



A proactive approach to environmental due diligence helps the various stakeholders in the transactions to determine whether the environmental risks associated with a property are acceptable based on their risk tolerance.

# ENVIRONMENTAL DUE DILIGENCE

Does your environmental consultant understand the regulatory regime, your needs, and the stakeholders' risk tolerance?

*By Pamela Cameron and Thomas Kolodziej*

Virtually all real estate transactions involving commercial or industrial properties, whether they are owned by public entities (e.g. municipalities) or by private owners, involve some level of environmental risk. The key to a successful transaction is to identify all of the significant potential and/or actual risks associated with these properties, and to collect sufficient information about these properties early in the due diligence period of a transaction.

In Canada, the environmental due diligence process is completed in accordance with standards developed by the Canadian Standards Association (CSA). These include the Phase I Environmental Site Assessment (ESA) Standard CSA Z768-01 (Phase I Standard), and the Phase II Environmental Site Assessment Standard CSA Z769-00 (Phase II Standard). In addition, many jurisdictions (e.g. provinces, municipalities), as well as some corporations (e.g. lenders), have developed their own guidelines and best management practices for completing

environmental due diligence that go beyond the minimum requirements of the CSA Standards.

A proactive approach to environmental due diligence helps the various stakeholders—including the property owners, sellers, buyers, and/or lenders—involved in the transactions to determine whether the environmental risks associated with a property are acceptable based on their risk tolerance. This knowledge allows them to then develop a strategy for managing these risks, both during the contract negotiations prior to acquisition and after the transaction is complete.

The environmental due diligence projects are typically completed by assessors, a third-party role usually fulfilled by environmental consultants. The CSA Standards state that, “the assessors shall possess knowledge based on an appropriate combination of formal education, skills, experience, and training.” CSA Standards also state that assessors should “be familiar with applicable

federal, provincial, territorial, and local legislation and published guidelines used to evaluate the actual or potential presence of contamination on a property.”

However, in addition to the knowledge of the regulatory regime, technical training, and practical experience, the assessor must also understand the business reasons for undertaking the due diligence process. To maximize the chances of a real transaction being successful, the assessor must be part of the ‘deal team’; he or she must understand the business drivers and business reasons for doing the due diligence.

A lack of understanding of their client’s/ stakeholders’ business needs can lead even the most technically qualified and experienced assessor to produce a report that is detrimental to the deal. This is not because there is environmental risk associated with a property. Instead, it is because the assessor failed to take into consideration the clients’/ stakeholders’ risk tolerance and their business needs, instead using his or her own

risk tolerance to determine the significance of this risk associated with a property.

