



# REDEVELOPING BROWNFIELDS

Information for REALTORS®



# REDEVELOPING BROWNFIELDS

## Background

The term “brownfields” refers to properties, often former industrial sites, that are left under-used because of environmental contamination concerns. There are about 20,000 to 30,000 of these sites across Canada, and many of them are located on prime land in this country’s cities, ripe for redevelopment.

For a number of years, REALTORS® have been calling on governments at all levels to provide the necessary tools to help the private sector rehabilitate under-used and environmentally impaired properties. Many of these properties are abandoned and provide no employment opportunities for the local community. They aren’t reaching their full economic potential.

The members of the Canadian Commercial Council of REALTORS® (CCC) of The Canadian Real Estate Association specialize in industrial, commercial and investment real estate, and have long recognized the benefits of rehabilitating and redeveloping existing properties that are under-used or abandoned. These benefits include, among other things, increased local property values, an increased property tax base and increased densities in established urban centres, thereby reducing urban sprawl.

Brownfield sites present a challenge to redevelopers because they have to be cleaned up before they’re ready to be put to better uses. Contaminant levels vary between sites, and in some cases the full extent of contamination only becomes clear after builders start digging into the ground. For this reason, developers have historically been hesitant to develop these risky properties.

The recent push for urban intensification – building high-density developments within cities rather than expanding low-density developments into rural areas and greenspaces – is gaining momentum. Canadians looking to reduce their environmental impact are becoming more interested in high-density urban residences, and many are also choosing to live in smaller dwellings closer to the downtown core for purely economic reasons – to reduce their reliance on cars and avoid the growing cost of single-detached homes.

A plan for redeveloping brownfield sites must be part of any urban intensification strategy. In large cities, brownfields often make up a large proportion of the available real estate where new buildings can be put up. An under-used and contaminated property can also drag down the value of surrounding properties, so cleaning it up promotes the revitalization of the entire neighbourhood.

## The Problem

As Canada’s cities have grown, tax policy, changing economic activities, new environmental regulations and zoning rules have all conspired to make some very well located properties unprofitable to develop. Although many developers, municipal planners and environmentalists would prefer to ‘build up’ rather than ‘build out’ our cities, many downtown sites have been left empty.

There are a number of real barriers that stand in the way of brownfield redevelopment, and urban intensification can’t be achieved unless governments take the lead. In many ways, traditional policies have actually discouraged intensification. To protect public safety, strict rules have been imposed for cleaning up pollution at downtown brownfield sites and the private sector simply isn’t able to invest the resources needed to meet those standards on its own. Shifting the balance in favour of brownfield redevelopment therefore requires concerted effort and deliberate new policies.

For a number of years, The Canadian Real Estate Association has been one of the voices calling on all levels of government to assist the private sector in rehabilitating brownfield properties. This can be done by removing regulatory impediments, and by providing tax incentives and mortgage guarantees to developers who take a chance on brownfields. The potential value of many well-located brownfield sites as commercial or residential developments means that, with the right inducements, they can be made very attractive to investors.



The Lachine Canal District in Montreal has been undergoing a major revitalization in recent years. Former brownfield properties have been redeveloped into residential, commercial and green space, helping turn a dilapidated industrial area into an active community.



Increasingly, municipal and provincial governments have started introducing programs to mitigate some of the barriers to brownfield redevelopment. Such plans include the City of Montreal Master Plan and the Smarter Niagara Brownfields Program in southern Ontario. Although so far many of these programs have been piecemeal in their approach and application, their successes can help encourage more initiatives in this field.

The key problem for brownfield redevelopers is risk. To build on a brownfield site takes longer than to build on a “greenfield” (undeveloped) site, there are more stages to the process, and each stage carries a chance of cost overruns.



A number of interesting projects are underway in Vancouver, where redeveloped brownfields have very high potential value.

## Laying the foundation

New initiatives to reduce financial and regulatory risks for brownfield redevelopers include the City of Montreal Master Plan, the Ontario Ministry of Municipal Affairs and Housing's Brownfield Coordinator's office and the Smarter Niagara Brownfields Program. All three combine financial incentives with simpler regulatory processes to reduce barriers to brownfield redevelopment.

Montreal's new Master Plan was adopted in 2004 as part of the city's effort to facilitate financing and redevelopment of contaminated sites. This complements the City's strategy to maximize the value of Montreal's transportation infrastructure, by prioritizing intensification around subway stations and regional train hubs.

