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https://water.alaskadec.commentinput.com/?id=59mdQ

Re. Draft Waste Management Permit 2022DB0001

Ms. Kreel,

Based in Juneau, Alaska (Tlingit/Aak'w Kwáan lands), Southeast Alaska Conservation Council (SEACC) is a regional grassroots organization with more than 6,000 supporters. For over 50 years, SEACC has been bringing together diverse Alaskans from our region's communities to protect the natural resources of Southeast Alaska, ensure sound stewardship of the lands of the region, and protect subsistence resources and traditional ways of life side-by-side with commercial fishing, tourism and recreation.

Southeast Alaska Conservation Council (SEACC) recommends changes to the 2022 Draft Waste Management Permit (DWMP) for Kensington Gold Mine based on the 2017 Environmental Audit recommendations. We also recommend changes based on the record of compliance on the part of the mine and the implementation of corrective measures regarding Best Management Practices (BMP) within the scope of the Waste Management Permit (WMP).

Additionally, new information and requirements associated with the recent United States Department of Agriculture (USDA) Final Supplemental Environmental Impact Statement (FSEIS) and Record of Decision (ROD) regarding Plan of Operations Amendment 1 (POA1) must be addressed in the DWMP. There are also contradictions in the Draft WMP and the ROD that must be corrected. We ask that the Alaska Department of Environmental Conservation (ADEC) incorporate recommended changes or explain why it does not agree with them.

SEACC recommends changes to the 2022 Draft Reclamation Plan (DRP) primarily because potential and already-occurring effects of climate change in the area have not been considered or evaluated and will certainly influence reclamation activities, costs, facilities, infrastructure, and monitoring. Additionally, recommendations from the 2017 Environmental Audit regarding the Reclamation Plan have not been incorporated. We request that the ADEC incorporate those changes or explain why it does not agree with them.

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Waste Management Permit:

SEACC is concerned that both renewals are being drafted before the Kensington Mine 2022 Annual Meeting scheduled for June 23, 2022.[1] We request that the ADEC delays the renewal of the permit and extends the public comment period until at least 30 days after the Annual Meeting notes are available. The current public comment timeline constitutes requirement "creep" and does not allow for meaningful public process, especially since the summer season is key for subsistence users and most other Alaska residents who may wish to offer substantive comments.[2]

Another concern is the repeated extensions the State has granted Kensington associated with its WMP and Reclamation Plan. In reality, the new WMP permit was scheduled to be renewed in 2018. ADEC granted Coeur Alaska a reissuance of the 2013 WMP permit in November of 2018 (rather than a new permit reflecting changing conditions or performance on the part of the mine) so that Kensington could "… complete the Environmental Impact Statement (EIS) for the Tailing Storage Facility (TSF) expansion."[3] Now, nine years later and five years after an environmental audit was completed, which resulted in numerous recommendations applicable to the renewal of the WMP, a new draft WMP permit is finally being released. It appears that ADEC allowed Coeur Alaska to focus solely on crafting the Environmental Impact Statement (EIS) for its expansion rather than implementing numerous recommendations for cleaning up and improving its current operations associated with its Waste Management Permit.

The substance of our comments compares recommendations made in the 2017 Kensington Mine Environmental Audit, Best Management Practices inspection reports, and the original 2013 WMP to the Draft 2022 WMP. Numerous recommendations were made regarding the upcoming renewal of the WMP in the audit document. Compliance issues were also identified. SEACC cross-checked the 2013 WMP, the Draft 2022 WMP, the USDA Forest Service's Final FSEIS and ROD concerning the Kensington expansion, several BMP inspection reports and the 2017 Environmental Audit to attempt to ascertain whether recommendations and corrective measures associated with the audit and action items from the inspection reports were implemented.

The expansion of the mine and the increased size of development (waste) rock storage areas and volume will change permit conditions. The Forest Service mandated a two-year Ecological Risk Assessment (ERA), which may result in changes to Freshwater Monitoring Plan (FWMP) requirements. The WMP incorporates all monitoring required in the Freshwater Quality Monitoring Plan.[4] Because changes to the FWMP may result based on the findings of the ERA,

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[1] State of Alaska Department of Natural Resources, 2022. dnr.alaska.gov/mlw/mining/large-mines/kensington/
[2] G. Archibald, personal communication. [Guy Archibald is the Executive Director and Staff Scientist for Southeast Alaska Indigenous Transboundary Commission].
[3] State of Alaska Department of Natural Resources, 2018
[4] USDA Forest Service Tongass National Forest. (2021). FSEIS § 3-20.

