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Green Municipal Fund



Brownfield Roadmaps 2016

New Brunswick

INTRODUCTION

The Federation of Canadian Municipalities' (FCM) Green Municipal Fund™ (GMF) has produced this series of brownfield roadmaps to help municipalities and their private-sector partners better understand how to redevelop brownfields in their communities. The roadmaps provide a high-level overview of the brownfield redevelopment process in each province and territory, linking each step to relevant legislative requirements and potential sources of funding.

Developed in close consultation with provincial and territorial governments, each roadmap features an easy-to-follow path through three areas:

- an overview of the brownfield redevelopment process — a description of the steps typically followed when redeveloping a brownfield site in Canada
- provincial requirements — an outline of provincial legislation and policy requirements associated with each step in the process
- funding and incentive programs — a list of relevant resources, such as GMF, that are available to support municipalities and their partners as they undertake brownfield redevelopment

Each roadmap features a flowchart that summarizes the main activities and milestones, illustrates where the steps are connected, and refers to further details in the document.

Visit [*Revitalize Your Brownfields*](#) for additional tools, guidance and resources related to brownfield redevelopment.

The information presented is current to the publication date and may not capture all relevant programs. Please contact the responsible organizations to verify up-to-date information.

NOTE: This document summarizes current provincial legislation and must not be regarded as a formal legal interpretation. Please refer to the identified legislation for complete details on legislative requirements, and seek legal advice if necessary.

The Government of Canada endowed FCM with \$550 million to establish the Green Municipal Fund™. The Fund supports partnerships and leveraging of both public and private-sector funding to reach higher standards of air, water and soil quality, and climate protection.



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This publication is available on the FCM Green Municipal Fund website at www.fcm.ca/qmf under "Resources."

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New Brunswick 2016 Brownfield Roadmap

	Brownfield Redevelopment Process	Provincial Requirements
1. Plan	<ul style="list-style-type: none"> ➤ Conduct community-wide brownfield planning and engagement activities ➤ Standardize and streamline approval processes for redevelopment proposals ➤ Consider interim land use planning ➤ Compile inventory of brownfield sites ➤ Track and showcase redevelopment progress 	<ul style="list-style-type: none"> ➤ Consider adding a brownfield planning component to the municipality's community plans ➤ Identify contaminated sites in the community as per Public Sector Accounting Board standard PS 3260
2. Study	<ul style="list-style-type: none"> ➤ Develop sustainable remediation/redevelopment plan ➤ Complete environmental site assessments ➤ Complete risk assessment (if required) ➤ Determine remedial objective ➤ Conduct remediation or risk management studies/optimization ➤ Develop remedial/risk management action plan that includes sustainable approaches where possible 	<ul style="list-style-type: none"> ➤ Perform site assessment ➤ Compare site assessment data to environmental criteria ➤ Develop site-specific criteria, if desired ➤ Develop remedial action plan
3. Remediate	<ul style="list-style-type: none"> ➤ Complete building demolition and recycle soil and waste where possible ➤ Remediate site or implement risk management strategies using sustainable approaches where possible ➤ Receive confirmation of compliance or contaminated site closure 	<ul style="list-style-type: none"> ➤ Implement the remedial action plan ➤ Submit Closure Report and Record of Site Condition ➤ Receive site closure documentation
4. Redevelop	<ul style="list-style-type: none"> ➤ Perform ongoing risk management and monitoring as required ➤ Design and construct site infrastructure 	<ul style="list-style-type: none"> ➤ Meet local government planning approval and permitting requirements ➤ Perform ongoing site management and monitoring

New Brunswick 2016 Brownfield Roadmap

	Funding and Incentive Programs
1. Plan	Green Municipal Fund (GMF) grants are available for sustainable neighbourhood action plans or community brownfield action plans (50 per cent of eligible costs; grant maximum of \$175,000)
2. Study	GMF grants are available for feasibility studies (50 per cent of eligible costs; grant maximum of \$175,000) and pilot projects (50 per cent of eligible costs; grant maximum of \$350,000) <i>Other programs:</i> <ul style="list-style-type: none"> ➤ Sustainable Development Technology Canada offers innovative technology development funding (soil and water treatment, technology development and demonstration)
3. Remediate	GMF loans are available for brownfield capital projects (up to 80 per cent of eligible costs) <i>Other programs:</i> <ul style="list-style-type: none"> ➤ New Building Canada Fund (Remediation)
4. Redevelop	GMF loans and grants are available for capital projects in the energy, transportation, waste and water sectors (up to 80 per cent of eligible costs) <i>Other programs:</i> <ul style="list-style-type: none"> ➤ New Building Canada Fund (Redevelopment) ➤ Also, consider obtaining private funding from financial institutions and developers

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Green Municipal Fund

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Overview: Brownfield Redevelopment Process

This section outlines the steps typically undertaken in planning, assessing, remediating and redeveloping brownfield sites. Not all of the steps are required for every project. Some steps are suggested best practices and some steps can be performed concurrently. The process is described using universal site remediation terminology.

