



EXECUTIVE SUMMARY

1. BACKGROUND

The Government of Canada has initiated the Federal Contaminated Sites Action Plan (FCSAP) to clean up federally owned contaminated sites and to address the environmental liabilities associated with each site. The FCSAP program provides funding for the remediation of contaminated sites posing risks to human health and/or the environment. Indian and Northern Affairs Canada (INAC) has applied for, and secured, funds under this program for the investigation and remediation of the abandoned intermediate Distant Early Warning (DEW) Line site at PIN-B (Clifton Point).

The former PIN-B Intermediate DEW Line site was constructed in 1957 and subsequently closed and abandoned in 1963. In 1965, responsibility for the site reverted to INAC. Environmental assessment of the PIN-B DEW Line site was initiated in 1985 when DND and Environment Canada visited the site to remove contaminants such as PCBs and POLs and identify areas of buried materials that could pose environmental risks in the future. Numerous pieces of PCB-containing equipment were removed from various locations around at the site. Soil samples collected near the modular trains did not identify any further PCB residue. In addition, approximately 2,700 L of petroleum products were incinerated onsite.

The site was revisited in 1994 by the Environmental Sciences Group of Royal Roads Military College at which time a limited sampling program was completed. Their investigations identified soil contamination exceeding Tier I and/or Tier II (based on the DND DEW Line Clean-up Criteria) near the module train outfall, the station proximity and barrel storage areas. In addition, PCB amended paint was identified at the site. However, these investigations did not include assessment of hydrocarbon contamination that has the potential to be a significant source of contamination at the site.

INAC augmented work carried out in previous years with a detailed site investigation in the summer of 2007. At the same time, a geotechnical investigation was completed to identify suitable borrow source material and potential locations for non hazardous landfills. An archaeological assessment was also completed to identify areas of potential cultural or historical significance.

Based on the results of these investigations, as well as information gathered during the public consultation process, INAC has finalized the PIN-B remedial action plan (RAP) in accordance with the *Abandoned Military Sites Remediation Protocol* and proposes initiating this work in the summer of 2009.



2. PROJECT LOCATION

The former PIN-B DEW Line site is located at 68°13' N, 118°38' W along the coast of the Amundsen Gulf, near the discharge of the Dolphin and Union Strait. PIN-B is approximately 200 km northwest of Kugluktuk and approximately 220 km east of Paulatuk. Site maps and drawings are included in this submission to assist the reviewer in visualizing the site (See Appendix B and C).

The PIN-B station area is comprised of a five-module building train (the “module train”), a warehouse, a garage, a small house for Inuit staff (the “Inuit House”), a petroleum, oil and lubricants (POL) storage facility with associated distribution system, and a downed radar tower. In addition to the Station facilities, a cargo beaching area was constructed at the beach area. A second POL storage facility was located at the beach, in the vicinity of the beach (cargo) landing area. Two airstrips were constructed at the site. The primary (operational) airstrip is approximately 1 km long and is located south of the beach area. The second (abandoned) airstrip is about 300 m long and located a short distance northwest of the primary airstrip. Gravel roads were built linking the airstrip, water supply lake and beach landing area to the station area. A small construction camp was erected during building of site facilities but was demolished once site construction was completed. The former camp of an Inuit family is located approximately 1.5 km southeast of the PIN-B site; the demolition and cleanup of this camp is to be included as part of the PIN-B site remediation.

3. PROJECT ACTIVITIES & SCHEDULE

Site investigation and site characterization phases were completed in the summer of 2007. A Remedial Action Plan (RAP) for the proposed activities was prepared and is included in this submission package. Project work is to be started in the summer 2009 with the mobilization of equipment to the site via sealift. A detailed project schedule is also included in this submission (see Appendix E).

All existing site infrastructure will be demolished and the material will be segregated into hazardous and non hazardous waste streams. Hazardous wastes, predominantly lead and PCB contaminated painted materials and asbestos, will be packaged and transported south for disposal. Non hazardous building debris and other non hazardous wastes identified at the site will be put into the on-site non hazardous landfill that will be constructed as part of the clean up activities.

Waste consolidation activities will be primarily focused on the removal of contaminated soils. Site investigations determined that contaminated soils at the site have not impacted sediments or surface water. Contaminants of concern at



the site are similar to those observed at other abandoned DEW Line sites, and include petroleum hydrocarbons (PHC's) and some metals.

Barrels are strewn throughout the site and surrounding areas. Barrels will be handled and disposed of in accordance with the INAC *DEW Line Barrel Protocol*. Most barrels are empty, although a small number contain some product or could not be opened. Subsurface soil conditions below the barrels will be determined following their removal. All barrels will be consolidated, crushed and buried at the site.

INAC formally adopted the *Abandoned Military Sites Remediation Protocol* for use at all INAC controlled military sites in the north in March of 2005. This document identifies how INAC will handle most aspects of the site clean ups including cleanup criteria, landfill establishment and closure, hazardous materials and wastes handling and disposal, barrel protocol, building demolition and disposal borrow source development and final site reclamation. Site Specific Risk Assessments (SSRAs) will be used to augment CCME and other previously identified criteria where criteria are not available for the contaminant(s) of concern, based on site-specific issues.

A temporary camp and associated sewage treatment lagoons will be constructed. This facility will allow for a maximum of 50 personnel to reside on site for the duration of the construction season, which is anticipated to take up to 90 days during the 2009 and 2010 field seasons. Following the proposed site remediation work the temporary camp will be demobilized.

Personnel will normally be mobilized to site by air using the on-site airstrip. At completion of the project in 2010, the site surface will be restored based on the detailed remediation work plan that is also included in this submission.

4. SOCIAL IMPACT OF THE PROJECT

Wherever possible, the project has adopted solutions tailored to the northern environment and its inhabitants by using local knowledge and including the unique needs of northerners and their environments in the remediation work plan.

Consultations were completed during the Phase III Environmental Site Assessment. In addition, community consultations with the Hamlet Council, Hunters and Trappers Organization and community residents were completed in February 2008 in Kugluktuk. The results of the assessment and the various remediation options being considered for the site were presented. These meetings were used to solicit input as to the community's preferred remedial option. Please see attached public consultation records appended to the PIN-B



Remedial Action Plan (Appendix B) for additional details. The community presentations were used to complete the following objectives:

- To share information on the project with the community;
- To hear site-specific concerns from Inuit who are familiar with current conditions at the site or were familiar with on-site activities during facility operation;
- To identify the issues and concerns the communities had with the site and the proposed work;
- To identify resources (labour and equipment) in the community that would be able to assist in the execution of the project; and
- To develop a better remediation plan.

The concerns/observations raised by the communities at these meetings included:

- Traditional and current use of the facilities at Clifton Point;
- Location of landfill and potential impacts due to contaminants migrating into adjacent water bodies; and
- Employment and business opportunities.