
Guideline for the Management of Contaminated Sites

VERSION 3.0

MARCH 2023

Department of Environment and Local Government



Preface

This documentation was developed by the New Brunswick Department of Environment and Local Government (DELG) based on the guiding principles of protection of human health and the environment, as well as the endorsement of a risk-based approach to contaminated site management. It is intended to assist those involved with contaminated site management in understanding their roles and responsibilities from project initiation through to regulatory closure of a site.

This version supersedes Version 2.0 of the *Guideline for the Management of Contaminated Sites* (the *Guideline*) which was released in November 2003. The DELG endorses the use of a Risk Based Corrective Action (RBCA) approach, where three increasing tiers of technical complexity (Tiers I, II, and III) are available for the management of contaminated sites. All three Tiers provide protection of human health and the environment. The person responsible for the management of a contaminated site has the option to use the Tier that they consider the most appropriate for the site.

The DELG is part of the Atlantic Partnership in RBCA Implementation (PIRI) Committee and uses the Atlantic RBCA process as the technical foundation upon which this *Guideline* is based. Guidance on the technical application of Atlantic RBCA is presented in the most recent version of the *Atlantic RBCA for Impacted Sites in Atlantic Canada - User Guidance*, along with other technical documents. These documents have been endorsed by all the Atlantic Provinces.

The DELG considers the Atlantic RBCA process to be the most appropriate tool to be used when managing impacted sites in New Brunswick. In instances where Atlantic RBCA does not have screening criteria listed for a particular contaminant, other jurisdictional criteria, risk-based tools and approaches may be used, however, approval from the DELG is required. Regardless of the selected specific technical approach, compliance with the DELG regulatory and technical guidance material must be maintained throughout the Contaminated Sites Management (CSM) Process.

This *Guideline* describes the general CSM Process to be used during the remediation of contaminated sites. The general CSM Process is presented graphically in Appendix A. The technical details, methodologies, and criteria used throughout the CSM Process are found in other documents referenced by web hyperlinks. Definitions of key technical terms and acronyms found in this *Guideline* are defined in Appendix B. Users should ensure that they are using the most recent version of this *Guideline*. Those responsible for the management of contaminated sites are also encouraged to involve DELG staff throughout the CSM Process, particularly where there is uncertainty pertaining to Departmental policies and requirements.

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Atlantic RBCA website: <https://atlanticrbc.com/>

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1.0 Introduction

This *Guideline* is intended to provide a common-sense based, scientifically defensible approach to the management of contaminated sites in the Province.

The following points were considered by the DELG during the development of the CSM Process:

1. The environment and human health must be protected.
2. The Responsible Party should finance the remedial process.
3. The Site Professional must be accountable for the results of their work throughout the CSM Process.
4. The CSM Process should allow for efficient use of human and financial resources while protecting the environment and the public.
5. The CSM Process should be applicable to all contaminated sites.
6. The CSM Process should be acceptable to the stakeholders.

Key modifications contained in Version 3.0 of the *Guideline* are outlined below:

1. The DELG no longer accepts a Limited Remedial Action (LRA) for a contaminated site.
2. The requirements for monitoring well decommissioning have been outlined.
3. Key definitions and acronyms are included in this document.

3.1 RESPONSIBILITIES OF KEY PARTIES

Generally, the three key parties involved in the management of contaminated sites in the Province are the Responsible Party, the Site Professional, and the DELG. In those instances where contamination has migrated beyond the source site property boundary and affects properties owned by others, these Third Parties become a component within the CSM Process. The Responsible Party will keep Third Parties informed of the contaminant levels present on their property and the progress in addressing these contaminant levels.

The primary responsibility for technical judgement and problem resolution rests with the Site Professional. The Site Professional is responsible for ensuring that criteria for the protection of human health and the environment have been achieved. The DELG is responsible for reviewing this determination and ensuring that the CSM Process herein is followed throughout by all parties.

The Responsible Party is expected to finance the CSM Process, manage the site in a timely fashion, and maintain an appropriate level of due diligence throughout the process.

