

Faculty of Community Services

# Centre for Urban Research and Land Development



## **Overcoming barriers and facilitating brownfields redevelopment in the GTHA: A review of results from interviews with private sector stakeholders**

### **Working Paper**

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# Overcoming barriers and facilitating brownfields redevelopment in the GTHA: A review of results from interviews with private sector stakeholders

A Working Paper Prepared by:

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## EXECUTIVE SUMMARY

- The redevelopment of brownfields is seen to offer communities a “triple benefit” in terms of remediating pollution, removing neighbourhood blight, and providing new development and employment. It is for this reason that the Ontario government, through its Provincial Policy Statement and the Growth Plan, explicitly promotes brownfield redevelopment as an opportunity for intensification and more sustainable growth. Provincial ministries and municipalities have also implemented a range of policy, funding, and technical assistance tools to facilitate cleanup and redevelopment by the private market. Indeed, Ontario’s model, combined with a relatively strong real estate market, has resulted in over 4,000 cleanup and redevelopment projects between 2004 and 2014. This points to the opportunity, already unlocked by the market via the existing policy regime, and the importance of figuring out ways, to promote the model further.
- Using information gathered through interviews with twenty developers, landowners, and other private sector stakeholders, this working paper examines the current motivations for, and barriers to, private sector redevelopment of brownfields in the GTHA, as well as the perceived effectiveness of policies, programs, and tools which aim to foster redevelopment.
- Motivations: Private sector motivations have begun to focus more directly on real estate fundamentals (i.e., profit, market demand and location) and are less concerned with broader socio-economic and environmental objectives than in the past.
- Barriers: Major obstacles can be categorized as non-institutional and institutional. Non-Institutional barriers are customary complaints related to cost, liability, time, weak market demand, the degree or extent of contamination, and a lack of available funding. Institutional barriers present themselves at the provincial (i.e., time for or complexity of site specific risk assessment, regulations not addressing site-by-site complexity, long duration of regulatory process, changes in regulations over time, mixed messages from different brownfield units within the Ministry) and municipal levels (i.e., limited municipal expertise on brownfields and complex development approval processes).
- Facilitation strategies: To enhance consistency in the application of regulations and improve the economic viability of projects, virtually all interviewees proposed changes to the regulatory process including: streamlining procedures, changing the government mandate from regulatory to partnership, and relaxing regulations. Many respondents also wanted to see more financial assistance, changes to the legal system, and greater municipal support.
- The overall perception was that the existing regulatory framework was well intended, but needed to be modified to make it more efficient, effective, secure, and generally more cognizant of the costs, timelines, and risks facing the private market. Many felt that the “easy” brownfield projects in strong GTHA markets have been redeveloped, so continued success in primary and secondary markets would require more collaboration to unlock both private and public returns.

## 1. INTRODUCTION

In municipalities throughout Southern Ontario, the legacy of an industrial past has left its scars on the urban landscape in the form of numerous under-used or abandoned brownfields. These sites typically represent from 3.3% (De Sousa 2006) to as much as 25% of land in Canadian cities (Benazon 1995, 18). Historically, interest on the part of developers and other private sector stakeholders in putting these sites back into productive use diminished due to the fear that they may be contaminated, thus making them too expensive, time-consuming, and risky to redevelop profitably. This was compounded by developers' fears of future liability for any adverse effects that could arise following redevelopment (De Sousa 2000). To overcome these barriers, policy-makers throughout North America and Europe have, over the last two decades, implemented a range of policy, funding, and technical assistance tools which are aimed at facilitating brownfield cleanup and redevelopment. The Ontario government has implemented similar tools which are aimed directly at managing cleanup and supporting redevelopment, while also promoting brownfields in the Provincial Policy Statement (2005, 2014) and the Growth Plan for the Greater Golden Horseshoe (2006) as opportunity spaces for intensification and more sustainable growth.

This working paper reports on survey research which was funded by Ryerson's Centre for Urban Research and Land Development. It focuses on current motivations and barriers to private sector redevelopment of brownfields in the GTHA, as well as on the perceived effectiveness of policies, programs, and tools which aim to foster redevelopment. Information for this study was gathered through interviews conducted in 2015 with developers, landowners, and other private sector stakeholders working throughout the GTHA. The commentary begins with a brief introduction to brownfields policy in Ontario followed by a brief review of the relevant literature. The methodology is then outlined and the results discussed. It should be noted that this study is being done in tandem with another project being undertaken by the author on brownfields remediation and redevelopment in Ontario which is funded by the Social Sciences and Humanities Research Council of Canada. That research focuses on the scale and character of redevelopment, as well as on broader stakeholder interviews and case studies.

## 2. BROWNFIELDS REDEVELOPMENT IN ONTARIO: POLICY & PRACTICE OVERVIEW

According to the Ontario Ministry of the Environment and Climate Change (MOECC), brownfield properties refer to “vacant or underutilized places where past industrial or commercial activities may have left contamination (chemical pollution) behind.” Given that these sites can pose risks to human and environmental health and safety, they must be assessed and, if necessary, remediated before they can be redeveloped. (For a more comprehensive overview of the evolution of brownfields policy in Ontario see Fishlock (2010). For North America see De Sousa (2008).)

Prior to the 1970s, individuals residing or operating in the province were essentially able to pollute their property as long as the activity did not compromise the rights of those off site (Fishlock 2011, 1). But as Fishlock (2011, 2) aptly notes:

... after almost a century-and-a-half of industrial activities in Ontario and the rest of Canada, we now face the legacy of extensive land contamination in both the centres of our cities and throughout our natural resource rich northlands where industrial activity took place. Most of this polluting activity was not serious enough at the time to give rise to common law legal proceedings that might have required such activities to stop (by court injunction or more recently, a government pollution stop or control order), but by today’s standards, the resulting soil and groundwater conditions are unacceptable and require remediation before the land can be redeveloped for a new use. Such is the dilemma of brownfield lands: not bad enough to have attracted remedial action at the time, but sufficiently dirty or contaminated to present an obstacle to redevelopment today.

