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Item No. 14.1.11 Halifax Regional Council April 25, 2017

SUBJECT:	Organics Management Consultation and Strategy
DATE:	March 2, 2017
SUBMITTED BY:	Original Signed by Jacques Dubé, Chief Administrative Officer
TO:	Mayor Savage and Members of Halifax Regional Council

<u>ORIGIN</u>

February 23, 2016, Halifax Regional Council directed staff to initiate the process to identify a service provider for organics management and processing as per the scope of work and requirements included as Attachment A to the report dated January 6, 2016, and that Halifax Regional Council further direct staff to:

- 1. Consult with stakeholders to receive input in the development of the Request for Qualification and the Request for Proposal;
- 2. Return to Council with a recommended RFQ for input and approval prior to its issuance along with consultation feedback;
- 3. Return to Council with an update on the RFQ and a recommended RFP for input and approval prior to its issuance; and
- 4. Return to Halifax Regional Council to award the organics management and processing contract.

September 8, 2016 – Environment and Sustainability Standing Committee (ESSC) requested an update on the progress of stakeholder engagement.

October 6, 2016 – Report and presentation to ESSC on the Organics Management and Processing Stakeholder Engagement process.

LEGISLATIVE AUTHORITY

Clause 79(1)(an) of the *Halifax Regional Municipality Charter* provides that "Council may expend money required by the Municipality for ... solid-waste management facilities".

Subsection 335(1) of the *Halifax Regional Municipality Charter* provides that "The Municipality may provide compensation to an area, to the property owners in an area or to the residents of an area in which a solid-waste management facility is located in amounts, and under the conditions, determined by the Council."

Halifax Regional Municipality Charter, Part VIII - Planning and Development, and Part IX - Subdivision.

RECOMMENDATION

It is recommended that Halifax Regional Council;

- 1. Approve the Organics Management Strategy as outlined on page 7 of this report;
- 2. Approve the Request for Qualifications Key Terms as outlined in Attachment A;
- 3. Direct staff to issue a Request for Qualifications and return to Council with the recommended Request for Proposals Key Terms for input and approval prior to its issuance;
- Direct staff to make application for subdivision approval to expand the Northern and Eastern lot boundaries of 61 Evergreen Place by 200 meters North and 100 meters East as conceptualized in Attachment D to this report;
- Initiate a process to consider amendments to the Regional Municipal Planning Strategy, Halifax Municipal Planning Strategy and Halifax Land Use By-law to enable the expansion of HRM's Goodwood composting facility located at 61 Evergreen Place;
- 6. Follow the public participation program for municipal planning strategy amendments as approved by Regional Council on February 27, 1997; and
- 7. Approve in principle a community integration fund be established in the amount of \$1 million for the expansion of 61 Evergreen Place with \$350,000 in funding allocated toward the development of the Western Common Wilderness Common, \$325,000 in funding allocated toward infrastructure at the Prospect Road Community Center and \$325,000 in funding allocated to projects identified through a community consultation.

BACKGROUND

Halifax Regional Council has endorsed the below goals/objectives to help guide the procurement process for the organics management program. These goals/objectives will allow the market to provide Halifax with an organics management and processing solution that:

- A. Minimizes capital and operating costs, including reducing current processing costs,
- B. Minimizes impact to the community (odors, noise etc.),
- C. Meets the 2010 NSE Guidelines for compost post 2019,
- D. Increases organics processing capacity from 50,000 tonnes to 60,000 tonnes per year, with the option to increase to 75,000 tonnes per year in the future.

In order to assist and guide staff in the development of a Request for Qualifications (RFQ) and Request for Proposals (RFP), Council directed Solid Waste to consult with stakeholder groups and the general public. From September 2016 to December 2016, staff conducted stakeholder and community engagements. The October 6, 2016, Environment and Sustainability Standing Committee information report outlines the engagement process, goals, objectives and overall plan; the report and presentation has been included as an attachment to this report.

The intent of the consultation process was for stakeholder groups and citizens to provide staff with insight on their values and aspirations for the future of the organics management program. The consultation process provided the opportunity for stakeholder groups and community members to clearly express their positions for the future direction of the organics management program.

During the consultative process for Organics Management, the Municipality asked stakeholder groups to:

- Complete the one hardcopy survey and return to Halifax Solid Waste with the position of the stakeholder group;
- Provide formal correspondence which outlines any and all positions of the stakeholder group;

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• Promote the completion of the online survey, submission of questions and positions of individual members as well as the community at large.

In addition to the stakeholder groups, the municipality asked residents to:

- Review the materials on the Shape Your City Community Engagement Hub website;
- Complete the online survey;
- Provide comments, questions and feedback to Solid Waste staff through <u>compostmatters@halifax.ca</u>

This information from the consultation process has been consolidated, reviewed and is presented within this report along with RFQ Key Terms for Council's consideration. The RFQ will be used as a method to prequalify potential vendors who may bid on the RFP. Council's direction was for staff to return to with an RFQ for approval. In order to efficiently align resources, staff is seeking direction on the RFQ Key Terms prior to the development of an RFQ. Once the RFQ Key Terms are approved, staff can develop the full RFQ based on Council's strategic direction. Staff believe the Key Terms provide the appropriate strategic direction of Council and returning to Council with the actual RFQ is not required. After vendors have been prequalified through the RFQ process, staff will consult with Council on the RFP Key Terms and subject to Council direction an RFP will then be issued by invitation only to the prequalified vendors.

DISCUSSION

Resident Feedback

There were 4 public engagement sessions held for residents. There were 72 people present for the public sessions. The majority of feedback from residents was collected through the Shape Your City portal. A total of 1099 surveys were completed and 444 comments were provided by the public. All comments have been reviewed, summarized and consolidated into themes. A detailed list of all comments has been included as an attachment to this report.

