

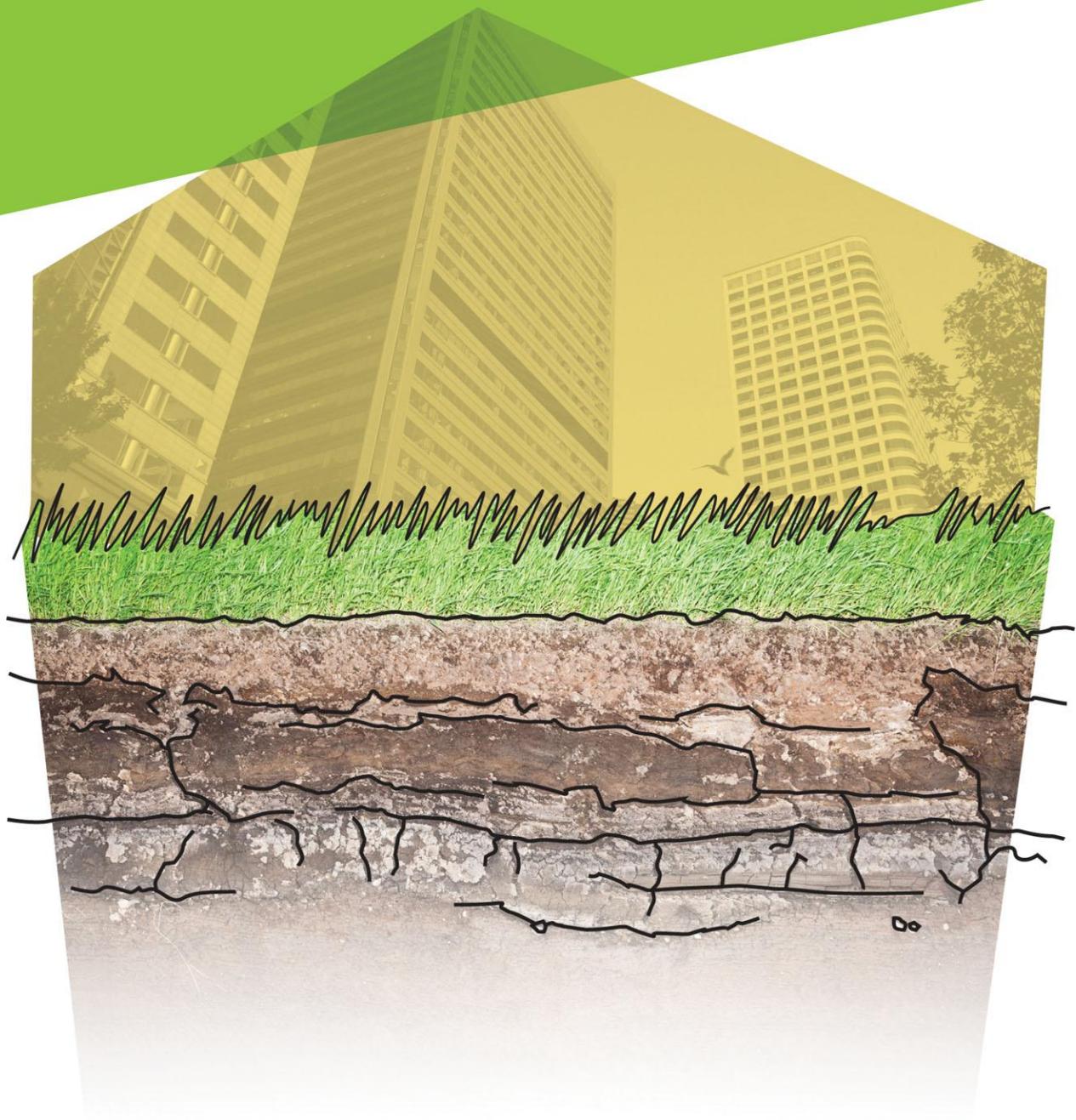


FEDERATION
OF CANADIAN
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GREEN MUNICIPAL FUND

Manitoba Brownfield Roadmap 2014



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, and link each process 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:

- The generic brownfield redevelopment process — a description of the steps that are typically followed when redeveloping a brownfield site in Canada
- Provincial requirements — an overview 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

The roadmaps feature a flowchart that summarizes the main activities and milestones, illustrates where the steps are connected, and links 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.

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

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MANITOBA
2014 Brownfield Roadmap

1 Plan



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Generic Brownfield Redevelopment Process

- 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

- Develop sustainable remediation/redevelopment plan
- Complete Environmental Site Assessments
- Complete risk assessment (if required)
- Determine remedial objective
- Conduct remediation/risk management studies/optimization
- Develop remedial/risk management action plan that includes sustainable approaches where possible

- 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/contaminated site closure

- Perform ongoing risk management and monitoring as required
- Design and construct site infrastructure

Provincial Requirements

- Consider adding a brownfield planning component to the municipality's community plans
- Identify environmentally impacted sites within the community as per the Public Sector Accounting Board standard PS 3260

- Conduct site assessments
- Determine designation/non-designation as a contaminated site
- Select approach for determining remediation/risk management criteria
- Perform risk assessment (if required)
- Develop and, if required, submit a Remedial Action Plan