As in Europe and the United States, Ontario began to tackle the brownfields problem in the early 1970s. The province introduced the Environmental Protection Act in 1971 to prohibit the discharge of a contaminant into the environment that may cause adverse effects, including property damage. The Act also provided the Ministry of Environment with the power to issue orders to address pollution discharges. Those included orders for pollution control, stop, repair and preventative measures. These provisions were enhanced in 1985, requiring the immediate cleanup of spills and financial compensation to those who suffered either personal harm or economic loss as a result (Fishlock 2002, 2). While these new rules, along with improved industrial practices, did help curb the creation of new brownfields, most of the damage had already been done.

By the late 1980s and early 1990s, the conversation around brownfields began to shift from one focused on regulating pollution discharges and risks, to one focused on facilitating the remediation and redevelopment of contaminated sites. In Ontario, as in the United States, a voluntary approach was typically taken wherein the cleanup of a brownfield was only initiated when a landowner or developer elected to do so. This typically was triggered as part of a property transaction or a redevelopment project. What this voluntary market-driven approach required, however, was a clear set of cleanup standards, policies, and procedures to ensure that the property could be assessed and remediated to a level that was suitable for redevelopment.

In 1989 the Ontario Ministry of the Environment (now the MOECC) published the Guidelines for the Decommissioning and Cleanup of Sites in Ontario, which was followed in 1993 by the Interim Guideline for the Assessment and Management of Petroleum Contaminated Sites in Ontario. These guidelines continued to evolve thereafter as information on pollutions standards for new contaminants were added. While the provinces did work cooperatively with the federal government via the Canadian Council of Ministers for the Environment (e.g., CCME 1991, 1996) to coordinate standards and policies, each province varied somewhat because each is ultimately responsible for environmental policy making. That said, the process in Ontario and other provinces (and countries) did, and continues to, follow norms that are guided by international and national standards associations.

In general, someone interested in acquiring, remediating, and redeveloping a brownfield typically embarks on the following course of action. First, a Phase I environmental site assessment is undertaken to ascertain the possibility of pollution risks. It typically involves a review of historical records to determine past ownership of a site and to identify the kinds of chemical processes that were occurring there. It may also include a site visit and interviews with past and present occupants and owners. It does not include any sampling. If the Phase 1 assessment identifies concerns, then Phase II and III assessments are necessary. A Phase II environmental site assessment includes tests which are performed at the site to confirm the location and type of environmental hazards. It also includes the preparation of a report that recommends cleanup alternatives. A Phase III environmental site assessment typically includes the comprehensive characterization, evaluation, and management of contaminated materials from a site, including their potential removal and legal disposal (De Sousa 2013).

One of the initial challenges was determining how clean a site needed to be in order for it to be safe for reuse. While early calls were for a return to “background” and pristine conditions, the reality is that this bar is unreasonably high for urban environments. As such, most regulators have adopted two types of criteria for evaluating whether a site exceeds an appropriate level of pollution and formulating cleanup goals, including:

1. Generic, numeric, soil-quality criteria: (cleanup level is land-use specific) These are numerical indices that can be used for both assessment and cleanup activities derived from (eco) toxicological studies that identify levels according to a tolerable health risk. These indices tend to vary according to the risks of contamination based on the proposed land use (e.g., agricultural, residential/parkland, industrial).
2. Site-Specific Risk Assessment (SSRA or risk-based, corrective action, RBCA): (cleanup level is project-specific) These are procedures for developing soil and groundwater criteria that consider tolerance and risk exposure levels associated with a specific site and/or land use to be implemented as part of the corrective action process to ensure that appropriate and cost-effective remedies are selected (De Sousa 2013).

One difference among jurisdictions throughout North America is the role played by government in the review and approval of site assessments and cleanup activities. In the US, state agencies take an active role in virtually all technical assistance and review activities, usually evaluating and approving work plans and cleanup objectives which the responsible party puts forward at the beginning of the

remediation process, and then reviewing the cleanup work for acceptability at the end. This approach is in line with federal requirements and ultimately results in a “Certificate of Completion” being issued to the proponent of the cleanup. This certificate states that the site meets levels approved by the state government for reuse. Historically, the Ontario MOE was also deeply involved in the approval of site remediation plans, as well as post-remediation plans. This process often led to a MOE letter of concurrence that would provide some assurance to the owner that the site was remediated to standards, but it did not guarantee that the property wouldn’t need to be cleaned again if standards changed or if additional contaminants were discovered. Needless to say, this letter provided little certainty for property owners and potential lenders. Unlike the US states, in the mid-1990s the MOE made the decision to discontinue its concurrence letters and stipulated that, since it has provided the guidelines for acceptable remediation standards, it is the responsibility of the landowner to meet said (generic) standards by getting the site inspected and passed by private environmental consultants. In 2004 the MOE also developed a form known as a Record of Site Condition (RSC) that a landowner and their consultant could complete to certify their compliance with the Ministry guidelines. The RSC is a form of report card on the environmental condition of a property at a particular point in time, based on the condition of the property and its intended use (MMAH 2007). Unfortunately, while one could “file” an RSC with the MOE, the government did not accept any responsibility for the statements contained in the document and was not bound by the fact that the remedial work complied with the Ministry’s standards at the time. In addition, the MOE’s enforcement activities were increasing and, during the 1990s, it was granted the power to impose remedial liability on past owners, occupiers, and other persons having “charge, management and control” of contaminated sites. As a result, landowners, developers, and their lenders remained cautious and continued to seek legislated liability limits before they were prepared to commit funds to clean up contaminated sites. (Fishlock 2010, 4).

The Ontario government, through the MOE and the Ministry of Municipal Affairs and Housing, began the process of amending brownfield law and policy in 2001 and made further changes in 2007, 2009, and most recently in 2011. The goal was to establish clearer requirements for site assessments, provide some protection from liability, and establish municipal planning tools and financial incentives. These amendments improved the RSC process, making it more predictable and transparent, and they also strengthened the environmental site condition standards. In 2004, the Brownfields Statute Law Amendment Act and the Ontario Regulation 153/04 (Record of Site Condition Regulation) come into force, and a year later the Minister of Municipal Affairs and Housing announced the creation of the Office of Brownfields Coordinator. On December 29, 2009, the Government of Ontario finalized a set of amendments to its contaminated sites or “brownfields” legislation, which was initially enacted in 2001.

