

GFL STONEY CREEK REGIONAL FACILITY

Engineered Liner System



Re-creation of landfill cross-section. 10 ft high - equal to landfill.

- ▶ **1. THE LEACHATE COLLECTION SYSTEM**
A 0.35 m (1.15ft) layer of 19 mm clear stone, 0.15 m (0.5 ft) of Granular 'A' and a network of 200 mm diameter perforated HDPE pipe to collect leachate from within the site. The collected leachate is discharged to an appropriate licenced treatment facility.
 - ▶ **2. THE SYNTHETIC LINER**
A continuous 80 mil high-density polyethylene membrane with welded seams.
 - ▶ **3. THE PRIMARY CLAY LINER**
A 1m (3.3ft) layer of recompacted clay that meets rigorous density and moisture requirements.
 - ▶ **4. THE HYDRAULIC CONTROL LAYER**
A 0.5m (1.65 ft) layer of 50mm (2") clear stone. Once landfilling is complete, the Hydraulic Control Layer is filled with water to maintain hydraulic pressure outside the site, forcing water to flow toward the landfill and ensuring no discharges to the environment.
 - ▶ **5. THE SECONDARY CLAY LINER**
A 1m (3.3 ft) layer of recompacted clay that meets rigorous density and moisture requirements.
 - ▶ **6. THE GROUNDWATER COLLECTION SYSTEM (Not Shown)**
A series of trenches filled with crushed stone beneath the site to facilitate groundwater pumping.
- THE FINAL COVER SYSTEM (Not Shown)**
Once complete, the site will have a cap consisting of 0.6 m (1.97 ft) of recompacted clay and 0.15 m (0.5 ft) of vegetated topsoil.