



Guide to the Contaminated Sites Regulation

The Contaminated Site Regulation establishes cleanup standards, processes for identifying and investigating contaminated sites, and permits for managing contaminated material within Yukon. This fact sheet gives a brief overview of some aspects of the regulation. To view the regulation and access other resources, visit our website at <http://environmentyukon.gov.yk.ca/contaminatedsites>.

Site Assessment Processes

A two step process is normally used to determine whether contamination exists at a site:

1. During a **Site Investigation** (or "Phase I Assessment"), information about the site – such as past and current activities, spills and material handling practices – is compiled. A list is then developed of possible contaminants that may be found on the site and areas where they might be located.
2. If potential areas of contamination are identified, a **Site Assessment** (or "Phase II Assessment") may be carried out. This involves sampling the soil or water in those areas and analyzing the samples for the possible contaminants identified in the Site Investigation. The goal of a Site Assessment is to identify the areas, depths and concentrations of contaminants on the site.

The Contaminated Sites Regulation contains soil and water standards that set out allowable levels of contaminants based on the risks they pose to human and environmental health. If concentrations of contaminants at a site exceed any of these standards, the site is considered a contaminated site.

If you have prepared or received a Site Investigation or Site Assessment report, you can submit it to Environment Yukon for review. We will evaluate the report and tell you if the work was conducted properly, and whether we agree with the report's recommendations.

Cleaning Up Contaminated Sites

Once a site is determined to be contaminated, the contaminants should be removed or contained to reduce the risk to human health and the environment. This process is called remediation or restoration.

A **Plan of Restoration** (or "Remedial Action Plan") is often developed to establish how contamination at a site will be cleaned up. The process of preparing this plan provides an opportunity to determine what cleanup standards are most appropriate and which method should be used to remediate the site.

Selecting Restoration Standards

Most sites are simply remediated until they meet the **numerical standards** listed in the Contaminated Sites Regulation. For typical sites, this approach is simple, fast, and relatively inexpensive. For some sites, however, it may not be practical to meet the standards established for typical sites. In such cases, there are a few other options.

1. **Site-specific numerical standards** can be developed by adjusting the generic standards to fit site-specific conditions.
2. In some cases, such as where soil has naturally high concentrations of heavy metals, the site can be cleaned up to meet the natural **background concentrations** of contaminants.
3. When the existing models can't sufficiently address the complexity of the site, **risk assessment** can be used to determine what actual hazards are created by the contamination, and what actions can be taken to reduce those hazards to acceptable levels.

Selecting a Restoration Strategy

Once the appropriate standards have been chosen, a strategy must be selected to clean up the site so that it meets those standards. Remedial strategies generally fall into one of three categories: ex-situ remediation, in-situ remediation, and risk management.

1. **Ex-situ remediation** refers to the removal of contaminants from the site so that they can be treated or disposed of at a facility designed for that purpose. The most common type of ex-situ treatment is removing contaminated soil to a land treatment facility, where it is contained and treated by encouraging bacteria in the soil to break down the contaminants.
2. **In-situ remediation** means treating contaminated soil or water without removing it from the environment. This option is often selected when removing all of the contaminated material would be unreasonably expensive or impractical. It often takes longer than ex-situ treatment, but can be more efficient for certain types of sites.
3. **Risk management** is a method of reducing the risk to human and environmental receptors without removing the contaminants. This may be done by constructing a barrier to stop the spread of contaminants, installing a ventilation system to remove harmful vapours, placing restrictions on land use to prevent exposure to the most sensitive receptors, or a variety of other approaches.

Confirmatory Sampling and Reporting

When remediation is complete, confirmatory sampling must be conducted to show that all contaminants have been removed or remediated. Depending on the nature of the site and the contamination, follow-up monitoring may also be required.

Once your site has been remediated, be sure to submit a final report to Environment Yukon so that the public registry of contaminated sites can be updated to show that your site is no longer contaminated.

Public Registry of Contaminated Sites

Environment Yukon maintains information on reported contaminated sites and spills in the Yukon. Contact the Environmental Programs Branch for information on a specific site.

Reporting Contaminated Sites

The Contaminated Sites Regulation does not require landowners to advise Environment Yukon if they find historical contamination, but many people choose to do so. Once you have reported the contamination, Environment Yukon can provide advice on how to deal with it appropriately, including site assessment procedures and disposal options. Also, many real estate transactions, financing institutions, and insurance companies now require confirmation that properties have been cleaned up to the appropriate standards.

The Environmental Programs Branch can assist landowners, vendors and purchasers in reviewing reports of contamination or cleanup and determining how the CSR applies to the site.

If you would like to report a suspected contaminated site, please contact your local Conservation Officer or the Environmental Programs Branch.

Permits and Protocols

Under the Contaminated Sites Regulation, permits are required to do any of the following:

- A **Relocation Permit** is required to move contaminated material from one site to another.
- A **Land Treatment Facility Permit** is required to construct or operate a facility to treat contaminated materials.
- A **Risk-based Restoration Permit** is required to implement the site-specific cleanup standards developed through the risk assessment process.

To apply for a permit, please download the appropriate application form from our website, and submit it to the Environmental Programs Branch for processing.

Even when a permit is not required, all work related to contaminated sites in the Yukon must adhere to the protocols adopted by Environment Yukon under the authority of the Contaminated Sites Regulation. For more information on these protocols and how they apply to your site, contact the Environmental Programs Branch or visit our website.

For more information on the Contaminated Sites Regulation, please contact:

Environmental Programs Branch
Environment Yukon
Box 2703 (V-8)
Whitehorse, Yukon Y1A 2C6

Phone: (867) 667-5683
Toll-free: 1-800-661-0408 ext. 5683
Fax: (867) 393-6205
Email: envprot@gov.yk.ca

Website: <http://environmentyukon.gov.yk.ca/contaminatedsites>