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Green Municipal Fund



Getting started on your brownfield sites: Committing to action

Leadership in Brownfield Renewal Program
Guidebook Series

Acknowledgements

This guidebook is based on best practices observed in communities across Canada, as well as information provided by leading brownfield experts. It also draws on past research commissioned by the Federation of Canadian Municipalities (FCM), conducted by James Van Hemert and Laurel Cowan (Golder & Associates), Tammy Lomas-Jylha (TLomasJylha Consulting), Carola Lima (CBL Consulting Ltd.), and Steve Dulmage (Build Green Solutions).



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About this guidebook

This guidebook is the first in a new series developed for FCM's new Leadership in Brownfield Renewal Program (LiBRE) framework. It contains information needed to achieve the first step in the LiBRE process framework: committing to action. FCM will produce a range of associated resources over the coming years.

This guidebook begins with an overview of basic brownfield concepts that are important to understand before tackling brownfield sites, and moves on to the reasons and ways to support brownfield redevelopment. Finally, it outlines what your municipality can do to commit to action.

FCM's **Leadership in Brownfield Renewal** (LiBRE) framework outlines **seven key steps** to becoming a brownfield champion community. Complete the steps in an order best suited for your community, whether you follow them one-by-one, undertake several simultaneously, or build on work already accomplished.



Commit to action



Promote programs and opportunities



Understand the landscape



Manage programs and projects



Build partnerships



Evaluate, improve and celebrate



Devise a strategy

This framework is based on the practices of Canadian municipalities that have been successful in returning their brownfield sites to productive use.



Fundamentals

A brownfield is defined as an abandoned, vacant, derelict or underutilized commercial, industrial or institutional property where past actions have resulted in actual or perceived contamination or threats to public health and safety, and where there is active potential for redevelopment.

There are tens of thousands of brownfield sites across Canada – almost every municipality is home to at least one. In fact, as much as 25 per cent of the Canadian urban landscape is contaminated by previous industrial activities.¹

Redeveloping these sites is one of the most promising ways to promote the environmental, economic and social health of communities. Many sites are found in prime locations with significant potential, such as downtown cores or along major transportation routes and waterways. Despite this, brownfields often sit idle for years as redevelopment is complicated by remediation costs, regulations, liability concerns and other barriers.

Municipalities can help overcome these challenges with strategies and programs that facilitate redevelopment. However, to do this effectively, municipalities need a good grasp of the issues and the role local governments can play. This section provides an overview of:

- A)** Common brownfield types
- B)** The redevelopment process
- C)** Key challenges and decision drivers
- D)** Threshold sites

¹ Christopher A. De Sousa, “Urban brownfields redevelopment in Canada: the role of local government,” *The Canadian Geographer* 50, 3 (2006): 392-407.

A) Common brownfield types

Brownfields can be any size, from small, former gas stations to large chemical processing sites. However, some of the more common types for municipalities are:



Credit: City of Port Colborne

Smaller urban sites with previous uses like a gas station or drycleaner



Credit: City of Westminster

Large waterfront properties



Credit: City of Hamilton

Medium to large industrial sites within the urban boundary



Credit: City of Ottawa

Medium to large urban sites with heritage buildings or other heritage considerations

These sites can be owned by municipal, provincial or federal governments, private landowners or large corporations.

B) Brownfield redevelopment process

Brownfield redevelopment can often take longer than greenfield development because more studies and regulatory approvals are required. Complex and lengthy approval processes and the potential for discovering unexpected contamination can also impact timelines and significantly affect a project's financial viability.

Redevelopment of a brownfield site is completed in three main stages:

- ▶ **Study:** Perform environmental site assessments, determine the type and extent of contamination (if any), set clean-up objectives, and develop a remediation or risk management plan.
- ▶ **Rehabilitate:** If studies confirm contamination, remediate the site or implement risk management measures to achieve desired clean-up objectives, receive confirmation of compliance from provincial/territorial authorities.
- ▶ **Redevelop:** Perform ongoing post-remediation risk management, monitor the site, design and construct infrastructure.

