

6

PROHIBITING FOOD WASTE GRINDERS TO SUPPORT YORK REGION'S SUSTAINABILITY PLANS AND STRATEGIES

The Environmental Services Committee recommends:

- 1. Receipt of the presentation by Michele Samuels, Manager of Regulatory Compliance and Policy, Environmental Services;**
- 2. Receipt of the following deputations:**
 - a) David Coffey, General Manager, InSinkErator (Canada) and on behalf of Edward Coil, Vice President Finance Emerson Canada;**
 - a) Bruce Rebel, Director, Technical Services, Association of Home Appliance Manufacturers Canada (AHAM Canada); and**
 - b) Kevin Wong, Executive Director, Canadian Water Quality Association (CWQA), on behalf of CWQA and the Canadian Institute of Plumbing and Heating.**
- 3. Receipt of the following communications:**
 - a) James Quattrociocchi, Downsview Plumbing Limited, dated September 4, 2012;**
 - b) Glenn Bortolus, Leader Plumbing & Heating Inc., dated September 4, 2012;**
 - c) Henry Machado, Customer Service/Production Manager, N. De Luca Plumbin (1995) Inc., dated September 4, 2012;**
 - d) Dino Giacomelli, Contracts Manager, CountryWide Homes, dated September 4, 2012;**
 - e) Robert Onorati, Vice President of Purchasing: Low Rise & High Rise, Aspen Ridge Homes, dated September 4, 2012;**
 - f) Walter Zanutel, Vice President of Construction, Low Rise, Remington Homes, dated September 5, 2012;**
 - g) Gerald Grant, President, Spinnaker Recycling Corp., dated September 5, 2012;**

- h) Daryl Chong, President and CEO, Greater Toronto Apartment Association, dated September 6, 2012;**
 - i) Ralph Suppa, President and General Manager, Canadian Institute of Plumbing & Heating, dated September 7, 2012;**
 - j) Tony Muto, Vice President, Marli Mechanical Ltd., dated September 7, 2012;**
 - k) Bruce Rebel, Director Technical Services, Association of Home Appliance Manufacturers; and**
 - l) Danielle Chin, Municipal Government Advisor, Building Infrastructure and Land Development Association (BILD), dated September 11, 2012;**
- 4. Deferral of consideration of the following report dated August 24, 2012, from the Commissioner of Environmental Services until the March 2013 Environmental Services Committee meeting and deferral of the implementation of the prohibition of new and replacement food waste grinders within Part 17 of Bylaw 2011-56 pending such consideration.**

1. RECOMMENDATIONS

It is recommended that:

1. Council continue to endorse a Region wide ban on the installation of new or replacement food waste grinders as supported by the York Durham Sewage System (YDSS) Management Committee who oppose the use of new and replacement food waste grinders in both Regional municipalities.
2. The Regional Clerk circulate this report to the clerks of the local municipalities and Durham Region.

2. PURPOSE

At its meeting in November 2011, Council approved a ban on the installation of new and replacement food waste grinders with a one year phased-in implementation plan. This report is a status update on the one year phase-in period, prior to it taking effect on November 17, 2012. In addition, this report seeks Council's endorsement of the YDSS Management Committee position to oppose the use of new and replacement food waste grinders in both Regional municipalities. To supplement ongoing commitments of the Regional Official Plan that requires existing multi residential buildings convert to three

stream waste collection, this report requests future consideration to permit food waste grinders only in existing multi residential units where retrofitting to three stream waste collection is deemed not feasible.

3. BACKGROUND

Sewer Use Bylaw approved by Council in November 2011 includes a ban on new and replacement food waste grinders

York Region's Sewer Use By-Law No. 2011-56, enacted on November 17, 2011 by Council, prohibits the installation of food waste grinders in new developments or replacement of existing units. The Environmental Services Committee Report titled "Improving York Region's Sewer Use Compliance Program to Protect Our Shared Infrastructure" was endorsed by Council on October 16, 2011 and outlined the justification for a ban. The prohibition included a one-year phase in period with the ban taking effect on November 17, 2012.

Ban supports a 'best-in-class' sewer use program

The primary purpose of this prohibition is to protect sewage infrastructure from possible negative impacts of managing kitchen organic waste. High concentrations of organic waste and solids in the sewage collection system can contribute to blocked pipelines, corrosion, odour issues, and increased capital and operational costs.

York Durham Sewage System Management Committee opposes use of food waste grinders

The Regional Municipality of Durham (Durham Region), who is the operating authority for the Duffin Creek WPCP, responded to an inquiry from the City of Markham regarding a pilot program to evaluate the use of food waste grinders on October 18, 2005. Durham Region expressed concern over potential impacts of increased levels of organics within the sanitary collection and treatment systems, and denied support for the use of food waste grinders in Markham.

On October 2, 2007, Durham Region once again expressed a lack of support for the use of food waste grinders in the City of Vaughan. They cited that the installation of food waste grinders in 50 per cent of households would result in a 25 per cent increase in treatment plant loading which may require increased digester, dewatering, and incineration capacity. They further pointed out that perceived odour concerns within the York-Durham trunk sewer could require installation of additional odour control facilities along the collection system. The decision by Durham Region was made in response to a request by a private firm interested in proposing a food waste grinder pilot study in the City of Vaughan.

The YDSS Management Committee has since considered a position statement confirming continued support to ban the installation of new or replacement food waste grinders in both municipalities due to the success of Green Bin programs in both municipalities and pledged support for these programs as the most sustainable method of food waste management. The committee also cited concerns with increased capital and operating expenses associated with increased organic loadings and the potential to escalate odour concerns. The Committee's specific position is founded on the following principles:

1. Curbside collection and composting is the most sustainable method of food waste management compared to wastewater treatment and/or landfill in terms of greenhouse gas emissions, energy consumption, and water use.
2. Food waste grinders only address a portion of the materials currently accepted in the Green Bin program, consequently, there would still be a need for waste management programs for items that cannot be processed by a food waste grinder. Furthermore, improper use and/or installation increases the potential for blockages in residential sewer systems.
3. Food waste disposed with wastewater would increase biological oxygen demand (BOD) and total suspended solids (TSS) in wastewater collection and treatment systems that would be costly to treat and would consume capacity needed to accommodate growth.
4. Impacts to sanitary collection systems need further study to quantify potential issues with settling and degradation of organic solids, odour generation, and increases in fats, oil and grease deposition.
5. Operating costs of a green bin program are lower than costs for treatment of food waste through wastewater collection and treatment and municipal revenues are best directed to manage food waste organics through a more environmentally sustainable and economically prudent method (i.e. the Green Bin Program).

York Region staff engaged with stakeholders during the one year phase-in ban of food waste grinders

Staff developed a communication strategy to notify stakeholders who may be potentially impacted by the food waste grinder ban. The communication strategy included public consultation sessions, a presentation to the Building Industry and Land Development (BILD) association, information session to industries, distribution of food waste grinder materials (e.g. fact sheets, in-store shelf signs) and correspondence with stakeholders (i.e., industries, retailers, BILD, local municipalities) starting October 2010 (see *Attachment 1*).

In April 2012, Emerson Canada, manufacturer of Insinkerator® food waste grinders, contacted York Region officials in response to the updated Sewer Use By-Law and expressed concern over the ban and wished to meet with York Region staff. Emerson controls approximately 80 per cent of the global food waste grinder market share. Following an initial meeting with York Region officials, Emerson Canada provided York Region with an information package, including articles and case studies for review.

York Region staff conducted an extensive literature review of approximately 25 articles and case studies, including literature provided by Emerson Canada and literature researched by staff (*see Attachment 2*). Since June 2012 staff have met with Emerson as well as held a number of conference calls and email communications, which also included Duffin Creek WPCP operational and technical staff. Both Durham and York staff have shared operating, technical and financial information with Emerson staff to assess possible benefits of permitting food waste grinders in York Region. At the time of writing this report, no significant benefits to either the Region or to sewage operations at the Duffin Creek plant have been identified.

4. ANALYSIS AND OPTIONS

The use of food waste grinders is not supported by York Region's three pillars of sustainability

After performing a technical literature review and analysis, staff confirmed a food waste grinder ban is still a best practice for protecting sewage infrastructure. Local conditions within York Region do not justify broad use of food waste grinders and the resultant potential for increased organic loadings within the wastewater system. Furthermore, promoting the use of food waste grinders in York Region may be contrary to York Region's sustainability efforts, having potential negative impacts to the community, economy and environment.

Curbside collection and composting of food waste is the most sustainable method of municipal food waste management

Various studies indicate that curbside collection followed by central composting is the most sustainable method for food waste disposal compared to other methods including landfill and treatment via wastewater treatment plants. Curbside collection and composting has been cited as being the most sustainable option due to lower energy input requirements and the benefits of producing high quality compost with limited contamination that can be used for horticultural and agricultural fertilization applications, land reclamation, and roadside erosion control.