The RSC and the Brownfields Environmental Site Registry are the centerpieces of this new brownfield legislation which is stipulated in Part XV.1 (O. Reg153/04) of the Environmental Protection Act (“EPA”). The RSC is seen as a voluntary form of property assessment. The filing of an RSC, however, is prescribed when land use changes from one use with a high probability of pollution (e.g., industrial, commercial) to one with a lower probability (e.g., agricultural, institutional, parkland, or residential). An RSC is prepared by a so-called Qualified Person (QP), and a property owner must hire a QP to complete the necessary site assessments. Before filing an RSC, the property must meet the generic soil, sediment and groundwater standards applicable to the intended use. Submitting an RSC to the Brownfields Environmental Site Registry provides the owner of the property protection from some environmental cleanup orders for property owners who want to

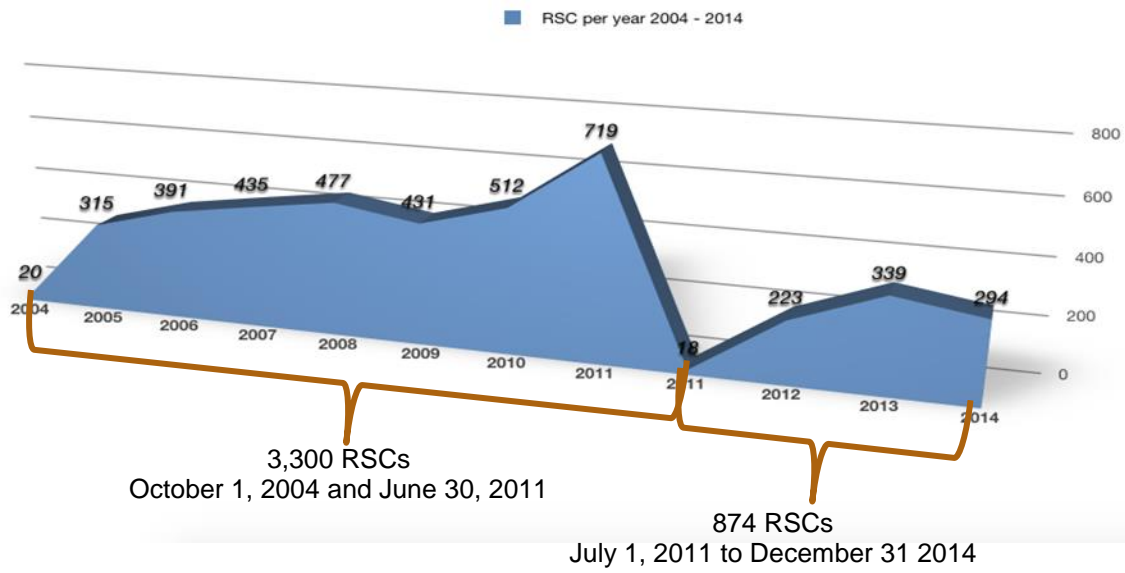


redevelop a brownfield site. Under the 2004 legislation, property owners who elect to conduct a Site Specific Risk Assessment, as opposed to a generic cleanup, must have their risk assessment accepted by the MOECC in order for an RSC to be submitted. If the SSRA is accepted, the ministry may issue a Certificate of Property Use (CPU) that requires the owner to take specified actions to prevent, eliminate, or improve any adverse effect which the RA identifies, or refrain from using the property in certain ways. Beginning in 2011, owners were given the option of using a more streamlined risk assessment process – called a Modified Generic Risk Assessment – which is intended to allow brownfield redevelopment to proceed more quickly. This modified RA can be prepared using a web-based “approval model” which can be adjusted to reflect the site conditions of a specific brownfield.

Ontario’s Ministry of Municipal Affairs and Housing has led the province’s efforts to promote redevelopment through the development of policy and the provision of technical assistance. The primary aim of the MMAH has been to support the ability of municipalities to play a key role in facilitating redevelopment. Section 28 of the Planning Act allows municipalities to create Community Improvement Plans in order to help developers remediate sites. In addition to leadership, municipalities can offer financial incentives (some of which are aided or matched provincially) that help offset remediation costs such as study grants, loans, tax assistance, tax increment equivalent grants, waving municipal fees and development charges. Of the 44 Ontario municipalities with CIPs, 93 percent are using tax increment equivalent grants and 77 percent are using tax assistance measures (Ministry of Municipal Affairs and Housing 2010).

Examining the legislative evolution of Ontario’s contaminated sites policy, it becomes evident that most matters related to the actual site cleanup today escape the authoritative reach of government. In lieu of government-controlled remediation, the MOE has opted to outsource most remedial efforts to the private sector. This transition was justified since the government had created clear cleanup guidelines which are to be followed by private remediation and engineering companies without public intervention. The creation of generic standards meant that the government need not be involved in the actual approval of the remediation work. This responsibility now falls to the QP. Further, it is the responsibility of private companies to apply for the RSC. As for the MMAH, it has largely laid the foundation for municipalities to support private sector lead redevelopment, even though some support can also be gleaned from provincial sources via municipally-led action. Ontario’s model, combined with a relatively strong real estate market, has resulted in over 4,000 RSCs between 2004 and 2014 (see Table 1 below) and a significant number of projects. Ongoing work by the author, for example, reveals that, for the city of Toronto alone, 995 of the 1000 brownfield projects that submitted RSCs between 2004 and 2011 repurposed over 2,867 acres of land and are valued at \$37.1 billion in property assessment. Needless to say, this points to the opportunity already unlocked by the market via the existing policy regime and the significance of figuring out ways to further create and promote brownfields redevelopment opportunities in Toronto and throughout the GTHA.