1. Plan

1.1 Community-wide brownfield planning activities

This step includes planning activities associated with brownfield redevelopment, such as stakeholder and community engagement and the creation of sustainable community plans, community improvement plans (CIPs), neighbourhood plans and brownfield redevelopment strategies. **Parties typically involved:** municipal planning department, planning consultants.

1.2 Standardized and streamlined approval processes for brownfield redevelopment proposals

Municipalities should standardize and streamline approval processes to ensure that brownfield redevelopment proposals are treated in an efficient, consistent and timely manner. Long approval processes can have a significant impact on a project's bottom line and jeopardize its financial viability. The streamlining process should include consultations with stakeholders, such as the public and developers. **Parties typically involved:** municipal planning department, consultants.

1.3 Interim land use planning

Municipalities may consider interim land uses for sites that, for financial or other reasons, cannot be redeveloped immediately. In this case, rather than leaving sites vacant, temporary or interim uses (such as parking lots, community gardens or temporary commercial/industrial uses) could be more economically and socially beneficial to the community. However, the interim land use should not increase risks to human health and the environment, nor should it impede future redevelopment to a desirable end use. **Parties typically involved:** municipal planning department, planning consultants.

1.4 Identification and inventorying of brownfield sites

In some provinces and territories, information related to brownfields or contaminated sites is compiled into databases or site registries. These inventories may be made available to the public. Municipalities can reference this

information to identify contaminated sites and create a municipal brownfield inventory. Municipalities can also use this information to showcase progress on brownfield redevelopment in their community.

Municipalities should also note that the *Public Sector Accounting Board standard on liability for contaminated sites, Section PS 3260* in the *CPA Canada Public Sector Accounting Handbook* (Chartered Professional Accountants Canada), covers fiscal periods commencing on or after April 1, 2014. Section PS 3260 contains standards for municipalities on how to account for and report a liability associated with the remediation of contaminated sites for which they are responsible. Specifically, it establishes when to recognize and how to measure a liability for remediation. To properly estimate and track the associated liabilities, municipalities may need to develop an inventory of contaminated or potentially contaminated sites. Careful consideration should be given to the scope of Section PS 3260. A liability generally results from contamination at sites that are no longer in productive use or contamination arising from an unexpected event, such as a natural disaster. The standard does not apply to liabilities associated with retiring long-lived tangible capital assets in productive use (for example, an operating solid waste landfill site). For more information, contact *CPA Canada*. **Parties typically involved:** municipal treasury, property, planning, and engineering and works departments; auditors and provincial officials.

2. Study

2.1 Sustainable remediation and redevelopment

Sustainable remediation considers the full picture when making decisions about brownfield remediation and redevelopment projects. It ensures that all aspects of the project — from assessment to redevelopment — are managed in a way that optimizes and balances environmental, social and economic benefits. A range of remediation and risk management techniques may be considered, such as administrative controls (e.g. zoning and land use restrictions); physical barriers or ground covers (e.g. asphalt); in-situ techniques, which are applied in the ground or in water; and ex-situ techniques, which involve excavating contaminated soil or pumping out groundwater.

2.2 Environmental site assessments

Known or suspected contaminated sites must be assessed to determine the type, concentration, location and extent of contamination. This information is gathered by using specific contaminated site assessment approaches, usually performed in phases and with more detailed information collected in each progressive phase. The phases are typically defined as follows:

- **Phase I Environmental Site Assessment:** a preliminary assessment to characterize a site by evaluating current and historical land uses or activities, potential areas of contamination, and surrounding land uses or activities
- **Phase II Environmental Site Assessment:** a preliminary assessment during which field samples are analyzed to determine contaminant types and concentrations
- **Detailed or Delineation Environmental Site Assessment:** in some cases, a more detailed assessment is performed to confirm contaminant types and concentrations, and to delineate contaminated areas

Following the site assessment, the generic provincial remedial objectives (i.e. the concentrations of contaminants allowed in the soil or groundwater based on the specific land use planned) should be reviewed to determine the feasibility of meeting these objectives. In some provinces, these remedial objectives are called remedial or remediation standards or criteria. **Parties typically involved:** municipal engineers and planners, environmental consultants.