York Region's Green Bin program has achieved some of the highest participation rates in Ontario

Initiated with a pilot program in 2005, York Region and its nine local partners have developed a successful Green Bin program to manage food waste. The Region-wide Green Bin participation rate is 84 per cent. Participation is defined as a resident setting out a container for collection within two collection cycles. The Green Bin program in York Region offers an opportunity to use nutrients from food waste, without compromising the cost or operation of the wastewater system. There is also the added broader benefit of directing food waste to the production of quality compost as compared

to digested sludge from a wastewater treatment plant that may be contaminated by co-mingling industrial waste and municipal sewage.

Broad support for food waste grinders in York Region may contribute to resident confusion regarding food waste disposal

The Green Bin program in York Region allows for the processing of 100 per cent of food waste in addition to permitted non-food wastes (pet waste, diapers and sanitary products). An article by Strutz (1998) indicates that only 75 per cent of food waste generated by an average U.S. family can be processed in a food waste grinder. Large amounts of egg shells or fibrous materials (e.g. artichokes, corn husks, etc.) are not recommended to be disposed of using food waste grinders. Promoting an alternative program for food waste disposal may send mixed messages to residents and businesses on the proper disposal of organics, which could ultimately impact York Region's high Green Bin program participation rate.

Green bin programs across Canada have gained widespread multi-level governmental and non-governmental support

The Federal and Provincial governments, as well as a non-governmental organizations, have endorsed Green Bin programs for organics disposal. A summary of support is listed in Table 1.

Table 1
Governments and Organizations that Support Green Bin Programs

Organization	Details supporting green bin program endorsements
Environment Canada	Endorsed Green Bin programs as a means of protecting the environment
Government of Ontario	Promotional material actively supports composting - "Chew on this. Food waste should go back to where it came from: the good earth. If your office kitchen doesn't have a dedicated bin, check with management – or take your leftovers home."
Canadian Council of Ministers of the Environment Model Sewer Use Bylaw	Includes optional language for the prohibition of domestic uses of food waste grinders, and restriction of their use in industrial, commercial and institutional purposes
Stewardship Ontario	Suggests use of Green Bin program for residents as a means of disposing waste while returning nutrients from food back into the earth

Federation of Canadian
Municipalities and National
Research Council

Best practices document for wastewater source control states that “educational programs should also focus on changing household habits, such as discouraging the use of food waste grinders (which increases the load flowing to treatment plants) or the disposal of sizeable quantities of cooking oil to the sewer”

Municipalities across North America and the globe have implemented partial or full bans on food waste grinders

Cities and countries that have implemented partial or complete bans on food waste grinders are shown in Table 2.

Table 2
Cities that have Complete or Partial Ban on the Use of Food Waste Grinders

Ontario Cities	Canadian Cities	U.S. Cities	International Countries*
Toronto Ottawa Cobourg Kingston Orillia Greater Sudbury Guelph	Capital Regional District, BC Camrose, AB Winnipeg, MB Cape Breton, NS	Santa Clara, CA San Jose, CA Austin, TX	Netherlands Belgium Austria

*Studies by Iacovidou, Ohandja and Voulvoulis (2012), Carey, Phelan and Boland (2008) indicate international countries that have implemented bans on the use of food waste grinders.

Many of the cities listed above have embarked on organic waste separation programs promoting backyard or central composting to reduce landfill loadings. Green Bin programs are environmentally sustainable, economically feasible and socially acceptable.

Many other municipalities may not have a direct ban on food waste grinders, but rather, discourage their use. This may be through requiring a discharger to meet Sewer Use Bylaw limits or through Best Management Practices. In the GTA, many municipalities discourage the use of food waste grinder and others are in the process of prohibiting its use. Durham Region is currently updating its Sewer Use Bylaw, which will prohibit installation and operation of food waste grinders for domestic use. Peel Region promotes the use of a source separated organics program for food wastes to reach their diversion rate of 70 per cent by 2016.

Over the course of the consultation period, York Region staff have been contacted by other cities across the country, including Calgary and Metro Vancouver, to enquire both on the results of our research informing the ban and on the merits of our successful Green

Bin program. Staff continue to provide assistance to these municipalities with regular conference calls and information sharing.

Increased food waste loadings within the wastewater system increases organic content, which can contribute to the generation of hydrogen sulphide and odour concerns

Studies have shown increases in hydrogen sulphide in culverts where food waste grinders are in use. The Region has invested in odour control facilities at select wastewater treatment facilities, trunk sewers and pumping stations within the Region to mitigate perceived odour concerns. Increases in organics associated with food waste grinders entering the wastewater system may further contribute to odour concerns within the wastewater system.

Greater organic loadings contribute to increased wastewater system operating and maintenance costs

Widespread use of food waste grinders will increase organic loadings to treatment plants, which may contribute to increased wastewater capital costs, including a need for additional maintenance of sanitary collection systems to clear blockages and flushing, as well as premature replacement of infrastructure. Flushing and conveying organic material requires increased water and energy. A recent study conducted by the Water Environment Research Foundation (2012) recommended that significant research be conducted to better understand how increased food waste loadings could impact sanitary collections and treatment systems. Specifically, little is known regarding the rates of food waste settling and degrading within the system, or the impacts of food waste particles collecting on treatment plant screening equipment. Solidified fats and other organic waste can contribute to blockages in sewer pipes. There is also evidence to suggest that oil and grease loadings increase with use of food waste grinders. Blockages can lead to sanitary sewer overflows causing raw sewage to directly enter the natural environment.

Food waste grinders increase water use which conflicts with York Region's Long Term Water Conservation Strategy

York Region's Long Term Water Conservation strategy aims to reduce water consumption from 220 to 150 litres per person per day by 2051. Studies on water use consistently show increases in water consumption with the use of food waste grinders. Increases range from 1 to 16 litres of water per household per day. Using the middle of this range, 8 litres extra use per household per day with a market penetration rate of 20 per cent would increase York Region's total water consumption by 1 per cent or approximately 198 million litres per year.

Increased phosphorus levels generated by food waste grinders conflict with the Lake Simcoe Phosphorous Reduction Strategy

Increased food waste levels in the wastewater system increases phosphorus levels. Studies indicate that a 30 per cent to 100 per cent market penetration rate of food waste grinders correlates to phosphorus increases of 0.1 – 3 g per person equivalent per day. Adding additional food waste matter directly to the Lake Simcoe watershed does not support the goals of the Lake Simcoe Phosphorus Reduction Strategy and could impact some of the Region's northern satellite wastewater treatment plants.

Food waste grinders can be an alternative organics management option where composting or curb side organics collection has not been successfully implemented

Studies reveal food waste grinders are effective in diverting food wastes that would otherwise be sent to landfill in areas where a source separated organics program has not been successfully implemented. For example, New York, Philadelphia, Chicago, and Worcestershire (United Kingdom) use food waste grinders to reduce organics sent to landfill. York Region has a mature Green Bin program and does not require the widespread use of food waste grinders to divert waste from landfill.

Installation of food waste grinders may be an option in existing multi-residential developments if waste reduction and three-stream waste collection is not feasible

York Region's Official Plan requires that new multi-residential buildings incorporate three-stream waste collection capabilities. The plan also requires that the Region collaborate with municipalities to require the conversion of existing multi-residential buildings to three stream waste collection.

The Integrated Waste Management Master Plan is currently being developed and a servicing option for multi-residential developments has not been finalized with local municipal partners at this time. The Vision and Guiding Principles developed as part of the Integrated Waste Management Master Plan focuses on reducing waste generation, including food waste and encouraging residents to alter their purchasing and consumption habits accordingly. Additional efforts may be developed to encourage source separation and diversion of materials from the waste stream in multi-residential developments. Allowing the use of food waste grinders to manage organics does not support the guiding principles of the Integrated Waste Management Master Plan as there is no beneficial end use of the organic material in York Region.

It is recognized however, that achieving high diversion rates of food waste from existing multi-residential units may be a challenge where three stream separation retrofits are not feasible. In these circumstances, consideration of food waste grinders could be an alternative solution as it could be implemented on a limited basis. Moving forward, staff

will work closely with the local municipalities and existing building owners to develop appropriate criteria to define feasible retrofit solutions and report back to Council. Future multi residential buildings will be capable of incorporating three stream separation during the design phase. Consequently, food waste grinders would not be considered for future buildings.

Link to Key Council-approved Plans

York Region's corporate plans and strategies including the Official Plan, *Vision 2051*, and the 2011 to 2015 Strategic Plan establish goals demonstrating the importance of long-term sustainability. The use of food waste grinders does not align with these goals, which are to:

- Engage in innovative water conservation and water resource protection
- Reduce waste, energy and greenhouse gases emissions
- Require all new multi-unit residential buildings to incorporate three-stream waste collection capabilities
- Work with local municipalities to require existing multi-unit residential buildings to participate in three-stream waste collection
- Protect surface water quality by addressing both point and non-point sources of pollution in partnership with local municipalities and conservation authorities
- Continue to deliver and sustain critical infrastructure
- Manage York Region's finances prudently

York Region's successful and mature Green Bin program offers residents a convenient method of waste disposal, which has achieved some of the highest participation rates across the province.