Within the context of this *Guideline*, the general responsibilities of the parties are as follows:

The Responsible Party:

- is responsible for compliance with this *Guideline*;
- is responsible for immediately notifying the DELG of the presence of contamination on subject or Third Party properties as per the DELG *Water Quality Regulation* and the *Petroleum Product Storage and Handling Regulation*;
- is responsible for ensuring that any Third Party is notified as soon as possible about the presence of contamination on their property;
- is responsible for ensuring that a person who meets the qualifications of a Site Professional oversees the management of the contaminated site;
- is responsible for taking appropriate action to ensure that the environment and human health are protected, and for remaining informed of all activities undertaken during the CSM Process;
- is responsible to forward Site Professional submissions to the DELG for processing; and
- is responsible for the satisfactory remediation of the contaminated site and completion of the CSM Process in a timely manner.

The Site Professional:

- is responsible for ensuring professional competence for all work undertaken within the CSM Process;
- is responsible for notifying the Responsible Party and the DELG of the presence of contamination and associated risks to human health and the environment on subject and Third Party properties as per the DELG *Water Quality Regulation* and the *Petroleum Product Storage and Handling Regulation*;
- is responsible for reviewing the contents of all reports related to the contaminated site that have been prepared by other Site Professionals;
- is responsible for the contents of all reports they stamp and sign;
- is responsible for determining if remedial criteria and objectives of the proposed Remedial Action Plan (RAP) have been achieved;
- is responsible for delivering all documentation related to the management of the contaminated site to the Responsible Party; and
- is responsible for the completion of the Record of Site Condition and for provision of the Record of Site Condition to the Responsible Party.

The Department of Environment and Local Government:

- is responsible for identifying a Responsible Party;
- is responsible for ensuring that the CSM Process is followed in a timely manner and that there is no undue delay in regulatory response;
- is responsible for auditing the remediation program;
- is responsible for ensuring compliance with this *Guideline* and possible enforcement action if non-compliance by the Responsible Party exists; and
- is responsible for acknowledging the conclusion of the CSM Process.

2.0 Regulatory Framework

New Brunswick's environmental legislation states that a contaminant cannot be released into or upon the environment unless acting under permission given through legislation. However, the DELG acknowledges that accidental releases do occur and that a process for the evaluation of the resulting contamination is necessary. This *Guideline* supports the Minister's authority to address Responsible Parties and to provide guidance to all parties involved in situations where a contaminant release has occurred.

2.1 DETERMINATION OF A RESPONSIBLE PARTY

The Minister (or designate) will determine the Responsible Party and they will be responsible for ensuring the remediation of a contaminated site. This determination may require assessment and/or investigative efforts by the DELG.

The Minister does not determine or apportion liability. Any contaminated site issues not related to the protection of the environment and human health that arise between Responsible Parties and Third Parties are considered by the DELG to be civil matters to be settled by the two parties outside of the CSM Process.

2.2 REGULATORY RATIONALE

The Minister's authority pertaining to the issuance of Orders necessary to address a contaminated site is outlined primarily in the *Clean Environment Act* and two particular regulations under the Act, the *Petroleum Storage and Handling Regulation (N.B. Reg. 87-97)*, and the *Water Quality Regulation (N.B. Regulation 82-126)*. This authority may be enforced by means of a Ministerial Order issued by the Minister under the Act or an order issued by the Minister or anyone designated to act on their behalf, under the Regulations. Both Ministerial Orders and orders are hereinafter referred to as Orders. Anyone who fails to comply with an Order issued under the *Clean Environment Act* or its regulations commits an offence and is subject to the DELG's *Compliance and Enforcement Policy*. A Ministerial Order can be issued to anyone described under Section 5.3 of the *Clean Environment Act*.

2.3 NOTIFICATION

The *Petroleum Product Storage and Handling Regulation* requires that any person who suspects or detects that a petroleum product is leaking or has leaked from a storage tank system to notify the Minister (or designate) of such leak.