The plan calls for new financial mechanisms to support the clean-up of contaminated sites, more flexible methods for determining contamination risks on brownfield properties and facilitating land use changes. It also supports research into innovative clean-up techniques, such as in-situ remediation.

In November 2007, the City of Montreal approved a plan by Devimco to redevelop Griffintown, an industrial slum neighbourhood southwest of Old Montreal that now has only about 50 residents. The \$1.3 billion project will be one of the biggest private developments in Montreal's history, and is expected to reinvigorate the community. The company plans to have 4,000 residential units, office space, boutiques, two hotels and a concert hall, while preserving 12 heritage buildings.

The Province of Ontario created the Office of the Brownfields Coordinator to take the lead in coordinating provincial action to encourage brownfield redevelopment. Until this point no single ministry had acknowledged brownfields as a top priority. By bringing brownfield issues under a single authority, the office has been able to facilitate the creation of an advisory group representing major stakeholders, to streamline existing brownfield processes, to remove barriers in finance, planning and the environment, and to build capacity and awareness among municipalities, the development community, environmental interests and lenders. The office was also key to passing recent legislation to address liability barriers to brownfield redevelopment that had been identified as stumbling blocks by stakeholders.

In 2003, the Region of Niagara, in Ontario, introduced a number of measures under the Smarter Niagara Brownfields Program aimed at promoting redevelopment. An Environmental Assessment Grant Program was brought in to reduce the cost to developers of determining contamination levels on brownfield sites. A Tax Increment Grant Program and a Tax Assistance Program were introduced to defer taxes on properties during the early stages of redevelopment, when clean up costs are highest and the site isn't creating any revenue. Also included is a waiver from regional development charges and \$1.2 million annually provided to match funds to assist area municipalities, removing both financial barriers and the barrier of coordination between the upper and lower tiers of government. The program has received applications for about a dozen properties in area municipalities, totaling over 100 acres of land.

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## The Opportunity

It's important to note that the term 'brownfield' covers a wide variety of sites. According to a report from the National Round Table on the Environment and the Economy (NRTEE), where redevelopment challenges are concerned, brownfields fall into three categories:

- About 15 to 20 per cent of brownfields are in the top tier. Among these sites, the market value far exceeds the cost of remediation. These sites are usually redeveloped quickly, without any incentive beyond their profitability.
- Another 15 to 20 per cent of sites are in the bottom tier. These are sites where cleanup costs would far outweigh the value of the land after cleanup, whether because they are poorly located, heavily contaminated, or both. These sites hold few development prospects.
- About 60 to 70 per cent of brownfields fall into the middle tier of sites where both the cost of clean up and the potential value are high. These sites present a great deal of development potential, but are too expensive or risky to clean-up. It's this middle tier that stands to benefit most from incentives or regulatory changes that could tip the balance between cost and profit to encourage development.

Ideally, brownfield redevelopment strategies focus on middle tier properties. Normal market forces drive the development of top tier sites, without any outside intervention. These market forces fail, however, when it comes to developing middle-tier sites. Investors are generally a risk-averse group, and the redevelopment of heavily contaminated sites is full of unpredictable challenges. By offsetting some of those challenges, brownfields can be made much more attractive to investors.

Well-located brownfield sites often have a lot of development potential. Besides being closer to the city core than any new development could possibly be, these sites are usually already served by infrastructure such as utilities and roads – saving the need to build these from scratch. Brownfield redevelopment saves greenfield land on a city's outskirts, both because it helps fill land within the city before building out and because urban infill developments tend to result in higher-density projects than new suburban ones (for instance, by building condominiums rather than single-detached homes). In fact, it's estimated that every brownfield redevelopment saves an area four-and-a-half times larger from being developed in an outlying region.

Brownfield redevelopment can also have an enormously positive impact on the surrounding community. Brownfield sites tend to be situated in the older parts of cities, and are often found in run-down areas that are long past productive use. Experience has shown that redeveloping a brownfield reinvigorates the surrounding neighbourhood, creating more economic and social activity in the area. Cities like Oshawa, Ontario have based urban renewal plans for entire communities on brownfield redevelopments.

Example after example has shown that, once the initial costs and uncertainties are past, brownfield redevelopment benefits everyone involved.

