

Final Stage of the Project Underway

In 2008, the City of Barrie began upgrading the City's landfill to meet current engineering and environmental standards. We are now beginning the final stage of Phase 3 of the Landfill Re-Engineering Project, which is scheduled to be completed by the end of 2015. The Project is expected to extend the life of the landfill by 18 years (until 2035).

Project activities include digging up the old garbage and screening it to separate sand (daily cover material) from the garbage. This sand is re-used for current daily cover, saving valuable landfill space. Some materials (for example metal and concrete) are removed and re-used or recycled. A cell is an area within the landfill that is designed to contain garbage disposed at the site. New cells are constructed and lined with plastic (high density polyethylene) and geosynthetic clay liners that prevent contaminated water, or leachate, from entering into groundwater below the landfill. The old garbage is recomacted along with incoming garbage into the new lined cells. In 2011, a Landfill Gas Collection System and Flare were installed. This flare burns methane gas released from the garbage, reducing greenhouse gas emissions and odours. Expansion of the gas collection system is ongoing as new landfill cells are constructed and filled.¹

So far, five new cells² have been constructed and approximately 1,400,000 cubic metres of garbage has been processed. Over the next 10 months, Phase 3 activities will include the excavation and screening of garbage and the installation of liners and leachate collection systems in the last cell.³ The remaining garbage (approximately 260,000 cubic metres) will be processed and placed into the new cells by the end of 2015. Landfilling in new cells will include the progressive installation of landfill gas collection system piping.

Stormwater Management Plan

An updated Stormwater Management Plan for the south-western area of the Landfill has been completed to meet current requirements. The design is optimized to control and infiltrate surface water runoff during major storm events, and integrates the design within the natural environment. The stormwater works consist of engineered drainage channels and ponds to promote infiltration into the ground.

The ponds and drainage channels have been strategically located to manage the portion of runoff from major storms that would result in discharge to Edgehill Drive. The pond locations were also designed to minimize tree loss and impacts to groundwater levels.

Trees and shrubs will be planted along the edges of the ponds. The design of the pond located near Edgehill Drive will be connected with the existing walking trail. Residents will be provided with the opportunity to review the design plans, ask questions and provide feedback at an Open House this October. Details are provided on the back of this Newsletter.



¹ The Project is partially funded by the federal Gas Tax Fund. The City of Barrie receives over \$7.8 million from the Gas Tax Fund on an annual basis, providing a stable, predictable and long-term source of funding for environmentally sustainable municipal infrastructure.

² Cell 3A (2007), Cell 2A (2009), Cell 3B and 2B (2010 to 2012) and Cell 3C (2013 to 2014).

³ Cell 2C (2014 to 2015).

Air Quality and Health Assessment Update

Residents have indicated that their main concerns related to the Landfill Re-Engineering Project are odours, air quality and health effects. In 2010, the City completed an Air Quality and Health Assessment to evaluate what compounds are released into the air from the landfill and whether they could affect people's health. The study confirmed that the gases from the landfill do not pose a health concern to the public. In spring 2014, the City initiated a follow-up study to monitor current air quality conditions. The samples collected at the boundary of the landfill were generally lower than the ones collected in 2010. The sampling equipment did not detect typical odour causing compounds that come from garbage, such as sulphur, ethanol and ammonia. People can however smell odours at lower levels that do not relate directly to air quality standards. The City will assess the need for a second round of air quality sampling this fall. More information about the 2010 and 2014 air quality studies, including copies of the reports, is available on the website (Barrie.ca).

You're Invited to an Open House

The City would like to invite landfill neighbours and other interested residents to attend an Open House at the Barrie Environmental Centre, 272 Ferndale Drive North, on **Tuesday October 7, 2014 from 4:30 p.m. to 8 p.m.** Information will be available on:

- Landfill Re-Engineering Project, including progress to date and activities planned for this year
- Results of the Spring Air Quality and Health Assessment Update
- Stormwater Management Plan, including design plans for the new stormwater ponds and channels.

You are encouraged to drop in and review the information, ask questions and provide feedback.

Minimizing Impacts to Our Neighbours - Proactive Odour Control

As in 2013, waste screening operations have been suspended between July and August to minimize the potential for odour impacts on nearby residents during the summer. Active garbage reclamation will re-commence in September, and will continue to be managed based on daily operations and weather observations to minimize the potential for off-site odour impacts. City staff monitor the neighborhoods surrounding the landfill for odours on a daily basis, and if necessary, modifications of on-site activities including mitigation measures are undertaken to limit odours. These measures include modification of work activities, deploying odour mitigation measures or if necessary, stopping activities completely to ensure odours are properly controlled.

We've heard recent complaints from our neighbours about odours in the evening. In order to understand the potential sources and develop mitigation for impacts, an investigation has been launched and monitoring activities have been increased to include additional evening odour monitoring in the neighborhoods surrounding the landfill.

Thank You for Your Feedback

We appreciate the feedback we have received from our neighbours since the Project began in 2008. Your feedback is important to us, and we will continue to do everything we can to minimize impacts on the community during the final phase of the Project. We encourage you to provide any questions or comments you have. In particular, residents are encouraged to report any odours to City staff at 705-739-4220 ext. 4516 so that work can be altered appropriately. If you would like to arrange a tour of the Landfill Site, or a one-on-one meeting with staff please contact: Sandy Coulter at (705) 739-4220 ext. 5826, or by email at scoulter@barrie.ca. More information is also available on our website Barrie.ca.