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the State should include a description of its plans to alter the WMP accordingly during the permit term, after the release of the ERA, and any subsequent changes to the FWMP.

The purpose of the 2017 Environmental Audit, completed by the HDR Audit Team consisting of four independent scientists, was described thusly:

> *"The environmental compliance audit at Kensington Mine was conducted to compare and evaluate facility operations against available permits and state regulations…The audit results will be used by Kensington and the State of Alaska to assist in updating, renewing, or issuing authorizations and permits; in updating policies, plans, and procedures; and in determining compliance with permits and authorizations. Kensington Mine's Waste Management Permit (WMP), Reclamation Plan Approval, and Certificate to Operate a Dam (COD) authorizations require an environmental audit before renewal of the permit."*[5]

A short list of some of the recommendations concerning the WMP and Reclamation Plan from that audit will follow, along with an evaluation of whether or not the State implemented these recommendations in the Draft 2022 WMP.

1. HDR's audit recommended that an added reporting requirement be made to the WMP concerning the total volume of tailings disposed of underground (p. 11-12).
    a. While the 2022 Draft WMP § 2.9.5 appears to include reporting requirements for above-ground waste disposal sites, no such underground reporting requirement is made. No underground disposal figures are available in Coeur Alaska's 2021 Annual Report.
2. Audit recommendation: That Kensington begin to report the development rock disposal amounts for each specific disposal facility.
    a. Result: the 2021 Annual Report does *not* report development rock disposal by individual site/facility. It reports the overall development of rock disposed of in surface stockpiles (tons/month) in Table 11, and tailings disposed of in the TTF (Table 10). The DWMP § 2.9.5 includes no such change based on audit recommendations.

This recommendation becomes vitally important now due to Kensington's expansion of waste rock storage areas as they continue to excavate.

3. During the 2017 audit, 3 sites containing waste graphitic phyllite (GP) rock (highly acid-generating) were in use; Pit 4, Pit 7, and Mud Dump. In the 2022 DWMP, only two sites are mentioned; Pit 4 and Mud Dump. The exposed GP in Pit 4 is described in the 2022 DWMP as having Shotcrete applied to the exposed rock to mitigate acid drainage. In

[5] HDR , 2018

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another GP storage site, the downstream side of the dam's east abutment, the audit found that the material had been removed and placed underground; however, the details of implementation of a cover on the exposed material, protecting from acid seepage, had not been followed. During the audit, it was observed that concrete had recently been applied but the Audit Team:

> *"…observed seepage through the concrete and iron-stained flow paths from the concrete of a few gallons per minute (gpm) that infiltrated towards the center of the drainage. These minor flows are presumably contaminated surface flows and may have reported to the TTF dam seepage sump and/or may have found a preferential flow path to shallow groundwater continuing down the Slate drainage after infiltration…The observed condition by the Audit Team of the temporary graphitic phyllite cover on the eastern side of the downstream end of the dam is inadequate to ensure seepage and runoff does not escape containment (WMP Section 1.3.3). The Audit Team's recommendation is to add a crushed diorite cover to the exposed graphitic phyllite surfaces or a similar alternative because the shotcrete/dental concrete application does not appear to function as needed to contain seepage* (pp. 13-14)."

In addition, the audit found that there was GP exposed at the north end of the Tailings Treatment Facility (TTF) in contact with TTF surface water, and the ADEC issued a Notice of Violation for failure to comply with the APDES permit; discharge of acidic, metal-laden seepage waters for waste rock directly into the TTF, an unlined facility which may thus allow groundwater infiltration. The original 2013 WMP requires that all seepage and runoff from graphitic phyllite rock shall be managed to prevent it from escaping containment (§ 1.3.3). In the DWMP, this language and three entire sections regarding treatment and management of graphitic phyllite seepage and runoff have been removed. ADEC appears to be backsliding on the original permit terms and removing language requiring acid rock drainage management.

During 2021 and 2022, six individual USDA Forest Service inspections were documented. In each report, the issue with acid rock drainage (ARD) was mentioned and became Action Item #183-2 during the second report (June 17, 2021). This action item has not been resolved, and ARD from the graphitic phyllite that was not contained according to engineering directions continues to seep and leach into the dam spillway/TTF. According to one of the inspection reports, the seepage had been tested and indeed was found to be "slightly acidic" and containing metals (January 12, 2022). Repeated applications of Shotcrete to cover the material have not been effective.[6]

[6] USDA Forest Service Tongass National Forest Minerals Group, 2021, June 24; USDA Forest Service Tongass National Forest Minerals Group, 2021, August 10; USDA Forest Service Tongass National Forest Minerals Group, 2021, December 12; USDA Forest Service Tongass National Forest Minerals Group, 2021, May 14; USDA Forest Service Tongass National Forest Minerals Group, 2021, September 2; USDA Forest Service Tongass National

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SEACC requests that the 2022 WMP incorporate these changes recommended by the Environmental Audit or explain why it did not incorporate them.