The *Water Quality Regulation* requires immediate notification to the Minister (or designate) where any contaminant is emitted, discharged, deposited, left or thrown in any place such that it may, directly or indirectly, result in water pollution or increased water pollution in any waters of the Province. In

situations where it is mutually agreed by the Site Professional and Responsible Party that the Responsible Party will notify the DELG, the Site Professional must verify that this notification did occur. If the DELG determines that notification by the Responsible Party did not occur, both the Responsible Party and the Site Professional may be held accountable by the DELG for failing to comply with the requirements of the Regulations outlined above.

Initial notification to the DELG is required at the earliest possible time following the discovery of the impacts. Further details on notifying the DELG can be found in the current version of the NBDELG Remediation Program: Submission Requirements and Review Procedures document (<https://atlanticrbca.com/new-brunswick>).

2.4 SITE PROFESSIONAL QUALIFICATIONS

A Site Professional, within the context of this *Guideline*, is defined as a person of appropriate qualifications as per the requirements of the Association of Professional Engineers and Geoscientists of New Brunswick (APEGNB). The Site Professional manages the assessment and remediation of contaminated sites on behalf of the Responsible Party. Other professionals and technical experts, such as toxicologists and ecological risk assessment specialists, may play an important role in contaminated site management and the DELG acknowledges the multi-disciplinary approach may be appropriate for certain sites. However, the Site Professional is responsible for ensuring that other experts are adequately qualified to carry out their portion of the work and assumes responsibility for all environmental work undertaken for the project. Additional details pertaining to required Site Professional qualifications in New Brunswick can be found at www.atlanticrbca.com/new-brunswick/. To review information related to the APEGNB and applicable legislation, visit www.apegnb.com.

3.0 Contaminated Sites Management (CSM) Process

Management of impacts/contamination can be dealt with in two ways, through the Occurrence system or the CSM Process. For information on files handled through the Occurrence system see Section 2.1 and Appendix B in the current version of the NBDELG Remediation Program: Submission Requirements and Review Procedures document (<https://atlanticrbca.com/new-brunswick>). This *Guideline* describes the procedure for files handled through the CSM Process.

The general CSM Process is presented graphically in Appendix A and is described in the following sections.

Throughout this process, the DELG will communicate with the parties involved to establish timelines for remediation. Those sites that have the potential to significantly impact the environment and/or human health will be held to more stringent timelines.

To assist the public in obtaining information regarding the environmental status of a property, the DELG will assign an environmental notice to impacted properties (attached to the Property Identification Number or PID) contained within the Provincial Government's Land Registration System.

3.1 PRELIMINARY EVALUATION

Impacts/contamination may be the result of spills or accidents or may be discovered following environmental site investigations completed due to the pending sale of property, refinancing or other situation.

In some instances, initial emergency actions may be required to reduce the potential of immediate harm to the environment and human health. In many situations, it is appropriate for such actions to be initiated by the Site Professional or Responsible Party prior to the arrival or involvement of the DELG. In these situations, the Site Professional or Responsible Party must minimize any long-term environmental impacts that may result from the emergency actions.

The DELG will determine a Responsible Party at this time and will then direct the Responsible Party to follow the current version of this *Guideline*.

3.2 SITE ASSESSMENT, REMEDIATION, MONITORING, AND REPORTING

The Site Professional and Responsible Party should review current technical documentation related to site assessment and remedial action planning by visiting <https://atlanticrbca.com/>. This includes information on minimum site assessment requirements, specific testing requirements related to contaminants of concern, applicability of screening criteria, development of site-specific criteria and the application of the CSM Process within designated and undesignated protected wellfields and watershed areas in New Brunswick.

In addition, the current version of the NBDELG *Remediation Program: Submission Requirements and Review Procedures* document (<https://atlanticrbca.com/new-brunswick>) details what information/data/statements need to be included in reports submitted to the DELG, the report format, and the DELG review process.

3.2.1 ENVIRONMENTAL SITE ASSESSMENT (ESA)

It is the responsibility of the Site Professional to plan and implement an appropriate environmental site assessment on behalf of the Responsible Party and in accordance with the current *Atlantic RBCA User Guidance* documentation. Through the completion of an ESA, the Site Professional gathers the necessary technical information to adequately plan appropriate remedial actions, if necessary. The amount of assessment information will generally increase at each risk assessment Tier.