The five most prevalent themes within the Shape Your City comments are below with an indication of how they have been addressed or how they will be addressed by staff.

- 1. Extended green cart collection Solid Waste has included additional weekly green cart collection in September for all households in the 2017/18 budget.
- 2. Addition of compostable/biodegradable plastic bags and plastics This item was included as a survey question and is addressed further in this report.
- Backyard composters HRM currently provides a subsidized backyard compost bin for residents. The next event where residents can purchase backyard composters will take place in the spring of 2017.
- 4. Ability to receive final product This item was included as a survey question and is addressed further in this report.
- 5. Inclusion of grass in green cart This item was included as a survey question and is addressed further in this report.

The survey results have been consolidated into 3 categories: Disagree, Undecided, Agree. The citizen survey results as provided for within the attachments to this report have been summarized below. It is clear that certain aspects of the organics management program are strongly supported. The majority of residents' agree to and support (Residents Agree or RA) with a level of 50 percent or more in the Agree category for:

- RA1. Processing organic material into compost (88.2%) and it matters where and how the end product (e.g. compost, fertilizer) is used (61.1%).
- RA2. Companies being considered to provide services must have a proven track record in providing organics management and composting solutions (81.9%).
- RA3. Capture of biogas (which is generated during the anaerobic composting process) should be explored as a renewable energy source (79.4%) and Alternate end products of green bin material should also be considered. For example: fish and animal feed or fuel (66.0%).
- RA4. Facilities should be away from residential areas (75.6%).
- RA5. Investment in odour control, over and above the minimum requirements, is important (64.7%).
- RA6. The process should create a product that is available for residents to use (59.2%).
- RA7. Facilities should be close to the centre of organics generation in order to reduce transportation and greenhouse gas generation (57.1%).
- RA8. New facilities should be built at existing sites. (Burnside and Ragged Lake Business Parks) (54.3%).

The majority of residents do not support and disagree (Residents Disagree or RD) with a level of 50% or more in the Disagree category for:

RD1. As long as the material in the bin is collected, I don't care what happens to it (65%).

As for additional materials being accepted in the program, residents provided their input:

- 1. I want to be able to put grass in my green bin (54.3% Agree).
- 2. I want to be able to put compostable plastic in my green bin (49% Agree).
- 3. I want to be able to include pet waste in my green bin (43% Agree).

Stakeholder Feedback

In addition to the public sessions and the Shape Your City portal, stakeholder groups were invited to be consulted. A complete list of stakeholders and all correspondence received has been included as an attachment to this report. The 5 most prevalent themes within the stakeholder correspondence are:

- 1. Investigate bio-gas capture as a renewable resource.
- 2. Reduce costs.
- 3. The technologies used must be proven with a successful track record.
- 4. Reasons for and against import/export of organic material.
- 5. Inclusion of plastic bags.

The survey results have been consolidated into 3 categories: Disagree, Undecided, Agree. The stakeholder survey results as provided for within attachments to this report have been summarized below. It is clear that certain aspects of the organics management program are strongly supported. The majority of stakeholder groups agree to and support (Stakeholders Agree or SA) with a level of 50 percent or more in the Agree category for:

- SA1. Capture of biogas (which is generated during the anaerobic composting process) should be explored as a renewable energy source (80%) and Alternate end products of green bin material should also be considered. For example: fish and animal feed or fuel (90.0%).
- SA2. Processing organic material into compost (80%) and it matters where and how the end product (e.g. compost, fertilizer) is used (80%).
- SA3. The Halifax region should accept materials from other municipalities (70%).
- SA4. The Halifax region should only consider commercially proven organics processing technologies and methods (60%).
- SA5. Investment in odour control, over and above the minimum requirements, is important (60%).
- SA6. If it is more cost effective, the municipality should ship organics to other municipalities for processing (60%).
- SA7. Facilities should be away from residential areas (50%).
- SA8. New facilities should be built at existing sites. (Burnside and Ragged Lake Business Parks) (50%).

The majority of stakeholders do not support or disagree (Stakeholders Disagree or SD) with a level of 50 percent or more in the Disagree category:

- SD1. As long as the material in the bin is collected, I don't care what happens to it (80%).
- SD2. The chosen option should be the lowest-cost solution that meets all regulatory requirements (60%).
- SD3. Facilities should be close to the centre of organics generation in order to reduce transportation and greenhouse gas generation (50%).
- SD4. The Halifax region should manage its own organic material not ship to facilities outside of the municipality even if it is more cost effective to export (50%).

As for additional materials being accepted in the program, stakeholder groups provided their input:

- 1. I want to be able to put grass in my green bin (40% Agree).
- 2. I want to be able to put compostable plastic in my green bin (40% Agree).
- 3. I want to be able to include pet waste in my green bin (50% Agree).

Consultation Comparison and Consensus

Stakeholder and citizen results have been compared to one another. There are a number of similarities and areas of consensus (C). The items both groups agree to and support are:

- C1. Processing organic material into compost and it matters where and how the end product (e.g. compost, fertilizer) is used.
- C2. Capture of biogas (which is generated during the anaerobic composting process) should be explored as a renewable energy source and Alternate end products of green bin material should also be considered. For example: fish and animal feed or fuel.
- C3. Facilities should be away from residential areas.
- C4. Investment in odour control, over and above the minimum requirements, is important.
- C5. New facilities should be built at existing sites.
- C6. Disagree with the statement that as long as the material in the bin is collected, I don't care what happens to it.
- C7. Do not support the addition of compostable plastics.

For both residents and stakeholders there are positions where one group supports an item and the other group did not support it over the 50 percent majority threshold. These items require further consideration (FC) in terms of their impact on the current system and future operations model for the facilities. For all of these items, there was only one statement where residents and stakeholders were in disagreement (item FC2). Therefore it appears that both the stakeholders and residents aspirations with the future of the organics management system are fairly consistent.

