



Centennial Community and Recreation Association
www.ccranews.com

November 29, 2011
Written Submission to City Council

Re: Toronto Water Capital Funding for Beneficial Use Option Implementation at
Highland Creek Treatment Plant

Dear Members of Council,

My name is Paul Lewkowicz and I represent the Centennial Community & Recreation Association (CCRA), one of the GTA's oldest community associations. The CCRA represents Centennial Scarborough, a beautiful neighbourhood in the eastern edge of Toronto that is home to some of Toronto's most cherished parks and waterfront trails.

The CCRA has collected a petition with over 850 signatures, and counting, that asks City Council to reconsider its decision to pursue the "beneficial use option" (trucking of sludge) and realize the benefits of pursuing fluidized bed incineration. These signatures were presented at the November 10 Budget Committee and November 21 Executive Committee meetings. The term beneficial use is a misnomer, as due to its high toxicity, regulations limit how long and where sludge can be used as fertilizer. Sludge poses risks to the community through potential seepage of chemicals into soil and water.

At today's meeting, you have been presented with the Toronto Water 2012-2021 Capital Plan, which contains a line item to fund a trucking facility to transport sludge from the Highland Creek Wastewater Treatment Plant to landfills. Due to insufficient capacity to handle the trucking, staff cannot proceed with the beneficial use option until funding for

the trucking facility has been approved. We ask that you not approve or at least delay funding for this trucking facility, to give Council an opportunity to reconsider its decision to pursue the trucking of sludge or to allow for the completion of a full and comprehensive environmental assessment on the negative effects of trucking of sludge.

The City of Toronto's Biosolids Master Plan (BMP), a six-year study and environmental assessment, identified fluidized bed incineration as the preferred option for processing biosolids at the Highland Creek Treatment Plant, which currently uses multi-hearth incineration and is at the end of its service life. Eleven options, including the beneficial use option, were reviewed and were scored based on social, environmental and economic impacts. Despite incineration receiving the highest score, Toronto City Council chose to pursue trucking of sludge.

I understand how this issue can be sensitive to many and requires considerable thought. We all have our city, neighbourhoods and children top of mind. However, I urge you to look at the facts to understand why trucking of sludge is harmful to the future of our City.

Despite the assertion of many, City staff has confirmed that the intention to install fluidized bed incinerators at the Highland Creek Treatment Plant was in no way to result in increasing the flow of wastewater that would be treated at the Plant. The current facility forecast does not show a need to increase the capacity of the plant. If fluidized bed incinerators are installed, there will be no trucking into the plant and there will be less trucking out of the plant.

Staff reports cite that fluidized bed incineration has *lower* greenhouse gas emissions (4,100 tonnes of CO₂/yr or 804 cars) than trucking of sludge (5,500 tonnes of CO₂/yr or 1,080 cars). Trucking of sludge produces greenhouse gas emissions through increased truck traffic, tractor emissions, field biosolids decomposition, natural gas from anaerobic digestion, and landfill emissions.

In terms of air quality, staff reports cite how fluidized bed incineration will improve existing air quality and remove the vast majority of heavy metals and dioxins.

Incineration has no visible plume and will exceed 2020 Ontario Environmental Regulations and U.S. environmental requirements. State-of-the-art technology, in scrubbers and air pollution controls, would further improve air quality and reduce toxic emissions.

Sludge, on the other hand, has all chemicals fully intact, which poses serious risk to surface, soil and water quality. A report from the Medical Officer of Health notes that trucking of sludge “could have greater negative impacts on quality of community life factors (for example, noise, traffic and odours) than incineration.”

Previous deputants have stated that incineration is more expensive than trucking of sludge. This is categorically false. Over a twenty year period, staff reports state that fluidized bed incineration would cost \$164 million in net present value. Beneficial use will cost at least \$20-40 million more, at \$188-222 million. In addition, operating costs for trucking of sludge are more than double that of incineration (\$8.4 million vs. \$3.7 million). The Director of Wastewater Treatment admits that the cost figures for beneficial

use have gotten worse. Reports state that it is unclear if the beneficial use option will meet future more stringent environmental regulations. So, we as taxpayers will be paying *more* for a solution that has greater negative environmental, fiscal, and community impacts.

In addition, staff cites that 40,000 additional tones of sludge will be going to the landfill if the Highland Creek Treatment Plant stops incinerating solid waste. There is no capacity to accept more sludge at existing landfills, so there will be increased landfill costs as 100% of the sludge from the Plant would go to the landfill. Staff acknowledges that supply outweighs demand for sludge, due to its high toxicity and regulations that limit its use. Incineration produces ash, which is more marketable as it can be used to make cement.

Lastly, there is increased risk from the trucking of sludge. The beneficial use option calls for 4-5 trucks per day to truck sludge through residential streets passing by schools and homes. Staff note an “increased likelihood of diesel emissions and biosolid spills during transport”, causing potential harm to the community. Plus, millions more dollars will have to be spent on odour controls just as is being currently done at Ashbridges Bay. With incineration, trucking of ash would occur 1-2 weeks per year and risks to the community are drastically reduced as biosolids are processed onsite.

Furthermore, fluidized bed incineration is a proven technology. Every municipality that borders Toronto – Peel, York, and Durham – currently use fluidized bed incineration. As does London, Ontario. As do many European countries, which are often lauded by

incineration opponents as having leading-edge environmental efforts that should be replicated in Canada.

