

## Soil ‘dating service’ matches supply & demand

New industry matching registry finds uses for surplus soil



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By Barbara Carss

A newly launched web-based registry matches supply and demand for clean soil. Formally known as Supporting Ontario Infrastructure Investments and Lands to create the fitting acronym, SOiIL, the not-for-profit service is an initiative of the Residential and Civil Construction Alliance of Ontario (RCCAO). The registry is in line with both industry and Ontario government efforts to better manage the excess soil that large construction, redevelopment and infrastructure projects generate.

“It’s like a soils dating service,” RCCAO executive director Andy Manahan quipped to delegates at the recent Canadian Brownfields 2013 conference in Toronto. “We’re hoping there is going to be a range of economic, social and environmental benefits.”

RCCAO released a best management practices guide in November 2012, about the same time that the Ontario Ministry of the Environment (MOE) posted a draft soil management guide on the provincial environmental bills registry. The two documents are intended to be complementary, setting out measures for handling, monitoring and documenting excess soil at source and receiving sites, as well as requiring credentials for those overseeing the process.

“MOE’s [finalized] guide will be coming out soon and we are very much looking forward to that,” Manahan said.

Existing environmental regulations already define the properties of clean soil, and govern the disposal or remediation and possible reuse of contaminated soil. In contrast, the proposed Ministry guidelines are recommended measures that proponents would be encouraged to adopt voluntarily.

Current urban intensification trends make for a lot of displaced soil. Density takes the form of tall towers with multi-storey, below-grade foundations; emerging transit options — whether subways or buried light rail transit — travel through tunnel networks; and redevelopment of obsolete industrial land entails remediation or removal of contamination, often through the so-called dig-and-dump method.

It is estimated that between 20 and 25 million cubic metres of clean soil is sent to landfill every year in Ontario.

“That is unacceptable,” Manahan asserted.

On the demand side, soil is needed for roads and other large infrastructure projects, in berms and land forms, and as clean fill on a range of construction and redevelopment sites. RCCAO’s initiative is modelled on an established program in the United Kingdom, known as CL:AIRE (Contaminated Land: Applications in Real Environments), which relies on a voluntary code of practice jointly developed by government and industry.

Similarly, prospective donors or recipients using the SOiIL matching service must comply with RCCAO best management practices. After initially registering as program participants, they can submit information to a secure database relating to individual projects.

SOiIL administrators identify possible matches and notify the companies, leaving it up to them to proceed further. Compatible donors and recipients then sign a project partnership agreement and conduct their own due diligence and any contractual business arrangements they choose to enter.

“This partnership agreement is solely between the two parties involved and SOiIL plays no other role than coordinating and facilitating the initial matching,” states information on SOiIL’s website. “As a trusted, independent administrator of the soil matching database, SOiIL treats all submitted company information and soil data in confidence as an honest broker of data.”

Neither the best management practices nor the soil matching database have yet to be integrated into other standards or voluntary certification programs, but there are some fairly evident connections with the green building movement’s interest in reuse, locally sourced materials and reducing greenhouse gas emissions.

“Transporting thousands of cubic metres of fill is an energy-intensive exercise,” observes Wells Baker, manager of sustainable developments with the Minto Group. “Any tools we can use to find sources and recipients of fill closer to our construction sites helps us to reduce costs and our carbon emissions.”

Meanwhile, an updated version of the city of [Toronto’s green development standard](#) takes effect in January 2014, introducing some new and heightened requirements across its five categories: air quality; greenhouse gas emissions and energy efficiency; water quality, quantity and efficiency; ecology; and solid waste. Planning staff is also preparing a report for council, exploring options for soil management that could fall within the city’s regulatory authority.

Although further amendments to the green development standard are unlikely before the next review period in three to five years’ time, the best management practices for soil and participation in the SOiiL registry could potentially fit into the program’s tier 2 stream. The voluntary tier offers developers a 20 per cent refund of development charges when they adopt extra measures in addition to the mandated requirements of tier 1.

Notably, there is already an option in tier 2 to recycle at least 75 per cent of non-hazardous construction and demolition debris.

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