- FC1. Residents support that the process should create a product that is available for residents to use while stakeholders are split with 40 percent in agreement and 40 percent in disagreement.
- FC2. Residents support that facilities should be close to the centre of organics generation in order to reduce transportation and greenhouse gas generation whereas stakeholders disagree to this (50%).
- FC3. Stakeholders support the concept that if it is more cost effective, the municipality should ship organics to other municipalities for processing whereas residents are 39 percent in agreement and 37 percent in disagreement.
- FC4. Stakeholders support that the Halifax region should accept materials from other municipalities whereas residents are 35 percent in agreement and 28 percent in disagreement.
- FC5. Stakeholders disagree with the concept of the chosen option should be the lowest-cost solution that meets all regulatory requirements. Residents were 45 percent in disagreement and 27 percent in agreement on this statement. Therefore it appears that both groups lean toward the concept that the solution should not necessarily be the lowest cost method that meets all regulatory requirements.
- FC6. Residents support the addition of grass while stakeholders are split with 40 percent in agreement and 40 percent in disagreement.
- FC7. Stakeholders support the addition of pet waste while residents are 43 percent in agreement and 35 percent in disagreement.
- FC8. Stakeholders disagree that the Halifax region should manage its own organic material as the only option not ship to facilities outside of the municipality even if it is more cost effective to export (50%). Residents were 33 percent in disagreement and 43 percent in agreement on this statement.
- FC9. Residents support that companies being considered to provide services must have a proven track record in providing organics management and composting solutions. Stakeholders 40 percent agree and 20 percent disagree.
- FC10. Stakeholders support that the Halifax region should only consider commercially proven organics processing technologies and methods. Residents 47 percent agree and 26 percent disagree.

Organics Management Strategy

Within the below Organics Management Strategy recommendations, staff has incorporated <u>all</u> seven of the criteria that received consensus (C) from both the residents and stakeholder groups during the three month consultation process. There are a number of criteria items that received support from one group but did not receive majority support from the other (identified as future consideration items). Seven of the ten future consideration (FC) items have also been incorporated into the staff recommendations. The three items that have not been included are: the addition of pet waste, addition of grass, and making it a requirement to provide compost to residents. The reasons for exclusion are outlined in the Detailed Review of Staff's Recommendation section of this report. In conjunction with the recommendations derived from the consultations, staff has provided supplementary recommendations in order to operationalize the consensus positions.

Summary of Recommendations Derived From Consultative Feedback

- 1. Only commercially proven organics management and composting technologies will be considered.
- 2. Only companies with a proven track record in operating commercial waste management solutions will be considered.
- 3. Compost and/or fertilizer and/or soil amendment will be the end product. Captured biogas can be a by-product.
- 4. Facilities in HRM will only be developed at existing sites and existing infrastructure can be utilized.
- 5. The chosen option will not (necessarily) be the lowest-cost solution that meets all regulatory requirements.
- 6. Grass will not be reintroduced.
- 7. The acceptance of compostable/biodegradable bags will not be considered.
- 8. The acceptance of pet waste will not be considered.
- 9. Facilities built in HRM will be designed for only HRM material. This however does not prohibit future regional partnerships.

Supplementary Staff Proposals

In order to implement Recommendation 4. (Facilities in HRM will only be developed at existing sites and existing infrastructure can be utilized), staff is proposing the below actions be taken:

- The Northern and Eastern boundaries of 61 Evergreen Place be permitted to be altered 200 meters North and 100 meters East as outlined in the attached map.
- If it is determined that after the new infrastructure is constructed and operational the site boundaries can be condensed, staff can return to Council to reduce the boundaries.
- A community integration fund be established in the amount of \$1 million for the expansion of 61 Evergreen Place with \$350,000 in funding allocated toward the development of the Western Common Wilderness Common, \$325,000 in funding allocated toward infrastructure at the Prospect Road Community Center and \$325,000 in funding allocated to projects identified through a community consultation process.

Detailed Review of Recommendations Derived from Consultative Feedback

1. Only commercially proven organics management and composting technologies will be considered.

Further consideration – FC10. Stakeholders support that the Halifax region should only consider commercially proven organics processing technologies and methods. For Residents, 47 percent agree and 26 percent disagree. – **Incorporated into recommendation**.

Only commercially proven organics management and composting technologies capable of processing source separated organics (SSO) and industrial, commercial and institutional (IC andI) organics will be considered. There is a substantial risk in being one of the first adopters of any new technology or process. Through the investigation of commercially proven technologies that are currently operating in other jurisdictions, staff can determine if a proponent's plan and infrastructure meets the design, process as well as operational standards to address HRM's needs. This recommendation does not remove the opportunity for proponents to be innovative. It does however require that the innovation be proven to be successful on a commercial scale.

The vendor's technology solution must currently be in use at a minimum of 3 locations and manage a minimum of 15,000 tonnes per year per location. The vendor's technology solution must be in successful operation for a minimum of 5 years at these 3 locations.

2. Only companies with a proven track record in operating commercial waste management solutions will be considered.

Further consideration – FC9. Residents support companies being considered to provide services must have a proven track record in providing organics management and composting solutions. Stakeholders 40 percent agree and 20 percent disagree. – **Incorporated into recommendation**.

An operator is required to have a background in the field of solid waste management. This experience however is not wholly restricted or limited to the field of organics management operations. The successful operation of a facility is achieved through well trained, knowledgeable staff. The requirement for a company to currently have specialized organics management operations experience is not required. A company may hire the appropriate expertise to work at the facility. The experience and expertise of proponent's staff will also be appropriately reviewed at the RFQ stage and assessed/scored during the RFP process.

