Niagara Falls
Brownfields Redevelopment

Community Information Package

Federation of Canadian Municipalities / Fédération canadienne des municipalités

The City of Niagara Falls Canada

Regional NIAGARA

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What are brownfields?

"Brownfields" are abandoned, idled, or underused industrial and commercial properties where expansion or redevelopment is complicated by real or perceived environmental contamination, building deterioration/obsolescence, and/or inadequate infrastructure. Brownfields can include old landfills and abandoned factories to dry cleaners and print shops. There is estimated to be as many as 30,000 brownfield sites in Canada.

Why is brownfield clean up and development important?

Brownfields can pose a number of threats to a community's well being. Brownfield sites can:

- Potentially harm human health and the environment
- Attract vandals, open dumping, or other illegal activity that can lead to "urban blight"
- Lower surrounding property values and contribute to neighbourhood deterioration
- Reduce local employment opportunities and tax revenues
- Limit economic growth and development
- Contribute to urban sprawl as businesses and residents relocate to farmland and open space outside the existing urban area, also known as "greenfields".

What is the City of Niagara Falls doing to promote brownfield clean up and development?

The City of Niagara Falls has initiated a comprehensive **City-Wide Community Improvement Plan (CIP) and Brownfield Pilot Project** to serve as a redevelopment stimulus for brownfields. The CIP will enable the City to offer financial incentive programs and undertake municipal leadership actions such as land acquisition and preparation. The CIP will also allow the City to take advantage of Regional incentives for brownfields. The CIP will be accompanied by a detailed study and land use plan for a pilot project area, namely the Elgin Industrial Area to the north of Downtown Niagara Falls. The City is also preparing a CIP for the Downtown area. The City of Niagara Falls aims to be a leader in the Region of Niagara and the Province of Ontario when it comes to promoting brownfield development.

Steps in the CIP Process

- Identify need
- Initiate preparation of a CIP
- Analyze land use and existing conditions
- Review best practices in other municipalities
- Obtain stakeholder input
- Identify/designate appropriate community improvement project area
- Identify goals of CIP
- Prepare CIP, including
  - Land use framework
  - Financial incentives
  - Municipal leadership actions
- Circulate CIP to Ministry of Municipal Affairs and Housing (Province) and commenting agencies
- Finalize CIP with regard to comments received
- Hold Public Meeting
- Adoption of CIP by Council
- Approval of CIP by Ministry of Municipal Affairs and Housing

What are the key impediments to brownfield development?

Historically, developers have avoided potential brownfield development opportunities due to a number of key impediments including:

- Lack of funds to conduct required environmental studies
- Lack of funds to conduct actual clean up of sites prior to development
- Significant demolition and infrastructure upgrading costs
- Fear of regulatory (government) and civil liability due to environmental contamination
- Lengthy and complicated environmental remediation and planning approval processes
- Community and neighbourhood concerns and opposition

A recent study found that costs of developing a moderately contaminated 2 acre brownfield site for industrial/commercial use can be anywhere between 14% and 34% more expensive than the same development on a greenfield site. However, there is less competition among developers for brownfield sites and return on investment can still be attractive. While costs to develop brownfields are greater than greenfields, positive experience and results with brownfield development projects in Canada and the U.S. has shown that the impediments to brownfield development can in fact be overcome to produce a profit for the developer.

How can these impediments be overcome?

One of the keys to reducing clean up costs is to conduct a detailed environmental site assessment (ESA). This includes:

- a Phase I ESA (records review and site visit), and where indicated by the Phase I ESA;
- a Phase II ESA (analytical sampling, testing and reporting).

The costs of environmental remediation can be reduced through the use of innovative site remediation technologies such as:

- in-situ bio-remediation (injection of micro-organisms into the soil and groundwater to neutralize contaminants)
- phytoremediation (use of plant materials to neutralize contamination)
- chemical oxidation
- air sparging

Developers should also weigh the costs of treating contaminants versus the costs of leaving them in place through a site-specific risk assessment (SSRA) and utilizing deed restrictions where required.

Environmental professionals are now routinely offering cost-capped cleanups and some environmental companies will also consider a reduction of clean up costs in exchange for an equity share in the project.

Owners and developers can reduce their potential liability through the purchase of environmental insurance products. Environmental insurance can be purchased to provide coverage for:

- clean up cost overruns
- clean up of unknown pre-existing contamination on the site
- third party civil claims for costs and damages resulting from off-site contamination.

Public opposition and associated delays and costs can be reduced through the use of a communication and community liaison strategy. Communication of the remediation process to the community is important to alleviate any concerns regarding impacts on the environment and human health, and any concerns regarding migration of contaminants off-site. An effective communication and consultation strategy is especially important for brownfield development projects, which usually take place in built-up urban areas where community opposition can derail or delay a project.

What are the costs of not cleaning up and developing brownfield sites?

Brownfield sites can have real and significant environmental, economic and social impacts on a community. Just one large boarded up factory that sits idle can cost the City hundreds of thousands of dollars each year in lost property tax revenues. In addition, municipal governments must often dedicate police, fire, and other public services to respond to illegal dumping, vandalism, arson, and other problems at brownfield sites.