### Does your environmental consultant understand the regulatory regime?

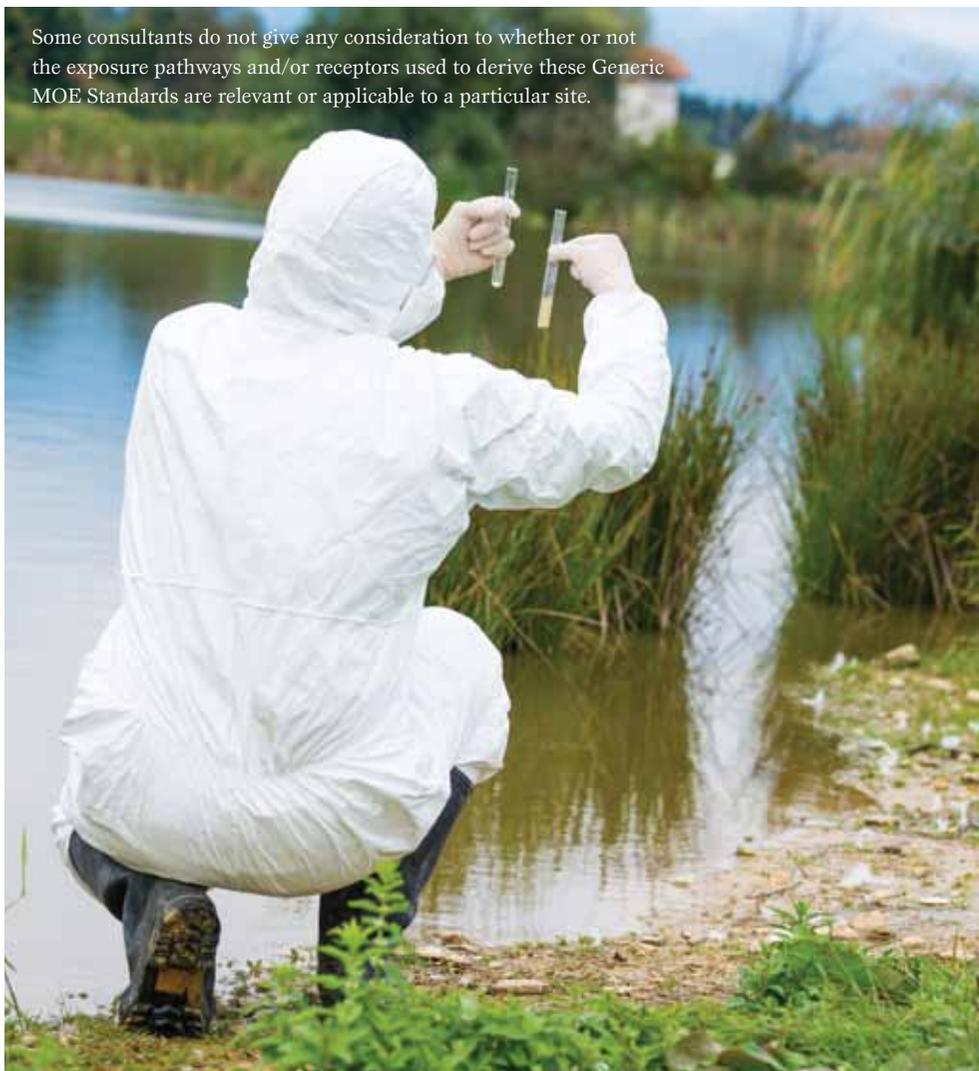
Although the following discussion uses an example specific to Ontario to illustrate the too common problems with how environmental due diligence is completed, these issues are applicable to other jurisdictions in Canada.

The overall objective of the due diligence process is to reduce uncertainty about environmental liabilities associated with a property. The purpose of a Phase I ESA is to determine if a property is, or may be, subject to potential or actual contamination. However, a typical Phase I ESA does not include intrusive investigations, collection of samples, or laboratory testing. As such, a Phase I ESA, in most cases, can only identify the potential or actual sources of contamination and the likelihood of a contamination being present or absent on a property. In order to confirm presence or absence of contamination on a property, a Phase II ESA is completed. The purpose of a Phase II ESA is to further investigate, qualify, and quantify the potential or actual contamination identified during Phase I ESA.

The Phase I Standard defines contamination as “the presence of a substance of concern, or a condition, in concentrations above appropriate pre-established criteria in soil, sediment, surface water, groundwater, air, or structures”. The Phase I Standard also indicates that prior to the commencement of the Phase I ESA, the client and the assessor shall establish the criteria to be used for the purpose of assessing the presence/absence of the contamination.

In Ontario, environmental due diligence can also be conducted following protocols for completing Phase I and Phase II ESAs specified in Ontario Regulation (O. Reg.) 153/04 - Records of Site Condition. O. Reg. 153/04 establishes a rigorous site assessment process to ensure the protection of human health and the environment. From a regulatory standpoint, the Phase I and Phase II ESAs must be completed when a property/land use is changed to more sensitive use (e.g. from industrial or commercial to residential). Typically, O. Reg. 153/04 Phase I and Phase II ESAs are completed in order to obtain a Record of Site Condition (RSC). However, O. Reg. 153/04 Phase I and Phase II ESAs can be, and sometimes are, completed on a ‘voluntary’ basis for due diligence purposes to support a transaction.

Some consultants do not give any consideration to whether or not the exposure pathways and/or receptors used to derive these Generic MOE Standards are relevant or applicable to a particular site.



