



Main Photo (left): Site drilling in the Liberty Village district, an area of rapid urban revitalization in Toronto, Ontario.

Photo by Guy Crittenden

(above at left): Henri Groeneveld, City of Rotterdam.

(above at right): N.J. Co Molenaar, Ministry of Infrastructure and Environment.

No Soil At This Bank, Just Opportunity

by David Nesseth

One of the most telling aspects of a recent Dutch soil bank seminar in Toronto, Ontario was the difficulty many attendees had understanding what exactly a “soil bank” is.

It's certainly not unreasonable to visualize a soil bank as a place containing thousands of tonnes of fenced-off mounds of dirt with bulldozers in the wings. But, as the Consulate General of The Netherlands presented to many perplexed industry attendees on February 19, 2013, that's simply not the case. The 11 locations across that country are banks in the institutional sense — essentially brokerages that form a soil network. Like tellers in a bank, the staff manage the buying, selling and matchmaking processes that repurpose excess and contaminated soils for new locations in need. The teller hands are dirty-free.

Rotterdam in particular has a 70 per cent excess soil situation. That means it's the job of the soil bank to literally create new demand locations where the old soil can be reused, explained Henri Groeneveld, the City of Rotterdam's project manager of soil reuse. The soil bank could create parks or gardens, for example, if it doesn't have a larger-scale construction project (a soil suitor) where the appropriate soil can be reused.

Soil banks work on this principle of excess and demand, Groeneveld said. Since the early nineties, he's been part of a team that's been developing a city soil map that identifies soil quality classes and prevents the mixture of soil qualities at a new location. The map also helps keep tabs on determining area projects that need soil, or simply have too much.

“We categorize quality to optimize reuse,” said Groeneveld, a major player on the Rotterdam Central Station renovation project's soil remediation team.

Groeneveld said Rotterdam has been the “frontrunner for national soil policy.”

“When the legislation is ready, the market is quick to react,” he said.

Rotterdam's soil bank administrates the handling of about one million tonnes of soil each year. Proper matchmaking at the soil bank level, Groeneveld estimates, saved more than 12.5 million Euros in 2011 alone.

According to another speaker at the soil seminar, Co Molenaar, successful soil reuse is about “finding the proper balance between land management and remediation.”

Molenaar, who represents the Dutch Ministry of Infrastructure and Environment, added that “there should be room for local tailor-made solutions,” which reflects the Netherlands' position that municipalities should create their own soil reuse policies, with assistance from the ministry.

Many Canadian attendees at the soil seminar have been waiting for a soil reuse system to become a priority for the country. [The Residential and Civil Construction Alliance of Ontario](#), for example, has lobbied hard for that province to view excess soil as opportunity, not waste. A 2012 study by the alliance shows costs could balloon to \$1.7 billion per year to manage excess construction soils in Ontario.

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For an article about green remediation approaches in the Netherlands, see the feature on page 14.

David Nesseth is Environment Reporter for the EcoLog Group that publishes this magazine as well as the news service [ecolog.com](#) Contact Dave at dnesseth@ecolog.com