



*SIMON LAKE COMMUNITY STEWARDSHIP GROUP*

*Box 511*

*Naughton, ON P0M 2M0*

*www.simonlakestewardship.ca*

---

January 22, 2010

The Honourable John Gerretsen  
Minister of Environment  
12<sup>th</sup> Floor, 135 St. Clair Avenue West  
Toronto, ON  
M4V 1P5

Dear Minister:

We are writing you to express our deep concern with a recent Ecojustice report that has brought forth the issue of sewage bypasses from Ontario's sewage treatment plants (STPs). We are particularly disappointed with the performance of Sudbury's STPs.

## **Summary**

The Ecojustice report titled, "Flushing Out the Truth: Sewage Dumping in Ontario," was released in July 2009. This report reveals that, during the years 2006 and 2007, Sudbury's sewage treatment plants discharged over 2.5 billion litres of untreated and under-treated sewage. It is unclear to our stewardship group whether the city or the Ministry of Environment has taken action to address impacts of these discharges on downstream receptors or to reduce/prevent their occurrences.

## **Suggested Actions**

Implement the recommendations of the Ecojustice report, "Flushing Out the Truth: Sewage Dumping in Ontario," including:

- Immediate public reporting of all releases of untreated and under-treated sewage;
- Infrastructure investment to improve sewage treatment and reduce sewage bypasses;
- Stronger policies and regulations for sewage bypasses, including reduction targets.

Action to reduce the impacts of sewage releases from Sudbury's STPs, including:

- Education and enforcement of improper hook-ups to sewage lines;
- Monitoring and risk assessment of sewage bypass impacts on downstream receptors;
- Establishment of milestones (short, medium, and long term) for the reduction of sewage bypasses from Sudbury's STPs;
- Establishment of milestones (short, medium, and long term) for the reduction of nutrient loading from Sudbury's STPs.

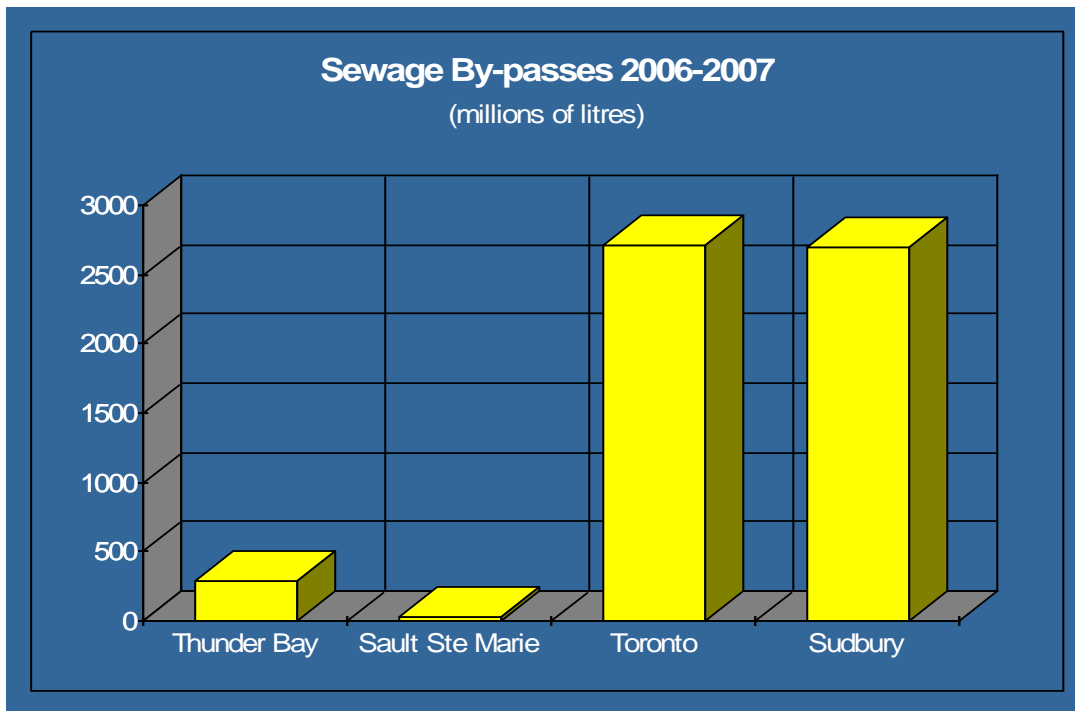
We look forward to your response, and to working with you to help improve Sudbury's lakes and natural environment.