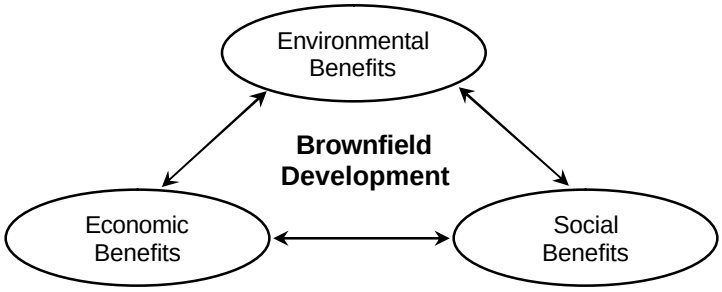
Communities across Canada, including the City of Niagara Falls, have begun to realize that responsible brownfield development can transform environmentally impaired properties into productive economic uses, and can result in the following environmental, economic and social community benefits:

- Improvements in environmental quality (soil, air and ground water) and human health
- Utilization of existing sewer, water and road infrastructure, resulting in the reduction of urban sprawl and its associated costs
- Economic growth including the retention and creation of local jobs
- Increased property tax revenues
- Revitalization of neighbourhoods and employment areas

A recent study of brownfield development in Canada found that every $1 spent in the Canadian economy on brownfield development generates approximately $3.80 in total economic output in all industries in the Canadian economy. This represents a significant economic multiplier.

Experience in the U.S. has demonstrated that as brownfields are developed, the value of surrounding properties within a radius of up to 2.5 km. (1.5 miles) can increase by an average of 10 percent. Numerous other U.S. and Canadian studies have found that brownfield development can increase neighbourhood property values.

A recent U.S. study estimated that for every acre of brownfield land redeveloped, a minimum of 4.5 acres of greenfield land can be saved. Another study found that every hectare of brownfield land developed for residential use can save as much as $66,000 a year in total transportation costs compared to greenfield development.



How does the community know a brownfield site has been properly cleaned?

Before a brownfield site can be developed, an environmental site assessment (ESA) must be completed to determine the extent, type and level of soil/ground water contamination. If the ESA shows that the site is not clean enough for the proposed use, then site remediation or management of contaminants on site is required before the proposed development can take place.

In Ontario, contaminated sites that are being redeveloped must be assessed and remediated according to the Ministry of Environment (MOE) Guideline for Use at Contaminated Sites. This Guideline specifies maximum concentrations for various chemical compounds in soil and groundwater depending on intended use of the property. These maximum concentrations, known as “criteria” are more stringent for residential and parkland uses than for industrial and commercial uses.

A site can be remediated to the background or generic criteria set by the MOE. The background approach involves the restoration of a site to naturally occurring background conditions. The generic approach involves the use of generic soil and groundwater criteria. These criteria are set by MOE in the Guideline for Use at Contaminated Sites and have been calculated based on the effect of a contaminant on human health and/or the environment. Finally, a site-specific risk assessment (SSRA) approach can also be used to manage contaminants on site by using criteria developed specifically for that site. The SSRA must be reviewed and approved by the MOE. The most commonly used approach is the generic approach.

There are also a number of technologies available to remediate brownfield sites. These range from traditional technologies such as excavation of contaminated soils and disposal or treatment off-site, to newer technologies such as:

- in-situ bio-remediation (injection of micro-organisms into the soil and groundwater to neutralize contaminants)
- phytoremediation (use of plant materials to neutralize contamination)
- chemical oxidation

While the most commonly used site remediation technology is still excavation & disposal, the other technologies are becoming more widely used. The particular technology used to clean a site will depend on a number of factors, including the size, location and proposed use of the site, type of soils, the type and extent of contamination, and most importantly, the risk to human health.

The Record of Site Condition is a standard MOE form that summarizes the environmental condition of the site. Once a site has been assessed and remediated in accordance with the MOE's Guideline for Use at Contaminated Sites, and a Record of Site Condition (RSC) has been submitted to and acknowledged by the MOE, the site is considered "clean" for the proposed use.

What is the Province of Ontario doing to promote brownfield development?

Recent provincial initiatives have focused on reducing the environmental liability, financial and planning barriers to brownfield development. In November of 2001, the provincial government passed new legislation entitled the Brownfields Statute Law Amendment Act. This legislation introduced several changes to Ontario law in order to encourage the development of brownfield sites. This includes:

- Exemption from regulatory liability (from the MOE) for owners voluntarily filing RSC's
- Creation of a publicly accessible Environmental Site Registry for RSC's
- Standards for "qualified persons" conducting environmental site assessments, supervising environmental remediation, and signing RSC's
- Education tax assistance to property owners cleaning up and redeveloping their brownfield properties
- Enhanced tools for municipalities to offer financial incentives to promote brownfield development and deal with brownfield sites in property tax arrears.

The protection from regulatory liability for owners voluntarily filing RSC's represents a significant inducement to developers who are considering purchasing and developing a brownfield site. A few municipalities in Ontario are already using the new legislation to prepare brownfield community improvement plans and conduct tax sales on brownfield sites.

The Province recently announced that the regulations governing the RSC and the education tax assistance will come into force on October 1, 2004. Filing an RSC to the Environmental Site Registry will become mandatory in 2005. Once in place, these regulations will allow the Province to match any municipal tax assistance provided toward the costs of environmental remediation. This will help developers to offset the additional costs of cleanup.

What is the Region of Niagara doing to promote brownfield development?

In 2002, the Region of Niagara approved in principle its Smarter Niagara Incentive Programs. In April of 2003, the Region formally approved a series of detailed brownfield financial incentive programs. These include:

- An Environmental Assessment Grant Program to assist with the costs of conducting environmental studies
- A tax-increment financing (TIF) based grant program to provide grants to help offset the costs of environmental remediation.
- Municipal Brownfield Leadership Program to help fund public-private partnerships to clean up brownfield sites, as well as marketing and educational programs.

Municipalities in the Region of Niagara wishing to take advantage of this Regional funding must prepare and adopt community improvement plans.
In April of 2003, the Region also finalized its Development Charge Waiver/Exemption Program, which includes a minimum 75% waiver of development charges on brownfield sites.

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