5. FINANCIAL IMPLICATIONS

Additional organic loadings in wastewater stream from food waste will require capital investment for treatment plant upgrades

Increasing food waste matter entering the wastewater system increases organic loadings entering wastewater treatment plants. Studies report values of organics loadings from food waste expressed in a per person amounts ranging from 16.5 to 66 g per capita per day for biochemical oxygen demand (BOD) and 14.1 to 60 g per capita per day for total suspended solids. Increased organic loading from food waste reduces the design capacity of a wastewater treatment plant significantly.

The current BOD loading capacity at the upgraded Duffin Creek Water Pollution Control Plant (WPCP) is based on projected capacity requirements to 2031 for population increases within York and Durham Regions. Increases in organic loadings at the facility

from food waste grinders, in addition to population increases, could exceed capacity limits of the current facility sooner than expected.

Increased market penetration of food waste grinders could reduce capacity at Duffin Creek

Established penetration of food waste grinders in some cities in the United States is as high as 50 per cent. However, based on historical uptake in the GTA, penetration rates of 3 to 30 per cent are reasonable to assume for York Region. A market penetration between 3 to 30 per cent may reduce the design capacity of Duffin Creek WPCP by 1 – 7 years based on a 20 g BOD per capita per day value. At 66 g BOD per capita per day, using the same market penetration rate the plant's design capacity may be reduced by 1 to 14 years. One source cited that current market penetration of food waste grinders in Canada is about 10 per cent. Some indications suggest that existing penetration rates in York Region may be as low as one per cent. However, this value is unconfirmed.

Based on projections, capital upgrades to wastewater treatment plants would be required to accommodate additional food waste loadings. Current Duffin Creek WPCP Stage 3 upgrades assumed projected loadings for new households within the collection system to be similar to current sewage loading characteristics. Additional food waste loadings in the system and the plant were not included and would increase organic loading to the plant. This increase in organic loading may require limiting development to ensure the system does not become overloaded.

Typically, cities that have promoted the use of food waste grinders in their systems have invested in additional solids management processes, which may include dewatering, digestion, incineration, and composting equipment specifically designed to manage the additional loadings associated with food waste in the sanitary system. Furthermore, to capitalize on the potential benefits of food waste in sanitary loadings, these plants would have to capture biogas generated in the digesters for use in cogeneration or plant/process heating. Currently, Duffin Creek WPCP does not have sufficient capacity to maximize any potential benefits that may be available with increased use of food waste grinders beyond those currently installed. Significant capital expenditure would be required to achieve this. Duffin Creek WPCP already utilizes some biogas recovery for limited process heating. However, no cogeneration is practiced.

Installation and use of food waste grinders will significantly increase the sludge haulage fee and processing costs in satellite plants

Approximately 85 per cent of York Region wastewater is sent to the Duffin Creek WPCP in Durham Region and 10 per cent is sent to the Lakeview Wastewater Treatment Plant in Peel Region. The remaining five per cent is processed in York Region's seven satellite treatment plants that vary in operational strategy including one lagoon, one biological nutrient removal facility and five extended aeration plants.

Increases in organic loading from food wastes to satellite wastewater treatment plants could result in increased sludge formation and produce additional loadings for digestion. York Region's seven satellite plants are not equipped to process solids or sewage sludge. Sludge from satellite plants is hauled to Duffin Creek WPCP for solids processing. This will translate to additional costs on sludge haulage and may result in capacity limitation of solid processing. The Stage 3 solids expansion in Duffin Creek WPCP, which assumed projected solids loadings to be similar to current sewage loadings, started in 2012 and has a projected capacity to serve forecasted growth to 2031.

Costs to process food waste at wastewater treatment plants are higher than processing through the Green Bin Program

The cost to treat food waste at wastewater treatment plants is challenging to forecast as estimates rely heavily on the composition of food waste, which can vary by geographic location and social habits. To determine an "equivalent" unit cost for wastewater treatment, a simplified calculation is utilized that determines a unit cost for the treatment of biochemical oxygen demand (BOD), which is then converted to a known volume of food waste using relationships found throughout technical literature. Table 3 compares the equivalent processing/treatment costs to treat food waste at a wastewater treatment plant, for the Green Bin program, and for backyard composting.

Table 3
Food Waste Processing Cost Comparisons (per tonne food waste)

Food Waste Disposal Option	Processing Cost
<i>Equivalent costs based on Duffin Creek WPCP 2011 total operating cost¹</i>	<i>\$408</i>
<i>Add: premium for satellite treatment plants and York operating and conveyance costs²</i>	<i>\$68</i>
Equivalent total operating costs based on York Region 2011 actual net wastewater operating costs	\$ 476
Processing cost in Green Bin program ³	\$ 178
Processing cost for backyard composting	\$ 35

¹ Cost presented in "Improving York Region's Sewer Use Compliance Program to Protect Shared Infrastructure"; October 2011 Committee Report

² Additional costs required to reflect total York wastewater system costs

³ Does not include local curbside collection costs

Wastewater treatment costs in Table 3 were calculated using actual 2011 net operating costs, which include all York Region treatment plants and the Duffin Creek WPCP. This estimate is conservative and uses a biological oxygen demand (BOD) content value for food waste of 0.098 kg per tonne. Literature reviews revealed a wide range of BOD composition. During consultations, Emerson representatives favoured a BOD content of 0.20 kg per tonne food waste. Using this value, the equivalent costs based on York

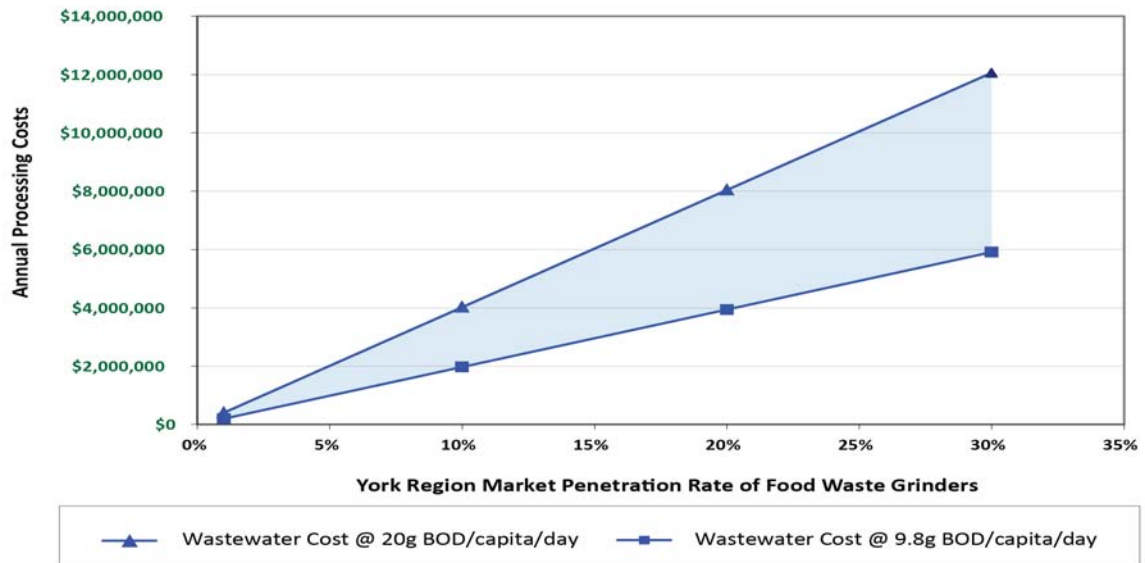
Region's actual net wastewater operating costs in 2011 would more than double treatment costs, resulting in a cost of approximately \$971 per tonne for food waste. In addition, these calculations are based on current operating scenarios (that include current food waste grinder installation rates currently estimated at less than one per cent) and do not reflect any additional costs that may be incurred to manage increased quantities of food waste in the sanitary system, including additional maintenance and operating costs or capital expenses for odour control facilities and/or an increase in treatment capacity for solids management.

Users of wastewater services in York Region pay a rate per cubic metre, which is calculated to cover all fixed and variable costs of operating the system including treatment costs, overhead costs and contributions for asset rehabilitation and replacement. Surcharge rates are intended to cover additional costs added to the system over and above what is already included in the per cubic metre rate and these costs would represent variable costs. Since the surcharge rate does not include fixed costs, it is expected that the surcharge rate would be lower on a per tonne basis than total costs on a per tonne basis.

