

Gardiner/Lake Shore Soil and Ground Water Monitoring

Sampling Program Final Results

Background

- The Gardiner Dismantling Project was carried out from 1999 – 2001.
- The soil was contaminated as a result of previous industrial activity, disposal of wastes and in part by exhaust fumes from leaded gasoline.
- The type of contamination is typical of urban industrial neighbourhoods.

Environmental Studies

- In 2002, an environmental consulting firm was retained to conduct a risk assessment of the site.
- The risk assessment assessed what risks the contaminants posed to area residents and to the environment.
- The risk assessment report determined that the risks could be managed by capping the contaminated soils with a clean barrier and monitoring the groundwater.

Recommended Monitoring

- The SSRA report recommended that the frequency of groundwater monitoring events could be reduced if no significant change in groundwater conditions are observed.
- It was determined that after several years of monitoring, the groundwater conditions have consistently met the provincial non-potable groundwater standards.
- Therefore, no further groundwater sampling is warranted.

Follow-up Monitoring

- The environmental consulting firm installed monitoring wells along the north boulevard of Lake Shore Blvd. and at the south-east corner of Lake Shore and Leslie St.
- Ground water sampling of the monitoring wells was carried out after the risk assessment was completed in 2004, 2005, 2006 2009 and 2010.
- Sampling results showed that the groundwater quality met provincial objectives with the exception of PAH. This exceedance was likely the result of sediments in the sample.

Recent Studies

- In 2009, Aqua Terre investigated the soil conditions in the study area.
- The investigation showed that the clean soil cap with vegetation cover was generally intact and that there was no exposure pathway between the contaminants and the public.
- In 2010, Terrapex Environmental sampled the ground water in the monitoring wells. The results showed that the ground water quality met Ontario provincial standards.
- The Terrapex report concluded that the sampling showed there was no concern for human health or the environment.

Conclusions

- The Aqua Terre report confirmed that the clean soil and vegetation barrier was intact.
- The Terrapex report concluded that the ground water quality meets provincial standards and that there was no concern for human health or the environment.
- As a result of these studies, the City is satisfied that human health and the environment are protected on this site for its current use as a multipurpose roadway.
- There is no reason to continue the ground water sampling program. The wells will now be decommissioned in accordance with provincial regulations.

Inspection and Maintenance

- Toronto Transportation staff tend to the boulevard and will conduct visual inspections and repair any breaches of the soil and vegetation barrier.
- The public is requested to contact the City through the 311 service to report any breaches of the soil and vegetation barrier.
- The City's right-of-way permitting process requires contractors to obtain permits before doing any work in the road allowance. This process can flag environmental conditions related to the presence of contaminated soils.