In addition, during these inspections, Pit #4 repeatedly had inadequate or problematic covering to prevent infiltration of rainwater and subsequent acidification of waste rock (Action Item 182-2 in June 17, 2021 report; Action Item 185-1 in November 18, 2021 report; Action Item 185-1 in January 12, 2022 report).

SEACC requests that the WMP incorporate implementation changes recommended by Best Management Inspection results and action items.

4. The 2017 Environmental Audit pointed out that the 2013 WMP (§ 1.7.4.2) states that tailings shall be tested quarterly to ensure that there are no significant changes from baseline conditions, which could affect monitoring, closure requirements, water quality, and other permit conditions (p. 23). Not only does the permit mandate that the testing will occur, but it also states that reports shall include information necessary to determine data validity, variations, and trends. According to the audit, Kensington's quarterly reports do not include baseline data, graphs, data validation, or quality control information. This makes it difficult to identify trends and changes from baseline geochemistry conditions. **Audit Recommendation:** that the WMP be revised to require the Permittee to submit the monitoring reports including data tables, original baseline analysis, and data graphs to evaluate trends (pp. 23-24). This would allow the agency to better review compliance. A similar recommendation about reporting methods was made relevant to mine sump sediments; baseline chemistry that determines if the sediments can be disposed of on the waste rock piles is not provided. None of the audit team's recommendations regarding the inclusion of baseline data, data tables, and graphs to evaluate trends have been incorporated into either the DWMP language or Kensington's 2021 WMP Annual Report. Other similar reporting deficiencies were identified in the audit regarding development rock.

Result: In the DWMP, the sections are numbered differently; however, none of the suggested changes from the audit are evident in the 2022 DWMP. Kensington's 2021 Waste Management Permit Annual Report includes none of the recommended tailings, development rock, or mine sump baseline data, graphs identifying geochemistry trends, or data validation/quality control details.

Forest Minerals Group, 2022, January 19; USDA Forest Service Tongass National Forest Minerals Group, 2022, March 15.

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The ADEC/DNR appears to have ignored the 2017 Environmental Audit recommendations and its own permit guidelines pertinent to geochemistry reporting methodology, which would have resulted in easier compliance review.

5. Integrated Waste Management and Disposal Plan (IWMDP):
    a. The audit reviewed whether or not the actual waste management procedures on-site were consistent with the procedures in the plan. In most cases, waste management practices generally aligned with the IWMPD; however, the mine was not in compliance with *"the use of primarily eco-friendly solvents in parts washers (e.g. Orange-Sol or SimpleGreen* (p. 29)." Instead, toxic solvents were being used on the premise that the eco-friendly solvents didn't work.

Kensington chooses not to incorporate certain types of eco-friendly operations delineated in its IWMDP; ADEC continues to allow that to occur despite this being contrary to the terms of the IWMDP, which informs the WMP.

SEACC requests that the State work with Kensington to identify eco-friendly solvents for this type of use that are both effective and environmentally friendly.

Wastewater Treatment Plant Sludge:
Formerly, Kensington was disposing of dewatered sludge cakes from wastewater treatment processes in the Comet Waste Rock Site (WRS). The 2017 Environmental Audit revealed that the cakes were not being placed correctly to avoid infiltration and drainage issues.[7] In its 2022 ROD, Forest Service has required Kensington, as part of mitigation for water quality concerns pursuant to the existing and expanding Comet WRS, to dispose of wastewater sludge cakes underground. However, the 2022 DWMP appears to allow Kensington to continue disposing of sludge cakes above-ground in the Comet Waste Rock Site:

> *"MWTP sludge may be disposed of underground in open stopes* ***and also within the Comet waste rock site (WRS)*** [emphasis added]. *This sludge shall be dewatered and placed far enough back from the face of the rock pile to ensure the solids are not carried by infiltrating water to the face of the pile. A berm shall be installed along the outside perimeter of the stockpile to ensure that solids are not transported off-site by surface water."*[8]

The State may not allow different terms in its permitting than the Lead Agency (USDA Forest Service) has specifically required in this case.

SEACC requests clarification on the sludge cakes in terms of acid generation or net neutrality.

[7] HDR. (2018). § 5.1.5. P. 15.
[8] State of Alaska Department of Environmental Conservation , 2022. § 2.4.2.

