

16.2 Liability for Contaminated Sites

Policy Statement

It is the policy of the Province of Nova Scotia to record a liability for contaminated sites in accordance with generally accepted accounting principles for the public sector.

Definitions

CONTAMINANTS

Any physical, chemical, biological, or radiological substance in air, soil, water, or sediment that, in sufficient concentration or is not naturally occurring in the environment, can adversely affect living organisms.

ENVIRONMENTAL STANDARD

Refers to any guidelines, objectives, criteria, or other kinds of limits placed on the presence or discharge of a contaminant into the natural environment. Such limits are generally set out in the form of a statute, regulation, by-law, order, permit, contract, or agreement.

CONTAMINATION

The introduction into air, soil, water, or sediment of a chemical, organic, or radioactive material or live organism that exceeds an environmental standard.

CONTAMINATED SITE

A site at which substances occur in concentrations that exceed the maximum acceptable amounts under an environmental standard. A contaminated site does not include airborne contamination or contaminants in the earth's atmosphere unless such contaminants have been introduced into soil, water bodies, or sediment.

REMEDIATION

The improvement of a contaminated site to prevent, minimize, or mitigate damage to human health or the environment. Remediation involves the development and application of a planned approach that removes, destroys, contains, or otherwise reduces availability of contaminants to receptors of concern.

CONTINGENT LIABILITIES

Possible obligations that are likely to result in the future sacrifice of economic benefits arising from existing conditions or situations involving uncertainty. That uncertainty will ultimately be resolved when one or more future events not wholly within the

government's control occur or fail to occur. Resolution of the uncertainty will confirm the incurrence or non-incurrence of a liability.

Policy Objectives

The objective of this policy is to ensure that liabilities associated with the remediation of contaminated sites are appropriately, accurately, and consistently accounted for and disclosed by the Province of Nova Scotia. This policy specifically addresses:

1. how to identify contaminated sites
2. when to recognize a liability for remediation
3. how to measure a liability for remediation

Application

This policy applies to all of the Province's departments, public service units, agencies, boards, and commissions contained in the General Revenue Fund (hereinafter referred to as "departments").

Organizations outside of the General Revenue Fund (GRF) but within the Government Reporting Entity¹ (GRE) are encouraged to adopt a policy that allows for the accurate and consistent reporting of liabilities for contaminated sites. This policy should be in compliance with the entity's generally accepted accounting framework. It is recognized that many entities may already have an appropriate policy in place. These organizations are responsible for reporting their liabilities for contaminated sites to the Government Accounting Division of the Department of Finance and Treasury Board as part of the year-end consolidation reporting requirements.

Policy Directives

A liability for contaminated sites is identified and recorded in accordance with the accounting standards and guidelines contained within the Public Sector Accounting (PSA) Handbook. In applying this policy, departments must identify all remediation liabilities for their area of responsibility.

IDENTIFICATION OF CONTAMINATED SITES

A complete inventory of contaminated and potentially contaminated sites should be compiled by every department and updated on a regular basis, at least annually. All sites owned by the Province should be considered by reviewing tangible capital asset

¹ For definition, see Corporate Administrative Policy Manuals, 200 Budgeting and Financial Management Manual, Chapter 4, Policy 4.1 Government Reporting Entity

listings and all other available property information. In compiling this list, departments should include sites that have the following characteristics:

- Known contamination exists on the property
- Unexpected contamination has occurred (e.g. chemical spill)
- Property has a history of contamination or is deemed to be higher risk of becoming contaminated due to its similarity to other sites or due to risky activity being performed on the site
- Property where contamination may exist is not yet included on the list
- Province is responsible, or has accepted responsibility, for contamination on a site that it does not own
- Site where responsibility for contamination will be determined at a future date

A liability for remediation normally results from items such as:

1. All or part of an operation of the government or government organization that is no longer in productive use (e.g., abandoned salt depots)
2. All or part of an operation of entities outside the government reporting entity that is no longer in productive use for which the government accepts responsibility (e.g., an abandoned gas station)
3. Changes to environmental standards relating to all or part of an operation that is no longer in productive use (e.g., new regulations requiring the destruction of stored polychlorinated biphenyls (PCBs))
4. An unexpected event resulting in contamination (e.g., accidental toxic chemical spills or natural disasters).