The mandatory and strict minimum requirements for completing Phase I ESA and Phase II ESA are provided in O. Reg. 153/04 and the associated guidance documents published by the Ontario Ministry of the Environment, Conservation and Parks (MECP). There are various numeric criteria that can be used to assess environmental conditions under O. Reg. 153/04. These effect-based criteria, which have been derived by MECP through a risk assessment using chemical toxicity data, different exposure pathways and duration times for human and various ecological receptors, were published by MECP in a document titled Rationale for the Development of Soil and Ground Water Standards for Use at Contaminated Sites in Ontario. The most stringent criteria derived for each chemical listed in the MECP Rationale Document were selected and published by MECP in a document titled Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. These standards, dated April 15, 2011, are commonly referred to as the Generic MECP Standards.

Over the last few years, more and more environmental due diligence projects have been conducted based on a hybrid approach, where consultants selectively pick and apply

sections of the CSA Standards and O. Reg. 153/04. However, the growing popularity of the hybrid approach amongst some consultants is not necessarily a good thing, and has resulted in some really bad advice being given to clients.

Here is the problem: the CSA Standard-based environmental due diligence process is substantially less prescriptive than the one based on O. Reg. 153/04. This is because there are no pre-determined, default conclusions that must be reached based on specific findings. Under the CSA-based process, the conclusions regarding the presence/absence of potential or actual contamination being associated with a property, or the significance of contamination, if present, depend on a few factors. These include: the buyer's/lender's risk tolerance; the nature of the transaction; and the anticipated future use of the property rather than being based on pre-determined rules and the mandated use of Generic MECP Standards.

Unfortunately, some consultants use the Generic MECP Standards by default when conducting the hybrid due diligence. Some consultants do not give any consideration to whether or not the exposure pathways and/or receptors used to derive these Generic MECP Standards are relevant or applicable to a particular site. They also do not give

any consideration to the stakeholders' risk tolerance, the nature of the transaction, or the anticipated future use of the property.

Here is an example of how this could play out. An owner of a commercial/industrial property was required by his lender, as a condition of refinancing, to complete a Phase I ESA. The Phase I ESA, which was completed in general accordance with the CSA standard, identified an adjacent (up-gradient) industrial property as a potential source of impacts to the subject site. This conclusion was made based on the nature of historical operations conducted on this adjacent property, which included, among other things, the use of chlorinated solvents. Based on the findings of the Phase I ESA, the consultant recommended completion of a Phase II ESA.

The Phase II ESA was completed by taking the hybrid approach discussed earlier and involved assessing the groundwater quality using the Generic MECP Standards. The consultant stated that given the site and the surrounding properties are used for commercial and industrial purposes, and the groundwater is officially not used for potable purpose, the Generic MECP Standards Table 3

(non-potable groundwater) criteria for industrial/commercial land use is applicable. To be more conservative, the consultant elected to use the more stringent criteria for coarse-grained soil, even though the on-site soils were determined to be fine-grained (clayey silt).

After justifying the use of the Generic MECP Standards Table 3 criteria as applicable, the consultant stated that this Phase II will also use potable groundwater criteria for assessment purposes. This was to be consistent with the historical investigation, which assessed the groundwater quality using potable groundwater criteria. The overall conclusion of this Phase II was that the site was contaminated because the groundwater concentrations of some chlorinated compounds (PCE, TCE, and DCE) were above the Generic MECP Standards Table 2 (potable groundwater) criteria for coarse-grained soil. For the record, all but one sample was reported to have concentrations of the PCE, TCE, and DCE below the Generic MECP Standards Table 3 criteria for fine-grained soils.

The report also included recommendations for additional investigations, delineation, and subsequent remediation. This report was

submitted to the lender who, although agreed to provide the financing, withheld a significant portion of the loan. The lender also required the borrower to complete the additional investigation and remediation activities, as recommended by the borrower's consultant.

Here is the problem. Since the due diligence work was being completed on a voluntary basis for refinancing purposes, the conclusion should have been that the detected concentrations of PCE, TCE, and DCE were not considered to represent significant human health or environmental concerns. The PCE, TCE, and DCE would also not affect the ongoing use of the property for continued commercial/industrial land use. As well, there was no need for recommending any additional work, including site remediation.

