



# Municipality of Skagway

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December 16, 2019

Sent via USPS and email to:

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Juneau Field Office  
Regulatory Division (1145)  
CEPOA-RD  
Post Office Box 22270  
Juneau, Alaska 99802-2270

Re: Public Notice of Application for Permit  
Public Notice Date: November 21, 2019  
Expiration Date: December 6, 2019  
Reference Number: POA-1981-00334  
Waterway: Taiya Inlet

Dear U.S. Army Corps of Engineers:

The Municipality of Skagway Borough (“Skagway”) is pleased to provide the following comments to the above-referenced Public Notice of Application for Permit filed by Mr. Bob Berto-White Pass & Yukon Route (“Applicant”) with the U.S. Army Corps of Engineers (“COE”) regarding removal of contaminated sediments from the Skagway Ore Basin (“Ore Basin”). Skagway also requests a public hearing on such application. Skagway and its citizens have a substantial interest in the referenced removal effort and a keen focus on ensuring that adequate measures are undertaken to achieve desired cleanup results.

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## **A. COMMENTS**

**1. No approved work plan.** At the outset, Skagway is concerned that the request permit is premature at this time because the implementing agency for this work, the Alaska Department of Environmental Conservation (“ADEC”), has not yet received or considered a work plan detailing the specific activity to be performed under the requested permit. Thus, approval of a permit prior to the development, consideration, or approval of a work plan is premature because the details and requirements of the project could change significantly based on the work plan review and approval process. For example, the following considerations will likely impact the final remediation plan that is eventually adopted:

a. Proper cleanup standards and a proper cleanup level have not been advanced or approved (discussed in more detail below).

b. The area dredged could become significantly larger than the 0.44 acres presented, and the volume of the dredging operation could increase significantly.<sup>1</sup>

c. The dredging method or methods may change and a dredged material management plan must be developed and approved by the U.S. Environmental Protection Agency (“EPA”) (discussed in more detail below).

**2. The project goal is not adequately framed.** The stated goal of the project is to remove 85 percent of the known mass of lead-impacted sediments. There are several issues and concerns summarized below associated with this approach. The project goal should not be based upon volume of sediments removed but instead on reduction of contamination to acceptable levels.:

a. Removal on a mass basis instead of a concentration basis may have little to no impact on risk posed and does not address exposure. The remaining 15 percent would likely predominate beneath the dock where the existing exposure would remain unchanged. Risk is based on exposure to high concentrations of contamination, not on the total mass of contamination present.

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<sup>1</sup> The *Sediment Characterization Report, Skagway Ore Dock and Small Boat Harbor Dredging, Anchor QEA, June 2015* (“2015 Anchor QEA Report”) estimated 17,300 cubic yards of dredged material, but the permit application only calls for dredging of 10,000 cubic yards. This discrepancy has not been explained or justified.

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b. The basis for the proposed removal of 85 percent of the known mass of lead-impacted sediments has not been stated. It is unclear if this performance standard was developed by assessing risk and exposure. It appears to simply be a convenient number based on the contaminated areas that are easily accessed. (Further discussed below.)

c. Cleanups are typically intended to reduce concentration, exposure, and mass of contamination. The proposed approach would only partially address mass. Skagway supports use of risk based cleanup standards instead. (Further discussed below.)

d. Contaminants other than lead are not addressed in the proposed action. While it is possible that other contaminants will be mitigated along with the lead, no evaluation has been provided to assess the impact the project will have on other contaminants. The presence of other contaminants has a cumulative effect on risk posed. (Further discussed below.)

e. Acceptable sediment cleanup standards should be used because the standards address risk posed by contamination. (Further discussed below.)