- Perform site remediation
- Obtain Revocation of Designation as a contaminated Site (if applicable)
- Request Certificate of Compliance (if desired)

- Perform ongoing site management and monitoring as required
- Meet local government permitting requirements

Funding and Incentive Programs

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)

GMF grants are available for feasibility studies and field tests (50 per cent of eligible costs; grant maximum of \$175,000)
Other programs:
Sustainable Development Technology Canada
Innovative Technology Development Funding (soil and water treatment, technology development and demonstration)

GMF loans are available for brownfield capital projects (up to 80 per cent of eligible costs)

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)
Other programs:
Manitoba Community Places Program
Manitoba Hydro New Buildings Program
Also, consider obtaining private funding from financial institutions, developers

Generic Brownfield Redevelopment Process

This section outlines the steps that are typically undertaken in planning, assessing, remediating and redeveloping brownfield sites. Not all of the steps may be 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.



Plan

Community-wide brownfield planning activities

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

Standardize and streamline 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.

Interim land use planning

Municipalities may consider undertaking interim land uses for sites that cannot be redeveloped immediately — for financial or other reasons. 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.

Identification and inventories 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 standard on [Liability for Contaminated Sites, Section PS 3260](#), contained in the [Public Sector Accounting Handbook](#) of Chartered Professional Accountants Canada, comes into effect for 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 (e.g. operation of a 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.



Study

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.

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 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) should be reviewed to determine the feasibility of meeting these

objectives. In some provinces, remedial objectives are called remedial or remediation standards or criteria. **Parties typically involved:** municipal engineers and planners, environmental consultants.

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.

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.

Remediation/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.

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.



Remediate

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.

Remediation/risk management implementation

In this step, the site remediation, 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.



Redevelop

Confirmation of compliance/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:

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

At this stage, typically, the results of the remediation or risk management actions and the next steps for redevelopment are communicated to stakeholders and the

community. **Parties typically involved:** municipal engineers and planners, environmental consultants, provincial officials.

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.

Design and construction of infrastructure

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 Manitoba's brownfields legislation and policy positions related to each generic step.

Key legislation and sources of information¹

Additional information on contaminated site and brownfield legislation can be found in:

- The [Contaminated Sites Remediation Act](#) and the associated [Contaminated Sites Remediation Regulation](#)
- The [Guide to the Contaminated Sites Remediation Act](#)
- Manitoba Conservation [guidance documents](#)

Information on legislation and policies related to community and brownfield planning can be found in the [Planning Act \(C.C.S.M. c.P80\)](#) and the 2011 [Provincial Planning Regulation 81/2011](#) which encourages planning that is “directed to areas where appropriate public services exist, and in particular to those areas with excess service capacity and that have been identified for redevelopment or intensification, such as brownfield sites.”

¹ 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.



Plan

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

Each municipality or planning district in Manitoba is required to prepare a development plan under the *Planning Act*. A development plan must:

- Set out the plans and policies of the planning district or municipality respecting its purposes and its physical, social, environmental and economic objectives;
- Through maps and statements of objectives, direct sustainable land use and development in the planning district or municipality;

Development plans must be consistent with the policies of the *Provincial Planning Regulation 81/2011*. The regulation promotes intensification of lands, including the reuse of brownfield sites. Policies for brownfield redevelopment and land use designation that accommodates brownfield redevelopment may be included in the development plan.

The *Planning Act* also permits municipalities or planning districts to adopt secondary plans on any matter contained in the development plan. This may include brownfields. A secondary plan must be consistent with the development plan.

Identify environmentally impacted sites within the community

As a result of the [standard on Liability for Contaminated Sites, Section PS 3260](#), 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 the Section PS3260.

When municipalities are making plans related to brownfield redevelopment within their communities, they should contact Manitoba Conservation in order to consult the Contaminated Sites Registry. The Registry provides information on all sites in the province that have been designated as contaminated under the [Contaminated Sites Remediation Act](#). Manitoba Conservation also maintains a [list of potentially impacted sites](#) that can be used as a preliminary screening tool. However, not all sites listed have sustained contamination that exceeds applicable guidelines and some sites may have been remediated, but with residual effects that do not pose a threat to human health or to the environment.



Study

Conduct site assessments

To determine suspected site contamination, the person responsible for the site should perform a Non-Intrusive Environmental Site Investigation (or a Phase 1 Assessment) to review historical and current site information. As per the [Contaminated Site Remediation Act](#) and [Regulations](#), if contamination is suspected, the responsible party must then perform an Intrusive Environmental Site Investigation (or a Phase 2 Assessment) to characterize the contamination, geology and ecology at the site. Further guidance on conducting site investigations can be found in the [Guidelines for Environmental Site Investigations in Manitoba](#).

Determine designation/non-designation as a contaminated site

If site investigations indicate that a threat to human health, safety or the environment may or does exist, Manitoba Conservation will designate the property as a contaminated site. Notice of this designation is placed on the Contaminated Sites Registry and sent to the Land Titles Office, the site owner, the mortgage holder and the municipality where the site is located. If the property has been contaminated but site investigations show there is no threat to human health, safety or the environment, the site will not be designated as contaminated but will

be placed on the [list of potentially impacted sites](#) and monitored by Manitoba Conservation.

