

Highland Creek Resource

Winter 2008

Odour Control Assessment Study Update

The City of Toronto has conducted a plant wide odour assessment study as part of their "good neighbour" initiative. The primary intent of the study was to investigate the source and volume of the odour emissions resulting from the wastewater treatment operation and to develop recommendations for reducing odour impacts to acceptable levels. A two-phased approach to contain and treat the odours generated at the Highland Creek Treatment Plant was recommended.

The first phase will include installing odour control systems to address the major sources of odour at the plant: **Headworks, Primary Clarifiers, Aeration Tanks and Incinerator Building exhaust.** These four sources of odour account for 90% of the total plant odour emissions and are the focus of Phase 1. Nine million dollars has been budgeted for Phase 1 and the award of the design contract is expected to occur in March. The detailed design is anticipated to be completed by early 2009 and construction will be carried out from 2009 to 2012.

Once implementation of Phase 1 recommendations are completed and the improvements to the odour emissions assessed, the more costly measures in Phase 2 will be considered.

Headworks — building where the first step of the wastewater treatment takes place. Wastewater first enters a grit tank where sand and other heavy materials settle to the bottom. Next, bar screens remove large solid objects such as sticks and rags. The solids are collected and removed from the site for disposal.

Primary Clarifiers — open settling tanks where grease and scum are skimmed off the surface and suspended solids in the wastewater settle. The raw sludge is then pumped to digesters for further processing.

Aeration Tanks — wastewater from the clarifiers is mixed with air and micro-organisms in the tanks, which sets in motion a biological process that helps clean the wastewater.

Incinerator Building exhaust — building where devices such as dewatering centrifuges and incinerators are located.

Odours

Odours can be caused by the day-to-day operations of the plant which manages and treats wastewater 365 days a year. Certain weather conditions including heavy rains, heat and wind patterns may contribute to the odours detected in the community.

The plant is closely monitored by staff 24 hours a day to ensure wastewater treatment processes are functioning effectively. Despite close monitoring, breakdowns of equipment and disruptions to plant processes do occasionally occur and may result in increased odours.

To report odours, call 416-392-4691 and leave a message. Be sure to provide information on when and where the odour was detected as well as a description of the odour. Complaints are logged and investigated by plant staff to ensure plant operations are functioning appropriately. If you would like to speak directly with a staff in the Control Room, please call 416-392-2357.

The Highland Creek Resource newsletter is produced by Toronto Water for residents and industries around the Highland Creek Treatment Plant, located at 51 Beechgrove Drive.



The Highland Creek Treatment Plant is one of four City of Toronto wastewater treatment plants and began operating in 1956. The Highland Creek Treatment Plant is located at the mouth of Highland Creek, in the Scarborough community (West Hill), just south of the end of Meadowvale Road at Lawrence Avenue East. It treats the conventional wastewater that residents and industries deposit down drains including the water used to flush toilets, take showers and operate washing machines.

The Highland Creek Treatment Plant is the third largest wastewater treatment plant in the City and serves a population of approximately 450,000 in the communities of Scarborough. The Plant treats a daily average of 168,000 cubic metres of wastewater that's about 67 Olympic sized swimming pools each day!

Neighbourhood Liaison Committee (NLC)

Are you interested in hearing more about what is happening at the Highland Creek Treatment Plant? To become a member of the Plant's NLC all you need to do is come out to a meeting. Being a member means giving input on issues related to the plant which could affect the community.

Next meeting:

Date: Monday, March 3, 2008

Time: 7:00 to 9:00 p.m.

**Location: Highland Creek Treatment Plant, 51 Beechgrove Drive
(south of Lawrence Ave. and east of Morningside Ave.)**

For more information on the committee, or if you would like to be added to the mailing list, please contact: Nancy Martins, City of Toronto, Public Consultation Unit, 416-392-4390 or at nmartin@toronto.ca. Leave your name and complete mailing address and you will be contacted with updates and invited to NLC meetings.

If you are interested in seeing what is discussed at NLC meetings please visit www.toronto.ca/wes/techservices/involved/wws/highnlc/index.htm. Approved meeting notes are posted as well as presentations from past meetings.

More information on the wastewater treatment process is available at www.toronto.ca/water

Plant and Other Projects

Biosolids and Residuals Master Plan

Biosolids are the stabilized organic matter generated from the treatment of wastewater.

Residuals are the inorganic materials that remain after lake water has been treated to make it safe to drink.

The City of Toronto's Biosolids and Residuals Master Plan (BRMP) was developed to provide direction on the future management of biosolids and water residuals generated by the City's eight water and wastewater treatment plants to the year 2025. A draft BRMP has been out for public review and comment since September 2004 and is currently undergoing a Peer Review of the Decision-Making Model. The Peer Review focuses on the decision-making model used to establish the recommendations of the draft BRMP, including criteria weighting and alternative scoring. The Peer Review report is scheduled to be completed early in 2008 and an update of the draft BRMP will follow.

The draft Biosolids and Residuals Master Plan recommends that a new fluidized bed incinerator facility replace the aging multiple hearth incinerators currently in use at the Highland Creek Treatment Plant.

If you are interested in further information visit www.toronto.ca/biosolids_masterplan.



Incinerator Repairs

The multiple hearth incinerators currently managing the biosolids generated at the Highland Creek Treatment Plant are in need of repairs to ensure their reliability. Although the draft Biosolids and Residuals Master Plan (BRMP) recommends the replacement of the current incinerators with newer incineration technology, building of new incinerator can only proceed once the BRMP is completed and approved.

Earth Tech Canada was awarded the design of the incinerator repairs and is expected to take 9 months for design plus an additional 1 ½ years for carrying out the repairs.

**More information about the wastewater treatment process
is available at www.toronto.ca/water**