Where our garbage will go

State-of-the-art Green Lane landfill near London digging in to become Toronto's next trash site

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John Spears

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SOUTHWOLD TOWNSHIP-What kind of a garbage dump do you get for \$220.3 million? A great big one.

How big? As Geoff Rathbone, Toronto's solid waste boss, stands near the entrance of the city's new Green Lane landfill just outside London, Ont., he gestures in each direction of the compass.

The city, he says, owns just about every scrap of land for 2 kilometres in each direction.

The dump, he hastens to add, will not cover all or even most of the city-owned land: Most of it is a vast buffer zone, leased by farmers.

And the size of the city's holding is not what Rathbone really wants to talk about to reporters touring Green Lane for the first time yesterday. Instead, he stresses the facility's state-of-the-art nature.

He points to the drainage system underlying the site that traps the putrid liquid that trickles to the base of the garbage heap, and sucks it off to a treatment plant.

Andrew Lumley, who runs the treatment plant, loves to describe the microscopic bugs that feed on the nasty stuff in the runoff and ultimately clean it up – the rotifers, the ciliates (both crawling and swimming), the amoebas, the nematodes and the flagellates. The treated water, he says, is cleaner than the water of Dodd Creek, where it's discharged.

And there's the network of gas pipes honeycombing the site that collect the methane – a greenhouse gas caused by decomposing garbage – and flares it off. (In a few years, Rathbone says, the city plans to use the gas to make electricity.)

As for Steve Whitter, who's in charge of the city's dumpsites, he likes to talk about finally being master of his own destiny – a feeling he lost when Toronto's Keele Valley dump closed in 2002, forcing the city to rent dump space in Michigan. "I've said 9,000 times since Keele Valley closed: If we only had our own landfill, we could control our destiny," says Whitter. "Well, we've got one. We can control it now."

But it's still the sheer size of Green Lane that underlies everything else – and it's not just the surface acreage that defines the scale.

A cluster of trucks and bulldozers is hard at work on the site, digging 25 metres down into the heavy clay beneath, which provides an ideal sealant to keep garbage juice from trickling into groundwater.

Trucks hauling trash to the site won't just fill the hole. They'll pile the garbage 25 to 27 metres above ground level, creating a layer of trash more than 50 metres thick.

"Really, what we bought was 15.1 million cubic feet of air space," says Whitter

What's remarkable about the huge site, however, is that so little garbage is visible.

Whitter deliberately keeps the open "face" where garbage is being dumped as narrow as possible.

As trucks bring in fresh garbage, heavy machines with studded steel rollers crunch and squeeze it down as much as possible. A layer of dirt covers the fresh dump at the end of each day, leaving only a narrow slit of raw garbage exposed.

That keeps out pests – Whitter claims he's never seen a rat on the site – and the gulls that normally swarm open landfills.

And a high earthen berm formed from excavated dirt keeps the open trash mostly screened from the traffic humming past on Highway 401, a few hundred metres away.

Because as proud as Whitter and his colleagues are of their new dump, they realize one of the basic rules of garbage. "If you can run a dump out of sight, out of mind," says Whitter, "you're better off."