Select approach for determining remediation/risk management criteria

The site owner (or responsible party) determines the applicable remediation criteria by selecting the most appropriate approach:

- Tier 1 Evaluation (criteria-based environmental quality guidelines or EQGs). These are generic remediation criteria set at a level that, regardless of the site conditions, will protect all potential pathways and receptors.
- Tier 2 Evaluation (site-specific objectives). If specific site information shows that the pathway and/or receptor assumptions used to establish Tier 1 criteria do not apply, then site-specific parameters can be used to modify the EQGs.
- Tier 3 Evaluation (risk assessment). If the site conditions, exposure pathways or receptors differ significantly from those assumed for Tier 1 EQGs, then site-specific risk-based criteria can be developed. Tier 3 requires a risk assessment for the site.

The EQGs and further information on the three evaluation tiers can be found in the [Guidelines for Environmental Site Investigations in Manitoba](#).

Perform risk assessment (if required)

If Tier 3 Evaluation is used to determine the remediation or risk management criteria, a human health, or ecological risk assessment, or both, is required.



Remediate

Develop and, if required, submit a Remedial Action Plan

Based on the remediation/risk management criteria established for the site, a Remedial Action Plan should be developed. If a site has been designated as contaminated, the Remedial Action Plan must be submitted to Manitoba Conservation by the party or parties responsible for the contamination. This plan should include the proposed procedures and methods that will be used to reach the remedial or risk management criteria set for the site. The [Contaminated Sites in Manitoba – Submission of Remedial Action Plans](#) information bulletin outlines the requirements for Remedial Action Plans. Any remediation undertaken within the province requires a Remedial Action Plan that is approved by Manitoba Conservation.

Perform site remediation

The responsible party must undertake the remedial and risk management activities as outlined in an approved Remedial Action Plan. When treating or disposing of petroleum-contaminated soils, the [Guideline for Treatment and Disposal of Petroleum Contaminated Soil](#) should be used. If soil excavation and disposal is chosen as a method of managing contamination, the [Criteria for Acceptance of Contaminated Soil at Licensed Waste Disposal Grounds](#) should be followed.

Obtain Revocation of Designation as a Contaminated Site (if applicable)

When Manitoba Conservation determines that remediation has been satisfactorily completed as per the approved Remedial Action Plan, a Revocation of Designation as a Contaminated Site is issued to the Land Titles Office, registered owner(s), the municipality and the Contaminated Sites Registry.

Request Certificate of Compliance (if desired)

A Certificate of Compliance may also be issued by Manitoba Conservation at the request of a responsible party.



Redevelop

Perform ongoing site management and monitoring

In some cases, specifically if site-specific or risk-based criteria are used during remediation, there may be a requirement for ongoing risk management, monitoring and control activities at the site. Land use restrictions may also be registered on the land title, requiring ongoing site management and monitoring at the site during or after site redevelopment.

Meet local government planning approval and permitting requirements

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

Funding and Incentive Programs

This section details funding and incentive programs shown in the flowchart on page 1:

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



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](#)



Study

GMF grants for feasibility studies and field tests

Through GMF, FCM provides grants for feasibility studies (including Phase II environmental site assessments and remedial action planning) and field tests for remediation techniques. 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](#)

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

Screening and Evaluations Manager

613-234-6313

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



Remediate

GMF loans for brownfield capital projects

Through GMF, FCM provides loans for remediation and risk management activities at a brownfield site. 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 capital projects](#)



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 \$10 million, and the grant amount is set at up to 20 per cent of the loan to a maximum of \$1 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](#)

Manitoba Community Places Program

The Community Places Program provides funding and planning assistance to non-profit community organizations for upgrading, construction or acquisition of facilities available to the general community. The program gives priority to proposals involving critical repairs to extend the life of well-used, existing facilities. The fund is open to non-profit community organizations (except for schools, universities, hospitals, nursing homes, businesses, commercial co-operatives and federal, provincial and the City of Winnipeg departments and agencies). Up to 50 per cent of the first \$15,000 of project costs and up to one third of project costs over that amount are eligible for grant funding to a maximum of \$50,000.

Status: Ongoing

Contact:

Manitoba Housing and Community Development

mcpp@gov.mb.ca

For more information: [Manitoba Community Places Program](#)

Manitoba Hydro New Buildings Program

The Manitoba Hydro New Buildings Program provides technical guidance and financial incentives for designing, constructing, and operating new energy-efficient buildings in Manitoba. Financial incentives are based on projected energy savings and proven building performance; and are calculated and paid based on the square footage of the building, the chosen design option, and the type of building. All new building projects must be pre-approved before any design work begins.

Status: Ongoing

Contact:

Manitoba Hydro Power Smart for Business Program

204-360-3676 or toll-free in Manitoba at 1-888-624-9376

powersmartforbusiness@hydro.mb.ca

For more information: [Manitoba Hydro New Buildings Program](#)

Private funding from financial institutions, developers

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