The reasons why the conclusions and recommendations should have been as stated above are as follows:

- Since the due diligence work was being completed for refinancing rather than RSC purposes, there was no regulatory requirement to use Generic MECP Standards.

**XCG is a dynamic and responsive employee-owned company that works closely with our clients providing a host of Brownfield Consulting Services.**

**CENTRE SUITES ON 3RD AVE.**  
Owen Sound, Ontario  
The property was originally developed from 1922 through 1963 as a major printing factory. An office conversion occurred in the mid-1970s and the redevelopment of the upper floors into residential condominiums commenced in 2013 with residents taking occupancy in December 2014. Using an historical building for adaptive use, the project began a revitalization of a portion of the downtown core of Owen Sound and is improving the liveability of the area. This project was a 2016 Brownie Award Winner.

**152 MACDONELL – City of Guelph, Ontario**  
When XCG arrived on site to complete a Phase I Environmental Site Assessment (ESA) the property was a vacant commercial lot with a history of uses. Several Areas of Potential Environmental Concern were identified including underground storage tanks and a Phase II ESA confirmed the presence of Petroleum Hydrocarbon Compounds impacted soils on site. There was a large demand for condominium living in the area, so the developer decided to undertake the remediation phase of the project simultaneously with construction as opposed to the more traditional route of securing the Record of Site Condition prior to construction. The aggressive schedule meant that XCG needed to be on site for sampling of contaminated soil, collecting confirmatory samples on remaining soil and groundwater as well as sampling soil brought to the site during the initial construction phase of the building. This project was also a 2016 Brownie Award Winner.

**XCG**  
Environmental Engineers & Scientists

**EXPERT PEOPLE.  
BETTER DECISIONS.**  
xcg.com

- It was not needed or required by the stakeholders (property owner or the lender) to use Generic MECP Standards for assessing environmental conditions on the subject site, or to select the more stringent Generic MECP Standards (Table 2, for coarse-grained soils, vs. Table 3 for fine grained soils).
- Generic MECP Standards of 1.6 µg/L (both Tables 2 and 3, coarse-grained soils) for PCE, TCE, DCE are based on migration of vapours to indoor air on a residential property, which is not the actual land use on-site or in the vicinity of the site.
- The subject site and the surrounding properties are all used for commercial or industrial purposes only.
- The groundwater in the area of the site is not used as a source of potable water. The source of potable water in the area is Lake Ontario.
- The MECP's actual applicable criteria for commercial/industrial land use in a non-potable groundwater setting are 30 µg/L for coarse-grained soils, and 230 µg/L for

medium/fine-grained soils. These settings are based on migration of vapours to indoor air on commercial/industrial properties.

- The detected groundwater concentrations of PCE, TCE, DCE were one order of magnitude lower than 30 µg/L and two orders of magnitude lower than 230 µg/L.

As shown in the example, the use of the Generic MECP Standards is often unnecessarily conservative and restrictive. This is because the standards are up to two orders of magnitude lower (more stringent) for assessing environmental conditions on properties for which an RSC is not being sought. Also, the use of the Generic MECP Standards for non-RSC projects, can and often does result in new costs associated with implementing recommendations for unnecessary additional site investigation/delineation and remedial activities. This results in additional time needed to complete the due diligence process and ultimately, unnecessarily complicates the transaction.

