

TAPS Sag River, Milepost 20 Gravel Pit Buffer Restoration Permit Narrative

Purpose

The purpose of this work is to restore a buffer zone along an inactive gravel pit adjacent to the Sagavanirktok (Sag) River to protect the integrity of the shallow buried mainline pipe.

Site Description

The project site is located 20 miles south of Pump Station 1 and 37 miles north of Pump Station 2 on the Trans-Alaska Pipeline System (TAPS).

At MP 20 the Sag River crosses the Arctic Coastal Plain, which primarily supports lowland tundra vegetation types. Wetland plant communities are the predominant vegetation type in the lowland tundra zone which includes mosses, lichens, herbs and low shrubs. The soils in this area consist of organic silt with some sand, gravel mixed with sand, numerous cobbles and scattered boulders.

The Sagavanirktok River has been specified as being important for the spawning, rearing, or migration of anadromous fish pursuant to AS 16.05.871(a). In addition to a large run of anadromous Dolly Varden, the river supports broad whitefish, humpback whitefish, pink salmon and chum salmon. The river is also inhabited by resident Arctic grayling, lake trout, round whitefish, least cisco, burbot, nine spine stickleback and slimy sculpin. The side channels are also considered anadromous because of their connection to the main channel.

Problem Description

The old gravel pit is located between the Pipeline and the Sag River. Progressive erosion on the north end of the gravel pit adjacent to the Sag River will hydraulically connect the Sag River to the gravel pit.

When the Sag River connects with the gravel pit it will reduce the buffer distance between the Pipeline and Sag River by half and destabilize the stream reach. An unstable reach will lead to additional bank erosion in the area that could threaten the integrity of the Pipeline.

Project Description

An eroding buffer strip between the gravel pit and the Sag River will be restored along the entire eroding length of the pit. In-situ alluvial material will be scraped from a gravel bar to the east and used to widen the buffer strip. Along the restored buffer short buried rock sills will be installed to arrest future erosion towards the gravel pit. To access the work area temporary gravel ramps will be installed on previously disturbed locations. After construction the ramps will be removed, and the sites restored to their prior condition.

Work in and Around Water

This work will be implemented in late fall when the river stage is typically very low and local seasonal side channels are frozen or dry. Depending on field conditions, isolated areas of groundwater seepage may be encountered especially in the early stages of construction. Therefore, it is anticipated that the work area will be mostly frozen and/or dry. In the unlikely event where an open channel across the work area is encountered, a stream diversion or a temporary installation of culverts may be necessary to minimize impacts to water quality. However, depending on ambient temperatures during construction there is a small possibility that equipment tracks may be in contact with open waters.

Environmental Considerations and Mitigation

Disturbances to natural tundra will be negligible because previously disturbed areas will be used for equipment travel. No net loss of habitat is anticipated because the buffer is being restored to its previous location and the reclaimed area will be left to naturally revegetate with native flora.

Schedule

The project will be implemented between mid September to early November of 2026 and will take approximately 12 days to complete.

Approximate Construction Sequence of Work

1. Mobilize personnel and equipment
2. Build access ramp
3. Scrape alluvial aggregates from gravel bar
4. Restore/widen buffer strip
5. Install buried rock sills
6. Cleanup work site and demobilize

Major equipment used on the project will be trucks, backhoes, loaders, dozers and compactors.