis in the 2013 ROD. This constricted analysis prevents the Forest Service from fulfilling its obligation to identify and address the social, health, and environmental effects of this proposal borne disproportionately by both the Angoon and Hoonah communities.
- **We must ask for a new EIS that includes these analyses, rather than relying on the 2013 EIS.**

Fugitive Dust:

- "Fugitive dust" refers to the dust that blows off the surface of the tailings pile and gets carried several miles away by the wind, thus expanding the radius of harmful impact from the mine. It is a major issue of concern because it adds toxic levels of lead to the environment. The mine only monitors the dust on or directly next to the tailings dump. There is no information being collected on how lead-laden dust is spreading though the Monument or being absorbed by animals or in Hawk Inlet.
- The 2013 ROD estimates that even after all preventative measures have been taken, the tailings pile (prior to this expansion) will contribute 100 tons of dust per year far into the Monument and Kootsnoowoo Wilderness areas. Increased lead concentrations have already been observed on the land and in the fresh waters attributed to fugitive dust. Increased concentration of lead has been observed in Hawk Inlet, but it is considered to be caused by "natural erosion" without any evidence collected to support this assertion.
- **The Forest Service should require additional standardized dust monitors to measure the extent of harm to the public lands far into the Monument and on the Greens Creek Delta. In addition, plant and animal lead uptake studies must be conducted in order to protect wildlife and subsistence users prior to authorizing another expansion.**

The Forest Service Is Not Analyzing Other Alternatives:

- HGCMC determined the current plan is best suited for their needs after carefully studying other alternatives. The Forest Service must disclose these studies and the estimated cost to implement them.
- The Forest Service should take a hard look at using flow augmentation technology to dilute mine effluent prior to discharge during the upcoming NEPA process. Neither the 2013 Draft EIS or the 2013 Final EIS evaluated the "flow augmentation" alternative or the potential for this treatment approach to mitigate adverse environmental consequences from continued discharge and loading of hazardous pollutants into Hawk Inlet.
- The Alaska National Interest Lands Conservation Act (ANILCA) requires the Forest Service to assure that mining in the Monument satisfys the heightened standards for resource protection imposed by Congress. The Forest Service lacks the discretion to defer to other agencies, state or federal, when satisfying this duty.
- Yet, in 2013, the Forest Service response to comments on addressing mine effluent was that the Environmental Protection Agency (EPA) and the State of Alaska are responsible for the discharge under an Alaska Pollutant Discharge Elimination System (APDES) permit.
- This is inconsistent with the requirement of ANILCA that a plan of operations on Monument lands be "compatible, to the maximum extent feasible, with the protection of [Monument] values." *See* 36 C.F.R. §228.80(c).
- According to the first of only 2 third-party audits ever conducted for the operations, "[t]here have been no documented comments or interpretation of the [monitoring] results . . . regarding data presented in the [Hecla Greens Creek Mining Company] annual reports." Without evaluating whether the existing monitoring program is sufficient, the Forest Service, EPA and

DEC lack a credible basis for concluding that pollutant discharges at the Hawk Inlet have not caused significant deterioration in the abundance and diversity of marine life in Hawk Inlet.

- This audit recommended all mine regulators consider creating a formal Agency Joint Regulatory Group, but we are unaware of any action taken in response to this recommendation by the State of Alaska or the Forest Service.
- **The Forest Service must critically evaluate the monitoring program, not defer responsibility.**

SUGGESTED QUESTIONS TO ASK THE FOREST SERVICE AT PUBLIC MEETINGS

1. **What is the mine doing?** Make sure the Forest Service provides a clear explanation for the expansion and press them on any points that are vague or don't make sense.
2. **How many additional years will the expansion allow the mine to operate?** Make sure the Forest Service provides a clear and exact timeline.
3. **Do you anticipate an additional expansion in the future? If so, why are you not analyzing for a 99-year "life of mine" now?** The length of the mine's lease of public lands is 99 years. Hold them to this. The analysis of impacts should include all possible impacts, cumulatively.
4. **This expansion requires increasing the height of the tailings pile by an additional 100 feet. Is that stable? How can you be sure?** If they say they are relying on the expertise of their engineers, follow up by asking about the methodology being used.
5. **What additional measures will you require to prevent fugitive dust once the tailings pile is even larger?** Make sure their answer includes an analysis method that is an accepted standardized method with standardized equipment.
6. **Will you require the 1981 baseline studies to be repeated before approving another mine expansion, to be determine that no harm has been done to the National Monument? If not, why not? What gives you confidence than no harm has been done and that no harm will be done by this expansion?**

SUGGESTED POINTS TO INCLUDE IN OFFICAL PUBLIC COMMENTS

- Mining is only allowed if operations "are compatible, to the maximum extent feasible," with preventing or minimizing potential adverse impacts to Monument values. **The Forest Service must set measureable guidelines on the level of adverse impacts that is considered tolerable.** Without that standard, "maximum extent feasible" is meaningless.
- It is critical that the Forest Service **require the 1981 baseline assessments to be replicated** in order to determine if harm has been done to the Monument **before approving an expansion** that could cause further harm to the Monument and all who depend on it.
- **A new EIS is necessary before approving another mine expansion that would allow approximately 23 years more operation and generate another 4-5 million cubic yards of mine waste.** The new EIS must include analysis of alternative tailings disposal facilities, meaningful consultation with the Angoon Community Association, and identification and plans to address the social, health, and environmental effects of this proposal borne disproportionately by the Angoon and Hoonah communities. The 2013 EIS is insufficient because it leaves out these specific analyses.
- The Forest Service must **require additional dust monitors** to measure the extent of harm to the public lands and **conduct plant and animal lead uptake studies** in order to protect wildlife and subsistence users.

MORE INFORMATION

- View the short film, *Irreparable Harm* on the SEACC website: www.seacc.org/media/film-room/