## Oshawa's "renaissance"

In the early 1990's, the city of Oshawa, Ontario decided something had to be done about an ongoing problem. The old manufacturing sector had largely emptied, leaving an empty hole in the middle of town.

The former industrial properties were huge (the two biggest ones covered 70 acres between them) and carried significant contamination risks. For these sites to be redeveloped, it would take help from the municipality.

The City started small, helping build a parking garage on a brownfield site. After that a new YMCA was built, followed by the Carriage House retirement home in 1999. Finally, in 2004, a site was needed for a 5,500-seat sports complex that would serve as the new home of Oshawa's OHL team. Builders chose a brownfield site over a number of greenfield possibilities, thanks in part to extensive environmental investigations of the site giving them confidence and also to the support and incentives offered by the City. The Canadian Urban Institute recently recognized the GM Centre with the 2007 'Brownie' Award for Best Project Overall for that year.

Building the Centre was a complicated process, patching together 10 parcels of land, demolishing eight buildings and a former railroad site, and remediating contamination from heavy metals and hydrocarbons. The City invested a total of \$45 million in the project.

For the city of Oshawa, the spin-off benefits of brownfield redevelopment have more than made up for the \$130 million they've invested so far. Currently the city is working with a theatre operator from Toronto to open up a location on a former brownfield. They expect to be putting in a \$700,000 investment on a project that will create \$17 million in spin-off benefits.

More and more, governments are starting to realize this. With new research and new cleanup technologies coming out all the time, new initiatives are being put forward to help offset the major impediments to brownfield redevelopment:

- difficulty getting financing;
- cost of insurance;
- stigma;
- lack of awareness and understanding;
- regulatory delays;
- regulatory liability risk; and
- civil liability risk.

## Investment & Insurance

Access to capital is a big problem for anyone looking to start a risky project, and this is especially true for brownfield projects because the biggest cost – clean-up – comes right at the start while the benefits are realized much further down the road. So incentives that help offset financial risk are a great way to encourage brownfield development. Equity funds have been used in a number of jurisdictions to help offset the start up costs of brownfield redevelopment, as well as making it easier to obtain insurance for brownfield projects.

The high up-front costs of brownfield redevelopment are compounded by the fact that some of these sites have been abandoned for some time, and come with a heavy burden of back taxes. Under current Canadian tax policy, the Income Tax Act requires remediation costs to be capitalized. This is an immediate cost that puts brownfield sites on an uneven footing with greenfields from the start. A change to allow remediation costs to be expensed, rather than capitalized, would be a step toward making brownfield redevelopment financially viable easier to finance.

In Ontario, where an estimated 40 per cent of Canada's contaminated properties are located, some municipalities are now providing financial assistance to property owners in the form of grants, loans and tax assistance that greatly impact the profitability of these sites. The provincial government's Brownfields Financial Tax Incentive Program, or BFTIP, was introduced to help municipalities put together incentive packages, and some older sites also qualify for tax benefits under the province's Heritage Property Tax Relief Measure.

When Quebec conceived its "Revi-Sols" program in 1998, attracting investment was an even more important consideration than the environmental benefits. The program was the brainchild of the Treasury Board, and its objective was to stimulate economic development in downtown cores – urban building had been in a slump for several years. Between 1998 and 2005, the provincial government made available \$114 million in grants. The result was 305 projects totaling 3 million square feet and \$4.5 billion in investment. When the program came to an end, there was still a waiting list of projects. Quebec has now launched a second program, "Clima-Sols," which will run from 2007 to 2010 and encourage green buildings and vegetation as well as revitalizing communities.

## FILMPORT



FILMPORT is 550,000 square-foot film and television production facility being built on former industrial lands on Toronto's waterfront. The site, which sat vacant since the 1990s, had been previously used as a bulk oil and diesel terminal, and for coal storage. When the Toronto Economic Development Corporation bought it in 2004, the site was contaminated with petroleum hydrocarbons and metals in soil and groundwater.

In addition to serving as an example of successful brownfield redevelopment, the FILMPORT is an excellent example of a public-private design-build-operate partnership. The public partner, TEDCO, is financing the costs associated with the environmental clean-up while the private partner, Toronto Film Studios, is financing the building costs. The partnership is creating an architecturally unique property that is not only functional, but also helps beautify the community.

In addition to the studio and media complex, FILMPORT will include a mix of restaurants, retail shops and services. A hotel has also been proposed.

