



## **SCREENING PART 2 FORM PROJECT SPECIFIC INFORMATION REQUIREMENTS (PSIR)**

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### **1. SUBMISSIONS**

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#### **Resolute Bay Landfills Remediation - Resolute Bay Airport, Nunavut**

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### **2. GENERAL PROJECT INFORMATION REQUIREMENTS**

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#### **Project Coordinates and Maps**

1. Detailed information and corresponding maps for this project proposal are contained within the accompanying report:

Franz Environmental – Resolute Bay Airport Landfill Sites, Resolute Bay, Nunavut: Phase II/III Environmental Site Assessment (ESA) Final Report, March 2010  
Appendices A - C

- Area/sites of investigation; (Appendix A: Figure 1 page 81)
  - Location of any proposed infrastructure or activity(s); (Appendix B – Aerial photographs)
2. Map of the project site within a regional context indicating the distance to the closest communities. (Appendix C – Site photographs)
  3. Map of the project site indicating existing and/or proposed infrastructure, proximity to water bodies and proximity to wildlife and wildlife habitat. (Appendix C – Site photographs)

#### **Project General Information**

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.

Franz Environmental Inc. was retained by Public Works and Government Services Canada (PWGSC) Pacific Region and Transport Canada (TC), Prairie and Northern Region and Environmental Affairs Division to complete an Environmental Site Assessment (ESA) at three landfill/waste disposal sites at the Resolute Airport. The purpose of the referenced consultant report was to undertake a Phase II and Phase III Environmental Site Assessment (ESA) in three areas of potential concern (APECs): the solid waste and historic landfills, as well as a vehicle storage area/boneyard at the Resolute Bay Airport. Transport Canada will use this report to demonstrate due diligence and reduce liabilities in order to direct remediation and/or risk management activities at these sites. As a result of this responsibility, there is no option for a no-go alternative.

## Equipment

Provide a list of equipment required for the project and discuss the uses for the equipment:

Equipment type and number	Size – dimensions	Proposed use
Excavator Cat	225	Consolidate garbage
Backhoe		Consolidate garbage
Flat bed truck		Transport Garbage
Dump Truck		Transport Garbage
Crane		Consolidate garbage
Cat Dozer	D-7	Consolidate garbage

## Water

Once the project has been awarded, the contractor will complete a spill response plan in accordance to the requirements under the *NWT Waters Act* and Section 6 g (i) and (ii) of the NWT Waters Regulations.

## Waste Water (Grey water, Sewage, Other)

Describe the quantities, treatment, storage, transportation, and disposal methods for the following (where relevant):

Once the project has been awarded, the contractor will complete a spill response plan in accordance to the requirements under the *NWT Waters Act* and Section 6 g (i) and (ii) of the NWT Waters Regulations.

Franz Environmental – Resolute Bay Airport Landfill Sites, Resolute Bay, Nunavut: Phase II/III Environmental Site Assessment (ESA) Final Report, March 2010  
Appendix A - C  
Section 10: pages 52 - 64

## Fuel

N/A - No fuel storage and no hazardous waste will be stored on site. No refueling on site. Once the project has been awarded, the contractor will complete a spill response plan in accordance to the requirements under the *NWT Waters Act* and Section 6 g (i) and (ii) of the NWT Waters Regulations.

## Chemicals and Hazardous Materials\*

Franz Environmental – Resolute Bay Airport Landfill Sites, Resolute Bay, Nunavut: Phase II/III Environmental Site Assessment (ESA) Final Report, March 2010  
Sections 7.0 and 8.0: pages 35-47  
Section 10: pages 52 - 64

## Workforce and Human Resources/Socio-Economic Impacts

The workforce mobilization and schedule, including the duration of work and the transportation of workers to site will depend upon the contractor awarded the project.

## Public Involvement/ Traditional Knowledge

Community	Name	Organization	Date Contacted
Resolute Bay	Thomas Livingston	Government of Nunavut	June 21, 2010
Resolute Bay	Jason, Brown	Government of Nunavut	June 21, 2010
Resolute Bay	Brian Duguay	Government of Nunavut	June 21, 2010

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### 3. PROJECT SPECIFIC INFORMATION

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The following table identifies the project types identified in Section 3 of the NIRB, Part 1 Form. Please complete all relevant sections.

**Table 1: Project Type and Information Required**

Project Type	Type of Project Proposal	Information Request
1	All-Weather Road/Access Trail	Section A-1 and Section A-2
2	Winter Road/Winter Trail	Section A-1 and Section A-3
3	Mineral Exploration	Section B-1 through Section B-4
4	Advanced Mineral Exploration	Section B-1 through Section B-8
5	Mine Development/Bulk Sampling	Section B-1 through Section B-12
6	Pits and Quarries	Section C
7	Offshore Infrastructure(port, break water, dock)	Section D
8	Seismic Survey	Section E
9	<b>Site Cleanup/Remediation</b>	<b>Section F</b>
10	Oil and Natural Gas Exploration/Activities	Section B-3 and Section G
11	Marine Based Activities	Section H
12	Municipal and Industrial Development	Section I

## Section F: Site Cleanup/Remediation

The project type and information requirements for this section are contained within the specific sections outlined in the accompanying report:

### **Franz Environmental – Resolute Bay Airport Landfill Sites, Resolute Bay, Nunavut: Phase II/III Environmental Site Assessment (ESA) Final Report, March 2010**

1. Describe the location, content, and condition of any existing landfills and dumps (indicate locations on a map): Franz Environmental Resolute Bay Phase II/III ESA, March 2010 – **Section 6.0: pages 21 - 33.**
2. Identify salvageable equipment, infrastructure and/or supplies: **N/A**

3. Provide a list of all contaminants to be cleaned up, anticipated volumes and a map delineating contaminated areas: **Section 10.0: pages 52 - 64.**
4. Describe the degree of pollution/contamination, and list the contaminants and toxicity: **Sections 7.0 & 8.0: pages 35 - 47.**
5. Describe technologies used for clean-up and/or disposal of contaminated materials: **Section 10.0: pages 52 - 64.**
6. Identify and describe all materials to be disposed of off site, including the proposed off site facilities, method of transport and containment measures. **Section 10.0: pages 52 - 64**
7. Discuss the viability of landfarming, given site specific climate and geographic conditions. **N/A**
8. Describe the explosive types, hazard classes, volumes, uses, location of storage (indicate on a map), and method of storage (if applicable). **N/A**
9. If blasting, describe the methods employed. **N/A**
10. Describe all methods of erosion control, dust suppression, and contouring and re-vegetation of lands. **Section 10.0: pages 52 - 64.**
11. Describe all activities included in this project. **N/A**
  - Excavation (please complete Section B-5) **Section 10.0: pages 52 - 64.**
  - Road use and/or construction (please complete Section A) **N/A**
  - Airstrip use and/or construction **N/A**
  - Camp use and/or construction **N/A**
  - Stockpiling of contaminated material
  - Pit and/or quarry (please complete Section C) **Section 10.0: pages 52 - 64.**
  - Work within navigable waters (please complete Section H) **N/A**
  - Barrel crushing **N/A**
  - Building Demolition **N/A**
  - Other **N/A**

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#### 4. DESCRIPTION OF THE EXISTING ENVIRONMENT

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Describe the existing environment, including physical, biological and socioeconomic aspects. Where appropriate, identify local study areas (LSA) and regional study areas (RSA).

##### Physical Environment

*Please note that a description of the physical environment is intended to cover all components of a project, including roads/trails, marine routes, etc. that are in existence at present time.*

Franz Environmental – Resolute Bay Airport Landfill Sites, Resolute Bay, Nunavut: Phase II/III Environmental Site Assessment (ESA) Final Report, March 2010  
Section 3.0 – pages 6 – 8

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## 5. IDENTIFICATION OF IMPACTS AND PROPOSED MITIGATION MEASURES

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Please complete the attached Table 1 – Identification of Environmental Impacts, taking into consideration the components/activities and project phase(s) identified in Section 4 of this document. Identify impacts in Table 1 as either positive (P), negative and mitigable (M), negative and non-mitigable (N), or unknown (U).

Franz Environmental – Resolute Bay Airport Landfill Sites, Resolute Bay, Nunavut: Phase II/III Environmental Site Assessment (ESA) Final Report, March 2010  
Section 10.5: pages 55 – 62

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## 6. CUMULATIVE EFFECTS

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Franz Environmental – Resolute Bay Airport Landfill Sites, Resolute Bay, Nunavut: Phase II/III Environmental Site Assessment (ESA) Final Report, March 2010  
Section 10.0: pages 52 - 63

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## 7. SUPPORTING DOCUMENTS

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In addition, for Project Type 9 (Site Cleanup/Remediation), please provide the following additional supporting documents:

- Remediation Plan including cleanup criteria and how the criteria were derived.

Franz Environmental – Resolute Bay Airport Landfill Sites, Resolute Bay, Nunavut: Phase II/III Environmental Site Assessment (ESA) Final Report, March 2010  
Section 10.0: pages 52 – 63

- Human Health Risk Assessment of the contaminants at the site:

Franz Environmental – Human Health and Ecological Risk Assessment: Resolute Bay Airport Landfill Sites and Vehicle Storage Area, Final Report, March 2010  
Section 6.0: pages 16 - 21

PROJECT ACTIVITIES			ENVIRONMENTAL COMPONENTS	
DECOMMISSIONING	OPERATION	CONSTRUCTION	PHYSICAL	
			designated environmental areas (ie. Parks, Wildlife Protected areas)	
			ground stability	
			permafrost	
			hydrology/ limnology	
			water quality	
			climate conditions	
			eskers and other unique or fragile landscapes	
			surface and bedrock geology	
			sediment and soil quality	
			tidal processes and bathymetry	
			air quality	
			noise levels	
			other VEC:	
			other VEC:	
			other VEC:	
			BIOLOGICAL	
			vegetation	
			wildlife, including habitat and migration patterns	
			birds, including habitat and migration patterns	
			aquatic species, incl. habitat and migration/spawning	
			wildlife protected areas	
			other VEC:	
			other VEC:	
			other VEC:	
			SOCIO-ECONOMIC	
			archaeological and cultural historic sites	
			employment	
			community wellness	P
			community infrastructure	
			human health	P
			other VSEC	

If no impact is expected please leave the cell blank