# Remedial Action Plan
# Eureka High Arctic Weather Station

FY12/13

## EXECUTIVE SUMMARY

SENES Consultants Ltd. (SENES), in association with Franz Environmental Inc. (FRANZ), was retained by Public Works and Government Services Canada (PWGSC) on behalf of Environment Canada (EC) to prepare a Remedial Action Plan (RAP) at the Eureka High Arctic Weather Station (HAWS).

This project was completed under PWGSC Northern Supply Arrangement Agreement Number EW699-100053/002/NCS, Call-up number EW699-123266/001/NCS, and Amendments # 1 and # 2. This report describes the RAP completed for the Eureka HAWS and was prepared in accordance with the *Terms of Reference Remedial Planning and Remedial Action Plan Eureka High Arctic Weather Station FY11/12 and 12/13* dated March 2012, and the SENES/FRANZ work plan dated June 14, 2012.

Throughout this report the Eureka High Arctic Weather Station (HAWS), will be referred to as the site.

The project has been conducted in four stages, the first of which included a supplemental investigation at the Eureka HAWS to address the identified data gaps. The results of the supplemental investigation were reported separately.

The second stage included the evaluation of feasibility of different remedial options in support of the development of a RAP. The feasibility study incorporated considerations such as practicality, safety, cost, and site-specific logistics for each of the different options for the remediation at Eureka HAWS.

The third stage consisted of the development of a substantive cost estimate, work breakdown structure, and Gantt chart for the preferred remedial strategy chosen by PWGSC and EC. The cost estimate included all assumptions made, items of work, quantities, unit prices, complete list of all exclusions and reasoning for the exclusions.

The final stage was the preparation of the RAP based on the remediation strategy chosen by EC. This report covers the third and fourth stage of the project. Based on conversations with PWGSC and EC, the area near the landing strip (AEC A) will not be included in this RAP. A separate report titled *Long-Term Monitoring Plan AEC A, Eureka High Arctic Weather Station* by SENES/Franz (2013) outlines the risk management strategy for AEC A.

### 1.1 Study Area

Eureka HAWS is located on the north side of Slidre Fiord, at the northwestern tip of Fosheim Peninsula, Ellesmere Island, Nunavut (see Figure 1; Appendix A). The Eureka HAWS coordinates are 79°59'41"N and 85°48'48"W (according to a sign located at the corner of the living quarters). The site is accessed primarily by air, with an all-season airstrip located approximately 1.5 km northeast of the main operations facility and living quarters. Eureka HAWS is situated on a hillside sloping down from the airstrip, leveling out where most facilities are located, before sloping into the ocean. Down the slope south of the Eureka HAWS Main Complex is a flat section of land known as the Delta area. This area is used as an access point by the Canadian Coast Guard for the delivery of supplies via sea-lift. The Fiord is ice covered for most of the year (i.e., from September through June).

### 1.2 Project Objectives

The objectives of the project include the preparation of a RAP for the main area of the Eureka HAWS. EC has identified that risk management though long-term monitoring (LTM) is the preferred remedial option until such a time comes when the fresh water lagoon recapitalization project will result in changes to on-site infrastructure. The proposed project may impact the assumptions and evaluation of the various remedial options outlined in the SENES/FRANZ 2013 Remediation Planning and Remedial Action Plan – Feasibility Study. It was recommended once the final plans for the fresh water lagoon recapitalization have been approved; the remedial options analysis will be updated. Other projects that may have impacted the assumptions and evaluations of the remedial options include updates to the sewage lagoon and the demolition of old station buildings.

### 1.3 Scope

The scope of the project included the development of:

1. A plan for risk management through LTM;
2. A substantive cost estimate for the proposed LTM plan;
3. A work break down structure; and
4. A Gantt chart