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The need to attract investors has also led to the creation of the Kilmer Brownfield Equity Fund. This \$100 million limited partnership fund is the first in Canada aimed at drawing institutional investment for brownfields. The program has succeeded in attracting a number of institutional investors and is a leader in the industry. CREA recommends the mandate of the Canada Mortgage and Housing Corporation (CMHC) be expanded to provide mortgage guarantees at commercial rates for environmentally impaired properties that are being redeveloped for residential or mixed residential/commercial uses. The National Round Table on the Environment and the Economy and the Canadian Brownfields Network also recommend this amendment to CMHC's mandate. Government mortgage guarantees have already been helpful in encouraging brownfield redevelopment in the United States.

Successful brownfield redevelopment projects often draw on a combination of financial incentives – whatever is needed to tip the balance between cost and profit. Municipalities then reap the benefits of their investment when the new development creates jobs, breathes new life into the community and raises the value of surrounding properties. According to the government of Ontario's Practical Guide to Brownfield Redevelopment, every dollar invested in a brownfield causes \$3.80 to be invested in the economy.

### Stigma and lack of awareness

Brownfield properties have always suffered from negative perception. They're considered to be contaminated, difficult to deal with and fraught with delays, unexpected costs and regulatory hurdles.

Time and familiarity will be needed for this to change. The push for urban intensification in recent years, and new programs and technologies that reduce the challenges of brownfield remediation, are already making many stakeholders take a closer look at the development potential of brownfields. At the Canadian Brownfields 2007 conference, a representative from Royal Bank of Canada said that even traditional lenders are now more familiar with – and open to – investing in brownfields. CREA and the CCC are among the strongest voices promoting brownfield issues in Canada – CREA is an executive member of the Canadian Brownfields Network.

Major projects like FILMPORT in Toronto and the Halifax Seawall redevelopment, that show what can be done to revitalize brownfield sites, will likely play a big role in promoting awareness of the potential for brownfields.

Encouraging brownfield redevelopment has to be a government-led initiative. While some provinces have made strides, and the NRTEE has called for a national brownfield strategy, compared to other countries Canada is still behind the ball on implementing redevelopment initiatives. This sector has plenty of room to grow, and this country has plenty to learn from what's being done elsewhere.

### Making it work through creative financing

In 2005, the City of Kitchener, Ontario revised land use permissions to facilitate development of the brownfield site at 110 Highland Road East, in one of Kitchener's central neighbourhoods. The developer, Stirling Bridge Ltd., has completed clean-up of foundry sands and other contaminants and plans to build a 128 unit townhouse complex. In addition to collaborating with the public to keep the community involved – for instance by hosting a design charette before starting work – the developer and the city partnered to come up with an efficient funding formula.

The project benefitted from Tax Increment Financing, where portions of the difference in property tax between the property's pre- and post-remediation value were used to defray the cost of clean-up. The City also waived regional development charges and significantly reduced municipal development charges. The City set out established milestones and regular meetings were held between the developer, the City and members of the community. This development won the 2007 'Brownie' Award for Best Small-Scale Project of 2007.

## Projects, big and small

The Canadian Urban Institute has created the 'Brownie' awards, which are handed out to recognize projects across the country that have achieved outstanding success and pushed the boundaries of brownfield redevelopment. Awards are handed out in different categories, to acknowledge the unique challenges facing projects of all descriptions. This type of recognition is key to promoting the real benefits and possibilities of brownfield redevelopment.

In addition to the developments already mentioned, the Brownie Award winner for Best Large-Scale Project in 2007 was the Faubourg Boisbriand development in Boisbriand, Quebec. General Motors had used this site for automobile assembly from the early 1960s to 2002. The land was sold to Faubourg Boisbriand GP Inc. in November 2004, after pre-approval by regional and local planning authorities for mixed-use. A Notice of Contamination identified six areas with petroleum hydrocarbons and two with metals.