Cost impacts to process food waste at wastewater treatment plants are variable based on food waste grinder installation rates

Under 'Places to Grow', the Region is anticipated to experience significant intensified growth. If food waste grinders were permitted capital and operating costs for wastewater treatment plants would increase relative to the number of installations. Figure 1 demonstrates that operating costs to process food waste in wastewater systems would significantly increase with a greater uptake of food waste grinders across the Region. Additional wastewater costs in terms of increased BOD from food wastes are calculated using the equivalent scenarios of composition of BOD as used in Table 3.

Figure 1
Cost Impact of Processing Food Waste with 3 – 30 per cent Penetration Rate*



* At 10% market penetration, the cost to treat the equivalent tonnage of food waste through the Green bin program per year is \$736,204

* At 30% market penetration, the cost to treat the equivalent tonnage of food waste through the Green bin program per year is \$2,208,613

At a 30 per cent penetration rate of food waste grinder installations, wastewater operating and processing cost impacts are approximately three to six times higher than processing and operating costs in the green bin program.

6. LOCAL MUNICIPAL IMPACT

York Region has engaged with local municipalities and received unanimous support for banning food waste grinders

Between November 2009 and January 2010, York Region staff consulted with local municipal operational managers and supervisors on the proposed enhancements to the Sewer Use Bylaw. The meetings occurred:

- Whitchurch-Stouffville - Nov 25, 2009
- East Gwillimbury - Nov 25, 2009
- Georgina - Nov 27, 2009
- Markham - Dec 1, 2009
- Newmarket - Dec 2, 2009
- Aurora and King Township - Dec 3, 2009
- Vaughan - Dec 15, 2009
- Richmond Hill - Jan 7, 2010

One of the topics of discussion with local municipal staff included the Canadian Council of the Ministers of the Environment's Municipal Wastewater Effluent Strategy and Model Sewer Use Bylaw. This strategy outlines options for new requirements on, or prohibitions of, food waste grinders. The response from local municipal staff was

unanimous in recommending a ban on the installation and replacement of food waste grinders. Local municipal staff indicated concerns with the use of food waste grinders and noted operational impacts to the local collection system, resulting in issues such as:

- Fats, oil and grease accumulating in collection systems
- Increase in suspended solids leading to settling or blockages
- Decomposition leading to gas and odour concerns

Many local municipalities in York Region are already in the process of updating or implementing by-laws to ban food waste grinders in their municipality.

Food waste loadings impact local infrastructure prior to entering York Region's wastewater system resulting in high maintenance costs for local municipalities

Based on a study published by the Water Environment Research Foundation on "Sustainable Food Waste Evaluation" there is still significant research needed to understand how food waste loadings impact different management systems including food waste degradation during sewer conveyance, and settlement of food waste particles within collection systems. These conditions would have an impact on odour generation within the collection systems. There may also be concerns with blockages especially when considered alongside existing fat, oil and grease conditions, which studies indicate may increase with the use of food waste grinders.

The Town of East Gwillimbury questioned the need for food waste grinders with the Green Bin program already in place. The City of Markham also pointed out widespread use of food waste grinders could be in conflict with programs in place for water conservation.

7. CONCLUSION

Permitting the broad use of food waste grinders in York Region does not align with Council-approved plans and strategies, and conflicts with water conservation targets. Based on an extensive literary, peer and local municipal review, staff recommend a ban on the installation of new or replacement food waste grinders remain in place and take effect on November 17, 2012. Future collaboration with local municipalities to determine the feasibility of limiting the use of food waste grinders in some existing multi residential units will be required where three stream waste collection is deemed not feasible. Staff have reviewed the material provided by Emerson Canada and do not concur that many of the proposed benefits of these devices would be realized in York Region. The YDSS Management Committee is not in favour of increased organic loadings within the wastewater system.

Curbside collection and composting is the most sustainable method of food waste management compared to wastewater processing or disposal via landfill. York Region's successful, mature "Green Bin" program offers a more sustainable alternative to dispose of food waste. Furthermore, food waste grinders require the use of water to operate, which is not consistent with the Region's aggressive water conservation targets. Significant capital investment has been made in the YDSS and Duffin Creek WPCP to accommodate future growth. Allowing uncontrolled proliferation of food waste grinders within the Region has the potential to reduce the treatment capacity of these investments from one to 14 years, which depreciates the Region's return on investment and ability to accommodate current growth forecasts to 2031.

For more information on this report, please contact Laura McDowell, Director, Environmental Promotion and Protection at 905-830-4444 Ext. 5077.

The Senior Management Group has reviewed this report.

(The two attachments referred to in this clause are attached to this report.)

Prohibiting Food Waste Grinders To Support York Region's Sustainability Plans and Strategies

**Presentation to
Environmental Services Committee**

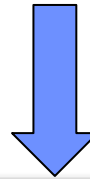
Michele Samuels, M.Eng, P.Eng

Manager, Regulatory Compliance and Policy

September 12, 2012

Timeline for moving to Best In Class Sewer Use By-Law

Oct 2011 Report – Improving York Region’s Sewer Use
Compliance Program to Protect Shared Infrastructure



Local Municipalities
(2009-2010)

Public Consultation
(Oct. 2010)

Building Industry &
Land Development
(Sep-Dec 2011)

Residents, ICIs &
Retailers
(Sep 2011 – 2012)



Nov 2011 Report - Update of Sewer Use Bylaw

One year phase-in period on food waste grinder prohibition to continue consultation with stakeholders

Prohibiting Food Waste Grinders To Support York Region's Sustainability Plans and Strategies



A financially sustainable, environmental approach led to decision to prohibit new and replacement Food Waste Grinders in York Region

Why Prohibit the Installation of New and Replacement Food Waste Grinders?

- Provides sustainable environmental approach to food waste management
- Protects return on investment in wastewater infrastructure
- Avoids environmental impacts including:
 - unnecessary water consumption,
 - adverse impacts to green bin participation,
 - local and Regional diversion goals,
 - wastewater treatment plant performance and capacity
- Is cost effective
- Aligns with Durham Region's upcoming Sewer Use By-law and with Local Municipal Bylaws (East Gwillimbury, Markham, Vaughan currently prohibit)
- Aligns with other municipalities across Canada, US and internationally



Prohibition already in place for approximately 60 per cent of York Region residents

Locations That Currently Ban or Partially Ban Food Waste Grinders

Ontario Cities	Canadian Cities	U.S. Cities	International Countries
• Toronto • Ottawa • Cobourg • Kingston • Orillia • Greater Sudbury • Guelph • Markham • Vaughan • East Gwillimbury	• Capital Regional District, BC • Camrose, AB • Winnipeg, MB • Cape Breton, NS	• Santa Clara, CA • San Jose, CA • Austin, TX	• Netherlands • Belgium • Austria



Aligns with Canadian Council of Ministers of the Environment (CCME) Model Sewer Use Bylaw

Impacts of Food Waste Grinders on Local Collection Systems

Local and
Regional
Servicing
Partners

Concerns with
increased
organic loads
into the
collection
system from
food waste
grinders



Fats, oil and grease
accumulating in collection
systems



Increased suspended solids
leading to settling or
blockages

Decomposition leading to
gas and odour concerns

Use of Food Waste grinders increases organic loading to treatment plants by 25- 60%

Local Municipal Position on Food Waste Grinders

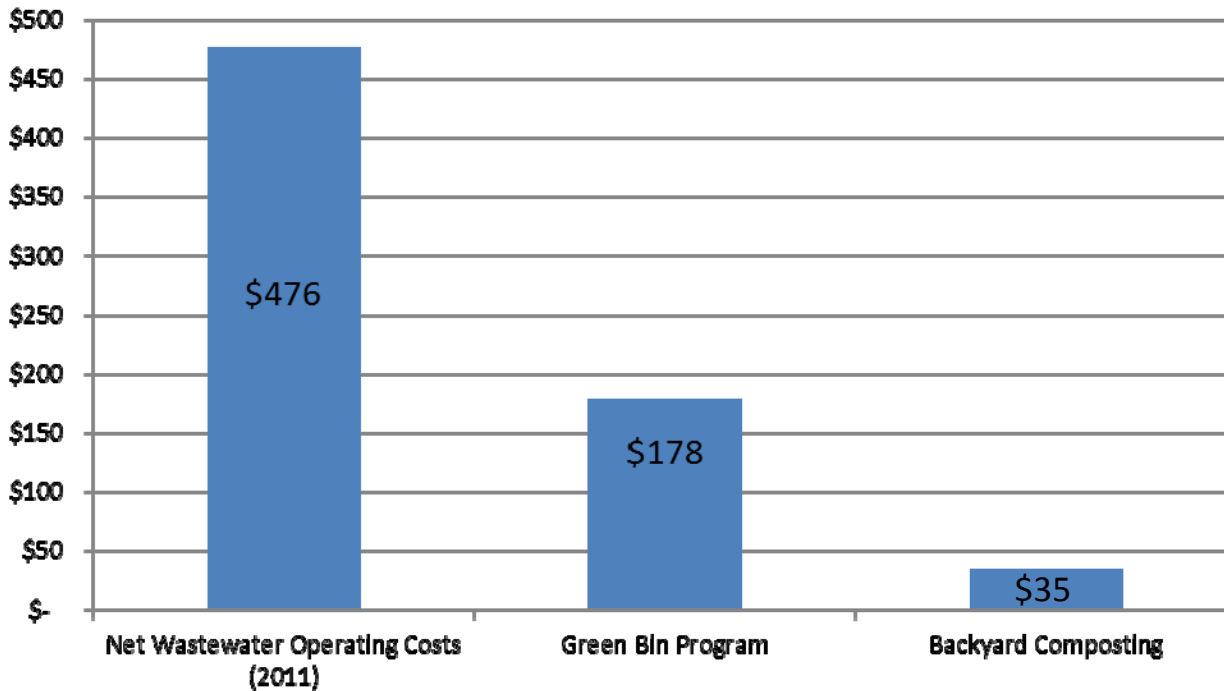
Currently prohibit Food Waste Grinder	In the process of prohibiting FWG
• Markham • Vaughan • East Gwillimbury	• Aurora • Georgina • King • Newmarket • Richmond Hill • Whitchurch-Stouffville