2.3 Risk assessment

If, based on the site assessment results, it is not feasible to meet the generic provincial remedial objectives, there is an option in most provinces to perform a detailed risk assessment to develop site-specific or risk-based remediation objectives. The risk assessment must demonstrate that the site-specific objectives will protect both the environment and human health to the same extent as the generic objectives, if those objectives could have been met. **Parties typically involved:** municipal engineers and planners, environmental consultants, risk assessors.

2.4 Remedial objective determination

The final remedial objectives for the site are determined in this step. These could be either generic remedial objectives set by the province or territory, or the equally protective site-specific or risk-based remedial objectives. **Parties typically involved:** municipal engineers and planners, environmental consultants.

2.5 Remediation or risk management feasibility studies/optimization

In this step, remediation or risk management options for the site are evaluated. This could entail a study evaluating the feasibility of various options, based on available literature or based on past experience. It could also include an in-depth bench- or field-scale analysis to support the selection of a specific technology or method, or to optimize the operating parameters for a specific technology or method. **Parties typically involved:** municipal engineers and planners, environmental consultants, remediation contractors.

2.6 Remedial/risk management action planning

Based on the review of the remediation and risk management options applicable to and viable for the site, the final options are selected and a remedial action plan is developed to outline how these options will be implemented. Where possible, this plan should include the use of *sustainable approaches*. **Parties typically involved:** municipal engineers and planners, environmental consultants, remediation contractors.



3. Remediate

3.1 Building demolition and soil and waste recycling

This step involves building and infrastructure demolition and soil and waste removal (e.g. utilities, roads, above-ground or underground storage tanks). Where possible, soil and waste should be recycled on site or reused for other purposes. **Parties typically involved:** municipal engineers and planners, environmental consultants, remediation contractors, waste management contractors.

3.2 Remediation/risk management implementation

In this step, site remediation or risk management actions, or both, are carried out as described in the remedial action plan. Where possible, *sustainable remediation or risk management approaches* should be used. These activities are performed until the contamination is removed, altered, contained or destroyed to meet the provincial remedial objectives or the site-specific, risk-based objectives. **Parties typically involved:** municipal engineers and planners, environmental consultants, remediation contractors.

3.3 Confirmation of compliance or contaminated site closure

This step results in official verification that the site has met the established remediation or risk management objectives. The regulatory documentation required at this stage typically states three things:

- whether the site meets the regulatory requirements
- whether ongoing monitoring is required
- whether continued risk management is required

At this stage, the results of the remediation or risk management actions and the next steps for redevelopment are usually communicated to stakeholders and the community. **Parties typically involved:** municipal engineers and planners, environmental consultants, provincial officials.

4. Redevelop

4.1 Ongoing risk management and monitoring

Once remediation is complete or risk management activities have been implemented, long-term monitoring or risk management may be required, depending on the restrictions placed on the site. This could involve periodic sampling of soil or groundwater, or other restrictions placed on the site (e.g. limitations on excavation or on land use, or access controls). **Parties typically involved:** municipal engineers and planners, environmental and planning consultants, developers, construction contractors.

4.2 Design and construction

This step involves redevelopment activities, including the design and construction of infrastructure on the site. **Parties typically involved:** municipal engineers and planners, environmental and planning consultants, developers, construction contractors.

Provincial Requirements

This section outlines the key pieces of New Brunswick's brownfields legislation and policy positions related to each brownfield redevelopment step.

Key legislation and sources of information*

In New Brunswick, the *Clean Environment Act*, the *Clean Water Act* and the *Clean Air Act* contain provisions to control or stop the discharge of contaminants, or require the clean up of contaminated sites.

In 2008, the Department of Environment developed *A Comprehensive Plan for Brownfield Redevelopment in New Brunswick*. In support of the plan, and to facilitate the remediation and management of contaminated sites, the *Clean Environment Act* was amended in 2009 to enable regulations regarding the remediation of contaminated sites. A new contaminated sites regulation is being proposed to address issues that are currently undermining remediation and redevelopment efforts.

In Atlantic Canada, there has been considerable effort to harmonize the management of contaminated sites among the four provinces through the use of the *Atlantic Risk Based Corrective Action* (RBCA or "Rebecca") process. This harmonization has been overseen by the *Atlantic Partnership in Risk Based Corrective Action Implementation* (Atlantic PIRI). Atlantic PIRI has established a number of tools and information sources for use by all provinces, including detailed information and training programs on how to use and apply Atlantic RBCA procedures. All four Atlantic provinces are active members of PIRI and continue to harmonize policies and develop appropriate tools and information sources.

