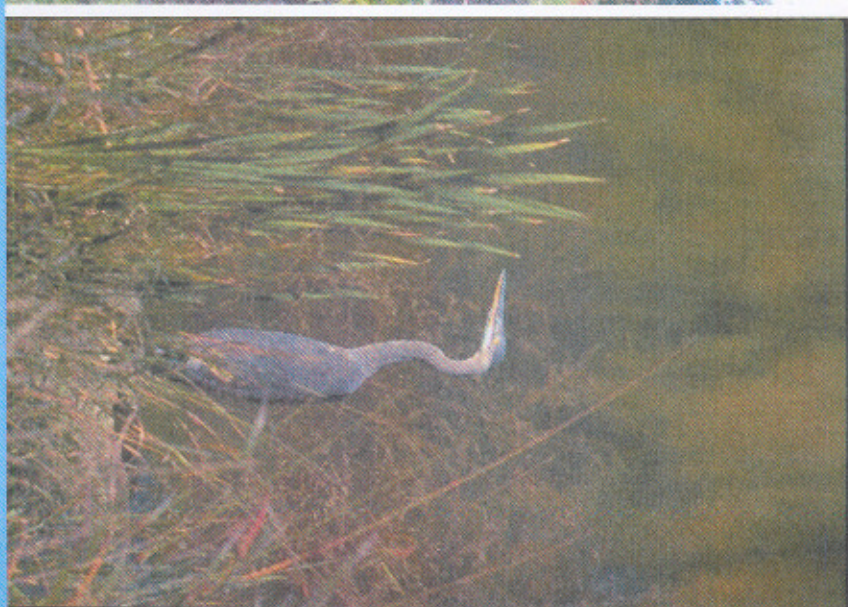


TORONTO

Water



Toronto Water **Green Initiatives**
Parks & Environment Committee
June 11, 2008

 **TORONTO** Water

Toronto Water



R.C. Harris Water Treatment Plant



Ashbridges Bay Wastewater Treatment Plant



Highland Creek Wastewater Treatment Plant

Overview

- Serves 3.1 million residents and businesses in Toronto, and portions of York and Peel
- Over 1,670 employees
- \$26 billion in assets
- Treat & supply 514 billion litres of water (4 plants)
- Collect & treat 438 billion litres of wastewater (4 plants)

Toronto Water Strategic Direction



- Multi-Year Toronto Water Business Plan approved by Council February 1, 2005
- The strategic directions for 2008 and beyond are:
 - **Deliver excellence in environmental stewardship**
 - **Implement climate change initiatives**
 - Achieve ongoing financial vitality and sustainability
 - Enhance service delivery
 - Address renewal needs of our infrastructure
 - Increase total system capacity to meet population increases
 - Be recognized as an employer of choice in the water services industry

Toronto Water...

Green Initiatives at a glance



- **Water Efficiency Plan (WEP)**

- Designed to reduce peak day demand and average day demand consumption.
- Reduced water use leads to a decrease in electricity and chemicals used at water treatment plants.

- **Wet Weather Flow Master Plan**

- 25-year implementation plan approved by Council in 2003 to reduce and ultimately eliminate adverse impacts of wet weather (rainfall and snowmelt) on the environment.
- Based on a range of solutions including at source, conveyance and end-of-pipe.

- **Reducing Energy Demands**

- Completion of facility energy audits
- Replacement of older pumps & motors with high efficiency units
- Implementation of Real Time Energy Monitoring and Water Pumping Strategy

Water Efficiency Plan Sector-Specific Measures



Water Meters

Over 450,000 meters across city to be installed. Metering of water users leads to reduced per capita consumption.

Industrial & Commercial Institutions

Toilet Replacement, Clothes Washers, Outdoor Water Audits, Indoor Water Audits

Municipal

System Leak Detection, Computer Controlled Irrigation, Watering Restrictions

Multi-Unit Residential

Toilet Replacement (Public Housing), Toilet Replacement (Private Housing), Clothes Washers, Outdoor

Single-Family Residential

Water Audits, Toilet Replacement, Clothes Washers, Outdoor Water Audits

Results

Since program inception total rebates include:

- low-flow toilets: 216,749 (all sectors - up to 2007)
- high-efficiency washing machines: 28,021 (all sectors - up to 2007)

Projected savings: 50 million litres of water per day by the end of 2008.



Water Efficiency Plan - Benefits



Operating Costs

- During the planning period, water efficiency programs are projected to avoid \$29M in operating costs related to chemical and energy use in water and wastewater treatment.
- Once fully implemented operating savings of more than \$4.5M per year after 2015.

Environmental Benefits

- For each mega litre of water saved, approximately 0.31 tonnes of CO2 emissions will be avoided.
- During the planning period it was forecast that the WEP will result in a reduction of more than 90,000 tonnes of CO2.
- Once fully implemented, the plan will reduce 14,000 tonnes of CO2 emissions per year.