## **The Issue: Sewage Bypasses**

In July 2009, Ecojustice released a report titled, “Flushing Out the Truth: Sewage Dumping in Ontario.” A copy of this report can be found at this link: <http://ecojustice.ca/publications/flushing-out-the-truth-sewage-dumping-in-ontario/attachment>. The report summarizes information on combined sewage overflows (CSO) and sewage bypasses from municipal sewage treatment plants (STPs) in Ontario for the years 2006 and 2007. Ecojustice received this information from a Freedom of Information (FOI) request.

The Ecojustice report found excessively high volumes of sewage bypasses and CSO for the systems operated by City of Greater Sudbury. Indeed, the reported volume of sewage bypasses in Sudbury was roughly the same as the City of Toronto.





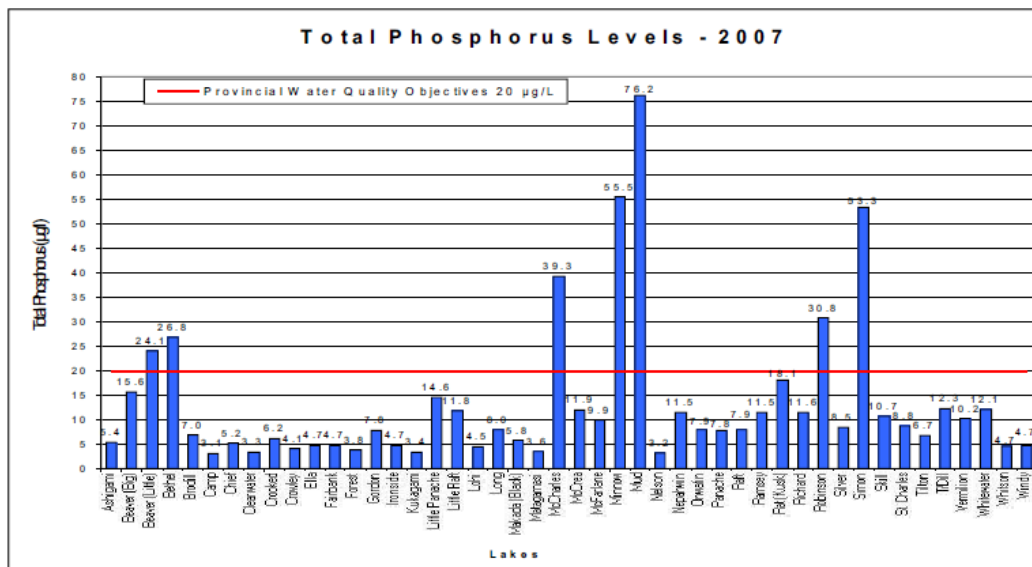
## The Impacts: Downstream Contamination

Untreated and undertreated sewage contains many types of pollutants. Typically, the sewage contains unacceptable levels of many health-related pollutants, including human waste, pathogens, oil and heavy metals. In addition, sewage can contain high amounts of “nuisance” pollutants such as suspended solids and phosphorus. All these pollutants can damage the ecology and cause harm to receptors downstream of the STP.

Phosphorus is of particular concern in Sudbury-area lakes. Most of Sudbury’s STPs discharge to the lower Junction Creek subwatershed, which already has high levels of phosphorous. The graph below shows phosphorous levels measured in 46 Sudbury area lakes in 2007. Of the seven lakes that exceeded the provincial standard for phosphorous, three of them – McCharles, Mud and Simon – are part of lower Junction Creek. The phosphorus levels are typical of these three lakes dating back to at least the 1980’s.

High phosphorus levels can lead to excessive algae growth. McCharles, Simon and Mud Lakes have all experienced this problem. An additional influx of phosphorus from undertreated sewage bypass can only exacerbate the problem (see sidebar on next page).