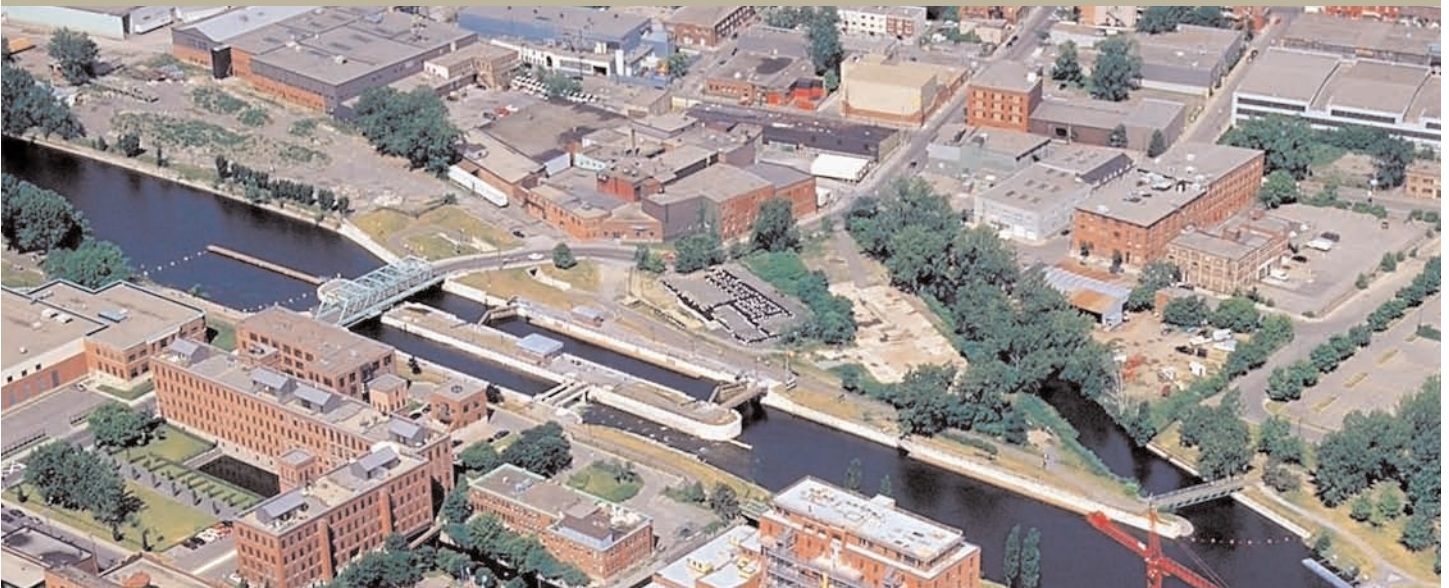
Faubourg is developing the site into a mixed-use Lifestyle Centre that optimizes the interrelationships, reliance and support between office, retail, municipal and residential components. Ecological principles are being promoted at Faubourg through a variety of initiatives. Construction wastes such as steel and crushed concrete are re-used or recycled through local construction-waste recycling operations. Induction bulbs are being installed for street lighting, native plant species are being used in landscape architecture, the development has surface water management systems, and LEED-NC certification is being sought for selected buildings in the Municipal Complex and the Residential area. The 2007 Brownie Award winner for Best Medium-Scale Project was the LAVO Bleach Factory, also in Quebec. Located in the heart of

a residential district in Montreal, the chlorine bleach factory was in operation from 1951 to 2002. The site, which covered 15,000 square metres, included hidden buildings, underground tanks and a section of railway. Site contamination resulted either from factory operation (gasoline, heating oil, hydrocarbons and metals), or from the railway (solid waste, metals and hydrocarbons). The redevelopment of the site was an important step in revitalizing an underprivileged district in the City of Montreal.

Remediation on the site started in 2002 and was completed in 2004. During this time, the City consulted residents in the district through a community organization – CAUHM. The dialogue made it possible to separate the site into three projects of 93 private residences, 71 cooperative residences, and 40 non-profit residences. All three projects have been built and occupied since 2006.

Within the framework of a project-specific agreement, the Province of Quebec, through the Ministère des Affaires Municipales et de la Métropole (MAMM), partnered with the City of Montreal to redevelop the site. The Province assumed the costs to rehabilitate the site. The City, through subsidies jointly financed by the Province, made a subsidy program available to private and community developers for construction.

Because land values in the district were so low in this underprivileged district, the cost of demolition and remediation wouldn't have made economic sense. But with the assistance package provided by the City and the Province, the project was able to attract 11 teams of architects and construction companies to bid on the right to redevelop the land.



Lachine Canal, Montreal

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## Regulatory delays and liability risk

Any developer looking to start a project on a brownfield site must pass through a long list of regulatory hurdles. This is fully justifiable, since by definition brownfields are either contaminated or presumed to be contaminated with some form of hazardous material. It does mean, however, that governments must be willing to help offset this built-in cost and risk if they want to encourage the development of brownfield properties.