For recommendations 1 and 2 the business model does not restrict the infrastructure and operations of the facility to be supplied by one company. In some cases one company may independently be able to design, build and operate the facility however there are models where companies create a partnership to deliver a project. For partnerships, one company may end up supplying the technology, another company the infrastructure, and another the operating services. Both independent and partnership models are acceptable.

Although there is the option for businesses to develop strategic partnerships, HRM's intent is to deal with only one single vendor and have only one contract for the entirety of this project (design, build, operate, finance). HRM will not be facilitating partnerships and will leave this to the market to develop. Therefore any partnerships developed between companies to deliver this project must create a new entity which is guaranteed and secured by the parent companies and as well as the required levels of bonding, assurance and insurance. By having only one contract with a single vendor it is intended to mitigate the risk of one company receiving a contract to design/build the facility with another company subsequently contracted to operate the site. This is expected to reduce risk for the municipality if there are design, infrastructure, technology or operational issues with the facility(s).

Operators must have a minimum of 5 years' successful experience in managing day to day solid waste processing systems.

<u>3. Compost and/or fertilizer and/or soil amendment will be the end product. Captured biogas can be a by-product.</u>

Consultation consensus – C1. Processing organic material into compost and it matters where and how the end product (e.g. compost, fertilizer) is used. – **Incorporated into recommendation.**

Consultation consensus – C2. Capture of biogas (which is generated during the anaerobic composting process) should be explored as a renewable energy source and Alternate end products of green bin material should also be considered. For example: fish and animal feed or fuel. – **Incorporated into recommendation**.

Consultation consensus – C6. Disagree with the statement that as long as the material in the bin is collected, I don't care what happens to it. – **Incorporated into recommendation**.

Further considerations – FC1. Residents support that the process should create a product that is available for residents to use while stakeholders are split with 40 percent in agreement and 40 percent in disagreement 40 percent. – **Not incorporated into recommendation.**

The destruction of organic material through energy from waste and developing animal feed pelletisation will not be explored. The development and capture of biogas during the anaerobic process is acceptable. Through anaerobic digestion organic material is not destroyed. As a result there continues to be the opportunity to return the nutrients portion from the organic material (after biogas generation) back to the soil as compost and/or fertilizer and/or soil amendment while still developing renewable natural gas (biogas) or generating power. With regards to pelletisation, there are significant challenges and risks in developing animal feed out of source separated organic waste from households and businesses. Residents and stakeholders have confirmed that processing material into compost and creating a beneficial use is important to them and therefore pelletisation will not be explored.

Staff will not include in a RFQ/RFP that an end product should be available for residents (as a requirement). Staff will however, work with the selected vendor to determine the feasibility of making compost available for residential purchase. Additionally electricity or renewable natural gas could be created through the anaerobic process which would be used directly or indirectly by residents. Making it a requirement to supply an end product to residents may limit the proponent's processing and operational strategy. For example, the compost may be tailored to a specific commercial agricultural use, or, as part of the business model the operator may create partnerships with other entities that agree to purchase all compost at a set fee, thereby providing financial and end market security for the product.

4. Facilities in HRM will be developed at existing sites and existing infrastructure can be utilized.

Consultation consensus – C3. Facilities should be away from residential areas. – **Incorporated into** *recommendation*.

Consultation consensus – C5. New facilities should be built at existing sites. – **Incorporated into** *recommendation*.

Further consideration – FC2. Residents support that facilities should be close to the centre of organics generation in order to reduce transportation and greenhouse gas generation whereas stakeholders disagree to this (50%). – **Incorporated into recommendation**.

Further consideration – FC3. Stakeholders support the concept that if it is more cost effective, the municipality should ship organics to other municipalities for processing whereas residents are split with 38 percent in agreement and 38 percent in disagreement. – **Incorporated into recommendation**.

Further consideration – FC8. Stakeholders disagree that the Halifax region should manage its own organic material as the only option - not ship to facilities outside of the municipality even if it is more cost effective to export (50%). Residents were 33 percent in disagreement and 43 percent in agreement on this statement. – **Incorporated into recommendation**.

On February 23, 2016 Council approved staff's recommendations to allow the new organics management service provider to use the existing approved compost processing sites in the business park areas, located at 61 Evergreen Place, Goodwood or 80 Gloria McCluskey Avenue, Dartmouth. Although aging, some of the existing infrastructure could possibly be used or upgraded in order to manage HRM's organics. Council did not restrict development to only these two sites; however, finding a suitable location of sufficient size and the requirements to obtain permits as well as the associated siting costs may prove to be a barrier for a new site. In addition, there are also project delivery timelines that need to be considered. If new sites are proposed the associated cost of land acquisition and development will inevitably be incorporated into a cost for HRM.

The organics processing facility located at 61 Evergreen Place was constructed on property originally zoned I-3 which permits composting facilities. As part of the 2006 Regional Plan, the property designation and zone were changed to UR (Urban Reserve). The property also falls within the Western Common Designation. To enable the use (currently non-conforming) and proposed expansion, Regional Plan, Secondary Plan and Land Use By-law Amendments are required. The 80 Gloria McCluskey site is zoned I-3 and no changes are required.

In order to provide siting options for vendors, Solid Waste and Real Estate reviewed all business parks within the center of waste generation (approx. 10km radius of the MacDonald Bridge). Solid Waste and Real Estate staff were unsuccessful in identifying any HRM owned parcels of land within the business parks which met the 2010 Nova Scotia Compost Guidelines, conceptual size and operational requirements noted below. The next phase of Burnside, Phase 12, does not have suitable land to house the compost facility as the remaining lots are smaller with steep terraced slopes between them. The search was broadened to include all HRM owned land within 20km radius of the MacDonald Bridge and no suitable properties were found. With regards to HRM's two current compost sites, the municipality owns all land abutting 61 Evergreen Place but not 80 Gloria McCluskey Ave. Some land may be able to be purchased from other land owners at 80 Gloria McCluskey, however, due to facility setback restrictions, land acquisition is not seen likely to provide an area suitable for development.

