



# INFORMATION REPORT

<b>TO:</b>	Mayor and Members Board of Health
<b>COMMITTEE DATE:</b>	October 17, 2016
<b>SUBJECT/REPORT NO:</b>	Contaminated Lands Inventory (BOH16018) (City Wide) (Outstanding Business List Item)
<b>WARD(S) AFFECTED:</b>	City Wide
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<b>SIGNATURE:</b>	

## Council Direction:

Board of Health (BOH), at its meeting of November 5, 2015 approved the following:

- (a) That staff be directed to provide an inventory of known environmental contaminated sites in the City of Hamilton; and
- (b) That staff be directed to establish a discussion with the Ministry of the Environment and Climate Change confirming all contaminated sites in the City of Hamilton.

## Information:

A contaminated site is “a site at which substances occur at concentrations: (1) above background levels and pose or are likely to pose an immediate or long-term hazard to human health or the environment; or (2) exceeding levels specified in policies or regulations (Contaminated Sites Management Working Group, 1999).

Brownfield properties are “vacant or underutilized places where past industrial or commercial activities may have left contamination (chemical pollution) behind, including: factories, gas stations, waterfront properties (port lands) formerly used for industrial or commercial activities” (Ministry of the Environment and Climate Change, 2012-2016).

## Municipal Inventory

In 2008, the Planning and Economic Development Department (PED) initiated the development of a historic land use inventory that provided information about land sites that are suspected to be environmentally contaminated (PED08066). Key findings of the Historical Land Use Inventory (HLUI) indicated the City had 91 brownfield sites

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*OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.*

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identified on its historic land use inventory scattered throughout the City. Of the 91 sites identified, 13% (n=12) were City-owned properties, and 87% (n=79) were privately-owned properties.

Although there is a high probability that brownfield properties may be contaminated with some type of pollutant, not all brownfields should be considered 'contaminated'. In order to determine if a brownfield site is contaminated, an Environmental Site Assessment (ESA) needs to be conducted.

A City-wide assessment of brownfields has not been completed since the 2008 HLUI. Under the City's current Bayfront Strategy review, PED has a plan to update the HLUI, but it will only consider the Bayfront industrial area and not the whole City. Additionally, no City department maintains a database of contaminated properties that reflects changes to the status of a property over time (e.g. when a contaminated site is remediated such that it is no longer considered contaminated).

### **Ministry of Environment and Climate Change Inventory**

The Hamilton district office of the Ministry of Environment and Climate Change (MOECC) provided staff with information related to 3 categories of property use in Hamilton, since 2004:

- 1) Brownfield properties (n=40);
- 2) Contaminated properties that are not brownfields (n=11); and
- 3) Properties with a Record of Site Condition (RSC) (n=165).

A record of site condition is a document that provides a summary of the environmental condition of a property as certified by a qualified person at a point in time. A RSC is a certification that the site meets either: (i) the applicable site condition standards; or (ii) property-specific standards set through a risk assessment and set out in a Certificate of Property Use (CPU). Where a Risk Assessment has been submitted to the MOECC regarding a contaminated property, the MOECC may issue a CPU. The CPU sites have risk management measures in place to protect against adverse human and ecosystem health effects.

### **Making Sense of the Numbers**

The main challenge with respect to comparing the two inventories is that the data sets were derived from two separate methodologies. The City's inventory came from the HLUI that used existing data sets to identify 91 brownfield sites, and the MOECC data was derived from their database that identifies sites as a function of MOECC regulatory oversight.

There is difficulty in providing a completely accurate assessment of the number of contaminated properties in Hamilton at a single point in time. The challenge is due to a number of factors that include:

- Properties can become contaminated without the MOECC and/or the City being notified;
- Properties previously identified as contaminated (e.g. a brownfield) can become remediated and obtain a RSC; and
- The City does not maintain an inventory of contaminated sites.

The 2008 HLUI identified 91 properties that qualified as brownfields, while the MOECC reports that 40 brownfields exist at present day. It is expected that since the HLUI was developed, a sub-set of the 91 properties may have undergone remediation in an effort to obtain a RSC. Generally, sites with a RSC are not considered to be contaminated sites, as the levels of contaminants are either below the applicable site condition standards or the property-specific standards determined by a risk assessment and set out in a CPU. This may explain why the present day MOECC number of brownfields (n=40) is lower than the 2008 City number of brownfields (n=91), as the sites may have qualified to obtain a RSC. The available inventory information for brownfields and contaminated sites in Hamilton is summarized in Table 1 below.

**Table 1: City of Hamilton and MOECC Brownfield and Contaminated Sites Inventories**

Authority	# of Brownfields	# of Contaminated Properties that aren't Brownfields	# of Records of Site Condition (RSCs)
City of Hamilton	91*	-	-
Ministry of Environment and Climate Change (MOECC)	40 <sup>Δ</sup>	11 <sup>Δ</sup>	165 <sup>Δ</sup>

\*based upon City of Hamilton 2008 HLUI

<sup>Δ</sup> on record from 2004 to present date

The number of properties reported by the MOECC that are contaminated that aren't brownfields are properties that are currently being used in some form, but are contaminated (n=11). These properties are also known as "compliance-driven properties", as the MOECC is aware that contamination exists on the property and the owners have been instructed and/or Ordered to comply with environmental standards.

The final inventory category reported by the MOECC is properties with a RSC (n=165). This number indicates that properties that were, or perceived to be, contaminated have taken necessary steps to demonstrate compliance with environmental standards.

**References**

Contaminated Sites Management Working Group. A federal approach to contaminated sites. Government of Canada, 1999.

Ministry of the Environment and Climate Change. Brownfields redevelopment. Queen's Printer for Ontario, 2012-2016. [cited 2016 Sep 19]. Available from: <https://www.ontario.ca/page/brownfields-redevelopment>