A critical factor associated with an ESA is that the extent of the contamination in both soil and groundwater must be adequately defined and delineated, even if it has crossed the source property boundary. Delineation to applicable Tier I screening criteria levels is the minimum level of delineation required in all situations. However, further delineation may be required by the DELG in circumstances where screening criteria are not applicable, or where ecological or aesthetic criteria must be achieved.

Consideration of the possible requirement for ecologically based studies must begin at this stage of the Process through the completion of the Ecological Screening Protocol as detailed in the *Atlantic RBCA User Guidance*. Should the results of the ecological screening indicate that there is a complete pathway for impacts to ecological receptors, further evaluation is required.

3.2.2 COMPARISON OF SITE ASSESSMENT DATA TO ENVIRONMENTAL CRITERIA

Once the environmental condition of the site has been assessed, the Site Professional will compare the results to the appropriate screening criteria. When managing petroleum contaminated sites, the current Tier I Atlantic Risk Based Screening Level (RBSL) criteria or Tier II Pathway-Specific Screening Level (PSSL) criteria established by the Atlantic PIRI Committee are to be used, if applicable. For chlorinated volatile organic compounds (CVOCs) the current Tier II Pathway-Specific Screening Level (PSSL) criteria should be used. Non-petroleum impacted sites are to be evaluated using the Atlantic RBCA Environmental Quality Standard (EQS) or Pathway Specific Standard (PSS) criteria for human health and ecological. In all situations, the Site Professional will provide a rationale for the applicability of the chosen screening criteria to the site in question.

Should the screening criteria be exceeded or deemed to be not applicable, the Site Professional and Responsible Party may choose to develop Site Specific Target Level (SSTL) criteria. When managing petroleum or CVOC contaminated sites, the current Atlantic RBCA model established by the Atlantic PIRI Committee is to be used to develop these criteria. Use of the Atlantic RBCA model for contaminants other than petroleum hydrocarbons and CVOCs has not been validated by Atlantic PIRI at this time. Non-petroleum impacted sites are to be evaluated by means of an appropriate risk assessment approach established by the CCME or other provincial jurisdictions. Use of a risk assessment approach outside of Atlantic RBCA for non-petroleum contaminants is considered to be a Tier III assessment.

Ecologically impacted sites are to be evaluated by means of an appropriate ecological risk assessment approach established by the CCME or other technical approaches acceptable to the DELG. This would involve comparison of site data to ecologically based screening or site-specific criteria. Use of a risk assessment approach for ecological receptors is considered to be a Tier III risk assessment.

For complex or unique sites, and/or those sites that are evaluated at a Tier III level of assessment, a peer review of the report/risk assessment by another independent Site Professional or technical expert may be undertaken. The DELG may require the Responsible Party to conduct a peer review or the DELG may choose to carry out a peer review. The Responsible Party may also elect to undertake a peer review of their site. Peer review comments are to be included in submissions to the DELG.

If the Tier I RBSL/EQS criteria or Tier II/III PSSL/PSS/SSTL criteria for the contaminant are not exceeded, the Site Professional may conclude that further action is not required. The Site Professional would then submit to the DELG (on behalf of the Responsible Party) a Closure Report, incorporating the complete ESA information, and a Record of Site Condition. If acceptable, the DELG will respond with a signed Acknowledgement of Receipt letter.

The Responsible Party is required to inform Third Parties as soon as possible about any impacts discovered during the ESA. Notification must be done by means of a registered letter or email (with response to show confirmation of receipt) and provide proof of such disclosure to the DELG within the ESA/RAP Report. Notification to Third Parties must include information on the degree and extent of the known impacts to their property and an outline of the Responsible Party's plans and timeline for remediation and/or further assessment to the Third Party property. Notification must be completed regardless of the level of impacts determined to be present on the Third Party property.