**Figure 1: Records of Site Condition in Ontario, 2004-2014**



### 3. LITERATURE REVIEW

Literature on the redevelopment of brownfields in North America and Europe has grown over the last decade and a half (see De Sousa and Spiess 2014). Much of the research has focused on national policy making (Meyer et al. 1995; Page 1997), best practices for guiding economic development (Bartsch et al. 1997; Fitzgerald & Leigh 2002; Simons 1998), and barriers to redevelopment plus strategies for overcoming them (Howland 2003; Meyer & Lyons 2000). Researchers have also devoted more attention to the relationships between brownfields, smart growth, and sustainability (De Sousa 2008; Greenberg et al. 2001), and measuring the outcomes of redevelopment activity (Simons and El Jaouhari, 2001). A broad range of potential land use options for brownfield sites, such as green space, housing, and retail, have also been studied by both professional associations and scholars.

Brownfields literature indicates that there has been a moderate level of interest on the part of Canadian governmental agencies on the issue, but relatively little interest on the part of academic researchers. The Canadian Council of Ministers for the Environment (CCME), the Canadian Mortgage and Housing Corporation (CMHC), and the National Round Table on the Environment and Economy (NRTEE) have gathered preliminary estimates on the extent of the problem nationally (NRTEE 1996a), as well as useful information on legal, financial, and environmental issues (CCME 1991, 1993, 1996, 1997; NRTEE 1996a, 1996b, 1997, 1998). More recently, but already over a decade old, the NRTEE (2003) has drafted a national brownfields strategy that outlines the sustainability-oriented benefits associated with redevelopment, the key challenges to redevelopment (financial, regulatory, political), and the kinds of outcomes that are possible. It has also set out a “blueprint for action” that advocates a need for public investment to address remediation and redevelopment costs, to create an effective public policy regime to manage liability and risk, and to raise community awareness of the brownfields issue. Indeed, many of the provincial policies and programs that have emerged since then have addressed some of these issues. Most of the literature on brownfields emerging of late is more informational (i.e., “how to” documents, case studies, etc.) and has been produced by provincial agencies as well as professional organizations such as the Federation of Canadian Municipalities, the Canadian Brownfields Network (CBN), and the Canadian Urban Institute (CUI).

Scholarly research in Canada has traditionally focused mainly on scientific or technical aspects of site remediation (Gaudet et al. 1992, Sheppard et al., 1992; Campbell and McKenna 1994; Smith and Stanley 1995; Benazon 1995; Tam & Byer 2002), while much less research has been conducted on policy and planning implications (Ford et al. 1994; Therrien 1995; De Sousa 2000, 2001, 2002a, 2006; Hayek et al. 2010). Work by the current author on Toronto is the only scholarly research that quantifies the scale and character of brownfield redevelopment activity in an urban region in Ontario, and work on municipal government action is the only one that compares municipal perspectives on this issue across Canada (De Sousa 2002a, 2002b, 2003). Research on Canada has also identified the barriers which provincial officials consider to be the main obstacles to redevelopment. These include liability uncertainty, limited funding, regulatory complexity, insufficient information about property location and conditions, and confusion regarding cleanup levels (De Sousa 2001). The barriers facing private-sector stakeholders are similar, although more emphasis was placed on property stigma and value implications (De Sousa 2000). Overall, however, this work is dated and does not consider the provincial policies discussed above and the new

municipal initiatives that have come into being with the onset of the Community Improvement Plans.

It has been argued that there is an ongoing convergence in policy-making, both within Canada and within the US and Western Europe, as governments become more sensitive to the types of costs and risks (i.e., environmental, economic, and management) which they must share with the private sector to solve the problem effectively (De Sousa 2001; Adams, De Sousa and Teisdell 2010). Kirkwood's (2001) conceptual framework, based largely on the US experience, explains how the theory and practice of brownfield redevelopment has evolved and converged in many important and progressive ways. This evolution has come about in three phases. Phase one experienced a theoretical and practical focus on the science of environmental cleanup spurred by pollution disasters in the late 1970s, such as the hazardous-waste tragedy at Love Canal in western New York. This was followed by a second phase beginning in the late 1980s, with a theoretical focus on economic development and a practical focus on brownfield redevelopment which was aimed at building up the economic base of communities that ultimately led to new federal policy efforts in the 1990s. In the third and most recent phase, Kirkwood (2001, 5) claims that the practice of brownfield redevelopment has not yet caught up with the theory, which has become situated in integrated planning models that stress wider regional concerns. It seems that Ontario's policy approach is somewhat further along in this evolution than the US because municipal planning efforts in Ontario must be more aligned with wider urban growth concerns. Indeed, one of the main objectives of this research is to examine how to help the private sector better unlock the redevelopment potential presented by brownfields as municipalities try to meet provincial growth objectives and deal with diminishing supply of greenfield land (or clean sites) in the region. Also, the need to turn these sites from liabilities into opportunities has become more pressing. This is because, as of April 1, 2014, under the Public Sector Accounting Board section on Liability for Contaminated Sites (Section PS3260), municipalities are required to determine the extent of impact (both in terms of number of sites affected and dollar impact) that such properties may have on their financial situations.

The shift from an enforcement-driven approach focusing on soil remediation, to a facilitation-oriented one fostering private-sector investment, has made it necessary for governments to get a better sense of what is required to attract private investment. Studies that target the private development community are largely focused on the situations in the US and the UK. However, these are also dated and lack insight into Ontario's regulatory context where regional land supply is also strictly managed. Howland (2000) was an essential early work because it shows that the private sector functions to redevelop brownfields without public intervention if the market can support it. Meyer and Lyons (2000) report on a survey of private developers to assess the attractiveness of redeveloping brownfields, while Adams et al. (2001) consider the constraints on landowners. Simons and El Jaouhari (2001) shed light on measures for enhancing financial returns and making brownfield investments work. The present study asks private sector stakeholders in the GTHA to assess some of the key tools identified in the US in addition to those currently in place on Ontario.

