

SMALL CITIES SUSTAINABILITY

BEST PRACTICE AWARD

BEACONSFIELD, QUÉBEC, CANADA

CANDIDACY FOR THE 2007 AWARD

PRESENTED BY

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TO

GREAT LAKES AND ST.LAWRENCE CITIES INITIATIVE

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For generations, cities and towns on the Island of Montreal dumped raw sewage into the river. This damaging process came to an end in 1995 with the completion of an island wide interceptor system that delivered all the sewage to a treatment plant.

Beaconsfield has a split sewer system. A relatively new (50 years) sanitary system designed to carry 55 gallons/home/hour and a storm system based primarily on ditches in front of residences.

Unfortunately, during periods of heavy rain Beaconsfield's sewer systems became overloaded resulting in widespread flooding. In order to alleviate the flooding the City operated bypass pumps sending the overflow directly into the river. This resulted in massive amounts of raw sewage being pumped into the river with all of the damage to water quality and downstream shorelines that practice entails.

Two large flooding incidents in 1996 and the need to almost constantly run the bypass pumps forced Beaconsfield to act. Between 1997 and 2004 the City invested close to 15 million dollars on sanitary and storm sewer rehabilitation projects. This included the construction of a bigger local collector to improve the delivery of sanitary waste to the island wide interceptor.

In June 2005 heavy rain again overloaded the sewer systems. There was flooding and the bypass pumps had to be activated.

There could be only one remaining source of extra water in the sanitary system, cross-connected sump pumps. Over the years residents had been connecting sump pumps directly to the sanitary system rather than repair damaged connections to the ditch in front of their home. A survey indicated 14% of the more than 6000 homes in the City had cross connected sump pumps contrary to already existing bylaws.

One sump pump can evacuate 50 gallons per minute. The effect of having this equipment illegally connected to the sanitary sewer is therefore the equivalent of having 50 additional homes connected to the sanitary sewer during a storm.

For example, take a hundred houses which is a typical sub-basin of a sanitary system. If 14 sump pumps are cross-connected you end up with the equivalent of having 800 homes connected to a system that is designed to handle 100 homes.

In early 2006 the City decided it could no longer ignore this problem, the pumping of raw sewage into the river just had to be stopped. That meant all of the 6000+ homes in Beaconsfield had to be inspected.

The "Pump Patrol" was born. Four students were hired and trained, In the first summer, they inspected more than 2000 homes. About 15% of the homes that were visited were illegally

connected to the sanitary sewer. During the fall of 2006 and spring 2007, close to half of the illegally connected residences modified their system in order to comply with the by-law.

Despite several heavy rain incidents in 2006, there was minimal flooding and even more importantly the bypass pumps were not activated and no raw sewage was pumped into the river.

This year, the "Pump Patrol" is continuing the inspections with four students. So far (end of June), 900 residences were inspected and only 7% are illegally connected.

All homes will have been inspected by the end of summer 2007 and 2008 will be devoted to follow up visits and other steps to necessary to reach 100% compliance.

The final result will be the end of the pumping of raw sewage into the river, a huge reduction in the amount of clean water being sent to the sewage treatment plant, the water table is nourished with clean water as the output of sump pumps percolates into the ground through our ditch system and there should be no more flooding.

Proof that caring for the environment can also benefit everyone.