2010 Nova Scotia Compost Guidelines and HRM Size and Operational Requirements

- 500 metres from the nearest residential or institutional building.
- 250 metres from the nearest commercial or industrial building.
- 100 metres from the nearest property boundary.
- If equipment can be proven/demonstrated to not give off odours, it can be 30 metres from the nearest property boundary.
- 30 metres from the nearest body of water or water course.
- Under certain circumstances, the Department can increase or decrease these separation distances.
- Located within a 10 km radius of the MacDonald Bridge, expanded to 20 km radius to identify additional sites.
- Minimum 20 acres.
- On an arterial road.

Without current or planned inventory of suitable HRM owned land being available in business parks for organics management, and based on the consultation and engagement feedback, it is proposed that only the existing HRM composting locations be used. By defining the approved HRM sites it provides certainty for residents as they know where the facility will be in HRM. In order to provide flexibility for vendors, it is proposed that the Northern and Eastern boundaries of 61 Evergreen Place be permitted to be altered to accommodate potential organics management solutions as illustrated in the attachment to this report.

staff has discussed the possibility of reducing the 100 meter buffer requirement for the Northern and Eastern boundary of the site with NSE as an attempt to minimize potential lot expansion and maximize the useable area within the existing boundaries. In order for NSE to provide guidance and approval for a

variance, which is allowed under the Compost Guidelines, they require additional information. HRM will continue to work with NSE throughout the procurement process.

Solid Waste staff has met with Parks and Recreation with regards to the potential of lot boundary changes. The boundary alteration as outlined within the attached lot configuration will not negatively impact the overall delivery of the Western Common Wilderness Common Master Plan. Staff's intent is to ensure the planned hiking path located North West of 61 Evergreen Place are maintained. Although there is a possibility with the boundary changes that a portion of the planned hiking path may reside within the new property footprint, staff will require a 50 meter buffer between the proposed path and the facility. As part of the boundary alterations at 61 Evergreen Place, staff propose a community integration fund be established in the amount of \$1 million.

The above recommendation does not restrict the processing site to stay within the boundary of HRM. A processing site outside of HRM can be addressed by the bidders within the RFQ/RFP. It is anticipated that if a site outside of HRM is used, a transfer station will be required to consolidate material. This consolidation will reduce greenhouse gas emissions verses direct hauling. If the transfer station model is used the operation and hauling will be done by the vendor and all costs included within the RFP. With processing or consolidation being located at existing sites it will keep the facilities within 10 km of the centre of generation which again assists in reducing greenhouse gas emissions and collection costs. A company's potential greenhouse gas generation and carbon footprint will be evaluated as part of the RFP process.

With regards to consolidating operations into one site, it is unknown to what extent one site will provide for economies of scale. Although two sites may minimize processing risk, if one of the two facilities is not operational due to a variety of reasons, the vendor may not be able to manage all material with just the other site. In either circumstance, the vendor should be responsible to have emergency processing plans and/or agreements with other operations to accept the material. The RFP will provide for risk ratings to address this and other potential areas of concern. Overall the risk/reward and financial implications can only be assessed through vendor submissions in the RFP. It is intended that the majority of processing risk will be removed from HRM and be the responsibility of the selected vendor.

5. The chosen option will not (necessarily) be the lowest-cost solution that meets all regulatory requirements.

Consultation consensus – C4. Investment in odour control, over and above the minimum requirements, is important. – **Incorporated into recommendation**.

Further consideration – FC5. Stakeholders disagree with the concept of the chosen option should be the lowest-cost solution that meets all regulatory requirements. Residents were 45 percent in disagreement and 27 percent in agreement on this statement. Therefore it appears that both groups lean toward the concept that the solution should not be the lowest cost that meets all regulatory requirements (necessarily). – **Incorporated into recommendation**.

Residents have indicated that they desire to have additional investment in odour control and management above the minimum requirements. Staff will address an increased requirement through detailed specifications within the RFQ/RFP for existing sites. If processing is done outside of HRM such as on farms, at existing compost/solid waste management sites or in more rural areas (with larger natural site buffers), the requirements within the 2010 NSE Compost Guidelines at a minimum must be met.

Overall the RFP process will focus on environmental stewardship, value for money and risk mitigation. Although a vendor may offer the lowest-cost solution that meets all regulatory requirements there are other considerations that must be taken into account. For example, the vendors operating history, the financial stability of the company, scalability, adaptability to regulation changes, greenhouse gas emissions/carbon footprint, and other criteria related to risk management and environmental sustainability. Many of these items have been addressed through this report's recommendations. Nova Scotia Environment confirmed on October 27, 2016 "no deadline has been set for complying with the guidelines, and there are no proposals being brought forward at this time to establish one". This is specific for the existing HRM operations (with respect to the 2010 Nova Scotia Compost Guidelines). Although existing sites do not have a firm date to become compliant, it is anticipated a date will be set within the new/upgraded facilities planning horizon (20 plus years). Therefore within the scope of work for the RFQ/RFP investments must be made to any existing facility in order to achieve compliance. This will also provide equitable treatment to all proponents in that all composting proposals must meet these revised guidelines. HRM Council approved the scope of work and requirements (February 23, 2016) which included HRM becoming compliant with NSE Guidelines post 2019. As a result of NSE's compliance confirmation, becoming compliant in 2019 should be more aspirational in nature and not a requirement for operations; however, staff is determined to have a plan to meet the new guidelines no later than 2019. Although there is no firm date of compliance, staff is working towards achieving this goal as soon as reasonably possible. The date is dependent upon submissions to the RFQ/RFP.