The ultimate goal associated with the redevelopment of brownfields is to encourage reinvestment in these underused properties and to enhance the quality of urban life. The few Canadian studies that have quantified the socio-economic and environmental benefits to the public associated with redeveloping urban brownfields versus greenfields (De Sousa 2002a; Hara Associates 2003) estimate, for instance, that the annual benefits of redeveloping all of Toronto's brownfields range from \$21 to

\$31 million for industrial redevelopment and from \$16 to \$23 million for residential redevelopment (De Sousa 2002a, 271), while the annual benefits of redeveloping all of the brownfields in Canada's Census Metropolitan Areas range between \$4.6 and \$7 billion (Hara Associates 2003, C-8). This type of research reveals that researchers in Canada are already thinking about brownfield redevelopment in terms of its broader regional implications, as Kirkwood's conceptual framework outlines. In order for these public benefits to be realized and expanded, however, the private market will need to play an even greater role in redevelopment throughout the GTHA.

## 4. METHODOLOGY

Information for the present study was gathered primarily via personal interviews with twenty private sector stakeholders who work on brownfields in the GTHA (8 developers, 3 landowners, 4 consultants and 5 supporting professionals including lawyers and lenders), as well as through online surveys that were voluntarily completed by ten of the interviewees. Potential interviewees were identified from lists of private sector stakeholders who participated in the annual Canadian Brownfield conference and members of the Canadian Brownfields Network. Although a sample size of 20 may be considered relatively small, those who were interviewed represent key stakeholders involved in brownfield redevelopment in the GTHA, Southern Ontario and, in almost half the cases, across the Canada. Indeed, half of the interviewees are typically involved in 2 to 20 brownfield redevelopment projects per year, with 4 citing involvement in over 30 transactions per year.

Interviews were conducted face-to-face and over the telephone which the author has found, in previous work in this field, to garner the highest response rate and the most forthright answers from private sector stakeholders. Interviewees were asked sixteen primarily open-ended questions which were divided into three general areas:

1. Information about their organizations and general involvement in brownfields in the GTHA;
2. Their opinions on the factors that motivate their involvement in brownfields, the barriers to redevelopment, and measures for facilitating redevelopment; and
3. The effectiveness of different policies, programs, and stakeholders in getting projects realized, increasing redevelopment activity, and enhancing overall project outcomes.

To complement the more open-ended, face-to-face, interview questions, a closed-ended Likert scale ranking questionnaire focusing on motivating factors, barriers, and facilitation measures was also given to each of the interviewees. Half of the group completed the questionnaire. Needless to say, given the size and complexity of the brownfields problem, and the enormous amount of regulatory activity it has generated at different levels of government in Ontario, it is obvious that no single analysis can presume to be exhaustive and all-encompassing. Suffice it to say that the present objective is to provide a current snapshot of the situation in the GTHA.

## 5. RESULTS AND DISCUSSION

As mentioned above, private sector survey respondents are involved in various aspects of the brownfield remediation and redevelopment process and can be categorized generally as follows:

- Developers (8) - members of the development community and related organizations active in redevelopment and remediation;
- Consultants (4) - members of companies providing direct and onsite services for redevelopment and remediation, such as soil testing (QPs) or planning;
- Supporting sector (5) - members of companies and organizations providing indirect services for redevelopment, such as financing, insurance, and legal protection; and
- Landowners (3) - members of organizations divesting in surplus properties, including the energy sector.

In terms of the types of redevelopment which they engage in, nine respondents deal mostly or entirely in residential development, four deal mostly in retail development, and the remainder deal in a mix of different types of developments including office, industrial, and institutional. Of the dozen who responded, approximately 80% of the brownfield projects which they are involved with are new construction as opposed to adaptive reuse. Interestingly, four respondents stated that they only handled new construction, while two specialized primarily in adaptive reuse. When asked about their general opinion of the brownfields market in Southern Ontario, the responses were mixed with no clear consensus on whether it is growing or shrinking. Three believed the market to be shrinking, four believed it to be growing, and eight described the market as very location-specific. A more optimistic interviewee noted that “the market for brownfields is strong because the market for infill is strong in many parts of the GTHA” and because “greenfields is getting harder.” However, another noted that “the low hanging fruit has been snapped up and the market is softening, so finding easier-to-redevelop brownfields is getting a bit more challenging.”

To get a general sense of the difference between developing brownfields versus greenfields, all interviewees were asked to rate aspects of the brownfields remediation and redevelopment process (i.e., land acquisition, site preparation, financing, planning permission, marketing, stakeholder involvement, profitability, and project duration) according to difficulty compared with greenfields (Likert scale from much less = 1, somewhat less = 2, same = 3, somewhat more = 4, much more = 5). Most of the fifteen interviewees who responded believe land acquisition to be much more difficult (8 responses) or somewhat more difficult (5) for brownfield developments than greenfields, although two said that both are becoming increasingly challenging due to the complexity of obtaining greenfields in the GTHA. Respondents expressed a similar opinion on site preparation (11.5 said much more difficult, 5.5 somewhat more difficult) and financing (10.5 much more difficult, 5.5 somewhat more difficult, with 1 saying it was less difficult). Obtaining planning permission for brownfields was considered much more difficult according to three respondents and somewhat more difficult to nine, but four respondents found difficulty to be equal (3) or less (1) for both development types. Interestingly, responses on marketing were mixed with about half of the respondents believing that there was equal difficulty involved in brownfields and greenfields (5), while a third (6) thought marketing brownfield projects was less difficult and another third (6) thinking it was more difficult. In terms of stakeholder involvement, most felt that brownfield

projects were much (4) or somewhat (3) more difficult because of regulatory challenges and challenges with infill in general, although many felt it to be equal (5.5), or less difficult (1.5) as pressure on greenfield development mounts. Profitability was found to be somewhat (4) or much (5) more difficult for brownfields, with a couple finding it the same and four somewhat less difficult. Most agreed that project duration was much (9) or somewhat (4) more difficult, while one found it far easier to develop brownfields because of the local municipal policy structure.

Overall, it is clear from the interviews that past perceptions of brownfields being more challenging to develop than greenfields continue to prevail. Indeed, several noted that the brownfields redevelopment process continues to take “three to four” times as long as the development of greenfield sites.