- **Durham prohibition is expected in late 2012**

Prohibition of food waste grinders is supported by local municipalities

Equivalent Costs to Treat Food Waste Region-Wide (per metric tonne)



York Region
Context

Economic
Impact

Significant premium to process one metric tonne of food waste via wastewater treatment

Economic Impacts of Permitting Food Waste Grinders

- Increased capital investment for anaerobic digesters and odour control facilities
- Increased sludge haulage costs from York Region satellite plants to Duffin Creek for incineration
- Higher operating and maintenance costs for increased organic loadings
- Increased sewage strength reduces service life of the sewage infrastructure



Financial impacts may require review of technical basis used to derive Development Charges

Environmental Impacts of Permitting Food Waste Grinders

- Wastewater Treatment Plants designed to remove contaminants from wastewater prior to discharge to the environment
 - Food waste can be more effectively managed through the Green Bin program
 - Potential to impact plant capacity and performance (service life reductions estimated at 1-14 years)
 - Adverse odour impacts may require costly mitigation
- Green Bin Program is most sustainable method of food waste management; it accepts all food waste and is convenient
 - Erodes waste diversion achievements
 - Handling food waste in multiple streams reduces program efficiencies
- Long Term Water Conservation Strategy approved by Province requires long term commitment to reduce per capita water consumption
 - Increases per capita water consumption



Extensive use of food waste grinders results in environmental impacts on successful water conservation, wastewater treatment, and Green Bin programs

Next Steps

- Continue to implement promotion and education program for best-in-class updated sewer use bylaw
- Continue implementing provincial-leading waste management program and work with industry experts to develop innovative methods for managing food waste in existing multi-residential buildings





DOWNSVIEW PLUMBING LIMITED

P727

4299 Queen Street East, Unit #1, Brampton, Ontario L6T 5V4 • Phone (905) 794-1167 Fax (905) 794-1378

September 4th, 2012

Regional Councillor Mr. Vito Spatafora
Chair - Environmental Services Committee
The Regional Municipality of York
C/O Office of the Regional Clerk
17250 Yonge Street, 4th Fl.
Newmarket, ON., L3Y 6Z1

Dear Councillor Spatafora:

Re: By-law 2011-56 – Prohibition of New Food Waste Grinders

I am one of several hundred licensed Plumbers that operate within the Region of York.

I and my colleagues are surprised and alarmed to learn that the York Council adopted a by-law that would ban the future installation of food waste grinders, or disposers, in homes within the Region – effective this November. We were neither advised of the recommendation for the ban, nor consulted for our expertise and advice, nor informed when the ban was adopted.

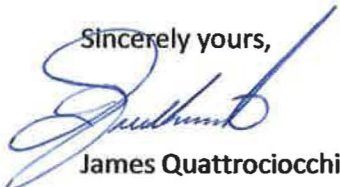
- Had we been consulted, we would have strongly advised the York Council to reject the proposed ban, based on our industry's knowledge of the issues of concern, as well as experience with the installation and use of disposers.

The Plumbing Heating and Cooling Council – the research and policy arm of the plumbing industry – published a compilation of research related to the use of disposers that carefully reviewed many of the issues of apparent concern to York staff, and was instrumental in achieving the rescinding of New York City's ban on disposers in combined sewer areas in 1997. Since then, we are aware of the continuing technical research and best practice experience from around the world that continues to support the use of disposers as an important environmental appliance.

In addition to other unintended consequences of the Council's ban, we are especially concerned about the potential loss of business to our firms.

We respectfully request that the York Council reconsider this poorly-conceived bylaw and reject it, returning to the status quo of no restrictions on the installation of household disposers.

Sincerely yours,



James Quattrociocchi

cc Mr. Bill Fisch, Chairman and Chief Executive Officer

Mr. Bruce MacGregor, Chief Administrative officer

Environmental Services Committee members

Regional Clerk

September 4th, 2012

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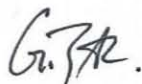
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Sincerely yours,

A handwritten signature in black ink, appearing to read "G. J. R.", is written below the "Sincerely yours," text.

cc Mr. Bill Fisch, Chairman and Chief Executive Officer
Mr. Bruce MacGregor, Chief Administrative officer
Environmental Services Committee members
Regional Clerk

N. De Luca Plumbing (1995) Inc.

32 Siltan Road ~ Suite 1 ~ Woodbridge, Ontario ~ L4L 8N3
Phone (905) 851-9159 ~ Fax (905) 851-9971

September 4th, 2012

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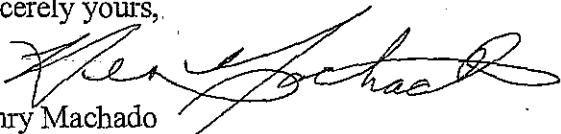
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Sincerely yours,


Henry Machado
Customer Service/Production Manager



CountryWide Homes
1500 Highway 7
Concord, ON | L4K 5Y4

Corporate Office
T. 905.907.1500 | F. 905.907.1501
TF. 1.866.907.5510
www.countrywidehomes.ca

September 4th, 2012

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Chair - Environmental Services Committee
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C/O Office of the Regional Clerk
17250 Yonge Street, 4th Fl.
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The most important example of our perspective is that the National Green Building Standard (NGBS) – developed by the National Association of Home Builders and the International Code Council, in accordance with ANSI standards – recognizes the importance of food waste disposers in both single- and multi-family homes by awarding a credit for their installation. That credit was vetted at two distinct points – when the NGBS was initially adopted, and this past year via its regular update process.

The U.S. Green Building Council also recognized the efficacy of disposers by awarding an Innovation/Design credit for a LEED Gold-rated project that included disposers as the central element in an aggressive waste management system.

In our view, neither of the above recognitions would have been achieved if the impacts asserted by York staff were supported by facts and evidence, or regarded as consequential. With more than 60 million disposers installed in North American homes, the "wisdom of crowds" also should be acknowledged as evidence of their considerable benefits.

WE BUILD TRUST™



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Therefore, we respectfully request that the York Council reconsider this bylaw and reject it, returning to the status quo of no restrictions on the installation of household disposers.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "Bill Fisch", is written over the typed name.

cc Mr. Bill Fisch, Chairman and Chief Executive Officer
Mr. Bruce MacGregor, Chief Administrative officer
Environmental Services Committee members
Regional Clerk

September 4th, 2012

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Sincerely yours,

Robert Onorati

Vice President of Purchasing: Low Rise & High Rise

Aspen Ridge Homes

29 Floral Parkway Concord, ON L4K 5C5

p 905.669.9292 x7736 f 905.326.4619

e ronorati@aspenridgehomes.com



www.aspenridgehomes.com

Cc Mr. Bill Fisch, Chairman and Chief Executive Officer
Mr. Bruce MacGregor, Chief Administrative officer
Environmental Services Committee members
Regional Clerk



September 4th, 2012

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Chair - Environmental Services Committee
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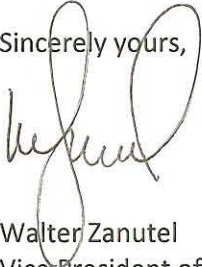
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Sincerely yours,

A handwritten signature in black ink, appearing to read 'Walter Zanutel', written over the words 'Sincerely yours,'.

