UPDATED OPERATION AND MAINTENANCE PLAN

Cambridge Bay Airport Land Treatment Units, Nunavut

NWB Licence #1BR-FTA1828 (Original #1BR-FTA1721)

Prepared by
Transport Canada

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1.0 INTRODUCTION

The purpose of this updated Operation and Maintenance Plan is to provide information regarding the current status of the project and continued operation and maintenance of the Land Treatment Units at Cambridge Bay Airport, Nunavut until the time of decommissioning.

1.1 Site Description and Project Status

Prior to July 1, 1995 Cambridge Bay Airport was owned by the Government of Canada and operated by the Quebec Region of the Department of Transport. From July 1, 1995 until April 1, 1999 the airport was owned by the Government of Northwest Territories (GNWT) and operated by the Arctic Airports Division of the Department of Transportation. Since April 1, 1999 the airport has been owned by the Government of Nunavut and operated by the Nunavut Airports Division of the Nunavut Department of Community Government, Housing and Transportation. As a condition of the Arctic A Airport transfer agreement (July 1995) between Transport Canada and GNWT (and subsequent transfer to the Government of Nunavut), Transport Canada must remediate the environmental issues identified prior to the airport transfer.

In 2013, hydrocarbon impacted soil was excavated from the Apron area at the Cambridge Bay Airport and placed in an engineered Land Treatment Unit (LTU) on-site. In 2014, hydrocarbon impacted soil was excavated from the former Fire Training Area (FTA) at the Cambridge Bay Airport and placed in an additional engineered Land Treatment Unit (LTU) on-site. Additionally in 2014, during construction of the FTA LTU, a buried drum cache near the former FTA area was discovered. Soils from this drum cache were excavated and placed into the Apron LTU. The Apron LTU contains approximately 4,000 m3 of soil and the FTA LTU contains approximately 4,500 m3 of soil.

The LTUs are located at the Cambridge Bay Airport, southwest of the northwest end of the runway. The LTUs are located in a developed area at the Cambridge Bay Airport. Therefore, they do not impact communities, traditional use areas (hunting and trapping camps), sensitive areas, parks, game preserves, and resource harvesting areas, fish spawning areas, waterfowl habitat, animal migration routes, beaches, archaeological and historic sites, public or private water supplies. The area surrounding the airport is flat lying close to the roadside, with topography then beginning to drop off quite steeply (+/-10 m drop) towards the shoreline and West Arm of Cambridge Bay.

Since there is potential for PFAS contamination to be present at Firefighter Training Areas, such as at Cambridge Bay Airport, where aqueous film forming foams (AFFF) for firefighting training were used, Transport Canada sampled the soils and sump water of each LTU for the presence PFAS substances. The analytical results confirmed the presence of PFAS in both LTUs. Currently, there

are no viable remediation technologies to treat PFAS impacted soils. Therefore, Transport Canada will maintain and manage the LTUs until a suitable treatment technology is available to remediate the impacted soils.

Active treatment of hydrocarbons has been suspended until further notice. On-going water management is required to ensure that surface water continues to be contained within the LTUs, the integrity of the berms are maintained, and conditions of the NWB license are met. Water management will include yearly tilling of soils in the LTUs to increase water capacity and pumping of water from sumps over tilled soil (as needed). Transport Canada is currently forecasting to maintain and manage the LTUs until 2028 or until a suitable PFAS remediation technology can be implemented.

2.0 Ongoing Operation and Maintenance Activities

Each year until decommissioning, Transport Canada will engage a consultant to conduct soil and groundwater monitoring to fulfill requirements of the NWB Licence. Additionally, to manage any standing water in the sumps, consultant/contractor will undertake the following tasks:

- tilling to increase water capacity in LTU;
- construction of an infiltration basin (if deemed necessary) and deconstruction of basin during last site visit of the season (after completion of water pumping);and
- intermittent pumping of water from sumps into the infiltration basin or over the tilled soil if infiltration basin is not constructed.

To ensure LTUs are performing as designed, they will be inspected once per year and consultant will notify Transport Canada of any deficiencies or required maintenance. Berm height, liner integrity, drainage, and condition of monitoring wells will be considered.

Should a suitable on-site soil PFAS treatment method be implemented in the future, Transport Canada may restart active treatment for hydrocarbons, including nutrient amendments, as was previously approved in the 2014 Operation and Management Plan.

3.0 Spill Contingency

Please refer to Transport Canada's "Revised Spill Contingency Plan" (July 2018).

4.0 Decommissioning

Please refer to Transport Canada's "Updated Abandonment and Restoration Plan" (August 2018) for details regarding the proposed decommissioning of the LTUs.