## 5.1 Motivations

When asked about the main factors that motivate, or attract, private sector involvement in brownfields remediation and redevelopment, the most common responses were profit (9) and market demand (9) with 16 of the 20 participants highlighting one or the other or both. Eight respondents noted location as a major factor, which is relatively synonymous with market demand. Other moderately popular factors included public perception or reputation (6), business (niche) specialization (6), a low land supply (5), and municipal subsidies (4). Less common factors drawing respondents included liability closure (3), the personal satisfaction associated with repurposing contaminated land (3), discounted land prices (2), municipal policy concessions (2), and the fact that many brownfields were readily serviced lots (1).

Although economic motivators were the most popular among all groups of respondents, developers tended to be particularly drawn to brownfields because of their central location and proximity to amenities. As one noted, “we are increasingly attracted to well serviced infill sites in or near the core of the city that are close to amenities, transit, jobs, and interesting neighborhoods.” Several noted that they increasingly specialize in such development because contaminated land is considered somewhat less expensive, and many in the development community continue to be deterred by the complexity of such projects. Several developers also noted that acquiring greenfields is becoming a challenge and, as one aptly put it, “public policy is driving them to brownfields.” Consultants also tend to be motivated by market and location factors, along with municipal support and a sense of altruism in putting blighted land back into use. Supporting sector respondents highlighted profit and market demand as attractive to their clients, but further cited low greenfield land supply as a significant factor driving the market toward brownfields. The primary factors motivating brownfield landowners to engage in redevelopment were different from the others in that they focused more on community relations and preventing future litigation, indicating that remediation is less about making money and more about reducing costs and risks in their property portfolio.

The closed-ended survey which ten interviewees completed anonymously provided similar results on the factors motivating or attracting the private sector toward brownfields redevelopment. The benefit of the closed-ended approach was the acquisition of opinions on a list of factors commonly noted in the literature, including from past research by the author (De Sousa 2000), and of a sense of the degree of significance via a Likert scale ranking (does not motivate = 1, moderately motivates = 3, to very much motivates = 5). The responses in Table 1 below reveal that economic factors



related to profit and location were the highest ranked motivators of redevelopment. Other highly ranked (4+) motivators relate to the quality of the surrounding environment and neighborhoods, as well as proximity to downtown and amenities. A few of the higher ranked factors involve taking advantage of devalued land prices, particularly parcels over 5 acres with low contamination levels and that are privately owned. Divesting liability is less of a motivating factor for respondents than in the open-ended interviews. Respondents were mostly indifferent to broader environmental and social factors, such as conforming to environmental regulations, restoring the environment, protecting public safety, creating jobs, and expanding the tax bases of local governments.

<b>Table 1: Development Community Evaluation of Motivations</b>	<b>Value</b>
To maximize profit of the site/selling to yield maximum return	4.7
Location in/near hot real estate market	4.7
Quality of surrounding environment	4.4
Location in/near a good neighbourhood	4.3
Access to infrastructure & utilities	4.3
To take advantage of devalued brownfield property costs	4.3
Large (>5 acres) land parcel size	4.2
Proximity to downtown/central core	4.2
Proximity to residential areas and amenities/facilities	4.1
Low contamination levels	4.1
Private ownership	4.0
Low price of land	4.0
Proximity to commercial/employment areas	3.9
To act on the growing popularity of a central urban location	3.8
Public incentive	3.8
Access to services	3.8
Insurance availability	3.7
To restore the environment	3.4
To renew urban cores	3.3
Small (<5 acres) land parcel size	3.3
Government agency experience with brownfields	3.2
To divest liability/costs	3.1
To protect public health and safety	3.1
To avoid high development charges levied on greenfields	2.8
To conform with environmental regulations	2.7
Government ownership	2.6
Suburban or out of town location	2.3
To create jobs	2.3
High contamination levels	2.1
To restore the tax base of government	1.9

Private sector motivations are now focused more sharply on real estate market essentials (profit, market, location) and less on broader socio-economic and environmental objectives than past research by the author (De Sousa 2000) found them to be. One possible explanation for this is that private (and public) stakeholders needed to emphasize the “public” benefits of brownfields redevelopment in the 1990s in order to encourage the development of better public policy. Now that such policy exists, private sector “motivations” are focused more directly on real estate fundamentals.

## 5.2 Barriers

When asked about the barriers to private sector brownfields remediation and redevelopment, 85% of all respondents (17) mentioned at least one type of institutional barrier. By far, the most common concern related to the time and complexity associated with site specific risk assessment (SSRA) procedures (15). As one interviewee noted “I stay away from risk assessment and go directly to dig-and-dump because of clarity and timing; just look at how few approvals there are for the new risk assessment approach, it is not working.” Another noted that “SSRA is a great idea, but the process is slow and uncertain; you can spend hundreds of thousands on it over a 1-1.5 year period and have no certainty of where it will go.” Other institutional barriers that were noted occur at both the provincial and municipal levels. Interviewees noted how: provincial regulations still do not always address the complexity and uniqueness of the contamination issue on a site-by-site basis (9), the RSC process takes too long (8), regulatory procedures change over time (5), messages from different brownfields programs or offices within the MOECC are mixed (5), procedures are stringent (4), and communication is limited between MOECC and applicants (2). As one interviewee noted, however, the RSC process “was an important step forward overall.” At the municipal level, concerns related to limited municipal expertise on brownfields (5), as well as complex municipal development approval procedures (3) and design standards (2). Indeed, several interviewees emphasized the need for provincial and municipal agencies to embrace a “customer service” and “partnership approach” wherein they “understand and share costs and risks of developers,” “get up off their desks to visit sites,” and “move beyond their checkbox mentality.”

In addition to the institutional barriers, many interviewees highlighted major barriers which are customary to the brownfields literature. These barriers are related to additional cost (15), liability (14), and time (11), as well as weak market demand (8), the degree or extent of contamination (including on- and off-site)(8), and the lack of available funding or financing (6). One interviewee commented that this “complexity sets the bar too high for small developers and only big ones can play,” while another noted that the “amount of upfront money needed is a problem for all developers, but especially smaller ones.” Other less noted barriers included public opposition (3), difficulty in determining land value before remediation (1) and difficulty in disposing dirty soil (1).

