

## NON-TECHNICAL PROJECT DESCRIPTION

### Former Iqaluit Metal Dump Remediation Project

The Iqaluit Former Vehicle Dump and Community Landfill (the site) is situated approximately 1.7 km southwest of the City of Iqaluit, Nunavut. The former dump and landfill occupies a total area of approximately 7.25 ha (72,500 m<sup>2</sup>), which includes the up-gradient debris area and the lower area bordering the Sylvia Grinnell River.

The site is adjacent to the Sylvia Grinnell Territorial Park protected area and is within the administrative boundaries of Iqaluit as shown on Schedule A of the 2016 Draft Nunavut Land Use Plan issued by the Nunavut Planning Commission. The site is located within Nunavut Management Area 53 (Frobisher Bay Watershed).

The area was used as a military and municipal landfill starting in the late 1950's and early 1960's. The United States Air Force (USAF) used the site from 1955 to 1963 as a metal dump for vehicles, truck bodies, barrels and scrap metal. The site was believed to be used for the disposal of small quantities of municipal waste from the City of Iqaluit in the 1960's. A few examples of municipal wastes disposed of at the site include food cans and bottles, kitchen appliances, bicycles, tires, wooden pallets, animal remains, water heaters and toys. The site was reportedly abandoned in the 1970s. Upon closure of the site, it is believed that a cap consisting of granular material was placed on top and on the face of the landfill site to cover much of the debris.

Transport Canada (TC) proposes to implement a remediation project at the site to address the environmental and physical impacts associated with the historical military and municipal waste disposal at the site. The undertaking is the remediation of the former Iqaluit vehicle dump and community landfill and will include the following main components:

- Removal of debris, contaminated soil and hot spot contaminated sediments and consolidation into on-site landfill or disposal off-site, depending on the waste stream.
- Engineered decommissioning of the on-site landfill.
- Monitoring of the performance of the remediation work.
- Temporary diversion of a drainage feature to remove impacted sediments/soil/debris. Improvement of the same drainage feature following the remediation with a rip-rap structure (as required) to act as a passive treatment system for the enhanced recovery of surface water and sediments downstream of the drainage feature.
- Swale design to divert precipitation and melt water away from the decommissioned landfill slopes to prevent both erosion and water infiltration.
- Collection of surface water samples from ponds and drainage features to monitor the natural recovery following the remediation program.

In 2017, a remedial action plan including remedial options evaluation was completed. Alternative methods and locations that were considered included full removal off-site of landfill debris and other scattered debris, engineered wetlands for the treatment of contaminant impacted sediments in downstream ponds, in-situ treatment of soil contamination and managing impacts in place through site-specific contaminated site risk assessment and management. The options were reviewed against a number of screening criteria. The option selected met all screening criteria. Additional details are available in *Remedial Action Plan, Former Metal Dump and Community Landfill, Iqaluit, Nunavut. 27 January 2017 Report prepared by Arcadis Canada Inc. for PWGSC.*

The undertaking will improve the environmental conditions of the site and enhance the quality of the downstream surface water environment. Impacts associated with the remediation projects are predominantly related to the use of machinery on site. A detailed list of mitigation measures have been compiled including a spill contingency plan, dust control measures, and sediment control measures.

It is anticipated that physical work at the site will occur between May 2017 and October 2017, with long-term monitoring occurring until December 2020. Types of equipment to be used include excavator, dump truck, bulldozer, pickup truck, grader, and backhoe. All fuel storage will be off-site. It is anticipated that there will be 15 personnel on-site for the first three months of the project, 5 personnel on-site by the end of the 2017 field season, and 2 personnel on-site during monitoring events.

In November 2016, Transport Canada sent letters to potentially interested parties, including City of Iqaluit, Qikiqtani Inuit Association, Government of Nunavut (Department of Economic Development and Transportation and Department of Environment), and Nunavut Tunngavik Incorporated. The intent of the letters was to provide notification of the upcoming project and to request any comments. The City of Iqaluit responded to the letter and indicated that "The City has no concerns with this at this time and welcomes this work." The Government of Nunavut, Department of Economic Development and Transportation also responded and indicated support of the project.