



BY FACSIMILE AND MAIL

November 20, 2009

Agatha Garcia-Wright, Director
Environmental Assessment and Approvals Branch
Ministry of the Environment
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CC: Gord Miller, Environmental Commissioner of Ontario
The Honourable John Gerretsen, Ontario Minister of the Environment

Dear Ms Garcia-Wright:

Re: Southeast Collector Trunk Sewer Environmental Assessment
Attention: Charlene Cressman, Special Project Officer

Please find enclosed Lake Ontario Waterkeeper's comments on the Southeast Collector Trunk Sewer Environmental Assessment. If you have any questions or comments, please do not hesitate to contact Joanna Bull, Counsel for Lake Ontario Waterkeeper, at 416-861-1237 or joanna@waterkeeper.ca.

Yours truly,

Mark Mattson
Waterkeeper & President

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PROUD MEMBER OF WATERKEEPER ALLIANCE

EXECUTIVE SUMMARY

This is a request, pursuant to subsection 7.2(3) of the Ontario *Environmental Assessment Act* (*EAA*), for the Minister to refer the Southeast Collector Trunk Sewer proposal to the Environmental Review Tribunal (the Tribunal) for a hearing. The Environmental Assessment and subsequent Ministerial Review failed to consider impacts of the project on Lake Ontario on the grounds that those impacts are outside the scope of the EA. This is a fundamental procedural error that fails to apply an ecosystem approach in accordance with the Ministry's Statement of Environmental Values. A review of this issue by the Tribunal is warranted at this stage in the approvals process.

In the alternative, Lake Ontario Waterkeeper recommends that the Minister refuse to give approval to the application, in accordance with subsection 9(1)(c) of the *EAA*, on the basis of procedural errors in the environmental assessment that are so severe that the EA activities carried out thus far may not fulfil the requirements of the *EAA*.

BACKGROUND

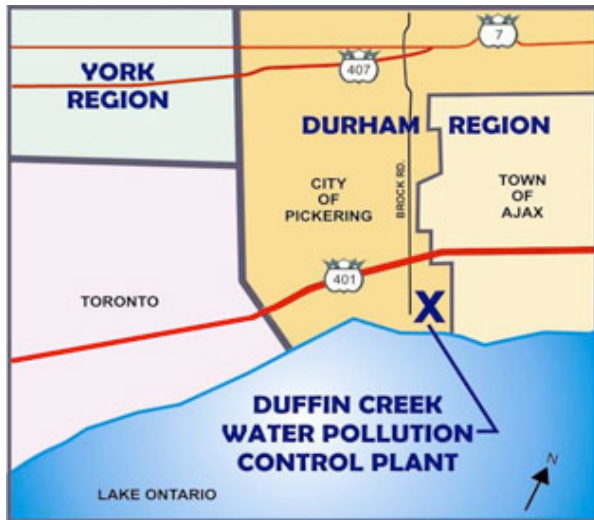
York Region and Durham Region (the Regions) have proposed an expansion to the York-Durham Sewage System (YDSS) that would significantly expand the volume of sewage entering Lake Ontario through the Duffin Creek Water Pollution Control Plant (WPCP) in Pickering. The Duffin Creek WPCP is jointly owned by the Regional Municipalities of York and Durham and is located in the City of Pickering on the shores of Lake Ontario. York Region, where the increased sewage flow will originate, claims that the expansion is required to meet the needs of a rapidly growing population and industrial demand in places like Richmond Hill, Aurora, Markham, Newmarket, Holland Landing, and Vaughan.

The YDSS consists of over 120 km of sewer pipes. It includes an existing Southeast Collector (SEC) Trunk Sewer that is approximately 14 km long, and connects York Region to the Duffin Creek WPCP. The existing facility treats sewage flows from both Regions, with approximately 80 percent of the flows originating from York Region.

The Regions have proposed the construction of a second SEC Trunk Sewer pipe that would be added to the YDSS, leaving the existing SEC trunk sewer in place. The two

sewers would operate together to accommodate the anticipated increase in sewage flow from York Region. The project will require expanded capacity at the Duffin Creek WPCP, which currently applies only secondary treatment to the Regions' sewage before releasing it into Lake Ontario.