While the cost associated with remediation was considered a barrier for all subcategories of interviewees, the barriers which were identified are closely tied to the role that each plays in the redevelopment process. Developers, who are responsible for a project from inception to sale, outlined the complete array of barriers. Unsurprisingly, the development community focused mostly on economic barriers and three quarters of the developers also expressed concern over how institutions handle redevelopment, regulations, and risk assessment procedures. Consultants mostly pointed out problems with the regulatory process, but opinions diverged on whether the problem lies with stringent regulations, the risk assessment process, or a lack of available municipal expertise

on brownfield redevelopment. Responses from supporting sector representatives are similar to that of developers. While all respondents from this group named an institutional barrier (e.g., regulatory rigidity, cumbersome SSRA processes, etc.), the supporting sector was unique in unanimously agreeing that liability was a significant barrier to redevelopment and remediation. Lastly, the landowners felt that the process is generally too long, that the SSRA process is too restrictive, and that contamination standards change too often. Additional non-institutional barriers noted by this group include a weak market and liability risks.

When asked to examine a list of barriers to remediation and redevelopment and to rank them according to a suggested scale as a non-barrier (= 1 point), moderate barrier (= 3 points), or severe barrier (= 5 points), those who responded highlighted limited market and high remediation costs as major barriers. Respondents also gave high ratings to institutional barriers, such as delays with planning approvals, slow regulatory review, and stringent remediation requirements. Other severe barriers included finding more contamination than anticipated and obtaining financing. Public opposition, ownership issues, and stigma associated with properties were considered less significant barriers despite their tendency to be identified as problems in the past. Interestingly, the SSRA process was perceived as moderately problematic (3.3) by those who completed the closed survey.

<b>Table 2: Development Community Evaluation of Barriers</b>	<b>Value</b>
Limited/no market for property	4.5
High remediation costs	4.3
Delay and inconsistent planning appeal decisions	4.2
More contamination than expected/surprise costs	4.1
Slow regulatory review process	4.1
Stringent remediation requirements	4.0
Obtaining financing	4.0
Liability concerns	3.8
Complex/outdated municipal land-use policies	3.8
Redevelopment restrictions	3.8
Lack of municipal experience or expertise	3.8
Potential impacts to adjacent properties	3.7
Longer project duration	3.6
Environmental regulations	3.5
Uncertainty related to the site-specific risk assessment	3.3
Lack of government incentives	3.2
Competitive bidding process	3.1
Lack of remediation/disposal options	3.1
High costs of insurance	3.0
Lack of information on the history of sites	3.0
Lack of knowledge/negative attitude/opposition on the part of stakeholders	3.0
Lack of knowledge/negative attitude/opposition on the part of the public	2.9
Ownership issues (e.g. unknown/unclear, rights divided, unwilling to sell or sell on purchasers terms, etc.)	2.8
Stigma associated with properties	2.7

### 5.3 Facilitation Strategies

Respondents were then asked about what they thought would facilitate remediation and redevelopment by the private sector. Ninety percent of respondents, or 18 in total, proposed improvements to the regulatory process. These changes mostly related to consistency in applying regulations (7) or factors that would improve the economic viability of projects, such as streamlining procedures (6), changing approach from regulatory to partnership (5), relaxing regulations (3), and facilitating interim uses (2). Over half of respondents (12) also recommended more financial support. Legal system changes, particularly in relation to transferring risk and cost, were also highlighted by several interviewees (7). Others called for general municipal policy changes and support (7) and provincial policy changes and support (5), as well as changes to the role of Qualified Persons (3). As one interviewee noted, “when a municipality comes in as a legitimate partner, it will make things happen, not just with incentives, but contributing to making that part of the city desirable, especially in smaller municipalities.”

Developers were mixed in regard to the components in the RSC process requiring attention. Almost every respondent presented a different recommendation, although two developers each wanted to see more consistent policy and a more economically-considerate process. They generally agree, however, that more financing options and municipal policy changes are needed. Consultants named changes related to regulatory consistency and streamlined procedures. They unanimously agree that more financing options are needed, and a couple wanted to see changes to municipal policies, similar to those outlined by the developers. All supporting sector representatives were interested in seeing changes made to institutional instruments, and three respondents specifically wanted to see greater regulatory consistency. Another three believed that more financing options needed to be made available for brownfield developments. All landowners were interested in seeing new legal instruments to effectively transfer risks and costs. Interestingly, two of the three proposed a new role for QPs, such as taking on a judgement role to reconcile the regulations with complex site-by-site contamination situations. This entire group also wants to see institutional changes, generally with the MOECC taking on a more fiscally-conscious approach and revising the SSRA process.

The closed-ended survey asked respondents to rank various strategies or mechanisms in terms of their ability to facilitate private sector brownfields redevelopment (does not facilitate = 1, moderately facilitate = 3, very much facilitates = 5). Respondents ranked many facilitation strategies highly (4+), particularly protection from future and third party liability, municipal rezoning of property to more desirable uses, government reduction of land acquisition costs, harmonization of regulatory processes among the different levels of government, less stringent clean-up criteria, a Phase 2 ESA completed for brownfield sites, streamlining planning and approvals, development charge reductions or exemptions, municipal fees grant program/municipal fees waived, and tax increment equivalent grants.

<b>Table 3: Development Community Evaluation of Facilitation Mechanisms</b>	<b>Value</b>
Protection from future regulatory liability	4.6
Protection from 3 <sup>rd</sup> party liability	4.4
Rezoning property to more desirable use	4.3
Government reduces land acquisition costs	4.2
Harmonization of regulatory processes among the different levels of government	4.2
Less stringent clean-up criteria	4.1
A Phase 2 ESA completed for brownfield site	4.1
Streamlining planning and approvals	4.1
Development charges reductions or exemptions	4.1
Municipal fees grant program/Municipal fees waived	4.0
Tax increment equivalent grant	4.0
Property tax reduction/exemption	3.9
Direct governmental funding (clean-up/re-development assistance)	3.9
Relaxing design guidelines	3.8
Governmental tax incentives	3.8
Public Private Partnership/P3 Opportunities	3.7
Rehabilitation & redevelopment grant	3.7
A Phase 1 ESA completed for brownfield site	3.6
Density bonusing	3.6
Government enhanced infrastructure	3.5
Tax assistance program	3.5
Guaranteed low-interest loans	3.5
Coordination of project implementation & funding at the government level	3.4
Rehabilitation & redevelopment loan	3.3
Better access to remediation/disposal technologies	3.3
Government organizes public consultation	3.2
Facilitating funding application procedures	3.1
Greater technical guidance from governmental agencies	3.0
Government assists with site assembly, assesses & remediates properties prior to redevelopment	2.9
Less public involvement	2.8
Municipal study grant program	2.7
A Brownfields Inventory/Redevelopment Priority List	2.6
Strengthening the rigour of institutional controls	2.4
Government assists with site acquisition	2.4
Façade grant/loan program	2.3

