April 6, 2022

Anthony Strupulis P.E., State Pipeline Coordinator
State Pipeline Coordinator’s Section
Alaska Department of Natural Resources
550 West 7th Avenue, Suite 1100
Anchorage, AK  99501

RE:   Trans-Alaska Pipeline System, Pipeline Milepost 33.3
      Land Description Modification for Right-of-Way Lease, ADL 63574
      New Buried Sill near Sagavanirktok River

Dear Mr. Strupulis:

Alyeska Pipeline Service Company, agent for the Trans Alaska Pipeline System Right-of-Way Lessees, hereby applies to modify the description of the TAPS facilities attached to the referenced lease to include certain state lands needed to accommodate construction of the subject structure. The work has been reviewed in recent Monthly Lands and Permits Meetings and is planned to start no earlier than late June 2022.

The lands required for construction are described on Attachment A, and a narrative and drawings are enclosed describing the work in further detail. The lands needed to accommodate the new structure after construction will be precisely described upon completion of the as-built survey.

Thank you for your consideration of this application, and please contact me at 787-8170, if more information is needed.

Sincerely

Nagel,  
Peter C.

Peter C. Nagel, SR/WA
Land and Right-of-Way

Enclosures

cc:     SPCS Records
ATTACHMENT A (revised May 5, 2022)

Township 5 North, Range 14 East (Umiat Meridian)

Section 7 NW4SE4, those lands adjacent to the Trans Alaska Pipeline right-of-way as shown on the attached drawings as Proposed Construction Area, containing approximately 13.7 acres.
Trans Alaska Pipeline System, Milepost 33.3
Buried Sill Adjacent to Sagavanirktok River
Permit Narrative (APSC, March 2022)

Purpose
The purpose of this project is to install a buried rock sill adjacent to the Sagavanirktok River to protect the integrity of the Trans-Alaska Pipeline. Changes in the flow patterns of the river in this area has resulted in the possibility that the bank could erode further which would then threaten the integrity of the buried mainline pipe.

Site Description
The project site is located approximately 33 miles south of TAPS Pump Station 1 and 25 miles north of Pump Station 2. In this area the Dalton Highway and the pipeline follow the west side of the Sagavanirktok floodplain which is over a mile wide. Soils in this area consist of organic silt with some sand, gravel mixed with sand, numerous cobbles and scattered boulders.

The vegetation zone is lowland tundra, which consists of sedges, grasses and mosses. Fish species in the Sag River are the Arctic Char, Arctic Grayling, Burbot and White Fish. The Sag River is classified as an anadromous fish stream, and its side channels are also considered anadromous because of their connection to the main channel.

Problem Description
Recent high-water events have resulted in channel changes and increased bank erosion towards the pipeline. These channel changes will continue if unmitigated and threaten the pipeline integrity in a major flood event.

On this reach of the Sag River over 200 feet of bank was eroded during a single flood event in 1992.

Work Description
The project will construct a buried sill of Class III and IV rip rap on the existing land buffer between the pipeline and river bank consisting. The organic surface layer will be stripped first and stockpiled near the ditch separately from the sill ditch spoils. As the rip rap is installed, gravel from the excavation will be placed to fill the voids in the rip rap and backfilled to the original grade. Any excess spoil will be removed and stockpiled or spread on the existing gravel pad nearby. Afterwards stockpiled organics will be placed on the fill and track-walked lightly, with fertilizer if appropriate.

Access to the site will be with tundra/equipment mats from the workpad.

Work in and Around Water
There will be no instream work in the Sagavanirktok River. There is a possibility that ground water will be encountered in the trench but the excavation will not be dewatered.

Environmental Impacts and Mitigation
A buried sill was the preferred alternative to a conventional spur dike or a revetment to minimize the footprint of the project. There will be no impact to aquatic life because the entire structure is on the floodplain, and not in active channels.
There is no designated critical habitat in the vicinity of the area. Direct impacts to threatened and endangered species are very unlikely because they are not known to inhabit the subject area. Polar bears and eiders are typically not denning or nesting here. In addition, if a polar bear were to stray this far inland, all of Alyeska’s operations follow the company’s Polar Bear Interaction Plan that has been approved by the US Fish and Wildlife Service.

Other than the access path/s on tundra mats, equipment travel will be confined to the buried sill footprint. Silt fences and fabric liner material will be used as required along the temporary ditch spoil stockpile and excavation to protect any adjacent wet ground. The revegetation application that will be used for this project has been successfully demonstrated to restore the pre-existing biological productivity within two to three years in a high latitude arctic environment. There should be no loss of wetlands, and no additional mitigation is planned.

**Approximate Construction Scope of Work**

Equipment used on the project will be trucks, backhoes and loaders. The work will occur between June and October of 2022 and will take approximately 24 days to complete.

1. Mobilize personnel and equipment
2. Construct access to the work site with tundra mats
3. Excavate buried sill footprint
4. Place rip rap
5. Backfill with gravel
6. Cap the footprint of excavation with stockpiled organics
7. Dispose of excess material, clean up work site and demobilize
PLMP 33.3 BURIED SILL
69.801'N 148.734'W
T5N R14E SEC7 NW4 SE4
UMIAT MERIDIAN, ALASKA

ADJACENT PROPERTY OWNER: STATE OF ALASKA

2022 RIVERS AND FLOODPLAINS IMPROVEMENTS
LOWER SAGAVANIRKTOK RIVER – MP 33.3 BURIED SILL
LOCATION AND VICINITY MAP

ALYESKA PIPELINE SERVICE CO.

TRANS ALASKA PIPELINE SYSTEM

DATE: 03/28/22
SCALE: AS NOTED

FILENAME: -

PLOT SCALE: -

REVISION: -

C DWN. MTH CKD. AJN APPR. JP

0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0
miles

0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0
km

SHEET 1 OF 3

AUTOCAD DWG. DO NOT REVISE MANUALLY.
## ESTIMATED MATERIAL QUANTITIES

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<th>BELOW OHW</th>
<th>ABOVE OHW</th>
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<tr>
<td>CLASS III–IV RIPRAP (SF)</td>
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<td>18,000</td>
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**Temporary Stockpile of Excavated Material**  
(Placed on Tundra Mats or Else Placed on Taps Workpad)

**Typical Section**  
*Scale: 1" = 10'*

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**Adjacent Property Owner:** State of Alaska  
**Alyeska Pipeline Service Co.**  

**2022 Rivers and Floodplains Improvements**  
**Lower Sagavanirktok River – MP 33.3 Buried Sill Sections**

**Date:** 03/28/22  
**Plate:** 3

**Rev.** C  
**Dwn. Mth**  
**Ckd. Ajn**  
**Appr. Jpd**  

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