Walter Zanutel
Vice President of Construction, Low Rise

cc Mr. Bill Fisch, Chairman and Chief Executive Officer
Mr. Bruce MacGregor, Chief Administrative officer
Environmental Services Committee members
Regional Clerk



September 5, 2012

Mr. Bruce MacGregor
Chief Administrative Officer
The Regional Municipality of York
17250 Yonge Street
Newmarket, Ontario
L3Y 6Z1

Dear Mr. MacGregor,

Re: Follow-up on the Sewer Use By-law Prohibition of In-Sink Food Waste Grinders

Spinnaker Recycling Corp. would like to take this opportunity to bring our unique perspective on waste diversion into focus with respect to the impending prohibition of in-sink food waste grinders. Spinnaker Recycling Corp. has established itself as a company that specializes in waste diversion strategies within the multi-residential sector, and as such, has become a resource to municipalities, companies and associations within this sector. Over the past four years Spinnaker Recycling Corp. has been involved in more than 300 audits of multi-residential properties within the Greater Toronto Area and the surrounding regions.

Based on our experience and the typical results that are seen within the multi-res sector by municipalities it can be said that waste diversion within multi-residential properties is challenging, whether in the rental or condominium environment. Food waste diversion, even with progressive two or three chute systems, or trisorters on single chute systems, is typically low, and is difficult to manage (odour concerns in chutes, increased need for cleaning). Collection of materials must be in bags to keep this to a minimum, and most residential or commercial programs deem plastics to be a contaminant within this stream, further complicating food waste collection within multi-res buildings. This forces the collection of food waste materials to another collection point, reducing the convenience of the program, which in turn reduces the effectiveness of the program.

In-sink food waste grinders provide the opportunity for a truly convenient solution for the residents of multi-res buildings and single family homes. Odours are controlled, vermin is controlled, and the preprocessing and diversion of that

*Spinnaker Recycling Corp.
3397 American Drive, Unit 21, Mississauga, ON L4V 1T8
"Consulting, Auditing, and Waste Minimization Services for all Sectors of Business"*

material into a system that is typically underutilized (the sanitary sewer system) is brought into play. No trucks are needed to collect the material. No staff needed to collect the material. Costs per tonne are reduced. Carbon footprints are reduced, and the opportunity for energy capture and the creation of fertilizers/soil amendments is presented by anaerobic digestion of the materials. Spinnaker Recycling Corp. currently engages Anaerobic Digestion in the processing of food waste materials collected at some of our commercial client sites.

The introduction of a prohibition of this nature does not seem to represent the same holistic view of waste management and diversion recently presented by York Region, given the direction that has been taken with its pursuit of Energy from Waste initiatives such as the Dongara Pellet Plant, and the Durham York Energy Centre.

To bring this holistic view back into focus for the multi-residential population and the associated businesses that operate within it, Spinnaker Recycling Corp. respectfully recommends that the prohibition of food waste grinders be rescinded, and the opposite course of action be proposed, making the installation of in-sink food waste grinders mandatory in new builds and the use of in-sink food waste grinders a standard operating procedure for residents of the region to assist in the capture of these materials, and further help to prevent their presence within your residual waste stream.

On the Durham York Energy Centre website it states that “the proposed thermal treatment facility is only being designed to handle Durham and York Region’s residual waste after our Blue Box, Green Bin and other diversion efforts. Maximizing diversion will remain our No. 1 priority...”. Food wastes should not be a part of that residual waste, and the number of points made available to residents in the multi-family and single family dwelling for diverting that material should be maximized, not reduced.

Spinnaker Recycling Corp. appreciates the opportunity to submit comments and we look forward to future opportunities for stakeholder engagement. Please feel free to contact the undersigned if you have any comments or concerns.

Sincerely,
Spinnaker Recycling Corp.

Gerald Grant, B.Sc.
President



September 06, 2012

Ms. Erin Mahoney, M. Eng
Commissioner, Environmental Services
The Regional Municipality of York
17250 Yonge Street
Newmarket ON L3Y 6Z1

Dear Commissioner Mahoney;

Re: Sewer Use By-law Prohibition of In-Sink Food Waste Grinders

The Greater Toronto Apartment Association's (GTAA) represents the interests of the most active and concerned firms participating in the multifamily rental housing industry in greater Toronto. Our members own and manage more than 140,000 suites of multi-residential housing in the GTA.

Our members are interested in all aspects of waste management including diversion policies and programs. We educate and provide training to our members to assist them in implementing effective programs for diversion, recycling and most recently organic waste (namely food scraps) separation.

As the representative for the apartment industry, the GTAA advocates for the freedom to implement any permitted technology/methodology to improve the operational efficiency of our buildings and the comfort of our residents.

After many years of ongoing research and discussions, we realize that there is not one single magic solution in regards to handling food waste. In the apartment sector, there is considerable variation in building shape, size, massing, and other physical attributes. What works best in one building may not be ideal in another building. For this reason, we support all proven options.

The collection and storage of separated food scraps is a challenge in most multi-residential buildings. The removal of any viable method from the list of options is detrimental to the management and operation of our buildings. Each building's uniqueness will determine which technology or methodology is the best fit.

We recently learned of the implementation date for the ban. We respectfully request that York Region's Environmental Services Committee rescind the adopted ban and have the appropriate region staff study the matter in greater depth. Our recommendation would be to conduct a pilot study to fairly test the efficacy of food waste disposers as a potential means of managing food scraps. We would also recommend a review of jurisdictions that permit the use of this technology.

In sink grinders are a proven viable method to dispose of food waste. There is a successful long-standing utilization of disposers in the United States and the growing international interest in cities as diverse as Stockholm and Shanghai.

Thank you for your consideration.

Regards,

A handwritten signature in blue ink, appearing to read "Daryl Chong".

Daryl Chong
President & CEO
Greater Toronto Apartment Association



CANADIAN INSTITUTE OF PLUMBING & HEATING
L'INSTITUT CANADIEN DE PLOMBERIE ET DE CHAUFFAGE
A National Voice with Regional Roots | Une histoire régionale, une voix nationale

September 7, 2012
C-Memo: 223.12

Ms. Erin Mahoney, M. Eng
Commissioner, Environmental Services
The Regional Municipality of York
17250 Yonge Street
Newmarket, Ontario
L3Y 6Z1

**SUBJECT: Follow-up on the Sewer Use By-law Prohibition
of In-Sink Food Waste Grinders**

Dear Ms. Mahoney,

I am writing to you on behalf of the over 260 members of the Canadian Institute of Plumbing & Heating (the Institute) who are the manufacturers, wholesaler distributors, master distributors, manufacturers' agents, and allied companies who manufacture and distribute plumbing, hydronic heating, industrial PVF, waterworks and other mechanical products.

The Institute understands that the Region of York has passed Sewer Use Bylaw No. 2011-56 prohibiting food waste disposers without any significant industry consultation. We respectfully request that the members of the Environmental Services Committee be provided with the most up-to-date information and scientific data concerning food waste grinders and their positive impact on the Region's wastewater treatment and solid waste management systems before the ban is implemented, with the full expectation that such information will lead to the ban's reversal.

The assertion that disposers may contribute to sewer clogs is particularly troublesome. By definition, everything that passes through a disposer is pulverized to American Society of Sanitary Engineers (ASSE) standards developed more than fifty years ago, leading to the massive popularity of disposers in the U.S., as well as western regions of Canada – without any evidence of the sort asserted. In fact, the slurry from a disposer flows easily through existing sewer systems – unlike food scraps pushed down drains or flushed down toilets in households that lack a grinder.

The Institute is also concerned that the language used to define a “food waste grinder” in Section 17 of the Bylaw may have implications for banning other home appliances which incorporate functions and technology that could be interpreted as discharging food waste effluent into the sewage works such as dishwashers. These generalized definitions can create interpretations that have the unintended consequence of inadvertently prohibiting approved plumbing products.



From the published ASSE standard “Performance Requirements for Plumbing Aspects of Residential Food Waste Disposer Units ASSE 1006-08”, there is considerable environmental benefit associated with the typical use of food waste disposers, including the elimination of food sources for vermin, and the minimization of odours. In multi-family high-rise buildings, our understanding is that the effectiveness of the current green-bin programs is low or non-existent in terms of effectively diverting food scraps. In such buildings, food waste becomes part of the solid waste program and is disposed of in conventional landfills and incinerators at a much greater cost to the municipality and the environment. In scenarios such as these, the use of food waste disposers would have a positive impact on local waste management costs as a compliment to the Green Bin Program.

Municipal product restrictions that conflict with provincial plumbing code only serve to confuse the marketplace for inspectors, builders/developers, contractors, retailers and consumers. These bans also pose a challenge to Canadian manufacturers and distributors who supply these products nationally or regionally while trying to respect local restrictions.

Our goal is to work cooperatively with all levels of government to ensure harmonization via the plumbing/building codes which draw upon accepted technical standards for performance. We ask you to respectively reconsider this decision and rescind the bylaw.

Thank you for the opportunity to provide feedback. We are here to help and we look forward to your reply to our recommendations.

Sincerely,

Canadian Institute of Plumbing & Heating

Ralph Suppa, CAE
President & General Manager

/cay

Encl: What is CIPH?



