Emily Deach

Subject: Draft Agreement for Borough review and approval **Attachments:** GeneralAgreement_MOS_AirQualityProject.docx

From: Tranel, Michael

Sent: Friday, February 23, 2018 1:42 PM **To:** Emily Deach <e.deach@skagway.org>

Subject: Draft Agreement for Borough review and approval

The attached agreement describes our respective commitments towards the air and water quality assessment partnership that was approved for this fiscal year and is planned to start in the spring. Recent cost estimates for laboratory analysis of samples have come in lower than expected, and given ongoing concerns regarding potential water quality impacts from the use of exhaust scrubbers to reduce air emissions by marine vessels (additional background provided below), we would like to propose using cost savings to fund additional water quality sampling in Skagway Harbor. We expect that this additional information will help the NPS, MOS, and citizens of Skagway to evaluate the full implications of these regulatory changes, better incorporating both air and water quality responses.

We would implement additional water quality sampling by expanding a joint NPS-NOAA study planned for Glacier Bay National Park and Preserve that will use passive samplers to estimate presence and approximate concentrations of Polycyclic Aromatic Hydrocarbons (PAHs). The additional money would springboard on that existing study with significant cost savings to incorporate additional sites in Skagway Harbor. No additional funding beyond the approved budget (\$36,500) would be needed, but I would like to verify sponsorship of this work by the Municipality given the lack of NPS jurisdiction in Skagway Harbor

Thank you for considering our proposed adaptation of our prior air quality assessment proposal. We are prepared to invoice for advance payment upon signature of the final agreement. Work is scheduled to start in April, so efforts to expedite review and approval are greatly appreciated.

Additional background:

In 2018, many cruise ships that will make port of call in Skagway will be outfitted with, and utilize exhaust gas cleaning systems ('scrubbers') to meet air emissions standards imposed by the International Maritime Organization. Scrubbers on most of these ships are 'open loop' wet scrubbers meaning that large volumes of sea water is pumped onboard and mixed with engine exhaust to 'capture' air pollutants created by engine combustion. This highly acidic 'washwater' is then filtered, blended with reaction water (typically engine cooling seawater) to neutralize, and discharged. Per IMO/EPA guidance, the washwater must be within 2 pH units of surrounding (ambient) seawater when maneuvering or in transit, or a pH of 6.0 at the point of discharge.

Scubbers represent a relatively new and mostly untested technology. In 2017, there were numerous reports of 'oily sheens' present adjacent to ships operating scrubbers while at different ports of call in Alaska. The IMO has Polycyclic Aromatic Hydrocarbon (PAHs) standards for washwater discharge in the form of 'Phenanthrene equivalents' (phenanthrene is one of EPAs 16 identified priority pollutant PAHs) although the EPA has found that 'widespread use of scrubbers emitting washwater with PAH concentrations close to this limit could pose a risk to the environment' (EPA 2011).

The level of PAHs discharged into Skagway harbor from cruise ships is currently unknown. The volume of washwater effluent created by a cruise ship while in Skagway is contingent upon a suite of factors including the power requirements of the ship (number of generators and auxiliary engines in operation to meet ship's power needs), whether the engines in operation are outfitted with a scrubber, the acidity of the washwater produced (more seawater is needed to buffer the washwater to meet pH standards), and the buffering capacity of the seawater (higher freshwater inputs lower buffering capacity). The quality of the washwater effluent is also largely unknown as continuous sampling occurs for only a subset of water quality attributes.

In 2018, the NPS is partnering with NOAA to passively sample hydrocarbons in seawater within or adjacent to park boundaries utilized by cruise ships. Scientists with NOAA will travel to Alaska for deployment and retrieval of sampling equipment, providing an opportunity for Skagway to 'springboard' onto this sampling effort.

| Mike Tranel |
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| Superintendent |
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General Agreement Between

U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE, KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK, and the

MUNICIPALITY OF SKAGWAY

This General Agreement is made and entered into this __ day of _____, 2018 by and between the U.S. Department of the Interior, National Park Service (NPS), Klondike Gold Rush National Historical Park (KLGO) and the Municipality of Skagway Borough (hereinafter referred to as the MOS).