The New Brunswick government has developed additional information resources related specifically to provincial environmental legislation. The following resources can be found in the Provincial Document section of the *Atlantic RBCA website*:

- New Brunswick "site professional" qualifications
- limited remedial action reference documentation for site professionals
- guideline for management of contaminated sites
- Record of Site Condition and associated documents
- guidance on the submission and processing of site professional documentation

In New Brunswick, the Property-Based Environmental Information program offers public access to information on specific properties. The information can be used to determine the likelihood of site contamination and as a record of

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past contamination events. Regulatory authority for this service is provided under the *Fees for the Provision of Environmental Information Regulation (NB Reg 2002-1)* of the *Financial Administration Act*.

1. Plan

1.1 Consider adding a brownfield planning component to the municipality's community plans

Municipal community plans can include brownfield redevelopment components. The *Community Planning Act (Chapter C-12)* contains provisions that allow a municipal or rural community council, by way of an urban renewal bylaw, to designate any area of the municipality or rural community as an area for urban renewal, and to adopt an urban renewal scheme for that area.

Visit [Community Sustainability Plans in New Brunswick](#) for a tool kit on developing community sustainability plans.

1.2 Identify contaminated sites in the community

As a result of the *standard on liability for contaminated sites (Section PS 3260 of the CPA Canada Public Sector Accounting Handbook)*, municipalities may need to develop an inventory of contaminated or potentially contaminated sites in order to estimate and track the liabilities associated with them. In developing the inventory, careful consideration should be given to the scope of Section PS 3260.

2. Study

2.1 Perform site assessment

Once the Department of Environment has received notification of the occurrence of contamination at a site, an environmental site assessment must be performed according to the *New Brunswick Guideline for the Management of Contaminated Sites* (Version 2, November 2003) and the *Atlantic RBCA User Guidance*. This assessment must be performed by a site professional, as defined by the *New Brunswick Site Professional Qualifications*.

2.2 Compare site assessment data to environmental criteria

Once the environmental condition of the site is known, the site professional compares the results to appropriate screening criteria. For petroleum-contaminated sites, the *Atlantic Canada Tier 1 Risk-Based Screening Level Criteria* are used. For other types of contamination, the appropriate *criteria established by the Canadian Council of Ministers of the Environment* (CCME) are used.

2.3 Develop site-specific criteria, if desired

If the contaminant levels at the site exceed the screening criteria or the screening criteria do not apply to the site, the site professional and the party responsible for the site may choose to develop site-specific target-level criteria using the current *Atlantic Risk Based Corrective Action model* for petroleum-contaminated sites, or another acceptable model for other contamination.

2.4 Develop remedial action plan

The site professional develops the remedial action plan and submits it to the Department of Environment for acknowledgement or review on behalf of the responsible party. The Department will accept the environmental site assessment and remedial action plan or ask for modifications.

3. Remediate

3.1 Implement the remedial action plan

The responsible party must undertake site remediation as per the remedial action plan, under the direction of the site professional. A monitoring schedule is also established to evaluate the remedial action plan's performance.

Submit Closure Report and Record of Site Condition

When the requirements of the remedial action plan have been met, the responsible party must submit a Closure Report and a *Record of Site Condition*, signed by the site professional, to the Department of Environment, recommending that the site be closed.

Receive site closure documentation

If the closure documents meet the Department of Environment's requirements, the Department will then conclude the management process by signing an Acknowledgment of Receipt and forwarding copies to the responsible party and the site professional. The receipt will specify one of the following types of site closure:

- Unconditional closure, where an environmental site assessment, a risk assessment, a closure report or confirmatory sampling or monitoring indicates that the applicable Tier I screening criteria or Tier II/III site-specific target-level criteria have been met. An unconditional closure permits unrestricted future development or use within the particular land use designation.
- Conditional closure, when ongoing actions and controls are required to protect human health and the environment after remedial actions are complete. This may occur in situations where a risk management approach has been used because it is impractical or cost-prohibitive to remediate to defined criteria. In these cases, risks are managed using either engineered controls, such as barriers preventing access to the site, or institutional controls, such as restrictions on the activities permitted at the site.

4. Redevelop

Meet local government planning approval and permitting requirements

Refer to the local municipality for building and other permitting requirements.