While private sector stakeholders who were interviewed for the present study did highlight fewer facilitation strategies than in previous work (De Sousa 2000), financial and regulatory mechanisms continue to be highly noted and ranked in both time periods. Protection from liability is noted less frequently by interviewees in the present study, but continues to be highly valued as a facilitation strategy.

In an effort to dig deeper into the role of government in facilitating redevelopment, respondents were then asked for their thoughts regarding the role of each level of government. Slightly over half (11) of those interviewed, including most of the developers, did not believe that the federal government currently has any role, nor could many envision one. Consultants and those in the supporting sector felt that the federal government could play a more active role in policy development and funding. Interestingly, many of the interviewees whose work extends beyond Ontario noted that the federal government could play a role in harmonizing health and safety standards among provinces, as well as between national departments and other levels of government throughout the country.

As can be expected from the responses above, all respondents stated that the provincial government's role was central, and an overwhelming 80% of them explicitly stated that a change in the redevelopment or remediation process is necessary to move things forward. With regard to other proposed interventions, developers again expressed greater interest in economic realities, wanting to see more financial incentives or the MOECC take an approach that better considers how costs and timelines affect a developer's pro-forma.

A variety of proposals were put forward regarding the role of municipalities in fostering redevelopment. Here again, developers in particular tended to focus on economic factors with most wanting to see more incentives and financial support (8). Respondents were also seeking a streamlined approvals process (7), and several felt that having a dedicated brownfields staff member would help a municipality both identify relevant incentives and streamline procedures (6). Other preferred municipal interventions relate to the municipality becoming a better partner, either by accepting some of the realistic risks associated with brownfields or by updating infrastructure to complement redevelopment projects. As one interviewee noted, "municipalities need brownfield experts who get it" because they "don't understand the rules of the MOECC, are risk averse, and have to be educated project-by-project and it can take months to a year to convince them." At the same time, it should be noted that a couple of respondents also felt that municipalities should not get involved in redevelopment.

Interestingly, those who were interviewed were a bit surprised when asked what non-governmental sector interventions could spur redevelopment. The most popular proposal put forth by half of all respondents was more financing options from lending institutions or other sources. Other common responses related to better education of both the general public/public sector (7) and development professionals (6) to help them better understand the opportunities, risks, challenges, and facilitation strategies. Several (5) felt that it was important to get more interest from the developers in order to avoid, as one interviewee put it, "the One-and-Done problem" wherein a developer tries out one brownfield project, but does not engage in any additional projects because of the complexity. A couple of respondents also proposed changes to funding managed by the Federation of Canadian Municipalities.

## 6. CONCLUDING REMARKS

The redevelopment of brownfields is seen to offer communities a “triple benefit” in terms of remediating pollution, removing neighbourhood blight, and providing new development and employment. It is for this reason that the Ontario government, through its Provincial Policy Statement and the Growth Plan for the Greater Golden Horseshoe, has explicitly promoted brownfield redevelopment as an opportunity for intensification and more sustainable growth. Provincial ministries and municipalities have also implemented a range of policy, funding, and technical assistance tools over the last decade and a half to provide a framework to facilitate the cleanup and redevelopment of these properties by the private market.

The general sense among the interviewees was that brownfields redevelopment has become a more regular transaction that is “doable” if the market allows for it. The new RSC process is considered more transparent and standardized for projects which take a generic approach, and that the less regulated approach via a Qualified Professional is a route that is likely less cumbersome than if regulators were involved all of the way through as they are in the US. That said, many of the perceived barriers continue to be the same as those pointed out over a decade ago, and the perception lingers that many bureaucrats at the provincial and municipal levels have still not transitioned from regulators to facilitators despite the public benefits that these projects generate. As one interviewee noted about all stakeholders, “everyone is out for themselves, minimizing their liability, maximizing their profits, you cannot do this with brownfield projects because they require coordination to be successful.”

Additional cost for managing site preparation and cleanup, both physical and legal, continues to be challenging and only worthwhile if the market warrants it, which it fortunately has in many locations within the GTHA. However, if your brownfield is not in a hot market, then the additional cost may not be worthwhile without financial support from government. Several of those who were interviewed often considered this support to be more trouble than it is worth, though. The additional time required for regulatory approval of cleanup (especially SSRA) and planning approvals not only add cost, but are sources of frustration for developers who feel that they are conducting a form of development that the government should actually want. Indeed, it seems like “no good deed goes unpunished” with these projects, as one interviewee mentioned.

There is a concern that many developers have now “tried out” brownfields redevelopment because of the strong market, but once the low hanging fruit is developed in the good locations then only the hearty and experienced will continue to participate. It is for this reason that the call for facilitation and partnership by government persists. The preference for most sites is to have relatively indirect intervention from government whereby provincial and municipal agencies just make the existing approval processes work more efficiently and securely. Municipalities can also provide assistance by evaluating their neighborhoods and property portfolios to see where “higher and better” opportunities exist, and then implementing zoning and density changes to attract the market. More direct interventions related to government funding need to be boosted and made more accessible in weaker markets. Otherwise, those brownfields will continue to fester. In all, communities throughout the GTHA are fortunate to have had a strong market and a development community which was willing to take on the brownfields challenge as evidenced by the extensive number of RSCs filed since the policy was introduced in 2004. Nevertheless, encouraging this

more sustainable approach to city building via the private market will require that governments not become complacent, but find ways to allow the development community to better strike the brownfields while the market iron is hot.



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