3.2.3 REMEDIAL ACTION PLAN (RAP)

When environmental criteria at Tiers I-III have not been achieved, remedial action will be required by the DELG. These remedial actions may be developed in the RAP portion of the ESA/RAP report or may be initiated by the Site Professional without delay. However, approval of a RAP is required by the DELG under the following circumstances:

1. Any remedial plan that includes the introduction of active chemical/biological agents or potential contaminants associated with the remediation process into the environment; and
2. For complex or unique sites which may include the decommissioning of industrial facilities, sites with multiple contaminants, impacts to multiple properties, or sites where conventional remedial activities are not possible. The DELG will indicate when a RAP is required in these cases.

The DELG may review the RAP in consultation with the New Brunswick Department of Health or other technical professionals as needed. The DELG will provide a timely response to RAP submissions that require approval.

A RAP must include the rationale used to develop remedial and/or site management actions and include a monitoring plan. As the DELG requires the timely remediation of contaminated sites, a reporting schedule and estimated timeline for completion of the CSM Process is considered by the DELG to be a fundamental and essential component of a RAP. Timelines for the management of complex sites are expected to be broader and more flexible than those for typical sites.

Once a RAP has been approved, the Responsible Party must advise the DELG of departures from the accepted plan. In situations where predictions included in the RAP fail to be achieved, the Responsible Party will be required to revisit and enhance the RAP.

3.2.4 MONITORING

The purpose of a monitoring program is to evaluate the performance of the corrective actions established in the RAP and/or to evaluate conditions related to potential site closure. The Site Professional will interpret the monitoring results to determine if contaminant plumes are stable to shrinking and that applicable criteria have been achieved. Components of site monitoring include the following:

1. A clear re-statement of the remedial criteria/objectives or site management objectives.
2. A clear definition of the monitoring objectives.
3. Identification of the parameters to be monitoring and measured.
4. Description of when, where, and how data is to be collected, analyzed, and reported to the DELG.
5. Description of how satisfactory RAP or site management performance will be confirmed.
6. Detailed interpretation of monitoring results.

3.3 SITE CLOSURE

When the Responsible Party and the Site Professional have determined that a site has been adequately assessed and/or remediated and the site assessment data meet the applicable environmental criteria, a recommendation for site closure can be made by submitting a Closure Report and a Record of Site Condition, signed and stamped by the Site Professional, to the DELG.

Closure Reports should contain sufficient information to allow the DELG to close the remediation file without revisiting previously submitted reports. A clear and concise description of how and why the determination of site closure was made is also a critical component. This description is to include a statement indicating that closure objectives have been met and that any contaminant plumes are in a stable to shrinking phase.

The current version of the NBDELG *Remediation Program: Submission Requirements and Review Procedures* document (<https://atlanticrbca.com/new-brunswick>) details the specific information/data/statements that need to be included in the Closure Report and also provides information on how to complete the Record of Site Condition.

If the closure documents meet the DELG requirements, the DELG will close the remediation file by signing an Acknowledgement of Receipt letter to the Responsible Party and copying the Site Professional.

The DELG recognizes two types of site closures, unconditional and conditional closure.

3.3.1 UNCONDITIONAL CLOSURE

An unconditional closure may be appropriate for a site that has achieved the applicable screening criteria in accordance with DELG and Atlantic RBCA guidance. Unconditional closure permits unrestricted future development or use within the particular land use designation (e.g. residential, commercial, etc.). The existing and potential future land and groundwater use must be carefully considered for an unconditional closure to be appropriate.

3.3.2 CONDITIONAL CLOSURE

Conditional closure is a closure mechanism that identifies requirements for on-going actions and controls required to protect human health and the environment after remedial actions are complete. For example, in certain situations it may be impractical and/or cost prohibitive to remediate to defined criteria. In such instances, site-specific engineered or institutional controls can be established to achieve Tier I-III criteria.

Engineered controls may include asphalt or imported soil covers, treatment systems for aesthetic-level contamination in potable water, air ventilation systems, landscape architecture design, etc. As future management for most of these measures lies outside the regulatory jurisdiction of the DELG, the Responsible Party must assume long-term responsibility for ensuring that engineered controls are monitored and maintained.

Institutional controls for conditional closure involve land use or occupancy restrictions to ensure that human health or environmental objectives are achieved. Regulatory acceptance of such a restriction would normally be subject to certain conditions. Institutional controls may include restrictions on the drilling of potable wells, construction of buildings, excavation of soil, etc.