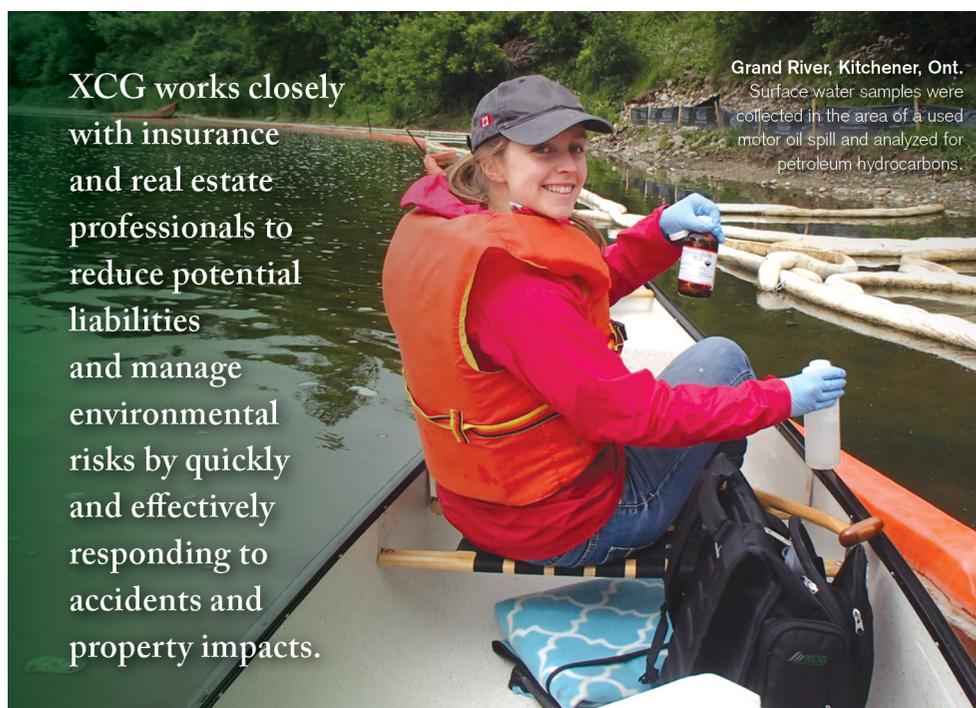
It should go without saying that those undertaking due diligence projects should

start by understanding the needs and risk tolerance of their clients and other stakeholders. They should also understand the nature of the transaction and the current and anticipated future use of the properties before working with their clients and other stakeholders to apply the most appropriate solution.

So here is the question again: Does your consultant understand your risk tolerance and your business needs? Or will the individual use his or her own risk tolerance, use unnecessarily conservative and restrictive assessment criteria, and settle you with extra costs associated with conducting additional site investigation, delineation, and/or remedial activities that you do not need? ♣

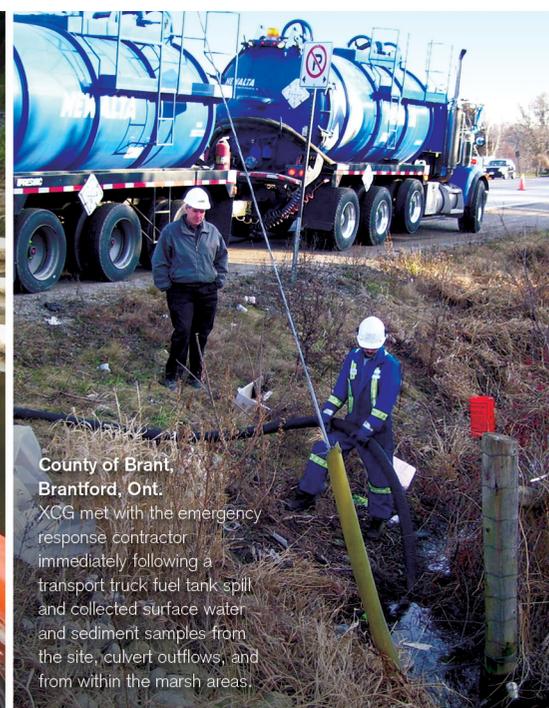


**Pamela Cameron is a senior project manager at XCG. Thomas Kolodziej is the operations leader of the site assessment group at XCG.**



XCG works closely with insurance and real estate professionals to reduce potential liabilities and manage environmental risks by quickly and effectively responding to accidents and property impacts.

**Grand River, Kitchener, Ont.**  
Surface water samples were collected in the area of a used motor oil spill and analyzed for petroleum hydrocarbons.



**County of Brant, Brantford, Ont.**  
XCG met with the emergency response contractor immediately following a transport truck fuel tank spill and collected surface water and sediment samples from the site, culvert outflows, and from within the marsh areas.

**XCG**  
Environmental Engineers & Scientists

EXPERT PEOPLE.  
BETTER DECISIONS.  
[xcg.com](http://xcg.com)