Departmental listings should include all contaminated sites and distinguish whether they are in productive use or not. An operation or tangible capital asset is in productive use when held for use in the production or supply of goods and services, for rental to others, for administrative purposes, or for the development, construction, maintenance, or repair of other operations or tangible capital assets. The temporary idling of an operation or tangible capital asset is not considered in productive use.

RECOGNITION OF LIABILITY

A liability for the remediation of contaminated sites is to be recorded at the financial reporting date when **all** of the following recognition criteria are met:

1. An environmental standard exists
2. Contamination exceeds the environmental standard

3. The government
 - a. is directly responsible, or
 - b. accepts responsibility
4. It is expected that future economic benefits will be given up
5. A reasonable estimate of the amount can be made.

An environmental standard is binding and legally enforceable, thus compliance is mandatory. The breach of an environmental standard imposes an obligation on the Province to undertake remediation activities that may result in the sacrifice of future economic benefits. A remediation liability may only exist once it has been determined that contamination exceeds an environmental standard.

To determine whether contamination exceeds an environmental standard, factors to consider include, but are not limited to, the following:

- the nature of past activities at the site(s) or adjacent properties
- site(s) location, hydrology, and geology and significance of site(s)
- results from testing and field investigations
- similarities to and experience at other known contaminated sites
- cost versus benefit of conducting detailed site assessments.

If the government owns the land, and all other recognition criteria have been met, a remediation liability should be recorded. In some cases, the Province may be directly responsible for remediation because of its own past activities or the activities on government-owned land or on land that the government has since acquired and a responsible party cannot be identified.

The Province may voluntarily assume responsibility for the remediation of contaminated sites through its own actions or promises. However, only those assumed obligations for remediation that meet the definition of a liability at the financial reporting date can be recognized. In the absence of a legally enforceable agreement or standard, the Province, through its own actions or promises, may create a valid expectation among others that leaves it with no realistic alternative but to remediate a contaminated site or group of sites. In this case, the Province may have little or no discretion but to take action and a liability may need to be recorded. A legal opinion may be required in such cases.

The existence of a contaminated site that exceeds an environmental standard does not always mean a remediation liability must be recorded. Some sites are better left undisturbed if there are no dangers to human health and adjacent properties. The degree of contamination and the use of the property should be assessed by a licensed environmental officer or site professional to determine the necessary remediation efforts required. If it is determined that the site must be remediated and an estimate of the costs can be reasonably made, a liability should be recognized by the responsible department at the financial reporting date.

MEASUREMENT OF LIABILITY

Estimated remediation costs should only include costs that are directly attributable to the remediation activities that are required to bring the site back up to the current minimum environmental standard for its use prior to the contamination. Directly attributable costs include, but are not limited to, payroll and benefits, equipment and facilities, materials, and legal, engineering, other professional services, and any maintenance/monitoring costs that are an integral part of the remediation strategy. Costs related to natural resource damage (e.g., revegetation outlays) are included only if required by an environmental standard. Remediation costs should include the costs to develop and implement a clean-up strategy once the site has been classified as a contaminated site, as well as final confirmatory sampling and the final site report.

The portion of remediation costs that relates to a betterment² should be accounted for as such under the tangible capital assets policy. Where the remediation strategy involves the acquisition of an asset that would otherwise meet the definition of a tangible capital asset and that asset has no alternative future use, the cost of the asset required for remediation activities should be reported as part of the remediation liability as an expense, not an asset, in the period when the remediation liability is recorded. If the asset has an alternative future use, only the portion of its estimated cost related to its use in remediation activities would be included in the estimate of a remediation liability. When the asset is actually acquired, only the portion of the costs related to the alternative use would be capitalized and would be amortized to expense over the remainder of its useful life in the periods of alternative use.

Estimated costs that are not incurred specifically for remediation activities, such as costs relating to research and development of technologies or skill development programs, should not be included in the liability. Operational, maintenance, and

² For definition, see Corporate Administrative Policy Manuals, 200 Budgeting and Financial Management, Chapter 14, Policy 14.1 Tangible Capital Assets

monitoring costs can be included in the remediation liability only if they are a part of the remediation strategy to reduce or remove the contaminant and are completed during the remediation phase. Otherwise, operational, maintenance, and monitoring costs incurred before the remediation liability is recorded or after the remediation phase is complete are considered operating costs and should be expensed when incurred. Costs incurred once the site has been remediated to ensure the contaminant remains at an acceptable level or remains contained at the site are considered regular operating costs required to manage the site.