It is important to note that this is a simplified overview of the brownfield redevelopment process. Each of these steps is described in greater detail in FCM's [Brownfield Roadmaps](#)

C) Key challenges and decision drivers

Development always has risks, but brownfield redevelopment risks, may be compounded by high costs and the uncertainty of environmental assessments, clean-up, liability, regulatory approvals and potential community opposition. Developers may have limited financing options necessitating either access to upfront capital or bridge financing at relatively high interest rates. To offset these challenges, developers often seek higher rates of return for brownfield projects than for lower-risk projects. If local market conditions prevent developers from achieving a targeted rate of return, a site will sit idle unless the municipality intervenes to make redevelopment attractive. In this case, the property is considered a threshold site.

D) Threshold sites

These are properties that would not be developed under normal market conditions unless appropriate incentives are offered. A significant proportion of brownfields are threshold sites.²

Non-threshold sites either have a *positive value* or *negative value*:

- Positive value sites may be redeveloped under normal market conditions due to high land values or strong market demand. Incentives are not necessarily needed. The municipality's role is to facilitate and to ensure provincial/territorial regulations have been followed.
- For negative value sites, no level of municipal incentive will be enough due to high remediation costs or insufficient market demand.³ Municipal options include working with other orders of government to secure funding for remediation or infrastructure and public amenity projects that will stimulate demand for future redevelopment.

The ability to identify threshold sites and take appropriate action is key for municipalities wishing to revitalize their brownfield sites. There are several questions to consider when identifying potential threshold sites, such as:

- What are the anticipated levels of site contamination and the cost of remediation?⁴
- Is the property in a strategic or high-profile location?
- Have assessment values been increasing?
- Has there been population and job growth in the area?
- Have there been recent public or private investments in infrastructure and redevelopment nearby?
- Do adjacent property uses support redevelopment here?
- Is the community ready for development of this brownfield?

It is also crucial to determine what end uses and densities can be supported by the real estate market. These considerations must be weighed against the municipality's redevelopment goals and the development community's level of interest, experience and expertise.

² Ministry of Environment. "Brownfields and Brownfield Redevelopment." The Province of British Columbia, Aug. 2007. Web. Dec. 2014.

³ Ibid.

⁴ Screening sites for moderate contamination can be done by assessing their past uses through a Phase I Environmental Site Assessment (ESA). Cost savings can be achieved by conducting Phase I ESAs on multiple sites at once.

Risks and benefits

Success stories from across Canada demonstrate that brownfield redevelopment generates significant benefits and that failing to take action comes with considerable risk.

| | |
|--|--|
| Economic benefits | Environmental benefits |
| <ul style="list-style-type: none">▶ Stimulating local business▶ Increasing tax revenue▶ Increasing property values▶ Driving development in adjacent areas▶ Leveraging private investment▶ Using existing infrastructure (sewer, water, roads) | <ul style="list-style-type: none">▶ Reducing environmental risks▶ Improving air, soil and water quality on and off-site▶ Reducing urban sprawl and related greenhouse gas emissions▶ Preserving agricultural land by reducing pressure for greenfield development |
| Social benefits | Potential consequences of inaction |
| <ul style="list-style-type: none">▶ Improving public health and safety▶ Revitalizing neighbourhoods▶ Enhancing community aesthetics and pride▶ Creating potential for new housing, community infrastructure and public spaces | <ul style="list-style-type: none">▶ Reduced property values▶ Blighted neighbourhoods▶ Poor local development and investment▶ Unpaid taxes▶ Under-utilized infrastructure▶ Urban sprawl and pressure on greenfield land▶ Environmental damage on- and off-site▶ Contaminated soil and groundwater▶ Public health and safety risks▶ Liability issues▶ Illegal dumping, vandalism and crime▶ Higher enforcement and policing costs |

Encouraging brownfield redevelopment

In the absence of a strong real estate market, brownfield redevelopment will rarely occur unless the municipality works to level the playing field between brownfields and other available sites. Developers must often decide relatively quickly whether or not to redevelop a site. A decision to go ahead is more likely when a municipality has created a supportive climate and offers a suite of incentives that addresses redevelopment barriers.

Modest effort and financial investment by a municipality can increase the profit potential of a brownfield, thereby encouraging its redevelopment. Given the considerable benefits generated by brownfield redevelopment, the return on investment for the municipality can be significant.

