



Sediment and Erosion Control Plan for NWT Highway 4 Km 7.94 to Km 10.18 Water Licence

Government of the Northwest Territories – Department of Infrastructure



Introduction

The Government of the Northwest Territories, Department of Infrastructure (INF) is applying for a Water Licence to place fill within the high-water mark at Km 7.94-10.18 for reconstruction as part of the ongoing maintenance activities of NWT Highway 4. To undertake maintenance and to improve safety of the highway, the proposed works will be completed under Land Use Permit MV2017X0008, however works include infill within the high-water mark indicating a requirement for a Water Licence.

This Sediment and Erosion Control Plan describes the mitigation measures to prevent or reduce the effects of erosion or sedimentation from activities related to the construction.

Erosion and sediment control measures will be implemented and maintained during the construction and will be removed once construction is completed. Such measures will include but not limited to the **installation of silt fences and silt curtains** to protect the water quality and to maintain riparian vegetation. These measures will be inspected regularly to make sure they are working well and to Identify any damage or degradation of erosion and sedimentation control measures, if any.

The contractor will be following “DFO’s Working Near Water Manual” and “Erosion and Sediment Control Manual” (GNWT 2013); there will be no work in water or in a water course. Construction activities will be conducted during no or low flow periods. Machinery on-site will be in a clean condition and maintained free of fluid leaks, invasive species, and noxious weeds.

The construction includes the following activities to which this plan applies:

- **Road Reconstruction:**

The roadway will be widened, and road grade will be raised at certain places by hauling and end-dumping embankment rock fill; placing and compacting granular sub-base and base course layers; embankment construction will use a fill-only approach; there will be no cutting into the subgrade. Locations where fill will be going into water or wetland are identified below.

Fill Locations	Latitude	Longitude
1	62.516587°	-114.313106°
2	62.516489°	-114.313714°
3	62.514786°	-114.309920°
4	62.514166°	-114.309603°
5	62.510383°	-114.305946°
6	62.509835°	-114.305800°

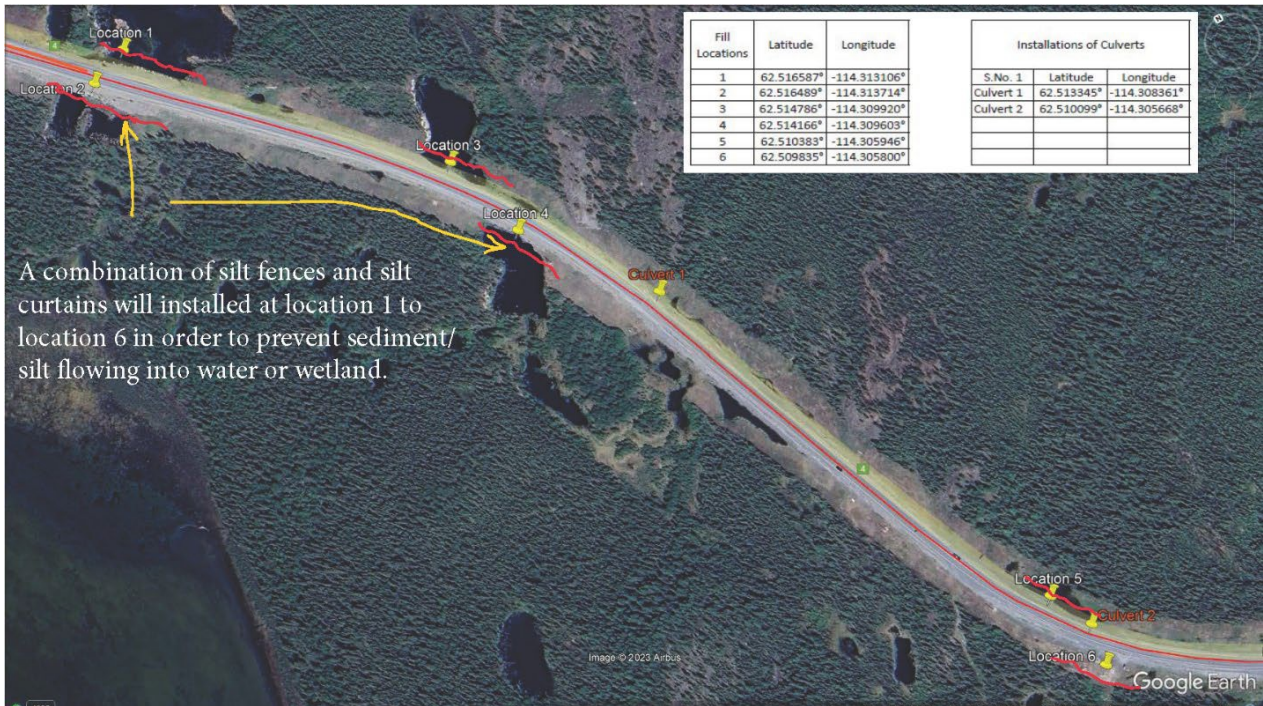
- **Installation of Culverts**

The Department of Infrastructure (INF) is planning to replace existing culverts at:

1. Km 8.812 (dia. 800 mm)
2. Km 9.183 (dia. 800 mm)

Usually, these culverts have water passing only in freshet time (May/June) and rest of the year they are dry; but if water is present at these locations during the time of their replacement; the water will be dammed off before culvert is removed; the area will be dewatered and kept dry as much as possible. Silt curtains and/or silt fences will be installed to make sure there is no sediment flowing into water nearby.

- **Installation of silt fences and silt curtains**



Before the dumping fill material (blast rock) into water or wetland, silt fences and silt curtains will be installed at location 1 to location 6; these erosion and sediment control measures will be implemented and maintained during the construction and will be removed once construction is completed. These measures will be inspected regularly to make sure they are working effectively with no damage.