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Media Backgrounder

Private wells in the community of Whitchurch-Stouffville Local factors affecting area wells

The Regional Municipality of York began receiving calls regarding well interference from Lemonville/Bethesda residents in 2004. At the time, construction of the York Durham Sewage System's (YDSS) 16th Avenue Trunk Sewer – Phase I was underway and dewatering rates were at 15,000 litres per minute, in accordance with the Permit to Take Water granted by the Ministry of the Environment. Investigations into resident concerns were initiated to determine the cause of the area's issues.

To proactively address these concerns, and with the concurrence of the Ministry of the Environment, York Region created a \$10 million well-mitigation plan which includes a call centre to provide 24/7 access for residents experiencing wells interference. Since its inception, there have been more than 550 calls to the hotline with fewer than half related to YDSS construction. For those properties in the zone of influence and adversely affected by construction, mitigation measures have included modification of existing wells, provision of new wells or connection to municipal water supplies, as appropriate.

Private wells in Whitchurch-Stouffville not affected by construction, yet undergoing a noticeable change in their well levels, may be affected by a number of external factors in the area. Among these are:

- Increased number of constructed artesian-fed ponds
- Competing uses in local area (golf courses, fish hatchery)
- Climate effects
- Private well maintenance

The confined Oak Ridges aquifer in the area produces artesian conditions. As a result, there are many free flowing wells creating artificial ponds which may affect nearby properties. It should be noted that Ontario law does not permit free flowing wells due to the impact they have on the aquifer.

In 1977, the Ministry of the Environment released a report (*Ground-Water Resources of the Duffins Creek-Rouge River Drainage Basins*) which stated in part,

“Although a number of areas exist in the basin where all wells are likely to flow, there is primarily one large flowing well area in which the need for ground-water quantity conservation is obvious. In this regard, future conservation practices will be essential in the Lemonville-Stouffville area if the existing flowing conditions are to be maintained...it is important to realize that as more new flowing wells are drilled, each releasing more ground water, a point will be reached where the wells will cease to flow.”

Nearly 30 years following the release of this report, the number of man-made ponds in the Bethesda Road area has almost doubled.

To address local concerns, York Region scheduled an open house in April 2006. More than 560 invitations were either mailed or hand delivered to area residents, 38 of whom attended. At the meeting, Regional staff and hydrogeological consultants explained the groundwater monitoring programs in place and the recorded observations.

Construction of the 16th Avenue Trunk Sewer project is continuing. Aquifer recovery is proceeding as predicted; levels at Stone Mason have increased to 30 per cent and recovery will steadily increase once all dewatering concludes.

The YDSS is a state-of-the-art wastewater collection system first constructed by the Province of Ontario in the late 1970s and early 1980s. The idea for the YDSS – a centralized sewage treatment system – dates back to 1965 when the province decided that no additional sewage treatment plants could be built on the Humber, Don and Rouge Rivers. The YDSS converges at the jointly operated (York Region and Durham Region) Duffin Creek Water pollution Control Plant (WPCP) located in Pickering, and discharges treated wastewater into Lake Ontario.

The YDSS continues to serve as one of the best and most environmentally friendly systems in the entire Great Lakes region. Twinning the YDSS is critical to ensure adequate wastewater treatment for current and future York Region residents and businesses as the Region's population is expected to grow to more than 1.5 million people by 2031.

For more information on the YDSS, please visit www.york.ca and follow the links on the main page titled, "York Durham Sewage System information."

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