In October 2001, York Region initiated a Class Environmental Assessment (Class EA) Study for the expansion of the YDSS. The project was divided into segments, each undergoing its own class environmental assessment. In 2004, the Ministry received requests from the public for the assessments to be "bumped-up" to Individual Environmental Assessments (Individual EAs). The Minister denied these requests, with the exception of the final section of the pipe, the southeast collector (SEC) trunk sewer. The EA for that section of pipe, called the SEC Trunk Sewer, was released in November 2008 and is the subject of the EA reviewed by the Ministry and released for public comment on October 16, 2009.



Durham Region, "What and Where is the Duffin Creek Water Pollution Control Plant (WPCP)?" Online at:
<<http://www.durham.ca/works.asp?nr=/departments/works/duffincreek/whatandwhere.htm&setFooter=/include>>

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COMMENTARY

The EA fails to assess the impacts of the project, in contravention of the Ministry's Statement of Environmental Values.

The EA and the MOE's review of the EA exclude any consideration of the impact of the project on the Duffin Creek Water Pollution Control Plant or on Lake Ontario, the final destination of the sewage. This represents a significant failure to apply an ecosystem approach as mandated by the Ministry's SEV.

According to the MOE's Statement of Environmental Values (SEV):

The Ministry adopts an ecosystem approach to environmental protection and resource management. This approach views the ecosystem as composed of air, land, water and living organisms, including humans, and the interactions among them.

The Ministry considers the cumulative effects on the environment; the interdependence of air, land, water and living organisms; and the relationships among the environment, the economy and society.

In *Lafarge Canada v. Ontario (Environmental Review Tribunal)*, the Ontario Superior Court of Justice found that a failure to explicitly consider and apply the Statement of Environmental Values when the MOE makes a decision on approvals and permits is grounds for review by the Environmental Review Tribunal.¹

At paragraph 60, the court explained:

Under an ecosystem approach, decisions are made by measuring the effects on the system as a whole, rather than on their constituent parts in isolation from each other. Therefore, it was reasonable for the Tribunal to have concluded that without assessing the specific potential cumulative ecological consequences of approving the Lafarge applications, and given the concern that the CofAs were made in the face of uncertainty about environmental risk from the adverse affects of [the proposal], the Directors' decision was unreasonable because of the failure to take into account SEV principles.²

¹ *Lafarge Canada Inc. v. Ontario (Environmental Review Tribunal)* [2008] O.J. No. 2460 [QL] [*Lafarge*].

² *Ibid.* at 60.

The MOE is legally obligated to evaluate the SEC Trunk Sewer EA in the context of cumulative ecological effects of the project. The Minister cannot approve the project without first measuring and evaluating the effect of the proposal as it impacts the environment, including Lake Ontario.

It makes no logical sense to consider a major sewer expansion without including the destination of the sewage in the evaluation. It is not in keeping with the SEVs for the Ministry to limit the EA to the pipe itself without regard for where the contents of that pipe will be conveyed to, or whether or not the assumed destination can accommodate the increased sewage flow.

Further, the Ministry's review points to the potential impacts of the project on Lake Ontario. In its review of the EA, the MOE responds to citizen requests for York Region to build a Waste Treatment Plant in its own jurisdiction by stating:

A sewage treatment plant within York Region would need to discharge treated effluent to a watercourse, such as the Rouge River or Duffins Creek that flow through Durham Region to Lake Ontario. There are no watercourses with sufficient capacity to receive the discharges from a Water Pollution Control Plant (WPCP) in York Region without impact on the natural environment of the watercourse(s) from the discharge point all the way to Lake Ontario.

The statement reflects the fact that the volume of sewage that will be sent to Lake Ontario through the SEC trunk sewer would cause environmental damage if it were emitted into a river or creek. The presumption that a pollutant that would damage a river will not cause environmental damage in Lake Ontario is based on the outdated misconception that, "dilution is the solution to pollution", which has been widely rejected by the scientific community.³ The failure to consider environmental impacts of the increased sewage flow on Lake Ontario as part of this EA is a significant gap that must be remedied before a decision can be made on the proposal.

