

APPENDIX G

CLOSURE AND RECLAMATION PLAN

Aklavik Airport Drainage Improvements Closure and Reclamation Plan



Government of the Northwest Territories

OCTOBER 2019
ISSUED FOR USE
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1.0 INTRODUCTION

This Closure and Reclamation Plan (CRP) outlines the plan for managing closure and reclamation issues associated with the Aklavik Airport Drainage Improvements Project. The CRP 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 CRP was originally included as Appendix G in the Propjet Descript Report for the Aklavik Airport Drainage Improvements Project (the Project).

The purpose of this CRP is to provide a strategic plan for the effective closure and reclamation of the construction site. The CRP outlines the approaches and concepts that may be implemented. The CRP 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 CRP 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:

Moshiur Rahman, Airport Planner
Government of the Northwest Territories
Department of Infrastructure
5015 – 49 Street Yellowknife, NT, X1A 2L9
Phone: (867) 767-9084 ext. 31079
Fax: (867) 873-0297
Email: Moshiur_Rahman@gov.nt.ca

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

3.0 PROJECT DESCRIPTION

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 CLOSURE AND RECLAMATION

As the Project is being completed within the Hamlet at a location that is already developed as an airport and an existing drainage ditch, the focus of this CRP is offsetting the impacts of the construction site (if any). Once the Project is complete, the drainage ditches and swales will remain in use for the foreseeable future. Topics covered in the Spill Contingency Plan, Erosion and Sediment Control Plan, and Waste Management Plan for the project are touched upon in the sections below. These plans were completed alongside this CRP, and go into further detail regarding their respective topics.

4.1 Construction Site Closure

It is anticipated that the machinery used for the site (field trucks, a backhoe, etc.) will primarily be stored on or just off of existing roads and parking areas during the duration of the project, with the exception of the backhoe which will spend more time working on the ditch improvements. This is dependent on the approach of the selected contractor.

Once the project is complete, the contractor will complete a final cleanup of the site. This will include the removal of:

- All field vehicles (field trucks, the backhoe, etc.);
- All site facilities (spill cleanup kits, port-potties, site offices, etc.);
- Construction material supplies;
- Any construction waste generated by the Project;
- Excess overburden, vegetation, or mulched trees generated during the Project (if any), and
- Any other equipment, supplies, or non-permanent items used for the project.

A final inspection of the site should be completed, reviewing the site for evidence of any environmental spills resulting from the Project. If a spill or impact is noted during this review, the preferred approach to remediation would be excavation of the impacts and completion of confirmatory sampling to determine if the impacts were successfully cleaned up.

4.2 Future Decommissioning of Surface Water Structures

Once the Project is completed and the drainage ditches are in use, they will remain in use for the foreseeable future. In the unlikely event that these surface water structures are no longer needed in the future, they could be decommissioned so that the land could be reclaimed.

The strategies that could be used to reclaim the site could include the following:

- Allow for natural revegetation of the ditches and surface water structures;
- Application of an approved northern seed mixture and fertilizer to actively promote revegetation of the ditches and surface water structures, or
- Backfill the ditches and surface water structures, and regrade the site to avoid ponding of water.

A combination of the reclamation strategies listed about could be used.

5.0 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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Prepared by:
Michael Blanchette, P.Eng.
Environmental Engineer
Direct Line: 587.460.3462
Michael.Blanchette@tetrattech.com

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Reviewed by:
Rick A.W. Hoos, R.P. Bio.
Principal Consultant
Direct Line: 604.608.8914
Rick.Hoos@tetrattech.com