

Resolute Bay Landfills Remediation - Resolute Bay Airport, Nunavut

The Resolute Bay airport was originally constructed in 1949 by the Royal Canadian Air Force. From 1964 to July 1, 1995, Resolute Bay Airport was owned by the Government of Canada and operated by Transport Canada. In July 1995, ownership was transferred to the Government of Northwest Territories. From July 1, 1995 to April 1, 1999, this airport was operated by the Arctic Airport Division of the Department of Transportation. Since April 1, 1999, the airport has been owned by the Government of Nunavut (GN) and operated by the Nunavut Airports Division of the Nunavut Department of Community Government, Housing and Transportation.

Past activities for transportation, communications and administration in the Arctic have resulted in the generation of solid waste. Solid waste disposal from military activities and the community itself have resulted in the creation of several landfill sites. Two landfills, the solid waste landfill and the historic landfill, are present near the airport. The third site, known as the vehicle storage area is north of the solid waste landfill.

Waste material was dumped in the solid waste landfill during the 1960s and 1970s. The landfill has not been officially used since 1995, when a new landfill was constructed southeast of the hamlet. However, as recent as 2005, there was evidence of recent dumping of waste in the landfill.

The historic landfill was used from 1947 to 1995. The Canadian and American military forces used this landfill between 1947 and 1964. Transport Canada and various airport tenants used the landfill between 1964 and 1995.

The vehicle storage area is located near the solid waste landfill and used to store metal debris such as old vehicles and unused airport equipment.

Previous investigations of the landfill sites indicate that there has been an impact to groundwater and a potential risk to aquatic life in areas where buried refuse has been previously identified.

The project details will consist of off-site recycling of selected metal debris that can be accessed at the metal storage area and the 2 main landfills. Surface waste material would be consolidated and placed on the main slope, extending down the toe of the slope. Waste material would be placed on the main slope as per specifications by a qualified professional to ensure a stable slope with an acceptable factor for safety. Exposed waste would be covered with a geotextile and available fill material. The Solid Waste Landfill and Historic Landfill should be shaped so that overland drainage is properly managed and surface water is directed away from the landfill. Long term monitoring will also be required to ensure the remediation targets are working to the designed specifications. The maximum amount of material will be removed and recycled while any additional material will be managed to eliminate exposure to the environment. Construction will require 2 years. Monitoring of the site will consist of inspections and sampling ground water monitoring well for 2 years after the construction phase to ensure the site is operating as designed.