For private sector developers, a major problem posed by extensive regulations is that for every regulatory approval required there's a chance of refusal. Even though hazards can usually be removed or overcome, costs and delays from having to re-apply for approvals can quickly make an entire project unprofitable. The potential difference in cost between a project where everything goes smoothly and one where many things go wrong is so enormous that a realistic budget estimate becomes impossible – and there are few things as sure to scare off investors as an uncertain budget.

Regulation also makes building on a brownfield a lengthy process. Even more than the expense of cleaning up a site, the amount of time it takes to neutralize contamination can seriously erode the profitability of a brownfield project. Reducing delays and streamlining regulatory processes has emerged as an important component of programs aimed at encouraging brownfield redevelopment. This is one area where governments absolutely must take the lead, and in a number of jurisdictions significant advances are being made.

Some municipal and provincial governments have been exploring mechanisms to take some of the uncertainty out of the regulatory process. Some programs seek to offer guarantees to developers, for instance by acting as a lender of last resort, while others provide ways for the public sector to take on some of the regulatory liability for a project and remove some of the risk to the developer.

A big challenge for regulators has been finding a way to process regulatory approvals more quickly without lessening their standards. The push to redevelop brownfields has shown the need to have more personnel, and standardized processes, dedicated to assessing contamination at individual sites and establishing requirements for clean up. In Atlantic Canada, the provinces are working together to establish a regional certification program for brownfield assessors, called Atlantic PIRI. A similar program is being developed in Ontario, with a focus on providing clarity in liability issues.

A number of brownfield redevelopment projects have overcome regulatory problems through clearer regulatory procedures and cooperative partnerships between the public and private sectors. In places like the Region of Niagara and Hamilton, Ontario these programs have met with great success.



The redevelopment of the Distillery District in Toronto has been an unqualified success.





## New technologies take some of the bite out of brownfield clean-up

What separates brownfields from other sites, and makes them more risky to develop, is that in addition to demolition costs there's the extra cost of cleaning up the site before building. In extreme cases, this can mean completely excavating the soil and replacing it with clean fill.

New technologies are starting to offer much cheaper solutions for brownfield clean-up, however. In many cases, these procedures have been used in other countries but simply haven't been available in Canada before.

One technique that's been used in the United States is to immobilize contaminants, rather than remove them entirely, by pumping a concrete mixture into the soil. This prevents contaminants from leaching up out of the ground. It also prevents them from leaking into the soil of surrounding properties, removing one of the liability concerns for brownfield redevelopers – the owner of a brownfield site is responsible for any contamination that migrates off-site, so many potential investors are scared away from taking ownership of a property if there's a chance they'll have to clean up their neighbours' sites as well as their own. This 'in-situ' remediation process also eliminates the cost of finding an appropriate disposal site for the contaminated soil removed from the site.

The Vancouver Island Conference Centre, in Nanaimo, B.C., is pioneering the use of deep soil mixing in Canada. The site was formerly an underused industrial property, and the soil contained a number of different contaminants. This made it difficult to target areas for remediation, and to find places to dispose of removed soil. Using European deep soil mixing technology, however, it was possible to mix cement into the soil and form a foundation without disturbing most of the contaminated soils. The technology used allowed for an 85 per cent reduction in material going to the landfill.

A number of companies are gaining experience doing brownfield remediation work, and as this expertise grows it will become much easier for developers to find dependable remediation specialists who can guarantee a good job at a reasonable price. As with so many other things in this new field, a major impediment has been lack of familiarity and awareness between developers, governments and remediation specialists – those who want to develop brownfields don't know how they're cleaned up, and those who know how to clean up brownfields don't know where their services are wanted. One of the main goals of the Canadian Brownfields conferences (the eighth annual event was held in October 2007 in Montréal), of which CREA is a major participant, has been bringing together various stakeholders from different sectors to network and share best practices.



The Water Centre revitalization project in Calgary.



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## Civil liability risk

Taking responsibility for contamination on a site is yet another potentially damaging prospect facing brownfield redevelopers. The owner of a property is liable for any damage done by contaminants on that property, and for any contaminants that leech out of the soil onto neighbouring properties. By purchasing a brownfield site, a property owner takes on the very real risk of legal action over unforeseen or unknown contamination affecting the health of the property's future occupants or neighbours.

