Trans Alaska Pipeline System
Gravel Mining in Active Floodplain, Sagavanirktok River
Alyeska Pipeline Service Company, Permit Narrative

Purpose

Alyeska proposes selective aggregate mining on a gravel bar at a location on the active floodplain approximately three miles south of the Franklin Bluffs Pad at Dalton Highway Milepost (DHMP) 377, OMS 130-3.

Site Description

The project site is located off the end of TAPS Access Road 130 APL/AMS-5 near Pipeline MP 42, seventeen miles north of Pump Station 2 and downstream of the Ivishak River confluence. In this area the Dalton Highway and the pipeline follow the west side of the Sagavanirktok River floodplain which is over two miles wide.

The gravel bar is located on a braided but stable reach of the river with multiple islands, midchannel and point bars. The bar is approximately one mile long and a third of a mile wide, depending on water levels. Surface of the point bar is almost exclusively bare mineral soils such as gravels and sands with little or no vegetation. Soils adjacent to the river in this area consist of erosive fine sands overlying thaw stable gravel covered by Arctic tundra consisting of sedges, grasses, mosses, and dwarf shrub communities.

The river is classified as an anadromous fish stream, and its side channels are also considered anadromous because of their connection to the main channel. Fish species are Arctic Char, Arctic Grayling, Burbot and White Fish.

Problem Description

Gravel stockpiles mined from this site in the fall of 2021 and 2022 have been depleted. The gravel was used for local routine maintenance and repair of damaged flood control structures including the 2025 breakup flood. The availability of a gravel stockpile in the area makes it possible to rapidly mitigate flood damaged structures and conduct routine maintenance of the ROW workpad on a timely basis during the short summer construction season.

Work Description

Mining will be performed during low water conditions using an excavator and bulldozer to scrape the top of the bars above the water line. Setbacks, isolation berms and restoration details for protecting water quality and fish populations are covered in the attached draft mining plan. If environmental and resource factors delay completion of the production past Freeze-up, mining could be continued into the winter season.

Hauling and stockpiling the material would be primarily by articulating rock trucks along the pipeline workpad, bolstered as needed by highway transportation routes.

Environmental Impacts and Mitigation

The project will avoid adverse impacts to water flow, floodplain and existing vegetation in riparian areas. Heavy equipment use will be confined to the existing TAPS workpad and unvegetated gravel bars. All fueling will be done on the R.O.W. outside the active floodplain.

Water quality will be impacted only nominally because the mining will not be conducted in flowing water and will not extend into the water table. Access within the mining site will be routed as much as practical to avoid small isolated waters or very minor stream braids. Gravel ramps will be installed if needed for equipment access from the end of the existing access road and then removed after mining is completed. The piling of gravel on the gravel bar/s for loading the hauling equipment will be of short-term duration only.

There will be minimal impact to aquatic life because the gravel extraction will not be in active channels. Any fish encountered in pools will be captured and released in the waterways nearby.

The gravel mining will not occur in wetlands. The proposed source bar has been subjected to disturbances from past floods and icing events and supports only sparse vegetation, if any. Therefore, impact to local flora will be minimal. No additional mitigation is planned.

Construction Order of Work and Schedule

1. Mobilize equipment and personnel
2. Establish access to the site, such as gravel ramps
3. Install outer perimeter gravel berms to prevent fish entrapment
4. Scrape/mine gravel bar
5. Load and haul gravel offsite
6. When mining is complete remove gravel berms
7. Grade site and contour to avoid fish entrapment
8. Clean up and demobilize