I would like to stress that no option is perfect. Fluidized bed incineration does have its disadvantages and concerns, like any option. But the reality is that we will continue to produce biosolid waste and will need to find the best way to process and dispose of it. I recall a debate on incineration during the last term of Council, where one member asked another member if they would put an incinerator in their neighbourhood. Well, I am here to tell you, that the Highland Creek incinerator is in our backyard, and we want to keep it that way. We understand that others are concerned about impacts to surrounding areas, but these concerns are addressed in staff reports by revealing that the negative impacts of trucking of sludge are worse.

We strongly urge you to not approve or at least delay funding for the implementation of the Beneficial Use Option. This is based on a comprehensive review of numerous options and years of study. It reflects a process that many residents trusted and invested time in, only to see community input and staff recommendations dismissed. At minimum, before implementing the beneficial use option, Council owes it to Torontonians to complete a full and comprehensive environmental assessment on the effects of trucking of sludge.

As Members of Council, you are tasked with addressing many difficult issues. While respecting and reflecting on the advice of staff and community input, you must ultimately choose the best option for the wellbeing of our children, communities, and overall City. City Council's decision to pursue the beneficial use option works squarely against that.

Sincerely,

Centennial Community and Recreation Association

**Appendix 1:
Comparison of Beneficial Use Option & Fluidized Bed Incineration
(based on information gathered from staff reports and city consultants)**

| Criteria | Trucking “Beneficial Use Option” | Fluidized Bed Incineration |
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| Use in other municipalities | <ul style="list-style-type: none"> • Most large municipalities do not use trucking but rather incineration • Trucking is used in Waterloo but the method is found to be problematic | <ul style="list-style-type: none"> • Proven technology used in many large municipalities (Durham, York, Peel, London) • Used widely in Europe (which has tougher environmental regulations) |
| Environmental Impact | <ul style="list-style-type: none"> • Increased landfill disposal • Greenhouse gas emissions: 5,500 tonnes of CO₂/yr (1,080 cars) • Greenhouse gas emissions from: <ul style="list-style-type: none"> - increased truck traffic - tractor emissions - field biosolids decomposition - natural gas from anaerobic digestion - landfill emissions • Increased presence of toxic chemicals • Increased negative impacts on surface, soil and water ground quality • Lowest release of air pollutants • Unclear whether this method will meet future more stringent environmental regulations | <ul style="list-style-type: none"> • Energy efficient process • Greenhouse gas emissions: 4,100 tonnes of CO₂/yr (804 cars) • Higher removal of heavy metals (90%+ removal of mercury, dioxins) • Ash is less toxic than sludge • No visible emission plume • Enhanced emissions control system would result in significantly cleaner emissions and air quality • Emissions reductions exceed Ontario Ministry of Environment (MOE) regulations and U.S. Environmental Protection Act (EPA) requirements |
| Risk | <ul style="list-style-type: none"> • Greater potential for biosolid spills during transport due to daily trucking (4-5 times per day) and potential for more truck accidents | <ul style="list-style-type: none"> • Solid waste is processed onsite, reducing risk to community • Reduced risk of spills due to less trucking (1-2 weeks per year) |
| Community Impact | <ul style="list-style-type: none"> • Increased odour • Increased noise concerns • Increased diesel emissions • Increased traffic (+13-30%) • Logistical issues with trucking (traffic lanes, schools, potholes) | <ul style="list-style-type: none"> • Low odour impacts • Low noise impacts • Lower diesel emissions • Little impact on traffic |
| Cost | <ul style="list-style-type: none"> • Total Capital Cost: \$97 M • Annual Operating Cost: \$8.4 M • Total Cost (20Y): \$188-222 M • Need to build new trucking facility • Need for odour treatment control and additional digestion capacity • Maintenance costs associated with truck fleet and trucking facility | <ul style="list-style-type: none"> • Total Capital Cost: \$120 M • Annual Operating Cost: \$3.7 M • Total Cost (20Y): \$164 M • No need to build a new facility. • No odour treatment control costs • No trucking facility costs • Lower truck fleet maintenance costs |

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|-------------|--|---|
| End Product | <ul style="list-style-type: none"> • End Product: Sludge • 40,000 additional wet tonnes of biosolids per year going to landfill • City staff admit that supply outweighs demand for sludge • Regulations limit where and how long sludge can be used • Need for new facility to accommodate increased trucking • Unclear whether this method will meet future more stringent environmental regulations | <ul style="list-style-type: none"> • End Product: Ash • Limited but growing market for ash (such as to make cement) • Considerably less of the end product (ash) ends up in the landfill • Additional incinerator is proposed to meet potential increases in biosolid management capacity (population growth and increases in solid waste) • Fluidized beds will ensure facility (which is at end-of-life) meets and exceeds future more stringent environmental regulations |
| Timeline | <ul style="list-style-type: none"> • Trucking facility built by 2015 • No requirement for additional environmental assessments from Ministry of Environment | <ul style="list-style-type: none"> • Major repairs have occurred since 2009 to existing hearth incinerators to meet current regulations and extend service life by 5-10 yrs • First fluidized bed installed in 2015 • Second fluidized bed installed in 2020 • No need for further environmental assessments due to existing practice |

Sources:

- [Biosolids Master Plan – Highland Creek Treatment Plant Main Website](#)
- [City of Toronto Public Information Session: Biosolids Master Plan Update \(October 3, 2011\)](#)
- [Minutes of May 17-18 City Council decision](#)
- [Toronto Water General Manager Biosolids Master Plan Update – Highland Creek Treatment Plant \(April 7, 2011\)](#)
- [Medical Officer of Health Rapid Health Impact Assessment for Biosolids Management at Highland Creek Treatment Plant \(April 7, 2011\)](#)