The following will be required by the DELG prior to conditional site closure:

- provision for the Responsible Party to maintain and operate any engineered systems for as long as necessary to fulfill their intended function and preserve human health and environmental risks at acceptable levels; and/or
- signed written agreement to the controls from all owners affected by the control and/or restriction (e.g. the Responsible Party, the land/building owner, the Third Party property owner, etc.).

Any engineered or institutional controls required for a conditional closure must be clearly detailed and outlined in the Closure Report and Record of Site Condition.

3.3.3 MONITORING WELL DECOMMISSIONING

The Responsible Party is required to decommission any monitoring wells that were drilled as part of the site assessment on both the source property(ies) and any Third Party property(ies). All monitoring wells must be decommissioned under the direction of a Site Professional and according to the current version of the DELG *Guidelines for the Decommissioning (abandonment) of Groundwater Wells and Boreholes*, which can be found at

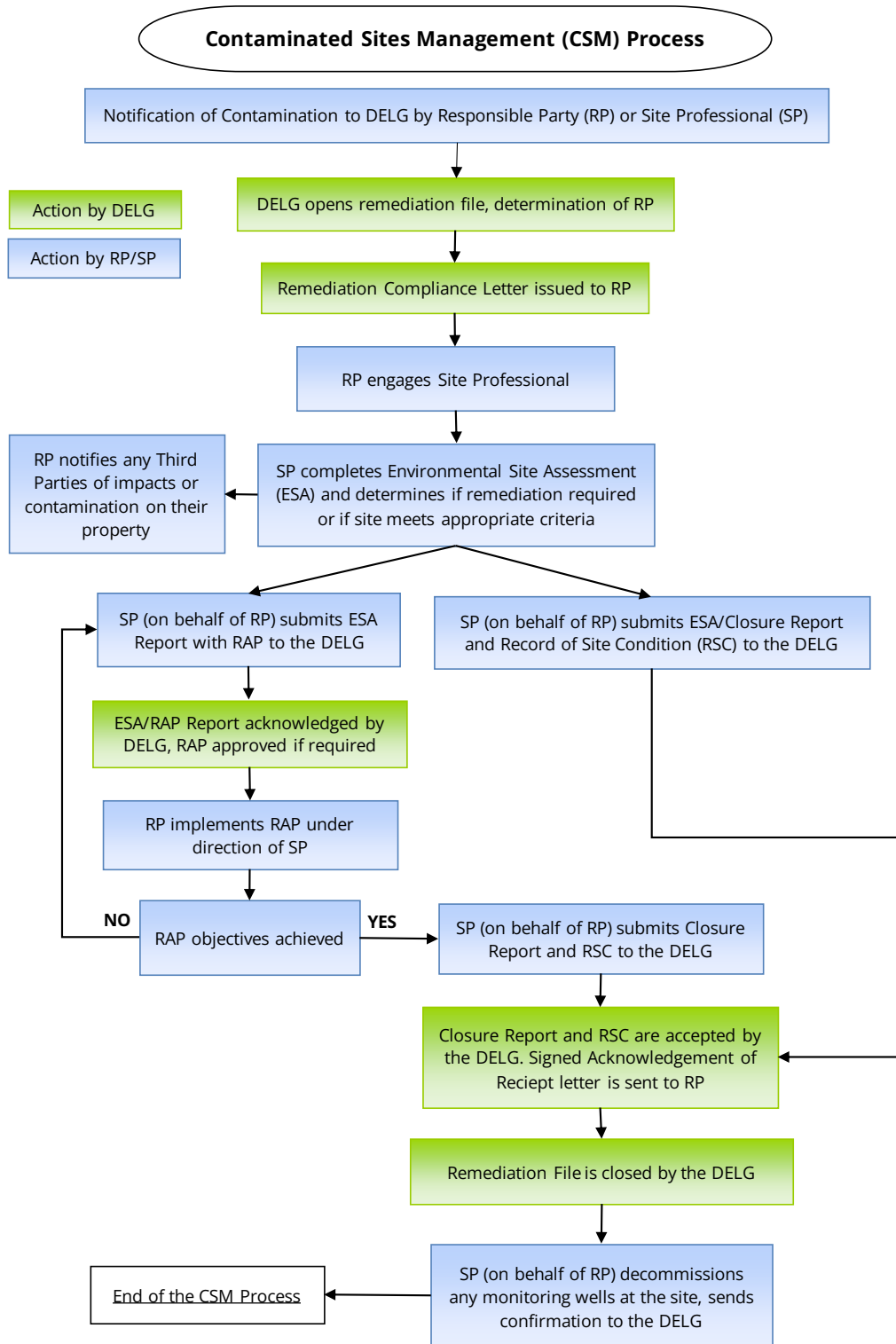
<https://www2.gnb.ca/content/dam/gnb/Departments/env/pdf/Water-eau/DecommissioningWaterWells.pdf>.