To realize these benefits, a municipality must implement measures to reduce capital costs and uncertainties. These measures also increase the project's potential and can include:

- ▶ Lowering development charges
- ▶ Providing site assessment and remediation grants or loans
- ▶ Reducing municipal administrative and user fees
- ▶ Changing the site zoning to a higher land use (“up-zoning”)
- ▶ Reducing parking requirements
- ▶ Streamlining and fast-tracking approval processes
- ▶ Writing letters acknowledging municipal funding to help developers secure other financing
- ▶ Providing loan guarantees

Municipalities should develop a brownfield strategy that identifies priority sites, outlines obstacles to redevelopment and recommends measures to overcome them. Developing and implementing such a strategy will take time, resources and a formal commitment to take action.

Examples of brownfield strategies

Municipalities of different types and sizes across Canada have developed strategies and programs to bring their brownfields back into productive use. Here are some examples.

- ▶ **City of Langley**, BC (pop. 25,000): Brownfield Redevelopment Strategy
- ▶ **City of Cornwall**, ON (pop. 46,000): Brownfields CIP
- ▶ **City of Guelph**, ON (pop. 120,000): Downtown Guelph CIP
- ▶ **City of Greater Sudbury**, ON (pop. 160,000): Reclaiming our Urban Places: Greater Sudbury Brownfield Strategy and CIP
- ▶ **City of Windsor**, ON (pop. 210,000): Brownfield Redevelopment Strategy and CIP
- ▶ **City of Hamilton**, ON (pop. 500,000): ERASE CIP
- ▶ **City of Edmonton**, AB (pop. 880,000): Contaminated Gas Stations Strategy
- ▶ **City of Toronto**, ON (pop. 2,500,000): The Toronto CIP for Brownfield Remediation and Development of Prescribed Employment Uses

Committing to action

As discussed, municipal leadership is essential to bring brownfield sites back to productive use. The first and perhaps most important step is having your municipality commit to supporting brownfield redevelopment by:

- A) Increasing your understanding
- B) Building internal awareness and commitment
- C) Establishing brownfield redevelopment as a municipal priority
- D) Forming an interdepartmental team

A) Increase your understanding

While you do not need to know all of the intricate details related to brownfield redevelopment, you should have a high-level understanding of remediation and redevelopment and the role municipalities can play. At this point, it may also be helpful to compile an informal list of known brownfields in your community.

Many provincial governments and organizations like the FCM and the Canadian Mortgage and Housing Corporation have resources to help municipalities and other stakeholders. Reviewing best practices and case studies is a great way to learn about successful programs, projects and approaches.

You can also set yourself up for success by speaking with peers in municipalities that are actively redeveloping brownfields. You can learn first-hand what worked, what didn't and why. Keep in mind, however, that every brownfield, as well as every community, is unique. Ensure success by employing strategies adapted to your local context.

Brownfield resources

FCM's Green Municipal Fund (GMF)

- [Brownfields Sustainability Snapshot](#)
- [Brownfield roadmaps](#)
- [Sustainable remediation web portal](#)
- [FCM Sustainable Communities Awards winner videos and case studies](#)
- [GMF webinars](#)
- [GMF case studies](#)

Province of Ontario

- [A Practical Guide to Brownfield Redevelopment in Ontario](#)
- [Brownfields Showcase II: Opportunities in Our Own Backyard](#)
- [Financing a Brownfield Project](#)
- [Municipal Financial Incentives for Brownfield Redevelopment](#)

Canadian Mortgage and Housing Corporation

- [Brownfield Redevelopment for Housing in Canada – Case Studies](#)

U.S. Environmental Protection Agency

- [A Citizen's Guide to Cleanup Technologies - Technology Fact Sheets](#)
- [Remediation Technologies Screening Selection Matrix](#)

B) Build internal awareness and commitment

Obtaining buy-in from decision-makers is crucial to secure financial and human resources for brownfield initiatives. Raise awareness about the benefits and challenges of redevelopment among municipal staff and council to foster a common understanding about brownfields' effect on the community and what your municipality can do to help.

While the benefits and risks of brownfield redevelopment are many, your municipality's elected officials and senior administration may be particularly interested in economic benefits, risks associated with inaction, and financial and administrative implications. Concrete examples will help build your case. If citizens have expressed concerns about particular properties, these examples, too, will help.

Municipal staff will want to know specifically how brownfield redevelopment supports their own departmental objectives, such as public safety, neighbourhood revitalization or economic development. The departments with interests in brownfield redevelopment usually include planning, public works, transportation, legal affairs, finance and economic development. Their commitment will be essential to forming an effective brownfield team (discussed below).

