

- The *Canada Shipping Act* regulates shipping activities under the jurisdiction of Canada. Regulations cover technical standards of operation safety and pollution aspects related to shipping activities in Canadian waters.
- The *Constitution Act* is the enabling legislation for the Nunavut Land Claims Agreement. The Nunavut Land Claims Agreement in turn details the terms and conditions for developments and other uses of lands within the Nunavut Settlement Area.
- The *Navigable Waters Protection Act* pertains to the erection of structures or facilities used to enhance or impede navigation in waters under the jurisdiction of Canada.
- The *Territorial Lands Act* provides the authority for administering and protecting lands under the direct control of the Minister of Department of Indian Affairs and Northern Development (DIAND) (Territorial Lands). The following regulations are pursuant to this act:
  - The *Territorial Land Use Regulations* provide regulatory control for maintaining sound environmental practices for any land use activities on Territorial lands. These regulations require that land use permits be issued for such operations as work involving the use of heavy equipment, establishment of camps, use of explosives, and clearing of lines, trails and rights-of-way, including construction of access roads.
  - The *Territorial Quarrying Regulations* establish the fee schedule and procedures for extracting Crown-owned limestone, granite, slate, marble, gypsum, loam, marl, gravel, sand, clay or stone from Territorial Lands. The regulations specify permits, applications, staking and dimensions of quarries.
- The *Northwest Territories Waters Act and Regulations* provide for the conservation, development and use of the water resources of the Northwest Territories and for the establishment of a Water Board to license all such water usage and waste disposal activities.
- *Atomic Energy Control Act and Regulations* describe the packaging requirements and approvals needed for the transportation of radioactive materials.
- *Explosives Act and Regulations* define explosives, the permitting requirements needed to use explosive substances, packaging, handling and transporting requirements, and safety requirements.
- *National Fire Code (NFC)* establishes the standard for fire prevention, fire fighting and life safety in buildings in use, including standards for the conduct of activities causing fire hazards, maintenance of fire safety equipment and egress facilities, standards for fire extinguishers, etc. In addition, the NFC establishes the standard for prevention, containment and fighting of fires originating outside buildings which may present a hazard to a nearby

community and sets the standards for the storage and handling of dangerous goods, flammable liquids and combustible liquids.

#### *Northwest Territories Regulatory Overview*

The Territorial Government and DIAND jointly administer the part of the NWT that contains DEW Line sites. The Territorial seat of government and the DIAND regional office are in Yellowknife. DIAND regional offices within the Nunavut Settlement Area are present in Yellowknife and Iqaluit.

In addition to the Federal and Territorial Acts and Regulations above, the clean up of the DEW Line sites in the NWT is also governed by:

- The Explosive Use Act provides controls for surface blasting other than for mining purposes.
- The NWT Wildlife Act provides for the protection of wildlife and wildlife habitats as well as regulated harvest of selected species.

- The NWT Environmental Protection Act provides for protection of the environment from the discharge of contaminants, clean up of contaminants and unsightly premises. In addition, the powers of inspectors as well as offences and penalties are defined. The Act applies only to situations not authorised by other Canadian Acts in the NWT.

- The *Spill Contingency Planning and Reporting Regulation* outline requirements for filing of a contingency plan and for reporting of spills.

- The *Northwest Territories Archaeological Sites Regulations*, pursuant to the *Northwest Territories Act*, protects archaeological sites in the Northwest Territories from disturbance and prohibits the removal of archaeological specimens, except under permit.

- *Occupational Health Regulations* outline the health and safety standards to be maintained at workplaces to ensure the health and safety of persons.

#### *Environmental Guidelines*

- *National Guidelines for Decommissioning Industrial Sites* provides the recommended process for undertaking site assessment studies.
- *Guidelines for Effluent Quality and Wastewater Treatment at Federal Establishments* indicate the degree of treatment and effluent quality that will be applicable to all wastewater discharged from existing and proposed Federal installations.

- *National Guidelines for the Landfilling of Hazardous Waste* (CCME Report, April 1991) are to be used by regulators, designers, owners, and operators of hazardous waste facilities. They

cover site selection, design, construction, closure and post-closure care, monitoring, and operation. They are intended for new, not existing facilities.