A NATIONAL VOICE WITH REGIONAL ROOTS
UNE HISTOIRE RÉGIONALE, UNE VOIX NATIONALE



CANADIAN INSTITUTE OF PLUMBING & HEATING
L'INSTITUT CANADIEN DE PLOMBERIE ET DE CHAUFFAGE



A NATIONAL VOICE WITH REGIONAL ROOTS

CIPH is a not-for-profit trade association founded in 1933. Our members include manufacturers, distributors and allied companies who directly employ more than 10,000 Canadians in the plumbing and hydronic (modern hot water heating), industrial pipe, valve & fittings and waterworks industries. Total industry sales exceed \$5 billion annually. In 2008 CIPH celebrated 75 years of helping consumers and industry.

We promote change, new clean technologies, education, responsible growth and exports. We help safeguard the public by working with our members and governments to enhance and develop new building codes and safety awareness. CIPH develops training, events and careers.

Our boards, committees, councils, international affiliations, strategic partners and nine very active regions across Canada ensure that CIPH is the national voice with regional roots for the plumbing and hydronic heating industries.

NATIONAL & REGIONAL TRAINING, EVENTS, STANDARDS & DATA

CIPH brings the industry together to share best practices and training, develop new standards and refine new technologies. We produce business conferences, major trade shows, learning forums, recognition programs and road shows. We conduct public education on safety and incentives, and publish key industry resource material.

CIPH is the industry authority on codes and standards, research, business trends and new practices. We co-ordinate student co-op placements with post-secondary institutes and employers, sponsor scholarships and help develop career training.



295 The West Mall, Suite 330, Toronto, Ontario M9C 4Z4
Tel. 1-888-ASK-CIPH (275-2474), (416) 695-0447, Fax. 416-695-0450, info@ciph.com, www.ciph.com

A National Voice with Regional Roots | Une histoire régionale, un voix nationale

ACTIVE REGIONS

The nine active regions of CIPH provide members with business networking, social and educational opportunities from coast-to-coast. Each region has its own executive team, communications, committees, councils, and leadership opportunities.

Events are designed to move information from the regions to the national office and vice-versa, ensuring that our singular voice is informed by our regional roots, and that our regions are fully informed about national and international developments.



CIPH MEMBERS

CIPH members include a high percentage of Canadian firms that manufacture, sell and distribute plumbing, hydronic heating, industrial pipe, valve & fittings, waterworks and mechanical products and services. Members are attracted to a very strong value proposition that includes business networking opportunities, very active regional chapter for local involvement, and a strong unified voice with government, industry and international relations.

CIPH provides structures that ensure opportunities for member organizations to impact industry directions, conduct trade show marketing, attend other critical industry events, and an annual business conference. The association also provides members with monthly confidential management information on industry performance, business and industry research. CIPH provides an electronic membership directory and produces numerous trade shows, training programs and other events.

CIPH members care. Since 1994 CIPH members have contributed more than \$5.1 million in cash and product to help Habitat for Humanity Canada build homes across the country for families in need of a hand up. CIPH has also sponsored Habitat Home Builds in Niagara Falls, Winnipeg, Charlottetown, Montreal and Moncton, with a sixth underway in Regina, and the seventh planned for St. John's in 2010.

Information initiatives include customer relations, industry & government newsletters, a comprehensive multi-purpose web site, and new system guidelines, training and promotion. CIPH is also a key partner for the adoption of environmentally friendly technologies.



THE CANADIAN INSTITUTE OF PLUMBING AND HEATING
L'INSTITUT CANADIEN DE PLOMBERIE ET DE CHAUFFAGE

To contact CIPH:
295 The West Mall, Suite 330
Toronto, Ontario M9C 4Z4

Tel: 416-695-0447 or 1888-ASK-CIPH (275-2474)
Fax: 416-695-0450

Web site: www.ciph.com
e-mail: info@ciph.com



CANADIAN INSTITUTE OF PLUMBING & HEATING
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September 7th, 2012

Regional Councilor Mr. Vito Spatafora
Chair - Environmental Services Committee

The Regional Municipality of York

C/O Office of the Regional Clerk
17250 Yonge Street, 4th Fl.
Newmarket, ON., L3Y 6Z1

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I and my colleagues are surprised and alarmed to learn that the York Council adopted a by-law that would ban the future installation of food waste grinders, or disposers, in homes within the Region – effective this November. We were neither advised of the recommendation for the ban, nor consulted for our expertise and advice, nor informed when the ban was adopted.

Had we been consulted, we would have strongly advised the York Council to reject the proposed ban, based on our industry's knowledge of the issues of concern, as well as experience with the installation and use of disposers.

The Plumbing Heating and Cooling Council – the research and policy arm of the plumbing industry – published a compilation of research related to the use of disposers that carefully reviewed many of the issues of apparent concern to York staff, and was instrumental in achieving the rescinding of New York City's ban on disposers in combined sewer areas in 1997. Since then, we are aware of the continuing technical research and best practice experience from around the world that continues to support the use of disposers as an important environmental appliance.

In addition to other unintended consequences of the Council's ban, we are especially concerned about the potential loss of business to our firms.

We respectfully request that the York Council reconsider this poorly-conceived bylaw and reject it, returning to the status quo of no restrictions on the installation of household disposers.

Sincerely yours,

Tony Muto

Marli Mechanical Ltd

cc Mr. Bill Fisch, Chairman and Chief Executive Officer

Mr. Bruce MacGregor, Chief Administrative officer

Environmental Services Committee members

Regional Clerk

Residential • Industrial • Commercial Plumbing Installation

91 Friuli Court Unit 18, Woodbridge, Ontario L4L 7H2 Telephone: (905) 856-0082 Facsimile: (905) 856-5862 Email: marli@on.aibn.com



Member of the
Metropolitan Plumbing and Heating
Contractors Association

Mr. Vito Spatafora
Chair Environmental Services Committee
The Regional Municipality of York
17250 Yonge Street Newmarket, Ontario L3Y 6Z1
vspatafora@richmondhill.ca

Re: Sewer Use By-law No. 2011-56, Prohibition of Food Waste Grinders

Dear Chairman Spatafora,

The Association of Home Appliance Manufacturers Canada (AHAM Canada) is the industry trade association representing the manufacturers of major, portable and floor care home appliances, and suppliers to the industry. AHAM membership includes over 150 companies throughout the world. The home appliance industry, through its products and innovation, is essential to consumer lifestyle, health, safety and convenience. Home appliances are a success story in terms of energy efficiency and environmental protection.

Inadequate Consultation with Manufacturers and Distributors

AHAM Canada would like to take this opportunity to provide our comments and perspective on the impending prohibition of food waste grinders that is to become effective on November 17, 2012. Our concern in representing appliance manufacturers is that municipalities resist adopting bans of internationally recognized products that help the environment without full and comprehensive assessment of their benefits and impacts. We are available now, and would have been previously if we were aware, to work with the Region of York to try to resolve any issues regarding food waste grinders. It would seem that the consultation that the Region of York held was incomplete and failed to include the industry experts most familiar with these products, and those directly impacted by the ban through lost sales. A full analysis of the facts, technical research and best practice experience from around the world shows the benefits of food waste grinders.

To be clear, the operation and discharge of food waste disposers produce fine particles that are liquefied into a slurry. It is an unfortunate myth that disposers discharge chopped or diced particles as effluent. In conformance with industry performance standards developed by the American Society of Sanitary Engineers (ASSE) that established the basis for municipal code, food particles are literally ground into very fine particles and then flushed into the wastewater stream with a minimal amount of added water. In comparison to the discharges from lavatories, the slurry from food waste disposers hardly represents a source of potential to clog the sewer system's components or to significantly and adversely impact the Region's wastewater treatment operations and facilities. AHAM member companies have devoted substantial engineering

expertise to understanding the full array of impacts and benefits associated with their use, collaborating with a wide range of stakeholders, academic experts and professional associations. We are concerned that much of this expertise, reports, and studies are just now being reviewed and assessed by the Region of York.

Unintended Consequences: Adverse Implications for Household Appliances such as Dishwashers

AHAM Canada is also particularly concerned with the actual language of Sewer By-law No. 2011-56. In the definition section of the by-law “*food waste grinder*” is defined as “*includes a device for the purposes of macerating or grinding garbage and/or food wastes.*” Section 17 of the by-law prohibits the discharge of effluent from any food waste grinding device, installed after November 17, 2012, into the sewage works. The ambiguous language used to define what a “food waste grinder” is and its effluent discharge has implications for other home appliances which incorporate functions and technology that could be interpreted as discharging food waste effluent into the sewage works.