**3. Remedial action objectives should be established.** Development of remedial action objectives (“RAO”) is a critical component of a cleanup plan. A RAO of 85 percent mass removal has been proposed. As indicated above, Skagway disagrees with this approach and supports the use of generally accepted sediment cleanup standards in lieu of 85 percent lead mass removal. For example, the cleanup standards presented for metals in the Golder risk assessment are consistent with Washington Department of Ecology (“WDE”) Sediment Management Standards.<sup>2</sup> WDE values could be used to form the basis for development of project RAOs for the removal of both metals and Polycyclic Aromatic Hydrocarbons (PAHs).

**4. A comprehensive feasibility study is necessary.** The issues identified in these comments represent significant barriers to a successful project outcome as proposed. Skagway recommends the responsible party prepare a feasibility study (“FS”), following CERCLA<sup>3</sup> protocol. The FS should provide a more robust evaluation of alternatives to remediate the site than have been presented by the applicant. The nine criteria of protection of human health and environment-compliance with Applicable or Relevant and Appropriate Requirements, long-term effectiveness and permanence, reduction in toxicity, mobility or volume reduction through treatment, short-term effectiveness, cost, state agency acceptance, and community acceptance must be presented. Note that cost is

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<sup>2</sup> Chapter 173-204 WAC, Sediment Management Standards, Washington State Department of Ecology, February 2013.

<sup>3</sup> Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

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considered a balancing criterion in a FS and options cannot be rejected solely based on cost. Preparation of a robust FS will likely require collection of additional data as described below.

**5. Cleanup should be based on risk assessment standards.** Risk assessment standards to be achieved have not been proposed or adopted. Golder prepared a risk assessment for the site quantifying risk posed by all the detected contaminants. The Golder report prepared figures showing contour lines for hazard indexes (“HI”) of >10, 5-10, 5-1, and less than 1. Note, an HI greater than 1 indicates that some effect is possible and most risk based cleanup levels specify an HI of 1 as the standard. A reasonable and acceptable risk assessment standard for the project should be adopted with input from stakeholders.

**6. Cleanup must remediate all contaminants that present risk.** Site characterization data indicate that the following substances, at a minimum, are contaminants of concern: Cadmium, Copper, Lead, Mercury, Silver, Zinc, and all polycyclic aromatic hydrocarbons (“PAHs”) being, 1-Methylnaphthalene, 2-Methylnaphthalene, Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene, Indeno(1,2,3-c,d)pyrene, Pyrene, and Total Benzofluoranthenes (b,j,k). Notwithstanding the foregoing, the plan proposes to target only lead for remediation. Cleanup must be based on all contaminants that present a risk. The use of the HI approach noted above would address this concern. Additionally, the following described additional sampling or investigation is warranted:

a. Some additional sampling for polychlorinated biphenyls (“PCB”) is warranted. A single composite sample for PCBs was analyzed and PCBs were detected at a concentration below a level of concern in this sample; nonetheless, since PCBs were detected, additional samples are justified to verify that PCBs are not an issue.

b. One sample detected tributyltin at a very high level. The authors speculated that it could have been a paint chip. While this explanation is reasonable, it does not supPLICATE the need to perform at least some additional sampling in the area to verify that the result is an anomaly. The distance between borings at the site is quite large; consequently, the potential to miss a significant hot spot is considerable.

c. At least one known copper ore related spill occurred on the dock, on July 8, 2016. Sampling for copper in the vicinity of this spill is warranted.

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d. The Golder risk assessment indicated that an unknown factor appears to be associated with sediment toxicity. Further investigation into the cause of this toxicity is warranted particularly if large areas are left undredged.

e. The boring spacing for testing already accomplished is typically more than 100 feet at most locations. Closer boring spacing will more clearly define the areas requiring remediation, possibly change the dredging footprint.

**7. Sampling area should be expanded.** Samples have not been collected from areas beneath the loading dock and loading arm. These areas potentially contain some of the highest contamination levels at the site because of proximity to ore handling equipment. Collection of samples from these locations will require different equipment than used during the 2015 site characterization performed by Anchor QEA or the 2017 supplemental investigation performed by Golder Associates.<sup>4</sup> Data from this area is crucial before selecting a remedial approach because of proximity to receptors and, again, the likelihood of very high contamination levels in the area.