Through consultations with Nova Scotia Environment, it is staffs' understanding that the Province currently does not have plans to introduce additional requirements for composting in Nova Scotia. During the RFQ/RFP process vendors may be able to demonstrate their process /technology exceeds the minimum requirements. In order to provide a clear expectation for all vendors, their technical and operational submissions other than for noise and odour management will be evaluated on their ability to meet the current 2010 NS Composting Guidelines.

With the continuous transformation in waste management it is prudent that staff is able to evaluate proponents not just on meeting the existing standards, but also how their system can adapt to potential change. As part of a contingency/future state plan and in order to mitigate risks of evolving standards, vendors will be required to provide approaches to address potential compost guideline, by-law and legislative changes. Some examples where a plan will be required and evaluated as part of the procurement process are how the proposed operation would be modified to: meet maturity requirements as established in Ontario, accept pet waste and accept compostable/biodegradable plastics.

6. Grass will not be reintroduced.

Further consideration – FC6. Residents support the addition of grass while stakeholders are split with 40 percent in agreement and 40 percent in disagreement. – **Not incorporated into recommendation**.

The reintroduction of grass into the compost program is supported by residents (54.3%). The purpose of removing the grass in 2014 was due to capacity issues at the facilities, leachate generation, the nitrogen content of the grass, the fact that grass can be managed on lawns through grass-cycling and mulch mowing, as well as the reduction in processing cost. Grass-cycling allows the nutrients to be reintroduced into the soil and eliminates the need to pay for the processing of the materials. The acceptance of grass can be accommodated for in an updated processing system however, four of the reasons for removing grass in 2014 (leachate, nitrogen content, grass-cycling and minimizing processing costs) are still valid. If grass was to be reintroduced, it would not have to wait until the new system is developed; it could be done this year within our existing facilities. Since the removal of grass, processing agreements have changed and HRM now has more flexibility at the processing facilities (but the tonnage does have a cost). If grass is reintroduced it is not seen as a high risk to the system, a By-Law amendment would be required to implement. Staff believe that grass should not be reintroduced into the system.

7. The acceptance of compostable/biodegradable bags will not be considered.

Consultation consensus – C7. Do not support the addition of compostable plastics. – **Incorporated into recommendation**.

The addition of compostable/biodegradable plastic was not supported by residents or stakeholders. Residents did agree 49 percent in favor of its inclusion and although the majority support level is 50

percent, it is prudent to not exclude including compostable/biodegradable plastic based exclusively on the 49 percent. One of the main challenges with accepting compostable/biodegradable plastic is that noncompostable/non-biodegradable plastic will also make its way into the green cart and the facilities. During processing, it is not possible to tell the difference between compostable/biodegradable plastic and other plastic. Therefore, all plastics would have to be screened out to reduce contamination of the final product. Screening would take place either at the front end or the back end of the organics processing facility. All plastics are then disposed of at a landfill. This includes the compostable/biodegradable bags and other compostable plastic products.

The BNQ sets performance attributes in the documents titled Compostable Plastic Bags - Certification Program (BNQ 9011-911/2007) and Compostable Products – Certification Program (CAN/BNQ 0017-988). Products that conform to these documents will carry a certification symbol. For a plastic bag or product to claim that it is compostable, it must disintegrate by at least 90 percent within 84 days of the composting process, biodegrade by at least 90 percent within 180 days of the composting process, and have no ecotoxicological effect greater than 10 percent on the germination rate of seeds and vegetation biomass rate¹. Despite this standard, operating experience in Canada suggests that compostable/ biodegradable plastics typically do not break down in municipal composting operations. These materials would require multiple passes through the system to degrade. This will affect the processing of material and the quality of the end compost product.

If compostable/biodegradable plastic bags (or other items) are introduced, it is unknown what the increase in plastic contamination will be. Therefore, there may be over/under investment in infrastructure to address its removal. This increases the potential level of financial and operational risk for the project. staff has a good understanding of the current plastic level and through the RFP can address its removal.

Although currently not accepted, plastics are a major source of contamination within the compost system. Plastic bags are acceptable for recycling within the bluebag recycling program. If plastic bags are permitted, they will be disposed of in a landfill as opposed to being recycled. The main use of the plastic bags is to line kitchen catcher mini bins. Staff will continue to educate residents on the use of paper bags, newsprint and boxboard containers as a liner to the kitchen catcher mini bins.

As outlined in Recommendation 5, vendors will be required to provide approaches to address potential compost guideline, by-law and legislative changes, one of which is the acceptance of compostable/ biodegradable plastics.

8. The acceptance of pet waste will not be considered.

Further consideration – FC7. Stakeholders support the addition of pet waste while residents are 43 percent in agreement and 35 percent in disagreement. – **Not Incorporated into recommendation**.

Not all of the pet waste can be effectively processed into compost or used to generate biogas in an AD facility, as a substantial portion of the pet waste consists of kitty litter which is made up of nonbiodegradable materials like clay. There are also processing risks, as a high concentration of pet waste can impact compost quality including meeting pathogen requirements (e.g, fecal coliform salmonella counts). There are other concerns with accepting pet waste such as potential reduced usability of the finished compost as compost from dog and cat waste should not be used on crops meant for human consumption.^{2,3} A large impediment to the inclusion of pet waste is the negative public perception of the end product.