³ See i.e.: Summerfelt, S.T. (1998) An integrated approach to aquaculture waste management in flowing water systems, eds. Libey, G.S. & Timmons, M.B. Proceedings: Second International Conference on Recirculating Aquaculture. Karr, J.R., Toth, L.A. & Dudley, D.R. (1985) Fish communities of midwestern rivers: A history of degradation, 35(2) BioScience 90.

The EA fails to consider the significant harm to the quality of the water in Lake Ontario that could result from the proposal.

Raw sewage that enters Lake Ontario through Combined Sewer Outflows and Sewage Bypass events at treatment plants are well known sources of pollution.⁴ However, effluent emitted to the lake after treatment at a facility like the Duffin Creek WPCP, where only secondary treatment is used, can also be a significant source of contamination. Levels of nitrogen and phosphorous in treated effluent can remain high, causing algal blooms and accelerated eutrophication in lakes.⁵ Untreated metals and pharmaceuticals threaten aquatic health and can bioaccumulate in the ecosystem.

The MOE's review states that, even if impacts on the lake had been considered in the EA, chemicals like pharmaceuticals in sewage are not a significant concern because, "compared to prescribed therapeutic doses, a person would have to drink thousands or even millions of litres of water to ingest an amount comparable to that of one pill". This statement is in direct contrast to a growing body of research focused on the potential threats associated with pharmaceuticals entering water from sewage treatment plants. It also fails to consider the ecosystem effects of pharmaceuticals on non-human species.

A number of recent biological studies have suggested that there is a direct causal link between the prevalence of certain types of chemicals in lakes and waterways and the rise in endocrine disruptions and hormonal changes to a variety of fish species.⁶ Chemicals of concern in sewage include pharmaceuticals, fragrances, and active ingredients in personal care products. When these substances are added to the lake through the discharge of treated wastewater effluent, they can have a significant impact on the endocrine

⁴ Ecojustice Canada, "Flushing out the truth: Sewage Dumping in Ontario", June 2009, available at: <www.ecojustice.ca>.

⁵ Spellman, F.R. Handbook of Water and Wastewater Treatment Plant Operations (Boca Raton: Lewis, 2003) at 600.

⁶ See i.e. Daughton, C.G., Ternes, T.A. (1999) Pharmaceuticals and personal care products in the environment: Agents of subtle change? 107(6) *Environmental Health Perspectives* 907; Liney, K. et al. (2006) Health effects in fish of long-term exposure to effluents from wastewater treatment works, 114(S-1) *Environmental Health Perspectives*; and Gross-Sorokin, M.Y., Roast, S.D., & Brighty, G.C. (2006) Assessment of feminization of male fish in English rivers by the Environment Agency of England and Wales, 114(S-1) *Environmental Health Perspectives*.

functionality of fish and cause permanent alterations in the structure and function of the reproductive systems of aquatic life forms.

Aquatic pollution is difficult to account for because of the long-term effects on aquatic organisms from continual life cycle, multigenerational exposure. The possibility for continuous, but undetectable or unnoticed effects on aquatic organisms is particularly troubling because they can accumulate slowly, obscuring major changes until fish and aquatic organisms are unable to sustain healthy populations. Therefore, the precautionary principle is particularly important with respect to decisions about sewage treatment and discharge. The Ministry is required to apply the precautionary principle to this decision in accordance with the Statement of Environmental Values. The failure to consider impacts on Lake Ontario, and the unsupported statement that chemical inputs will not have an effect on the lake are in contravention of the SEVs.

REQUEST

1. Lake Ontario Waterkeeper requests that this proposal be referred to the Environmental Review Tribunal for a hearing.
2. One focus of the hearing before the ERT should be the failure of the EA to address impacts of the project on the environment, including Lake Ontario, in accordance with the Ministry's SEVs.
3. Should the Minister decline to refer the project to the ERT, the environmental concerns omitted from the EA on the basis of scope must be fully researched and considered before a decision can be made.
4. If the procedural errors are not remedied, Lake Ontario Waterkeeper recommends that the Minister refuse to give approval to the application, in accordance with subsection 9(1)(c) of the EAA, on the basis of procedural errors in the environmental assessment that are so severe that the EA activities carried out thus far may not fulfil the requirements of the EAA.