FCM's website includes case studies of brownfield projects that resulted in significant economic, social and environmental benefits for Canadian municipalities. Use success stories like these to start a solution-oriented dialogue with municipal officials and to build excitement and momentum for redevelopment projects.

C) Make brownfield redevelopment a municipal priority

Once you have obtained buy-in from your elected officials, senior administration and colleagues from key departments, your municipality is ready to formalize its commitment through an official planning or strategy document. The commitment signals to municipal staff, local developers and landowners that brownfields are a municipal priority and the municipality is ready to take leadership in driving redevelopment.

Some ideas to engage staff and council

- ▶ Invite the **Green Municipal Fund** to deliver a presentation on GMF brownfield funding opportunities and knowledge resources.
- ▶ Organize staff events (e.g. breakfast speaker events, lunch-and-learn presentations) to increase awareness, provide updates and discuss brownfield issues.
- ▶ Organize a study tour to showcase successful redevelopments in your community.
- ▶ Share resources (such as this guide) and promotional materials (e.g. booklets, brochures) with relevant staff and departments.

Examples of municipal commitments

A formal commitment can take different forms, as demonstrated in the examples below:



▶ City of Cambridge, ON, Official Plan

Greyfield and brownfield sites will be revitalized through intensification, redevelopment and/or the adaptive reuse of existing buildings in accordance with the policies of this plan.



▶ City of Langley, BC, Downtown Master Plan

The Downtown area redevelopment provides an opportunity to bring nature Downtown and "green" the streets as well as clean up incidences of soil contamination because of past commercial and industrial activity.



▶ City of Calgary, AB, Municipal Development Plan

Facilitate the availability of competitively priced, easily serviceable and developable land for residential purposes, including opportunities for brownfield development ... Encourage the remediation and redevelopment of brownfield sites ... Underutilized commercial and brownfield sites accessible to the Primary Transit Network should be redeveloped over time, where feasible, as mixed-use and/or employment intensive sites.



▶ The City of Cornwall, ON, commits to an “infill and brownfield redevelopment strategy” in their 2013 – 2015 Strategic Plan.

D) Form an interdepartmental team

With an official commitment in place, your municipality is ready to prepare for substantive work such as conducting a brownfield inventory and developing a brownfield strategy. An interdepartmental team with a wide array of skill sets is needed to spearhead this work.

The team should meet regularly to share updates, discuss and resolve issues, develop requests for proposals, streamline processes and develop or update policies and programs.

The size and makeup of the team will vary among municipalities but should include personnel normally involved in planning, reviewing and approving development projects, and in communications or marketing.

Brownfield team members usually come from the following departments:

- ▶ Planning
- ▶ Finance
- ▶ Legal or risk management
- ▶ Building or public works
- ▶ Real estate
- ▶ Economic development
- ▶ Roads and transportation
- ▶ Communications and marketing

Vancouver's interdepartmental brownfield team

In order to develop a Soil Remediation Strategy, the City of Vancouver created a 'Contaminated Sites Tech Team' comprised of personnel from real estate facilities management (REFM), engineering, environmental protection, parks, law and risk management departments.

In addition, the city also created a new governance structure to centre the brownfield expertise within its REFM department and reviewed policies, practices and procedures to ensure coordination and alignment of priorities between departments.

Effective brownfield teams often also include a council champion to raise awareness and obtain buy-in from local residents. This person can start a dialogue with the community, generate public support and create excitement about potential redevelopment projects.

It is also helpful to have a team member who has a basic understanding of common remediation approaches, when they are used and their cost and land-use implications. This member can offer insights on realistic uses for your local brownfields and cost-effective remediation strategies.

Depending on the number and complexity of brownfields in the community, it may be appropriate for your municipality to designate a brownfield coordinator who has expertise to lead all municipal brownfield initiatives. Municipalities with such positions include the cities of Sarnia, ON; Kingston, ON; Edmonton, AB; and the Region of Waterloo, ON.

Conditions for success

The Stanford Social Innovation Review proposed five conditions for a team's collective success.⁵ These are adapted here for a brownfield team.