- *Guidelines for Preparation of Hazardous Material Spill Contingency Plans* identify factors that should be considered in the development of hazardous material spill contingency plans and the information that should be incorporated into a comprehensive contingency plan.
- *Code of Good Practice on Dump Closing or Conversion to Sanitary Landfill (1977)* outlines the guidelines to improve operation and properly close existing dumps. It is intended to promote a consistent approach to the clean up of existing dumps to prevent contamination of water, air and land and to ensure that the best particular control technology is used.
- *Code of Practice for Used Oil Management in Canada* describes environmentally sound options for the handling, storage, collection, transportation, recycling, reuse and disposal of used oils in Canada. It is intended to provide guidance for used oil generators and to regulatory authorities in the formulation of provincial or regional used oil management strategies.
- *Canadian Drinking Water Guidelines* are compiled by CCME for Canadian Drinking Water Quality for specified uses of water likely of concern at contaminated sites.
- *NWT Guidelines for Removal of Materials Containing Friable Asbestos* outline guidelines to be used to remove friable asbestos.
- *NWT Guidelines for Municipal Type Wastewater Discharges* outline requirements for water quality effluent from these facilities.
- *NWT Guidelines for Discharge of Treated Municipal Wastewater* outline requirements for water quality effluent from these facilities.

### ***List Of Previous Environmental Assessments***

As a federal proponent, the Department of National Defence is required to conduct an environmental assessment for the clean up of each DEW Line site. As an early planning tool, these assessments were drafted in 1991 by the Department of National Defence under the auspices of the *Environmental Review Process Guidelines Order*. Subsequent changes to overall project planning have been assessed from time to time and the assessment document updated.

A similar environmental assessment was completed in 1996 for the clean up of the six DEW Line sites in the Inuvialuit Settlement Region. Through an ongoing project program of quality assurance and post assessment/implementation monitoring, conclusions and predictions have been validated or modified from the lessons learned in the ISR sites and incorporated into the assessment for the Nunavut sites.

These assessments have been preceded by extensive on-site environmental and engineering investigations completed by the Environmental Sciences Group at Royal Military College and UMA Engineering Limited. The initial investigations, which took place from 1989 to 1994 were used to provide a baseline study of the existing environment (both biological and physical) and ecological pathways and possible transport mechanisms that will exist during the clean up. Detailed socio-economic analysis, including a detailed archaeological survey of the sites, were completed during this time. Since 1996, DND has conducted a series of further site investigations in order to update the original information and to address further data and analysis requirements.

#### *Environmental Assessment Process*

The environmental assessment undertaken in support of this project has used a process in which potential environmental impacts have been assessed on Valued Ecosystem Components identified during an initial scoping exercise.

The following sections provide a summary of the activities that were undertaken in conducting this environmental assessment:

#### *Scoping*

As a self directed environmental assessment, the initial step taken was to conduct a series of social and ecological scoping exercises designed to:

- Determine the temporal and spatial boundaries of the assessment; and
- Focus the analysis on the environmental issues directly related to the clean up project itself (i.e. identification of Valued Ecosystem Components).

In scoping the project, clean up activities to be assessed were identified. Possible additional activities were examined using the Canadian Environmental Assessment Agency's "Principal Project/Accessory" test, which is used to determine if other activities demonstrate an interdependence, linkage and/or geographical/ecological proximity with the primary clean up.

The assessment scope included a determination of the environmental effects to be assessed and the effects that are to be considered in making decisions regarding the project. The following chart outline the scope of the project and of the assessment:

**Scope of the Project.**

**Project:** Clean Up of 15 DEW Line sites in the Nunavut Settlement Area

**EA Trigger:** Funding from Department of National Defence

**Scope of the project:**

Principal Project: physical clean up of the 15 DEW Line sites within the Nunavut Settlement Area.

Accessory physical works: Transportation of waste (including hazardous) materials, debris disposal, mobilisation and demobilisation of contractors equipment and personnel

Other undertakings in relation to the physical work: None.

**Scope of the Assessment:**

**Project:** Clean Up of 15 DEW Line sites in the Nunavut Settlement Area

**EA Trigger:** Funding from Department of National Defence

**Scope of the assessment:**

The environmental assessment is to consider the effects of all project related activities (i.e. those related to the clean up of the site) and associated physical works on both biophysical (terrestrial, aquatic) and socio-economic assessment factors.

As a result of scoping, the following factors were identified for assessment:

- The need to evaluate environmental effects of the project, including those relating to cumulative effects that are likely to result from carrying out this project.
- Project undertakings performed in conjunction with other off site projects/activities that have been or will be carried out.
- The relative levels of significance.
- Public comments.
- Mitigation measures deemed to be technically and economically feasible.

Interested parties were identified and consulted during the assessment process including:

- 'Expert' federal departments (Environment Canada, GNWT Natural Resources, GNWT Health, DIAND);
- 'Other' federal departments (DND, Defence Construction Canada, Parks Canada);
- Aboriginal organisations (Nunavut Tunngavik Incorporated, Nunavut Planning Commission); and