Pet waste is currently acceptable in the garbage stream and it is acceptable to flush down the toilet. If pet waste is included, it is anticipated there will be an increase in plastic contamination due to the nature of

¹ http://www.compostable.info/compostable.htm

² Canadian Public Health Association. http://www.cpha.ca/en/programs/history/achievements/05-he/poop.aspx

³ United Stated Department of Agriculture, Natural Resources Conservation Service. December 2005. Composting Dog Waste.

https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_035763.pdf

pet waste cleanup. The inclusion of pet waste will require additional investments and measures to ensure process safety and compliance with maturity standards and that these standards can be met. It is also anticipated that pet waste will increase odours at the facility and within the curbside green bins as the waste will not be contained in a bag. Both residents and stakeholders desire additional odour control technologies and management processes be established in the system. With odour management a goal of this process, adding pet waste is not recommended.

As outlined in Recommendation 5, vendors will be required to provide approaches to address potential compost guideline, by-law and legislative changes, one of which is the acceptance pet waste.

<u>9. Facilities built in HRM will be designed for only HRM material. This however does not prohibit future regional partnerships.</u>

Further consideration – FC4. Stakeholders support that the Halifax region should accept materials from other municipalities whereas residents are 35 percent in agreement and 28 percent in disagreement. – **Incorporated into recommendation.**

With a jurisdictional scan completed, staff concluded that the majority of municipalities within close proximity of HRM can process their organic material at a more cost competitive price to HRM's current cost. Based on current costs the business case for these regions to ship to HRM is not positive. Through a new/updated organics management process the business case may become positive for other regions to ship their material to HRM. This would be predicated on the final cost per tonne negotiated by HRM with the proponent. One of the criteria for the new processing system is that it can be expanded as required. If through this process the cost per tonne becomes competitive with other regions, and other regions wish to use the facility, HRM could decide to accommodate within the existing design capacity or expand at a future date. Any decision to accept other region's material would be brought to Regional Council for consideration. If additional capacity is built in anticipation of other regions delivering their material there is a risk that it will not be received and the additional overhead and capital costs will be the responsibility of HRM. If mutually beneficial regional partnerships can be established, HRM should consider accepting organics from other jurisdictions.

COMMUNITY INTEGRATION FUNDING

As part of the boundary alterations at 61 Evergreen Place, staff propose a community integration fund be established in the amount of \$1 million with \$350,000 in capital funding allocated toward the development of the Western Common Wilderness Common, \$325,000 of capital funding allocated toward infrastructure at the Prospect Road Community Center and \$325,000 in capital funding allocated to projects identified through a community consultation process.

The \$350,000 allocated to the Western Common Wilderness Common will advance projects within the Master Plan which is currently a 60 year deliverable and has an annual budget of \$50,000. Based on the current level of funding, the \$350,000 integration fund could expedite the project by 7 years.

The \$325,000 allocated to the Prospect Road Community Center (PCC) will be used for recreation and community based projects. staff has reviewed the site and it has significant challenges with a steep drop at the rear of the building, limited space with the septic system towards the east side of the site and close proximity to the traffic along Prospect Road in certain areas. A pedestrian bridge/walkway was constructed between PCC and the adjacent school to improve accessibility and safety to/from the school and associated amenities (i.e. sport court and playground). There is also 5 year old playground on the PCC site. After review there is insufficient space on the site for a ballfield however a skateboard park could be accommodated. A skateboard park is one type of outdoor recreation amenity that is not in the immediate area and can be achieved within the proposed budget.

With regards to the \$325,000 community consultation project funding, a process will be developed whereby staff review residents suggestions and compare these suggestions to identified/supported needs of the community as determined by staff and the local Councillor. Staff and the Councillor will work

together to select and recommend projects which will be included within the capital budget process. Pending the community consultation, additional funding may be allocated to the Western Commons thereby expediting the parks development further. With siting constraints at the PCC it is anticipated that additional recreation amenities cannot be provided at the site. All projects will be advanced through the capital budget process. staff has consulted with the local councillor and received support on this funding allocation.

FINANCIAL IMPLICATIONS

There is no financial impact at this time. A capital project account has been established for this initiative, Composting/Anaerobic Digestion (AD) Plant CW000004. This capital project will enable the hiring of consultants to assist on an as needed basis with RFQ/RFP development, technical review and assessment; project management, design, siting, regulatory requirements; contract negotiations; legal, and other direct costs for this project.

Subject to Council's approval of the required Regional Plan, Secondary Plan and Land Use By-law Amendments and the final subdivision, it is envisioned that the funding for the \$1 million community integration fund will be made available from the Solid Waste Reserve Q556 – Waste Facilities Construction Reserve. This will become the funding source for Western Commons, Prospect Road Community Center and consultation driven capital projects. The recommendation for the funding allocation from the reserve will be included within the future report for Regional Plan, Secondary Plan and Land Use By-law Amendments.

RISK CONSIDERATION

The major risks to this project have been identified and addressed within the Detailed Review of Recommendations Derived from Consultative Feedback and Alternatives sections of the report. The largest risk with the project is related to the timing of implementing the new organics management process. The longer it takes to select a vendor the higher likelihood it will impact the investments needed at the existing facilities in order to ensure their continued operation.

In order to ensure a smooth and structured transition between existing and new operations the vendor will be required to assume all facility operations no later than April 1, 2019. This will mitigate risk for HRM with regards to issuing an RFP for the existing facility operations while at the same point managing a transition to the selected vendor. If the operation of existing facilities were not included within this process HRM could ultimately transition facility operations multiple times. This would likely increase the financial and operational risk for the municipality. It also serves as an incentive to the selected vendor to hasten the implementation of their proposal and provides a higher level of operational control over the transition.

COMMUNITY ENGAGEMENT

This is a report on community engagement. The outcomes from the engagement have been used to develop the recommendations of this report.

ALTERNATIVES

Council could opt to not endorse a recommendation outlined within the "Summary of Recommendations Derived from Consultative Feedback" on page 7 of this report. Council would be required to table the alternate proposal. For example, the recommendation of "Grass will not be reintroduced", if defeated a recommendation would be required to be tabled as grass will be reintroduced with an effective date. The one item that cannot be adjusted in as straightforward a manner would be the siting of the facilities.