### Phosphorous levels measured in Sudbury-area lakes in 2007.



Map showing the lakes sampled for spring phosphorus in 2007.



## SIMON LAKE COMMUNITY STEWARDSHIP GROUP

Box 511

Naughton, ON P0M 2M0

[www.simonlakestewardship.ca](http://www.simonlakestewardship.ca)

---

### **Impacts of Sewage Bypasses**

The U.S. EPA has estimated phosphorous levels in sanitary sewage overflows to average 2 mg/L (range 1.3 to 15.7 mg/L).<sup>1</sup> The City of Greater Sudbury has measured similar phosphorous levels in its sewage bypass. Using this average, 2,500,000,000 litres of sewage bypass from Sudbury's STPs<sup>2</sup> represents 500 kg of phosphorous.

It takes very small amounts of phosphorous to "pollute" water. Ontario recommends a phosphorous level of only 0.02 mg/L "to avoid nuisance concentrations of algae in lakes." So, a discharge of 500 kg of phosphorous has the potential of polluting **up to 25 billion litres** of surface water. This volume is significantly increased if the water is already contaminated with phosphorous.

Simon Lake, down-stream of Sudbury's STPs, contains about 5 billion litres of water. 500 kg of phosphorous is enough to pollute as many as **five** Simon Lakes.

- 
1. US EPA 2004. Report to Congress: Impacts and Controls of CSOs and SSOs; August 2004.
  2. Ecojustice 2009. Flushing out the Truth: Sewage Dumping in Ontario; June 2009 (revised July 2009).

Lower Junction Creek drains into the Vermillion River watershed. Recently, lakes downstream of Junction Creek – including Little Penage Lake – have experienced problems with blue-green algae. While there may not be a direct connection between blue-green algae and phosphorous levels, it is generally understood that blue-green algae would thrive in a nutrient-enhanced environment. An influx of phosphorous will only increase the risk of propagating and sustaining blue-green algae growth.

Ultimately, the Vermillion River watershed discharges to Georgian Bay. It is well documented that many communities along Georgian Bay have felt the effects of high phosphorous levels and algae blooms. The Georgian Bay Association has dealt with this issue for years ([www.georgianbay.ca](http://www.georgianbay.ca)). An influx of phosphorous originating from under-treated sewage from Sudbury can only exacerbate the problem.

This, of course, only addresses concerns with phosphorus. As the Ecojustice report states, under-treated sewage may contain many other contaminants including oils, heavy metals, PCBs and fecal coliforms. All these contaminants represent environmental risks to lower Junction Creek, the Vermillion River watershed and Georgian Bay.

### **The "Loophole"**

Apparently, Sudbury is operating as the law demands. Sewage bypasses are considered a "necessary evil" in the operation of STPs. If there is a bypass, plant operators need only advise authorities at the Ministry of Environment. We are not aware of any action taken by the City of Greater Sudbury or the Ministry of Environment to address the impacts of these sewage bypasses.

On the other hand, the Environmental Protection Act clearly states that discharges to the environment are not to have adverse effect. It seems self-evident that over 2.5 billion litres of under-treated sewage would have an adverse effect on the environment. And yet, this practice continues. No visible actions are being taken to better understand what is contained in this under-treated sewage or to measure impacts of these discharges on downstream receptors – aquatic species, waterfowl, wildlife, plants and people.

So, this practice is legally allowed to continue – in Sudbury and throughout the province. It appears that there is a sizeable loophole in Ontario's environmental laws.