**8. Proposed dredging methods are inadequate.** The proposed dredging methods may not achieve desired results or be practical for all areas requiring remediation. Conventional dredging will result in entrainment of particles in the water column resulting in dispersing contamination over a wider area of the bay. At a minimum, evaluation of dredging methods must be performed with a goal of selecting the method with the lowest potential to spread contamination. Additionally, areas around the ore basin deemed inaccessible for dredging, i.e. beneath the loading dock, likely contain some of the highest concentrations of contamination present (for the reason stated above). Different dredging techniques capable of working beneath the dock need to be evaluated prior to finding these areas are not accessible. If indeed these areas are inaccessible by dredging technology, then conventional excavation using a coffer dam or suction may be necessary to address the contamination.

**9. Adequate plans for the management of dredged materials have not been proposed.** The proposal calls for stabilization of dredged material followed by disposal at an upland facility. A more robust plan for management of dredged material is essential. Four in situ samples from the dredging target area were analyzed using the toxic characteristic leaching procedure (“TCLP”). This test is used to determine if a waste classifies as Resource Conservation and Recovery Act (“RCRA”) hazardous waste. All four samples indicated that the excavated material would be classified as hazardous waste for lead. Consequently, once material is dredged it must be managed as RCRA hazardous

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<sup>4</sup> *Skagway Ore Basin Risk Assessment*. Golder Associates. August 2018.

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waste. Two key requirements of RCRA are a prohibition on land disposal and the requirement to have a permit prior to treatment. Placement of dredged material on the shoreline would constitute land treatment. Even if placed in a lined area, the RCRA program interprets this management method as land disposal. Further, any effort to stabilize the material ex situ, such as by mixing with Portland cement, would require a Treatment Storage and Disposal (“TSD”) permit. Issuance of a permit of this type by the Environmental Protection Agency (“EPA”) is unlikely. There may be some on-site options such as use of a Corrective Action Management Unit (“CAMU”) to stabilize the material on-site. Regardless, any activity other than containerizing the waste as it is dredged will require approval of a plan by EPA.

**10. Post-remediation monitoring and testing have not been proposed.** The proposal does not discuss any post dredging sampling to verify the success of the project. Indeed, it would be very difficult to verify 85 percent removal. It is unclear how the applicant will demonstrate 85 percent removal. A more important consideration is how it will be demonstrated that the site has actually been cleaned to an appropriate level. The only means to demonstrate success is to collect samples after dredging and fill have been completed and the site has reached steady state. Success of the project can then be evaluated based on comparison of sample data to RAOs.

## **B. REQUEST FOR PUBLIC HEARING**

Skagway requests that COE schedule and hold a public hearing in Skagway to consider the subject application. A public hearing is necessary and proper to allow stakeholders, including members of the public, an opportunity to voice their opinions and concerns about the subject application and about any written comments that have been filed with COE. The importance of the proposed remediation to Skagway and its citizens, coupled with the concerns expressed above, constitute reasonable cause for COE to exercise its discretion to hold public hearing.

## **C. SUMMARY & CONCLUSION**

The subject application for a permit to remove contaminants from the Skagway ore basin is premature because an adequate work plan has not yet been proposed, considered, or approved. In order to develop a work plan for the ore basin remediation, additional information is needed to determine the area requiring remediation and the scope of the remediation, including the identification of contaminants to be remediated and the preparation of a FS. Furthermore, reasonable standards to be achieved by such remediation efforts must be adopted. Finally, post-cleanup monitoring and testing procedures must be adopted in order to ensure that the adopted standards have been achieved. Skagway

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requests that a public hearing be scheduled in Skagway to provide a public forum for interested parties to voice their positions and opinions.

Sincerely,

Municipality of Skagway Borough

By 

Andrew Cremata, Mayor

- c Robin O. Brena, Esq.  
Alaska Department of Environmental Conservation