ARTICLE I – BACKGROUND AND OBJECTIVES

WHEREAS, the National Park Service Organic Act and the General Authorities Act (16 U.S.C. I, 2-4) provide key management authority for units of the National Park System, including the direction to preserve unimpaired the natural and cultural resources and the values of the National Park System for the enjoyment, education, and inspiration of this and future generations; and

WHEREAS, the greater airsheds and watersheds affecting Klondike Gold Rush National Historical Park includes lands administered by the MOS; and

WHEREAS, concerns regarding air quality within the airshed were documented during previous monitoring efforts supported by KLGO and the MOS; and

WHEREAS, conditions in detached units of KLGO offer opportunities to assess air quality at remote sites with little human influence, providing context for results from MOS sites nearer human activities; and

WHEREAS, new regulations have subsequently been implemented by the State of Alaska that may influence air and water quality conditions, including the concerns previously identified;

THEREFORE, KLGO and MOS desire to cooperate and mutually agree to collaborate as described below.

ARTICLE II - TERMS OF AGREEMENT

- A. National Park Service agrees to:
 - a. Lead implementation of a study of air quality conditions in KLGO and adjacent MOS lands near Skagway, AK (proposal to MOS of 15 March 2017).
 - b. Collect and coordinate analysis of lichen tissue samples from six sites with the University of Minnesota.
 - Collect and coordinate analysis of mussel tissue samples from two sites with the NOAA Mussel Watch Program and TDI, Brooks International.
 - d. Collect and coordinate analysis of bulk deposition from three sites and ambient air quality samples from two sites with the U.S. Forest Service Pacific Southwest Research Station.
 - e. Using low-density polyethylene membrane devices (PEMDs), collect information on presence and concentration, and conduct forensics analysis of, polynuclear aromatic hydrocarbons (PAHs) in the marine water near Skagway harbor.
 - f. Complete one or more reports for the NPS Natural Resource Report series detailing project methods and results with particular attention to findings relevant to NPS resource stewardship responsibilities and air or water quality concerns of the citizens of Skagway, Alaska.
 - g. Archive laboratory results and reports in the NPS Data Store for posterity.
 - h. Create an invoice for advance payment of \$36,500 and send it to the MOS by March 1, 2018.
- B. The Municipality of Skagway agrees to:
 - a. Provide advance payment in the amount of \$36,500 to support sampling on MOS lands outside of KLGO.

ARTICLE III – TERM OF AGREEMENT

This Agreement shall become effective on the date of the last signature and will remain in effect for five years. Modifications to the Agreement may be proposed by either party and shall become effective upon written approval of both parties. Either party may withdraw from this agreement, or any part thereof, at any time upon 60 days prior written notice to the other party (at the addresses set forth below or as otherwise indicated).

ARTICLE IV - KEY OFFICIALS

The key official representing KLGO is the Superintendent.

The key official representing the MOS is the Mayor.

Article V – Reserved

Article VI - Standard Clauses

- 1. Non-Discrimination: During the performance of this agreement, the participants agree to abide by the terms of USDI-Civil Rights Assurance Certification, non-discrimination and will not discriminate against any person because of race, color, religion, sex or national origin. The participants will take affirmative action to ensure that applicants are employed without regard to their race, color, religion, sex or national origin.
- 2. Officials Not to Benefit: No member or delegate to Congress, or resident Commissioner, shall be admitted to any share or part of this agreement, or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this agreement if made with a Corporation for its general benefit.
- 3. Promotions: Not applicable.
- 4. Public Information Release: Both the MOS and KLGO shall consult prior to any public information releases that refer to this agreement.
- 5. In accordance with the Federal Tort Claims Act, 28 U.S.C. 2671, et, seq. or such other authority as may be available, the United States Government agrees to promptly consider and adjudicate any and all claims which arise out of actions it takes pursuant to this agreement.

ARTICLE VII – AUTHORIZING SIGNATURES

IN WITNESS WHEREOF, the parties hereto execute this instrument as of the last date written below:

| Michael J. Tranel Superintendent, Klondike Gold Rush National Historical Park | Date | |
|-------------------------------------------------------------------------------|------|--|
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| Monica Carlson | Date | |
| Mayor, Municipality of Skagway Borough, Alaska | | |