All monitoring wells must be decommissioned within 60 days of site closure, except in winter conditions, where a delay until the wells are accessible is permissible.

The Site Professional (on behalf of the Responsible Party) is required to notify the DELG of the monitoring well decommissioning. In the notification to the DELG, the Site Professional must confirm that the monitoring wells were decommissioned according to the DELG *Guidelines for the Decommissioning (abandonment) of Groundwater Wells and Boreholes* and must also contain the required information listed in the Decommissioning Guidelines.

The decommissioning of any monitoring wells is the final step of the CSM Process.

Appendix A: CSM Process Flowchart



Appendix B: Definitions and Acronyms

Atlantic RBCA

Risk-Based Corrective Action (RBCA) using a process originating with the American Society for Testing and Materials (ASTM) but modified and endorsed by the Environment Departments of the Atlantic Provinces.

Audit

A review of all or any part of the activities related to a contaminated site by the DELG or its agents and may include a review of existing records, calculations, and assumptions.

Chlorinated Volatile Organic Compounds (CVOCs)

Chlorinated solvents, including volatile organic hydrocarbon compounds which contain chlorine, that have widely been used in various industries. The most common CVOCs are Perchloroethylene (PCE or Perc) and its breakdown products.

Closure Report

A final report prepared by the Site Professional and provided to the DELG which details the assessment, remediation, and monitoring activities and indicates the final environmental state of the site and confirms the site conditions are acceptable for the intended land use.

Commercial Site Activities

A site, property or location associated with the presence of, or predominant use by, commercial human receptors, similar to those indicated as such in the current version of the "Atlantic RBCA User Guidance". This terminology may not be consistent with applicable zoning requirements and as such, the Responsible Party should review these requirements.

Contaminant

Any solid, liquid, or gas present in the environment (a) that is foreign to or in excess of the natural constituents of the environment, (b) that affects the natural, physical, chemical or biological quality or constitution of the environment, and (c) that endangers the health of a person or ecological receptors.

Contaminated Site

A property or collection of properties where the concentration of specified contaminants (e.g. metals, petroleum hydrocarbons, PAH's, etc.) in air, soil, or groundwater exceed levels considered acceptable by the DELG. The contaminated site may consist of a property or properties where the contamination originated (source property) and other properties which have been impacted/contaminated by the source property (Third Party properties).

Emergency Action

Initial response activities to protect the environment and/or human health from the immediate or future impacts related to the release of the contaminant(s) of concern into the environment.

Engineered Controls

Modifications to a site or facility, such as constructed systems, completed as part of a conditional closure to reduce or eliminate the potential for exposure to contaminants of concern, as generally outlined in the current version of the *Atlantic RBCA User Guidance*.

Environmental Quality Standard (EQS)

Environmental criteria at the lowest level, Tier I, that are protective of human and/or ecological receptors, which may be exposed to various contaminants through all relevant exposure pathways.

Impacted Site

A property or collection of properties where the concentration of specified contaminants (e.g. metals, petroleum hydrocarbons, PAH's, etc.) in air, soil, or groundwater are above natural background but below contaminated site levels as defined above.

Inspector

An inspector designated pursuant to Section 23 of the *Clean Environment Act*.

