



# YDSS Servicing

YORK DURHAM SEWAGE SYSTEM  
Municipal Partners Protecting the Environment Since 1971



February 2007

## Media Backgrounder

### York Durham Sewage System (YDSS) Overview

#### **What is the York Durham Sewage System (YDSS)?**

The York Durham Sewage System (YDSS) is an environmentally responsible 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 Don and Rouge Rivers and Duffins Creek. 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.

#### **Why does York Region need to increase its wastewater capacity?**

Twinning (or expanding) the YDSS is critical to ensuring adequate wastewater treatment for current and future York Region residents and businesses. York Region's population, which is currently 910,000, is forecasted by the province to grow to more than 1.5 million by 2031.

In 1997, the Region completed the Master Plan Study for the YDSS. This Master Plan was completed to identify and review current conditions and future alternatives necessary to meet population projections in the Region. In March 2002, the YDSS Master Plan was updated to reflect current planning forecasts and to confirm the timing of required infrastructure.

#### **Why is York Region growing so rapidly?**

Growth across all municipalities of the Greater Toronto Area (GTA) is highly sensitive to federal immigration rates and the GTA remains attractive to both new Canadians and to immigration from other provinces. In order to accommodate a future increase in immigration, both the provincial and federal governments have identified that this area will continue to experience population, employment and household growth. However, 69 per cent of York Region's area is subject to the Green Belt plan – which includes the Oak Ridges Moraine. Our Region's physical growth is limited by both provincial legislation and our own Official Plan. Both of these ensure that growth will be managed and sustainable, and will be focused through intensification within our existing and in Regional Centres and Corridors. This growth requires adequate wastewater infrastructure.

#### **Why is the YDSS the best solution?**

The Region is using state-of-the-art technology. There are five pumping stations throughout the YDSS; however, the system uses gravity sewers wherever possible. Gravity-based systems are used in more than 99 per cent of municipally serviced systems. These sewers are routinely installed within the groundwater table. In comparison to pumped systems, gravity sewers do not require any mechanical parts to operate, require less maintenance, do not use electricity or burn fossil fuels. Gravity sewers have a life span of more than a century.

Gravity sewers do not pose any threat to groundwater quality. The deep, larger diameter sewers that make up the "trunk" system are constructed using tunnelling techniques, and are made up of six to 12-inch thick concrete walls. Sewage pipes do not leak sewage out into the environment when designed and maintained properly. If leakage does occur, it is actually from groundwater outside of the pipe leaking into the sewer; in relatively minute quantities - this occurs because the groundwater outside of the pipe is under greater pressure than the free-flowing sewage inside the pipe and simply follows the path of least resistance. Pipes are routinely inspected by closed circuit TV cameras, in addition to regular monitoring of flow rates.

### **How does the YDSS affect the watershed?**

Construction of YDSS projects may result in short-term environmental impacts; however, the Region takes steps to minimize these effects. Lessons used from past construction projects are used to improve the way construction is carried out in an effort to minimize harm to the natural environment. This entails, but is not limited to, the use of advanced construction techniques and equipment, as well as the associated costs involved in ensuring the environment's wellbeing through mitigation and remediation programs.

### **What are the effects on the environment?**

We take our stewardship of the environment seriously, especially the delivery of high quality drinking water and the effective treatment of wastewater for all of our residents and businesses. The YDSS was designed with the best practices in mind to minimize any effects on the environment, now and into the future. Unlike many of the GTA's aging sewage treatment plants, the Duffin Creek treatment plant is not designed to allow untreated sewage to overflow directly into Lake Ontario. In addition, York Region does not have any "combined sewer systems." These older "combined sewer systems" in other jurisdictions are designed to convey both stormwater and wastewater flows during wet weather events, which can result in overloaded treatment plants being forced to discharge untreated or partially treated sewage into lakes and rivers.

York Region has carefully consulted (and continues to consult) with the Ministry of Environment (MOE), the Ministry of Natural Resources (MNR), the federal Department of Fisheries and Oceans (DFO) and the Toronto and Region Conservation Authority (TRCA) to ensure that the expansion of the YDSS not only meets, but out-performs environmental regulations and standards, and that all necessary permits are obtained. YDSS projects also have independent audits and/or peer reviews by industry professionals. Moreover, York Region has committed to a comprehensive Environmental Monitoring and Mitigation Program to assist residents who may be impacted due to YDSS infrastructure projects. For example, the 16<sup>th</sup> Avenue project has a commitment of \$30 million for environmental protection and to assist residents whose private wells may be temporarily impacted by the project.

### **Why is construction dewatering necessary?**

Any time a pipe is installed underground, there is a good chance that groundwater will be encountered. In such cases, it is necessary to pump the aquifer down to temporarily lower the water level in the immediate vicinity while the sewer is being constructed. Dewatering helps to ensure the safety of the workers during tunnelling and construction. Some of this water is returned to area streams to ensure that base flows are maintained. The balance of flows that cannot be accommodated by area streams is discharged into the YDSS.

When construction is complete, the aquifer levels always return to the original levels. Credible, scientific evidence – as well as data from previous projects – proves this. In fact, aquifer levels are recovering or have already recovered in areas where construction has been recently completed.

### **What are the affects of dewatering on fish habitat?**

To avoid or mitigate impacts to fish habitat, a number of leading aquatic biologists and fisheries experts have been retained to assess and monitor fish habitats. On current projects, they have concluded that fish stocks are healthy and that no fish populations or habitats have been (or will be) adversely impacted by dewatering discharge into area streams. York Region is ensuring that when dewatering is employed, fish habitats are actually improved after dewatering stops.

### **What is the Region doing about private wells that are temporarily affected?**

Residents who believe their wells have been impacted by Regional construction in the area are encouraged to call the toll-free 24-hour hotline – 1-888-445-4418 – to have their individual situation assessed.

The Region established the hotline in fall 2003 as part of a program to ensure that residents affected by temporary local dewatering from the 16<sup>th</sup> Avenue project would have immediate access to potable drinking water until their wells recovered. Thus far, York Region has invested \$7 million to provide new wells, hook residents up to municipal water supplies or modify existing wells.

**Construction projects associated with YDSS (\* denotes availability of separate Media Backgrounders)**

- \*Bathurst / Langstaff Trunk Sewer Project
- \*YDSS Interceptor Sewer
- \*King City Sanitary Servicing
- \*Duffin Creek Water Pollution Control Plant Expansion
- \*Southeast Collector Sewer

For more information, the media should visit the York Region Web site: [www.york.ca](http://www.york.ca) or contact: Patrick Casey, Director, Corporate Communications, Office of the CAO, Regional Municipality of York 905-830-4444 / Toll Free: 1-877-464-9675, ext. 1235 / Cell: 905 715-8211 email: [patrick.casey@york.ca](mailto:patrick.casey@york.ca)