## SIMON LAKE COMMUNITY STEWARDSHIP GROUP

Box 511

Naughton, ON P0M 2M0

[www.simonlakestewardship.ca](http://www.simonlakestewardship.ca)

---

*“a person shall not discharge a contaminant or cause or permit the discharge of a contaminant into the natural environment, if the discharge causes or may cause an adverse effect.”*

*- Environmental Protection Act (R.S.O. 1990) Sec. 14(1)*

---

*“adverse effect” means one or more of,*

- a) impairment of the quality of the natural environment for any use that can be made of it,*
- b) injury or damage to property or to a plant or animal life,*
- c) harm or material discomfort to any person,*
- d) an adverse effect on the health of any person,*
- e) impairment of the safety of any person,*
- f) rendering any property or plant or animal life unfit for human use,*
- g) loss of enjoyment of normal use of property, and*
- h) interference with the normal conduct of business*

*- Environmental Protection Act (R.S.O. 1990) Sec. 1(1)*

## **What should be done?**

The Simon Lake Community Stewardship Group agrees with the recommendations in the Ecojustice report, “Flushing out the Truth: Sewage Dumping in Ontario.”

- Municipalities and STP operators should report all releases of inadequately treated sewage to the public as they occur so the public can take steps to ensure their health and the health of their community are protected from potential exposure to sewage contaminated water;
- Municipalities and STP operators should provide detailed reports (including cause, volume, duration and location of the sewage releases) to the MOE and these reports should be made publicly available;
- MOE should release annual public reports on sewage bypasses and other sewage related events. These annual reports should be used to track trends and progress over time;
- Immediate investment in sewage infrastructure is needed to improve treatment and increase the capacity of Ontario’s sewage systems and decrease the frequency and volume of sewage bypass events; and,
- MOE should introduce stronger policies and regulations pertaining to sewage bypasses and similar sewage events that will set out reporting requirements and reduction targets. These policies should be negotiated into agreements respecting the Great Lakes Basin ecosystem, with funding to ensure its implementation.

In addition, specific measures are required to address the high levels of sewage bypasses recorded by the City of Greater Sudbury:



## *SIMON LAKE COMMUNITY STEWARDSHIP GROUP*

*Box 511*

*Naughton, ON P0M 2M0*

*www.simonlakestewardship.ca*

---

### **Education and Enforcement**

In an article in the Sudbury Star newspaper, dated July 1, 2009, the City of Greater Sudbury responded to the Ecojustice report. Among other things, city officials indicated that a major cause of sewage bypasses were improper and illegal hook-ups to the sewage lines (including eaves troughs and sumps). The Simon Lake Community Stewardship Group calls on the MOE to take a more active role in educating the public on this important issue, to provide guidance to the city with correcting the problem, and to assist the city in policing these illegal hook-ups.

### **Monitoring and Risk Assessment**

Sewage bypasses are both a human health issue and an ecological effects issue. The Simon Lake Community Stewardship Group calls on the MOE to require more stringent environmental monitoring of these sewage bypasses, and to order the commissioning of risk assessments to measure impacts to downstream receptors.

### **Milestones for Improvements to Sewage Bypass Events**

Sewage bypasses are supposed to be rare events, resorted to only in extraordinary circumstances such as heavy rainfall events. The Ecojustice report indicates that sewage bypass events in Sudbury are not conforming to this standard. The Simon Lake Community Stewardship Group calls on the MOE to establish milestones (short, medium, and long term) for the City of Greater Sudbury to achieve reductions in the frequency and volume of sewage bypasses.

### **Milestones for Improvements to STP Treatment**

It is well documented that the Lower Junction Creek watershed has high nutrient levels, including persistent levels that exceed the Provincial Water Quality Objective for phosphorous. Despite this, municipal planning will ensure that future sewage discharges will increase mass loadings of phosphorous to the watershed. The Simon Lake Community Stewardship Group calls on the MOE to amend the Certificates of Approval for these STPs to reverse this trend. Conditions of the amended Certificates of Approval should establish targets and milestones (short, medium, and long term) for the reduction of mass loadings of phosphorous in annual sewage discharges.

We are looking forward to your response and would be happy to work together with you to improve our lakes and natural environment.

Sincerely,

Simon Lake Community Stewardship Group

**c.c.** France Gelinas, MPP – Nickel Belt  
Hon. Rick Bartolucci, MPP – Sudbury  
Hon. John Rodrigues, Mayor –City of Greater Sudbury  
Jacques Barbeau, Councillor –City of Greater Sudbury  
Nick Benkovich, Manager – City of Greater Sudbury  
Brian Cameron, District Manager – Ministry of Environment