Programs aimed at reducing this risk would help enormously in promoting brownfield redevelopment, and could go a long way towards removing barriers to brownfield investment. According to Andrew Himel, Managing Partner for Kilmer Brownfields Management Ltd., without some measure of liability protection private sector investment in many brownfield projects would be a non-starter.

New regulations being developed in Ontario take account of this problem. Among the changes being considered are providing civil liability protection to municipalities and providing new property owners with protection from liability for contamination that leaked onto neighbouring properties before they purchased the site. This is an important step, since current regulations make new owners responsible for all contamination on their property – even that caused by previous owners. This has been an enormous disincentive for prospective buyers of brownfield properties.



As land values shoot up – especially in cities like Regina, Saskatoon and Winnipeg – the potential for profit from brownfield remediation is increasing all the time.

## Key recommendations

REALTORS® can play an important role as part of a team of knowledgeable “brownfield friendly” experts to promote redevelopment. REALTORS® working with environmental engineers, lawyers, lenders and municipalities can help get projects off the ground, and help build networks of like-minded parties to deal with brownfield issues. Municipalities are particularly important partners in brownfield redevelopment - remember that many municipal governments have brownfield friendly programs to take advantage of, and that partnering with municipal officials can help to minimize regulatory problems.

The potential benefits of brownfield redevelopment and the need for government initiatives to take advantage of those benefits has led CREA to take an active role in pushing for new legislation on this issue. There's now plenty of experience showing that the challenges to brownfield redevelopment can be overcome, and CREA has identified the recommendations that we believe would have the biggest impact:

- 1) REALTORS® continue to call on the federal government to remove impediments to the rehabilitation and redevelopment of brownfield properties in order to allow redevelopment projects to compete on a more level playing field for the investment dollar of the Canadian entrepreneur.
- 2) CREA recommends that the federal government allow developers to treat remediation costs as a deductible expense for income tax purposes. This deduction may be claimed in the year the cost is incurred, or may be carried forward to subsequent years.
- 3) CREA encourages the federal government to consider an amendment to CMHC's mandate to include mortgage guarantees at commercial lending rates for brownfields being redeveloped for residential or mixed residential/commercial uses.

## More Information

### Useful links

**Canadian Brownfields Network website:**

<http://www.canadianbrownfieldsnetwork.com/>

A one-stop shop for information about brownfields

**National Round Table on the Environment and the Economy website:**

<http://www.nrtee-trnee.ca/>

The NRTEE is promoting a national strategy for environmentally sustainable urban development, including programs supporting brownfield redevelopment

**about Remediation website:**

<http://www.aboutremediation.com/>

This site contains information about brownfield remediation technologies, including the latest techniques being developed

**Canadian Urban Institute website:**

<http://www.canurb.com/>

The Canadian Urban Institute promotes understanding of brownfield issues and presents the annual "Brownie Awards".

**2007 CUI Brownie Award winners!**

[http://www.canurb.com/media/pdf/2007-CUI-BROWNIE-AWARDS-finalists\\_winners.pdf](http://www.canurb.com/media/pdf/2007-CUI-BROWNIE-AWARDS-finalists_winners.pdf)

See what projects are pushing the boundaries of brownfield redevelopment

**The Strategy Institute**

[http://www.strategyinstitute.com/040808\\_canbuild08/dsp.php](http://www.strategyinstitute.com/040808_canbuild08/dsp.php)

This organization is hosting a conference on brownfields that may be of interest to REALTORS®

**Brownfields Ontario**

<http://www.mah.gov.on.ca/Page220.aspx>

Ontario's Ministry of Municipal Affairs and Housing leads provincial government action on brownfields

**Atlantic PIRI**

<http://www.atlanticbca.com/eng/piri.html>

This site contains information about the management of contaminated properties in Atlantic Canada

**BC Ministry of Environment**

<http://www.env.gov.bc.ca/epd/remediation/index.htm>

The Land Remediation site for B.C.'s Ministry of Environment

**National Brownfield Association**

<http://www.brownfieldassociation.org/>

This is an international umbrella organization focused on the responsible redevelopment of brownfields

Any questions or comments about the service or products CREA provides?  
You can contact us on-line at [info@crea.ca](mailto:info@crea.ca).

**CREA**

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