The measurement technique adopted by the Province (in consultation with internal environmental experts or external site professionals) should result in the best estimate of the amount required to remediate the contaminated site. The best estimate can be described as the amount that the Province would rationally pay to settle or otherwise extinguish the liability. The amount would be based on the current facts and information available at the financial reporting date using existing environmental standards and technology expected to be used in the remediation activities. The estimate of expenditures would require professional judgment supplemented by experience, third party quotes, and, at times, reports of independent experts. All information considered in determining management's best estimate should be formally documented for each liability recorded. In the case where management has determined the amount of liability to fall within a range and no amount within the range can be determined to be the better estimate, the minimum amount of the range should be recorded.

The liability estimate should be reviewed each year-end to reflect any changes in estimates. Estimates could be affected by fluctuations in the price of labour and materials, adoption of new remediation technologies, and/or modifications to the environmental standards. The impact of inflation should also be factored into the liability estimate. Any revisions to the amount previously recorded should be accounted for in the period in which the revisions are made.

Events that may indicate a need to undertake a detailed reassessment of the contaminated site on which the remediation liability estimate is based can include, but are not limited to, the following:

- significant technological developments
- lapsed time since the last site assessment was completed
- new information from detailed site assessments, site characterizations, or technical reviews done on similar contaminated sites
- a change in legislation or regulations.

The total liability should be reduced by expected net recoveries if the recoveries have an appropriate basis of measurement, can be reasonably estimated, and the future economic benefits are expected to be obtained.

RECORDING OF LIABILITY

Generally, a liability for the remediation of a contaminated site should be recorded by the department that owns the property or leases the property under a finance lease. Where more than one department is involved with the site (i.e., more than one department is responsible for the contamination or one department owns the site, but another uses it), the department responsible for remediation should record the liability. In such situations, both departments should communicate with each other to ensure the recording department has all of the known site-relevant information required to make an appropriate estimate of the liability.

Departments are to prepare and submit to Government Accounting a detailed listing of environmental liabilities under their responsibility in accordance with the year-end financial reporting requirements. This schedule is to contain a description of the contaminated sites, nature of contamination, and explanations as to whether the recognition criteria are met. For those contaminated sites that meet all five recognition criteria, the schedule should also list the full cost of remediation and other related information, such as the basis for the cost estimates and sensitivities to consider regarding disclosures in the Public Accounts.

To ensure the completeness and accuracy of the schedule, preparers and reviewers must sign the environmental liabilities schedule as developed by Government Accounting.

Refer to Appendix B of PS 3260 for examples to help illustrate the appropriate accounting treatment in certain situations.

Policy Guidelines

Common examples of contaminated sites include the following:

I. Soil Contamination

Damages can result from a variety of sources including, but not limited to, effluent storage or treatment pond seepage into soils or bedrock, under-ground tank leakages, direct spills on the ground, landfills that are not properly constructed or maintained, and leakage from pipelines.

2. Groundwater Contamination

This can result from the infiltration of contaminants discharged at or below the surface. Oil and gas or industrial waste disposal wells can cause the migration of contaminants into the groundwater.

3. Surface Water Contamination

Raw sewage or regulated discharges from sewage treatment plants, discharges from industrial plants, storm water, agricultural run-off, and other types of pollution that finds its way into the water can result in significant surface water contamination.

4. Air Emissions

Emissions from smoke stacks, industrial plant leakages, combustion engines, and other sources can pollute the air. This policy does not apply to airborne contamination or contaminants in the earth's atmosphere until such contaminants are introduced into soil, water bodies, or sediment.

5. "Sick" Buildings

Some buildings may be deemed as "sick buildings" due to overwhelming problems associated with poor air quality, mould, or the presence of asbestos. These are commonly referred to as environmental deficiencies and should be considered under the terms of this policy.

Given the volume of properties owned by the Province, a risk-based approach may be applied in identifying contaminated sites. In this case, the approach should be documented in detail by departments, including roles and responsibilities, and an established ranking system should be used. In addition, a site assessment is not specifically required for each site to assess the level of contamination.