As one example: modern dishwashers incorporate technology to blast/scour/rinse-off food particles with high-pressure spray jets and also incorporate grinders, or chopping blades, or food macerators to ensure that residual food scraps on dishes are appropriately reduced to ensure proper functioning of the dishwasher, including the discharging of the food particle containing wastewater into the sewer system. The manufacturers of dishwashers routinely market and advertise that there is no need to pre-rinse your dishes. Today’s dishwashers have been engineered with the ability to scour and rinse off any dried-on food residues with high pressure water jets. Pre-rinsing dishes fails to take advantage of the water conservation technologies engineered into today’s dishwashers. Modern dishwashers are energy efficient, conserving of water, quieter, and efficient at cleaning dishes. Purchasing a new dishwasher represents one of the most effective choices a consumer can make to reduce energy use, water consumption, and costs.

The ambiguous language used to define “food waste grinders” could have the effect of eliminating the beneficial technologies that today’s dishwashers have been engineered with to provide water and energy conservation. Clearly this would be a step in the wrong direction in terms of resource management and conservation.

Furthermore the November 17, 2012, date after which the ban becomes effective also has financial and service implications for food waste grinders that are still under warranty. The by-law makes no provision for the servicing or replacement of defective food waste grinders that were installed prior to November 17, 2012. Consumers have a right to expect that the manufacturers and distributors of home appliances are able to fulfill their warranty obligations. In the York Region this relationship will be adversely impacted.

Environmental Benefits

Waste diversion within multi-residential properties is a challenge for all property owners, and by extension to municipalities meeting their waste diversion goals. Food waste diversion even within a building that has facilities to accommodate multiple waste stream chutes or designated sorters is typically low. Food waste grinders provide the opportunity for a truly convenient and sanitary solution for residents of multi-residential buildings and single family homes. Odours are controlled, vermin is controlled, and the preprocessing and diversion of fine food particles is realized. No trucks are needed to collect the material, no staff needed to collect the material, and the carbon footprint of the truck borne collection and transport is eliminated.

Food waste that makes it way to landfills decomposes and produces methane, an environmentally harmful greenhouse gas that has at least 21 times the greenhouse warming potential as carbon dioxide. While home and municipal composting programs provide one approach to tackling the food waste management challenge, food waste grinders are an important tool in the arsenal to help municipalities reach their waste diversion goals. For that reason, the installation of food waste grinders contributes towards the achievement of the ICC/ANSI-approved residential green building rating in the National Green Building Standard (Chapter 8, Section 801.3).

It is also our understanding that the Duffin Creek Water Pollution Control Plant is currently undergoing expansion and improvement that could lead to the ability to produce and capture methane gas that can be used to heat and power the facility itself, which is a desirable goal of modern wastewater treatment facilities. Compost-quality fertilizer products could also be produced from the bio-solids that result from the treatment process.

Conclusion

AHAM Canada respectfully urges the Committee to rescind the prohibition of food waste grinders that is to become effective on November 17, 2012, and to conduct further study and consultation on this issue, which would include the expertise that can be brought forward by the manufacturers and distributors of food waste grinders and related appliances that may be unintentionally covered by the ban. The current ambiguous language used to define “food waste grinders” and Section 17 has unintended consequences for household appliances. We do not believe that a simple “language fix” is a sufficient outcome. We believe that the Region of York should seize the opportunity to conduct one or more case-studies that fairly assess the efficacy of disposers.

Thank you for your consideration.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "Bruce Rebel". The signature is fluid and cursive, with the first name "Bruce" being more legible than the last name "Rebel".

Bruce Rebel
Director Technical Services

CC:

Mr. Bill Fisch
Chairman and Chief Executive Officer
regional.chair@york.ca

Mr. Bruce MacGregor
Chief Administrative Officer
bruce.macgregor@york.ca

Mr. Denis Kelly,
Regional Clerk
regionalclerk@york.ca

Ms. Ghislaine Boulianne
Environmental Service Committee Coordinator
Ghislaine.Boulianne@york.ca

September 11, 2012

Members of the Environmental Services Committee
The Regional Municipality of York
17250 Yonge Street
Newmarket, Ontario
L3Y 6Z1

Dear Members of the Environmental Services Committee,

**Re: September 12, 2012 Environmental Services Committee Meeting
Agenda Item: 6. Prohibiting Food Waste Grinders to Support York Region's
Sustainability Plans and Strategies**

The Building Industry and Land Development Association (BILD) would like to take this opportunity to raise a matter with you regarding the forthcoming prohibition of in-sink food waste grinders, which is scheduled to come into full force and effect on November 17, 2012.

BILD acknowledges and appreciates that York Chapter members received consultation with York Region staff on the matter in advance of the adopted recommendation to prohibit the use of in-sink food waste grinders. In our September 29, 2011 consultation meeting which included a presentation of the (then) proposed prohibition, the group that met with staff consisted of our traditional grouping of chapter members including builders, developers, engineers, and planners. At that time, none of the members of the group raised any issues, as those in the room were not directly affected the same way as manufacturers or suppliers are.

While we at BILD value the notice and consultation, this was only one segment of the industry that required consultation. Notwithstanding, the prohibition was adopted and a notice letter from the region was sent to BILD. To date, this has been the extent of York Chapter's involvement with York Region on this matter.

Enactment of the proposal could have benefited from a broader consultation with stakeholders such as the Association of Home Appliance Manufacturers and the Canadian Water Quality Association, as well as directly with key manufactures/suppliers such as InSinkErator.

On August 22nd, BILD met with representatives of the Canadian Water Quality Association, and suppliers/manufactures representatives on this matter. As a result of this meeting we are now concerned that the decision to ban in-sink food waster grinders may result in an opportunity loss to the region for several positive advantages, as well as unintended negative consequence as a result of this prohibition.

The details from our August 22nd meeting are as follows:

Opportunity Loss: Environmental Benefits

We now understand the considerable environmental benefits associated with typical use of food waste disposers, including the elimination of food sources for vermin, and the minimization of odours – both of which are significant public health and sanitation concerns for our homeowners. It was explained to us that in multi-family high-rise buildings the effectiveness of the current green-bin programs is low or non-existent as a means of diverting food scraps from the solid waste program, which is the York Region's goal.

The expanded use of food waste disposers could also have a positive impact on local waste management costs. For example, we learned that the Duffin Creek Water Pollution Control Plant can use the food waste to produce energy eventually via biogas. This results in a cost savings to the Region and its residents – and that this is a growing trend within the modern wastewater sector.

Unintended consequences: Dishwasher and other device definitions, service and replacement liability, sewer by-law other implications

At our meeting we were also informed that the design of the legislation creates opportunities for interpretation that can affect deviations from the plumbing code, create fragmentation in the marketplace and create confusion for the consumer and the inspector alike. It also creates a burden for the local suppliers and manufacturers of plumbing products when it comes to product availability/offering, service issues and warranties. You may not be aware that most dishwashers also contain a food waste grinder that could be interpreted as subject to the intended prohibition.

Precedence Setting Case: City of London Rejected Staff-proposed Ban on the Use of New Garbage Grinders.

Finally, we would like to bring to your attention a precedence setting case that you may or may not be aware of; in June 2010 the City of London underwent a similar exercise of considering a ban on new garbage grinders. Subsequently, City of London representatives held consultation meetings with the above noted interest groups and the proposal was unanimously rejected by the Council's Committee. BILD can provide you with the supplementary council decision at your request.

Based on the issues identified above, we respectfully request that the prohibition of food waster grinders be rescinded.

BILD appreciates the opportunity to submit comments and we look forward to future opportunities for stakeholder engagement. Please feel free to contact the undersigned if you have any comments or concerns.



Sincerely,

Danielle Chin, MCIP, RPP
Municipal Government Advisor

CC: Erin Mahoney, M. Eng, Commissioner, Environmental Services
Paula Tenuta, Vice President, Policy & Government Relations, BILD

York Region Communication Strategy

Audience	Date of Communication	Communication details
Public Consultation	October 21, 2010	Public consultation explaining the updates to the Sewer Use Bylaw, including the banning of food waste grinders was held. Feedback on the session was obtained through a survey distributed to all attendees. No comments were received with respect to banning food waste grinders.
BILD (Building Industry and Land Development) Association	September 29, 2011	Presentation was made to the Building Industry and Land Development Association to inform them of the upcoming prohibition of food waste grinders, as well request their co-operation in discontinuing installing food waste grinders as standard equipment in new developments. No official response was received from the Building Industry and Land Development Association; however discussion indicated support for this policy change.
	December 2, 2011	Follow up letter was sent informing the Building Industry and Land Development Association of the updated Sewer Use Bylaw, including justification of the ban on new and replacement food waste grinders.
Residents and Retailers	September 12, 2011	An information session was held and a food waste grinder fact sheet was distributed to local industries. The fact sheet was posted on York Region's website to educate the development community, industries and residents.
	February 23, 2012	Letters with a copy of the food waste grinder fact sheet were distributed to retailers of food waste grinders explaining the justification for the ban. In-store shelf signs, explaining the ban of food waste grinders were developed for retailers on display upon request.

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