

# APPENDIX F

## WASTE MANAGEMENT PLAN

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# **Aklavik Airport Drainage Improvements Waste Management Plan**



## **Government of the Northwest Territories**

OCTOBER 2019  
ISSUED FOR USE  
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## 1.0 INTRODUCTION

This Waste Management Plan (WMP) outlines the plan for managing waste management issues associated with the Aklavik Airport Drainage Improvements Project. The WMP is a living document which will be updated based on regular yearly reviews including management reviews, incident investigations, regulatory, or Project-specific protocol changes. This WMP was originally included as Appendix F in the Project Description Report for the Aklavik Airport Drainage Improvements Project (the Project).

The purpose of this WMP is to provide a strategic action plan for effectively managing potential waste management issues that may occur in relation to any component of the Project. The WMP is a working document which may be updated during the construction and operations phases of the Project. The GNWT will update this Plan to verify conformance on an as-needed basis as per the conditions of any land use permits or water licenses granted for the Project.

The objectives of the WMP are to minimize the generation of wastes, employ best practices for the effective handling and disposal of waste, and to comply with applicable legislation, regulations and authorizations for the duration of the Project, and to comply with all applicable legislation, regulations, authorizations, permits and licences for the duration of the Project.

The WMP will be posted at the Project site and will be provided to all employees and contractors.

## 2.0 COMPANY NAME, CONTACT, AND EFFECTIVE DATE

The Government of the Northwest Territories (GNWT) is the proponent for the proposed Project. Key contact information for the Project is as follows:

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The information presented herein is current as of October, 2019.

## 3.0 PROJECT DESCRIPTION

The purpose of the Project is to improve the drainage at the Aklavik Airport, specifically two problem areas at airport (Area 1 and Area 2). The Aklavik Airport is located at 68°13'23.57" N, 135°00'23.03" W, within the Hamlet of Aklavik (Hamlet).

Significant portions of the Hamlet) and Aklavik Airport flood in the spring during "break-up". After flood waters recede, Areas 1 and 2 do not drain completely which has reportedly been a problem for the Hamlet and the airport. The purpose of the Project is to develop a practical plan to drain Areas 1 and 2 by gravity after flood waters subside.

The project would have Area 1 graded with a perimeter swale constructed around it. The perimeter swale would drain to an existing ditch that runs along the airport runway. The ditch would be reworked to daylight into the Peel Channel, south of the airport. Area 2 would have a swale constructed through the centre of it. The swale would lead to a short ditch that would daylight into the Peel Channel, north of the airport.

The construction of the swales and ditches would be as follows:

- Typically, a 2 metre (m) wide base constructed with 200 millimetre (mm) granular ditch bedding over geotextile.
- The swales would have back slopes to match the existing ground elevations to a maximum slope of 3:1.
- The ditches would typically have back slopes at 3:1.
- The ditch for Area 1 would daylight into the Peel Channel at 68°13'07.35" N, 134°59'57.21" W, and ditch for Area 2 would daylight into the Peel Channel at 68°13'45.23" N, 135°00'46.44" W.
- The length of the ditch from Area 1 to the Peel Channel would be approximately 855 m long.
- The length of the short ditch for Area 2 would be approximately 55 m long.

It is anticipated that the heavy equipment used for the Project will include a backhoe.

## 4.0 REGULATORY ENVIRONMENT

Specific legislation, regulations and guidelines related to waste management that may have applicability to the Project include:

### 4.1 Federal

- Canadian *Environmental Protection Act*;
- *Waters Act*;
- Canada-Wide Standards for Petroleum Hydrocarbons (PHC) in Soil;
- *Transportation of Dangerous Goods Act* and Regulations;
- *Work Site Hazardous Materials Information System (WHMIS) Safety Act*; and
- *Territorial Lands Act*.

### 4.2 Territorial

- Mackenzie Valley Land and Water Board Guidelines for Developing a Waste Management Plan.
- Northwest Territories *Environmental Protection Act*;
- Northwest Territories *Public Health Act*;
- Northwest Territories *Transportation of Dangerous Goods Act*;
- Northwest Territories *Waters Act*; and
- Used Oil and Waste Fuel Management Regulations.

However, it should be noted that very few waste types will be generated by this Project and will be primarily limited to the generation of small quantities of construction-related refuse, domestic garbage, and maybe sewage. As a result, most of the legislation identified will have limited applicability to this Project.

## 5.0 WASTE TYPES AND MANAGEMENT

A material is considered to be a waste when it can no longer be used for its original intended purpose. The types of wastes anticipated to be generated for this project are mainly limited to:

- **Garbage** – All site garbage will be removed and transported as needed throughout the Project to the Aklavik Landfill. Details of construction are unknown at this time, therefore the amount of garbage / recycled material generated is unknown. An estimate at this time is up to 40 kg/day for normal daily construction-related garbage. The garbage is anticipated to mainly be food and packing waste.
- **Domestic Sewage** – During construction, a porta-potty will be available on-site for sewage generated by the construction crew. The porta-potty will be pumped out as needed and the sewage transported to the Aklavik sewage lagoon for disposal. The porta-potty will be removed once construction is complete. No grey water is expected to be generated on-site. The number of crew on-site is unknown at this time; therefore the amount of sewage generation is unknown. An estimate at this time is up to 50 L/day but may vary during construction. Due to the Project being in the Hamlet, it is anticipated that the field crew may use their own bathrooms in their homes, or bathrooms in businesses as well, reducing the amount of domestic sewage generated by the Project on-site.
- **Trees and Brush** – It is anticipated that the amount of trees and brush to be cleared for this Project will be minimal in the ditch, and higher in the areas to be graded. Any trees and brush will be collected and stockpiled on-site, before being hauled to the Aklavik landfill if/as needed.
- **Overburden** – It is anticipated that the amount of overburden that will be generated will be minimal in the graded areas, but higher in the ditch. Some of the overburden from the ditch may be used in the areas that will be graded.

Frequency of waste collection is unknown at this time, it is expected to that it will take place on an as-needed basis. An estimate at this time is on a weekly basis, as the Project is located in the Hamlet, but it will vary depending on construction activities at the site.

The selected contractor for the project will be required to confirm with the Aklavik Landfill that it will accept the waste generated by this project. The contractor will keep track of waste manifests or letters of acceptance of the waste throughout the project.

## 6.0 TRAINING

As part of their orientation, all on-site personnel will receive basic environmental and waste management training, including:

- Practices for reducing waste generation on-site;
- Managing food wastes to minimize wildlife attraction, though it is less expected within the Hamlet; and
- Containment and storage of wastes for subsequent transportation to an approved waste disposal facility.

In addition, all personnel involved in the handling of hazardous materials (e.g. diesel fuel) will receive Workplace Hazardous Materials Information System (WHMIS), 'Personal Safety and Protection' and Emergency Response training.

## 7.0 CLOSURE

We trust this report meets your present requirements. If you have any questions or comments, please contact the undersigned.

Respectfully submitted,

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