Perform ongoing site management and monitoring

In some cases, specifically if site-specific or risk-based criteria were used during remediation or where a conditional closure is given, there may be requirements for ongoing risk management and control activities at the site. Land use restrictions may also be registered on the land title, requiring ongoing site management controls during or after redevelopment.

Funding and Incentive Programs

This section details funding and incentive programs shown in the flowchart on page one:

- FCM's Green Municipal Fund (GMF) brownfield funding opportunities
- Federal programs that fund some aspect of brownfield redevelopment

➤ 1. Plan

GMF grants for plans

Through GMF, FCM provides grants for plans, including community brownfield action plans (e.g. community brownfield strategies, community improvement plans or revitalization plans). FCM will provide up to 50 per cent of eligible project costs to a maximum of \$175,000. In most cases, GMF funding can be combined with federal and provincial funding.

Status: Currently accepting applications

Contact:

Federation of Canadian Municipalities
Green Municipal Fund
1-877-997-9926 • gmf@fcm.ca

For more information: [*FCM's Green Municipal Fund*](#)

➤ 2. Study

GMF grants for feasibility studies and pilot projects

Through GMF, FCM provides grants for feasibility studies (including Phase II environmental site assessments and remedial action planning) and pilot projects (including testing remediation techniques). FCM will provide up to 50 per cent of eligible project costs to a maximum of \$175,000 for feasibility studies and \$350,000 for pilot projects. In most cases, GMF funding can be combined with federal and provincial funding.

Status: Currently accepting applications

Contact:

Federation of Canadian Municipalities
Green Municipal Fund
1-877-997-9926 • gmf@fcm.ca

For more information: [FCM's Green Municipal Fund](#)

Sustainable Development Technology Canada — innovative technology development funding

Sustainable Development Technology Canada (SDTC) is a federally funded, not-for-profit foundation. SDTC finances and supports the development and demonstration of clean technologies that provide solutions to issues of climate change, clean air, water quality and soil, and deliver economic, environmental and health benefits to Canadians. On average, SDTC funds 33–50 per cent of eligible project costs.

Status: Currently accepting applications

Contact:

Sustainable Development Technology Canada
613-234-6313 • info@sdtc.ca

For more information: [Sustainable Development Technology Canada](#)



3. Remediate

GMF loans for brownfield capital projects

Through GMF, FCM provides loans for remediation and risk management activities at brownfield sites. Up to 80 per cent of eligible project costs are covered. In most cases, GMF funding can be combined with federal and provincial funding.

Status: Currently accepting applications

Contact:

Federation of Canadian Municipalities
Green Municipal Fund
1-877-997-9926 • gmf@fcm.ca

For more information: [FCM's Green Municipal Fund — Brownfields Sector Funding](#)

New Building Canada Fund

The \$10-billion Provincial–Territorial Infrastructure Component (PTIC) of the New Building Canada Fund (NBCF) is intended to support infrastructure projects of national, regional and local significance that contribute to economic growth, a clean environment and stronger communities. The PTIC is divided into two sub-components:

- \$9 billion for national and regional projects
- \$1 billion for projects located in communities of fewer than 100,000 residents, through the Small Communities Fund

These 10-year funding programs run from 2014 to 2024 and will operate concurrently with the federal Gas Tax Fund. Brownfield redevelopment projects are eligible under these programs. Specifically, the programs will fund the remediation or decontamination and the redevelopment of a brownfield site within municipal boundaries, where the redevelopment includes at least one of the following components:

- the construction of public infrastructure as identified in the context of any category under the NBCF
- the construction of municipal-use public parks and affordable housing

Status: Currently accepting applications

Contact:

Infrastructure Canada
613-948-1148 • info@infc.gc.ca

For more information: [Infrastructure Canada's New Building Canada Fund website](#)



4. Redevelop

GMF loans and grants for redevelopment capital projects

Through GMF, FCM provides loans and grants for redevelopment activities related to energy, water, waste and transportation. Funding is provided for up to 80 per cent of eligible project costs. The loan maximum is \$5 million, and grants are available for up to 15 per cent of the loan. Applicants with high-ranking projects may be eligible for a loan of up to \$10 million combined with a grant for 15 per cent of the loan amount, to a maximum of \$1.5 million. In most cases, GMF funding can be combined with federal and provincial funding.

Status: Currently accepting applications

Contact:

Federation of Canadian Municipalities
Green Municipal Fund
1-877-997-9926 • gmf@fcm.ca

For more information: [FCM's Green Municipal Fund](#)

New Building Canada Fund

See Remediation section above.

Private funding from financial institutions and developers

Municipalities should also seek information on private funding sources to assist with brownfield redevelopment activities.