

Wege Foundation  
Small Cities Sustainability  
Best Practices Award Submission

TOWN OF AJAX, ONTARIO, CANADA

Thank you for the opportunity to make this submission. In 2009, the Town's project should be considered for the Wege Foundation Award as Ajax continues to demonstrate environmental leadership by focusing attention on the pressing need to work to rectify declining nearshore water quality sooner than later. We are conducting scientific analyses, making decisions and taking actions within our community now to avoid shifting the costly burden of addressing contaminant sources onto our children in the future.

Water quality data gathered from local sources since 2006 and new genetic testing conducted in 2008 indicated, among other matters, a need to further investigate portions of the municipal stormwater system.

If Ajax receives this Award, the funds will be used to trace contaminants in the Town's stormwater system to their respective sources, and determine what remedial or corrective measures would be effective.

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Located on the north shore of Lake Ontario, in the 1950's, the Town of Ajax was Ontario's first "planned" community. Today, Ajax has grown to a population of just under 100,000 persons. It is situated in the Provincial Growth Planning Area for the Greater Golden Horseshoe (GGH) and is slated for further development.

Initially, growth in Ajax was serviced by small-scale water supply and sewage treatment plants, based on the premise that Lake Ontario could both dilute treated wastewater effluent and continue to provide potable drinking water and recreational opportunities.

In the 1970's, the Provincial government located many large-scale water supply and sewage treatment plants, and two nuclear plants in Durham Region, on the Lake Ontario shoreline to support further growth in the GGH and beyond.

For almost a decade, the Regional Health Department has monitored Ajax's beaches, identifying escalating bacterial levels exceeding the Province's standard and posting warning signs to discourage swimming throughout the summer. The Town is trying to find effective, affordable solutions to this chronic problem, as well as the excessive amounts of rotting algae that builds up along the shoreline, by participating in various water quality studies.

In 2008, the Town used Wege Foundation funds to use a new, emerging analytical method called "genetic testing". Genetic analyses were conducted on a group of bacteria called Bacteroides, which are common in the guts of mammals and often substantially outnumber E. coli bacteria. Bacteroides have lower survival rates in water than E. coli, so their presence may provide a better indication of recent, recurring or ongoing fecal pollution in water than the typically analyzed E. coli.

The genetic testing found trace amounts of Bacteroides from human and dog sources in the Lake, beach sand, creeks and the Town's stormwater system. These findings, based on one test, require further review and no conclusions should be drawn at this time. The results offered a glimpse into the complexity of such research and sampling methodologies, and the need to develop and make available such tools at an affordable cost.

In 2009, the Town will further investigate approaches to curbing contaminant emissions from the municipal stormwater system while we await the findings of other water quality studies related to Lake Ontario and the Ajax shoreline, including the bi-national study led by the U.S. EPA and the

Ministry of the Environment. The Wege Foundation funding will facilitate the purchase of water quality monitoring equipment and further analyses.

The Lake Ontario waterfront is a focal point in “Ajax By The Lake”, and improved nearshore water quality would help the Town’s triple bottom line as follows:

- Economic vitality – continuing to attracting residents and visitors to our lakefront for community and Lake-based recreational events;
- Social Equity – ensuring free public access to Lake Ontario for swimming; and
- Environmental Stewardship - reducing contaminant discharges from the Town’s stormwater system.