Institutional Controls

Restrictions placed on a site, such as land use controls or occupancy restrictions, implemented as part of a conditional closure, that reduce or eliminate the potential exposure to contaminants of concern, as generally outlined in the current version of the *Atlantic RBCA User Guidance*.

Monitoring

The scientific assessment of air, soil and groundwater conditions at a contaminated site over a period of time to verify the success of remediation efforts as the file progresses towards site closure.

Pathway Specific Standards (PSS)

These are environmental criteria that are specific to certain exposure pathways and/or receptor types and are considered to be Tier II values.

Peer Review

A technical review of a complex or unique site/risk assessment/report by an independent Site Professional or technical expert.

Phase I Environmental Site Assessment (ESA)

An investigation into the current and historical uses of a property to assess if current or historical uses may have resulted in environmental impacts/contamination that could pose a threat to human health or the environment. The investigation should follow the appropriate, current CSA Phase I ESA standard and does not involve any intrusive investigation, sampling, or laboratory analysis.

Phase II ESA

An extensive investigation to confirm the presence or absence of contamination in the various media on a site. This investigation will indicate whether more detailed testing is required in specific areas and if remediation needs to be conducted. The investigation should follow the appropriate, current CSA Phase II ESA standard.

Phase III ESA

A complete evaluation, including further intrusive investigation, if necessary, sufficient to fully characterize the extent and degree of contamination. The data collected should sufficiently represent the site conditions and may be used to develop site-specific remedial objectives using a risk assessment approach and/or to investigate the feasibility of various clean-up options. The investigation should follow the appropriate, current CSA Phase III ESA standard.

Receptor

The person or organism, including plants, that are potentially exposed to a contaminant.

Record of Site Condition (RSC)

A document completed by the Site Professional and provided to the DELG in a prescribed format confirming that the CSM Process has been followed and identifying any conditions of site closure.

Remedial Action Plan (RAP)

A document that describes in sufficient detail how a contaminated site will be remediated. The document must also include timelines for remedial activities, the monitoring plan, and potentially a plan for managing any required engineered or institutional controls.

Remediation

The improvement of a contaminated site to prevent, minimize, or mitigate damage to the environment and human health.

Residential Site Activities

A site, property, or location associated with the presence of, or predominant use by, residential human receptors similar to those indicated in the current version of the *Atlantic RBCA User Guidance*. This terminology may not be consistent with applicable zoning requirements and as such, the Responsible Party should review these requirements.

Responsible Party

The party, determined by the Minister in accordance with applicable legislation, who is responsible for the assessment and remediation of contaminants that have been released into the environment.

Risk Assessment

The scientific examination of the nature and magnitude of risk to define the effects on humans and/or ecological receptors due to exposure to contaminants.

Risk-Based Screening Level (RBSL) Criteria

Environmental criteria developed with the intention of being protective of human and/or ecological receptors, which may be exposed to various contaminants through all relevant exposure pathways. Under the Atlantic RBCA process, these constitute the RBSL Tables in the current version of the "Atlantic RBCA User Guidance".

Risk Management

The implementation of a strategy or measures to control or reduce the level of risk estimated by a risk assessment.

Site Assessment

The process of obtaining, compiling, and analyzing all appropriate environmental data and information related to a contaminated site and drawing conclusions to determine potential impacts or risks to human and ecological receptors. Work may be done in successive stages, as additional information is required for subsequent steps (see Phase I, II, and III ESA).

Site Professional

A person whose qualifications meet or exceed the general requirements described by the DELG.

Site-Specific Target Level Criteria

Risk-based remedial criteria, which are derived using site-specific conditions and accepted risk assessment/management procedures.

Source Property

The property(ies) at which the contaminant(s) of concern was released into the environment.

Third Party

The owner of a property/building which is affected by the contamination from a source property.

Watershed Protected Area

A protected area of land that drains a system of streams, lakes, and rivers around a public/municipal surface drinking water supply. Protected watersheds have restrictions on land-use and water-use activities that occur within that area.

Wellfield Protected Area

The protected area (surface and subsurface) surrounding any water well or wellfield that supplies drinking water to a public/municipal water system.