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SEACC requests that the WMP be changed to reflect the Forest Service's PAO1 requirement for underground disposal of water treatment sludge cakes.

Spills and Spill Reporting:
SEACC requests that the State disclose any and all spills which have occurred at Kensington. ADEC regulates the mitigation and reporting of spills of chemicals through the WMP.[9] ADEC has not disclosed most of the substances that have been spilled in the WMP.[10] This is especially concerning as spill frequency at Kensington has been increasing over time and that many of these spills (34 total) occurred during transportation activities. Given the fact that the POA1 estimates an increase from 492 truckloads of diesel to 738 truckloads annually, it is vital that ADEC require changes to the DWMP that would address the increased probability of spills with additional mitigation.[11]

Additionally, numerous Clean Water Act violations have occurred during the past three years; five Notices of Violation for Clean Water Act issues between October 2019 and April 2021 have occurred. Violations have included effluent violations, best management practice deficiencies, and reporting violations.[12] No ADEC enforcement action has followed, although the EPA has issued citations and fined the mine substantial amounts.[13] The DEC has failed to require compliance regarding Kensington mine and ensure that it is actually following the terms in its relevant permits.

Reclamation Plan:

Contingency

The Audit recommended:

> *"… Kensington's 2013 indirect costs estimates and assumptions are consistent with ADNR/ADEC draft guidelines and industry standards. However, given the remoteness of the mine site and limited seasonable timeframe for closure and reclamation activities, contingency estimates should be on the high end of the ADNR/ADEC range presented in Table 11. Kensington assumes a 12 percent contingency for scope, which is higher than the ADNR/ADEC range of 6 to 11; the Audit Team recommends Kensington utilize 11 percent for the 2018 update. The Audit Team recommends that the bid contingency be moved to 8 or 9 percent (the upper end of ADNR/ADEC range) given site location and seasonal limitations* (p. 49)."

[9] *Id.* § 3-21.
[10] Lubetkin, 2022.
[11] Lubetkin, 2022. P. 131.
[12] *Id.* P. 127
[13] EPA Echo. (2022). echo.epa.gov/detailed-facility-report?fid=110055091699

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In the 2022 DWMP, a scope contingency figure of 8% is used.[14] It is unclear how a lower figure than recommended by both the audit and the USDA would satisfy the financial requirements and guarantees associated with reclamation costs. We request that the DEC explain this difference in its current permit.

Climate Change:
SEACC submits that factors associated with climate change have not been considered or addressed in the Reclamation Plan. There are multiple examples to date in the history of Kensington that clearly show that climate change has already caused unexpected issues. In Kensington's 2021 Annual Report, it is stated that the National Weather Service reported that the Juneau area experienced annual precipitation about 14% above normal and snowfall about 56% above normal.[15] An evaluation of the effects of changing temperatures, increasing snow loads and precipitation on the TTF facility, development of rock disposal areas, water treatment and capacity, and other mine workings is essential. The Forest Service has required Kensington to evaluate and incorporate climate change factors based on numerous studies that predict warmer and wetter conditions for Alaska, with increasing rainfall and decreasing snowfall over the next 50 to 100 years, along with an increased probability of extreme precipitation events.[16] These types of changes will undoubtedly affect WMP factors: storage, containment, and disposal of waste and associated monitoring.[17] Development rock storage, in particular, will be impacted. Yet no discussion of these factors or how the mine may adapt its controls to mitigate for them exist in the DWMP or Reclamation Plan.

SEACC requests that the 2022 DWMP and Reclamation Plan incorporate a discussion of climate change factors and mitigations relevant to reclamation, similar to the Final Supplemental Environmental Impact Statement and POA1 ROD.

SEACC requests that ADEC fulfill its role and its title to ensure the safety and quality of Alaska's precious water resources by crafting the 2022 Waste Management Permit for Kensington Gold Mine in a manner that adheres to recommendations made in the 2017 Environmental Audit, is congruent with Federal requirements in the ROD PAO1, and is protective of the water resources surrounding the mine.

The people of Alaska need industry. SEACC does not protest this fact. What we protest is the failure of government agencies to enforce compliance with laws, regulations and policies which allow industry to do business, but also protect our lands and waters.

Thank you for the opportunity to comment.

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[14] *Id.* Appendix A, p.10.
[15] State of Alaska Department of Fish and Game, 2022
[16] *Id.* § 3-127, Table 3.12-1.
[17] State of Alaska Department of Environmental Conservation. (2022). Draft Waste Management Permit for the Kensington Mine. dnr.alaska.gov/mlw/mining/large-mines/kensington/pdf/2022DB0001_WMP_DRAFT.pdf

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Respectfully,

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