A legal obligation can result from agreements or contracts, another government's legislation, or the Province's own legislation. Examples in which the Province may be legally bound to undertake remediation activities include, but are not limited to:

- non-compliance with the terms and conditions of an environmental certificate of approval or any other similar contractual clauses
- divestiture proceedings of a property may require the Province to clean up any contamination before transferring land to others
- breach of a ministerial protocol and the requirement to remediate the property back to the minimum environmental standard
- ministerial order issued by the Department of Environment to clean up the property.

A general policy intention to remediate may not be sufficient to establish a liability where no public health and safety concerns or contractual arrangements, legislation, or regulation exist. Evidence that the Province may have a liability for remediation other than from a legal obligation can include, but is not limited to, consideration of the following:

- The government body, elected representatives, or government officials with the appropriate level of authority commit to a remediation plan.
- The remediation plan identifies the specific location of the contaminated site(s).
- The remediation plan has been communicated to those directly affected (e.g., residents of surrounding communities) through public consultation, information sessions, workshops, or other activities in such detail as to allow those affected to determine the benefits that would accrue to them.
- The remediation plan specifically identifies the target level of reduction in risk the site(s) pose to human health and the environment and the amount of the environmental costs to be incurred to achieve those targets.
- The time frame for implementing the plan has been identified and indicates that significant changes to the plan are not likely.
- The details of the plan are such that there is a reasonable expectation that the promise can be relied upon.

UNCERTAIN RESPONSIBILITY

There may be a situation where an environmental standard exists, contamination exceeds the standard, the Province determines it is not directly responsible, nor does it accept responsibility, but there is uncertainty as to whether the Province may, in fact, be responsible. In this case, a contingent liability may exist.

A future confirming event is required to determine the Province's responsibility. Determining whether a contingent liability exists at the financial reporting date is a matter of professional judgment. If the future event will likely confirm the Province's responsibility, a contingent liability should be recognized if the amount can be reasonably estimated. If the amount cannot be reasonably estimated but the costs are expected to be significant, the contingent liability should be disclosed in the Public Accounts.

If the Province is unlikely to be responsible, no liability should be recorded or disclosed. If the outcome of the future event cannot be determined, the existence, nature, and extent of the contingent liability should be disclosed in the Public Accounts.

If litigation for damages related to a contaminated site has been launched against the Province, the claim should be considered as a separate contingent liability.

Accountability

DEPARTMENTS & FINANCIAL SERVICES DIVISIONS

Departmental staff and Financial Services Divisions serving the departments are responsible for:

- implementing and complying with this policy
- documenting and updating their process, including roles and responsibilities of departmental staff, to comply with this policy
- maintaining an inventory of all contaminated sites (confirmed and suspected) and determining their proper accounting treatment (record as a liability and/or disclose) under the terms of this policy
- consulting with Environmental Services staff within the Internal Services Department as well as site professionals to determine the extent of contamination and clean-up options
- consulting with staff at the Department of Environment to confirm applicability of Contaminated Sites Regulations and Protocols
- maintaining current and accurate information and records by site
- preparing their annual environmental liabilities schedules at year-end for Government Accounting and thoroughly analyzing and reviewing them prior to submission to ensure all liabilities were accounted for and disclosed
- responding to Government Accounting inquiries regarding liabilities for contaminated sites
- providing the Office of the Auditor General with the evidence requested for the audit of liabilities for contaminated sites

GOVERNMENT ACCOUNTING DIVISION

Government Accounting is responsible for:

- distributing the contaminated sites inventory template and environmental liabilities schedule to departments for year-end reporting purposes
- communicating the environmental liabilities reporting threshold to departments at year-end
- compiling a list of all environmental liabilities for the GRF

- compiling a list of all environmental liabilities for the consolidated GRE by reference to the financial statements and worksheet packages of the governmental units, government business enterprises, and government partnership arrangements
- reviewing environmental liabilities schedules submitted by departments for significant and unexpected differences
- liaising with departments and the Office of the Auditor General, as needed
- assisting departments in documenting and updating their processes to comply with this policy
- monitoring the application of this policy
- periodically updating this policy in consultation with departments

Monitoring

Financial Services Divisions serving departments are responsible for monitoring the implementation and compliance of this policy. Government Accounting is responsible for monitoring the application, performance, and effectiveness of this policy.

References

Public Sector Accounting Standards
PS 3260 Liability for Contaminated Sites
PS 3300 Contingent Liabilities

Enquiries

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Appendices

16-A Decision Tree – Liability for Contaminated Sites

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Appendix 16-A

Decision Tree – Liability for Contaminated Sites