- ▶ **Common agenda and goals:** "Collective impact requires all participants to have a shared vision for change, one that includes a common understanding of the problem and a joint approach to solving it through agreed upon actions." Team members are more likely to be committed to and accountable for the team's success if they can see how their departmental goals can be furthered through successful brownfield redevelopments.
- ▶ **Shared measurement systems:** "Collecting data and measuring results consistently on a short list of indicators ... not only ensures that all efforts remain aligned, it also enables the participants to hold each other accountable and learn from each other's successes and failures.
- ▶ **Mutually reinforcing activities:** "Collective impact initiatives depend on a diverse group of stakeholders working together, not by requiring that all participants do the same thing, but by encouraging each participant to undertake the specific set of activities at which it excels in a way that supports and is coordinated with the actions of others. ... The power of collective action comes not from the sheer number of participants or the uniformity of their efforts, but from the coordination of their differentiated activities through a mutually reinforcing plan of action. Each stakeholder's efforts must fit into an overarching plan if their combined efforts are to succeed.
- ▶ **Communication:** In order to keep brownfields top of mind and ensure continuous progress, your brownfield team should communicate and meet regularly. This ensures issues are identified and dealt with promptly.
- ▶ **Backbone support:** "The expectation that collaboration can occur without a supporting infrastructure is one of the most frequent reasons why it fails." In addition to the conditions described above, your team's success will depend on a staff member who can provide essential backbone support to coordinate efforts, keep up momentum and implement "a highly structured process that leads to effective decision making.

⁵ Kania, John, and Mark Kramer. "Collective impact." Stanford Social Innovation Review 1.9 (2011): 36-41.

The path forward

The benefits municipalities can reap by returning sites to productive use are many. Though it may be tempting to wait until urgent liability or citizen concerns arise, municipalities will benefit by being proactive. Making a formal commitment to support brownfield redevelopment lays the groundwork for strategic interventions that will focus efforts on priorities and maximize the benefits to residents.

With a formal commitment made, your municipality will have completed Step 1 of FCM's LiBRe framework and will be ready to tackle the next steps:



Understand the landscape: Conduct a brownfield inventory, determine regulatory obligations and policy options, and identify key stakeholders.



Build partnerships: Enhance relationships with pertinent local organizations, financial institutions, developers, regulators and other organizations, and create a community brownfield advisory group.



Devise a strategy: Develop a strategy and programs to encourage redevelopment.



Promote programs and opportunities: Build awareness by creating a communications plan and promotional materials and by participating in or hosting local events.



Manage programs and projects: Administer your municipal brownfield programs, and facilitate the redevelopment of local properties.



Evaluate, improve and celebrate: Assess and ensure ongoing improvement of policies and programs, and celebrate your successes.

▶ Stay tuned for more resources from FCM's Green Municipal Fund that will help support your progress every step of the way.

FCM's **Green** Municipal **Fund**: Supporting municipal leadership in brownfield redevelopment

FCM's Green Municipal Fund (GMF) is your brownfield clean-up partner and much more. Whether your organization is a **municipal government**, a **municipally owned corporation** or a **private-sector partner**, GMF can help get your brownfield projects moving with funding and knowledge resources.

| PLAN | ASSESS | REMEDiate | REDEVELOP |
|---|---|---|---|
| GRANTS (up to \$175,000) | GRANTS (up to \$175,000) | LOANS | LOANS + GRANTS |
| <ul style="list-style-type: none"> Sustainable neighbourhood action plans Community brownfield action plans | <ul style="list-style-type: none"> Phase II ESAs Risk assessments Risk management/remedial action plans Field tests | <ul style="list-style-type: none"> Site remediation Risk management Interim use - renewable energy generation on a brownfield site | <ul style="list-style-type: none"> For eligible capital projects in the energy, transportation, waste and water sector |
| KNOWLEDGE RESOURCES: Case studies, roadmaps, webinars, award-winning projects, videos and more. | | | |

The GMF advantage

Let the GMF advantage help you revitalize your brownfields, overcome market barriers and create new economic opportunities. GMF offers attractive financing on a cost-reimbursement basis. Unlike most other funders, GMF offers loans at the remediation stage. Find out about innovative financing methods, such as using municipal incentives like tax increment financing (TIFs) as loan security. GMF funding can be combined with other funding programs (e.g. federal and provincial) and applications are accepted year-round.

GMF can also connect you with a network of brownfield experts and resources and share lessons learned from other projects.

To apply for funding or learn more about GMF, visit www.fcm.ca/brownfields or contact us at **1-877-997-9926** or gmf@fcm.ca.