Siting

- 1. Direct staff to make application for subdivision approval to alter the Northern and Eastern boundaries of 61 Evergreen Place by a distance other than 200 meters North and 100 meters East
 - The boundaries should be expanded by at least 100 meter separation from existing facility operations in order to comply with the 2010 NSE Compost Guidelines. Although the current operating permit allows a reduced buffer, it is not known if this flexibility will be provided by NSE with a future operation.
 - There is a risk that if HRM does not expand the boundaries of the site by the distances requested by staff that it will remove some flexibility from vendors in their proposals and as a result may limit the number of submissions and solutions provided and delay the implementation of the project.
 - There is a risk that after detailed engineering and site analysis which will be required for the RFP that a RFQ draft siting proposal may change. As a result a smaller boundary may no longer be feasible. This may require staff to reissue the RFQ/RFP and/or staff may have to return to Council to again request direction to extend the boundary 200 meters North and 100 meters East. This will delay the implementation of the project.
 - With limited available space on the current site it increases the risk with regards to operational and construction issues by developing a new facility close to an existing operation.
 - To enable the use and expand the structure (currently non-conforming), Regional Plan, Secondary Plan and Land Use By-law Amendments are still required.
- 2. Retain the original lot size at 61 Evergreen Place
 - It may be possible to site a new or amended facility / operation on the existing site without expansion; however it will be challenging given the available development footprint. This will remove some flexibility from vendors in their proposals and as a result may limit the number of submissions and solutions available.
 - With limited available space on the current site it increases the risk with regards to operational and construction issues by developing a new facility close to an existing operation.
 - The RFQ can be issued with the site boundaries unaltered. If there are not 3 or more submissions meeting this and all other criteria staff can return to Council for additional direction. At this point Regional Council can:
 - i. Provide direction on altering the Northern and Eastern boundaries of 61 Evergreen Place,
 - ii. Allow vendors to site their facility at an alternate location within HRM,
 - iii. Proceed to the next steps in the procurement process with the available vendors.
 - This may create a delay in the delivery of the project as another RFQ may have to be issued. As a result additional investment at the facilities may be required in the interim.
 - To enable the use and expand the structure (currently non-conforming), Regional Plan, Secondary Plan and Land Use By-law Amendments are still required.
- 3. Decommission existing site(s) and require vendors to propose alternate siting within their RFQ/RFP.

During the public consultations residents and stakeholders indicated their preference in having organics management facilities stay at the current sites. There is a risk that the siting process could be lengthy and as a result cause delay in the development of a processing facility. There is a risk that existing facilities will require additional capital upgrades and maintenance of infrastructure and equipment the longer it takes for a new facility to come online.

- A) Decommission 61 Evergreen Place and require vendors to propose alternate siting within their RFQ/RFP.
 - It may be possible that if this site is closed there could be a consolidation of all organics management operations at the 80 Gloria McCluskey site. The challenge with this option

is HRM does not take possession of the 80 Gloria McCluskey site until April 1, 2019. Therefore alterations to this site's operation may not be achievable before April 1, 2019.

- B) Decommission 80 Gloria McCluskey Ave and require vendors to propose alternate siting within their RFQ/RFP.
 - It may be possible that if this site is closed there could be a consolidation of all organics management operations at the 61 Evergreen Place site. HRM currently owns this facility. Therefore alterations to this site's operation may be achievable.

With regards to the community integration funding there are a number of possible alternatives such as:

- 1. Alter the funding allocation between the Western Common Wilderness Common, the Prospect Road Community Center and projects identified through the community consultation process.
- 2. Increase the community integration fund budget.
- 3. Reduce the community integration fund budget.
- 4. Not provide a community integration fund.

ATTACHMENTS

- A. Requests for Qualifications Key Terms
- B. Compost Matters Consultation Report
- C. 61 Evergreen Place Existing Boundaries
- D. 61 Evergreen Place Proposed Boundaries
- E. October 16, 2016 ESSC Report
- F. October 16, 2016 ESSC Presentation

Report Prepared by: Matt Keliher, MBA, MPS, CPHR, CPA, CMA, Manager, Solid Waste 902.490.6606

A copy of this report can be obtained online at http://www.halifax.ca/commcoun/index.php then choose the appropriate Community Council and meeting date, or by contacting the Office of the Municipal Clerk at 902.490.4210, or Fax 902.490.4208.

Attachment A Request For Qualifications Key Terms

- Only commercially proven organics management and composting technologies capable of processing source separated organics (SSO) and industrial, commercial and institutional (IC andI) organics will be considered. Only anaerobic and aerobic processes will be considered. Compost and/or fertilizer and/or soil amendment will be the end product. Captured biogas can be a by-product.
- 2. The vendor's technology solution must currently be in use at a minimum of 3 locations and manage a minimum of 15,000 tonnes per year per location. The vendor's technology solution must be in successful operation for a minimum of 5 years at these 3 locations. The processing technology or method must be demonstrated with reference projects and successful operational facilities must be accessible for review by Halifax.
- 3. The proponent must provide information on the technology rights (if applicable), description of process technology, technical reliability, process controls, and attributes of their proposed solution including the proposed processing operations, the output(s), product(s), byproduct(s), and information on use of energy, water, etc. and generation of residues, wastewater etc. from the process. In addition a preliminary conceptual site plan and construction timeline is required to be submitted.
- 4. Only companies with a proven track record in operating commercial waste management solutions will be considered. Operators must have a minimum of 5 years' successful experience in managing day to day solid waste processing systems. Facilities and operations must be accessible for review by Halifax.
- 5. The proponent must provide an outline of the proponent's and staff's qualifications and experience (design, construction and operations), references, project management, operational successes, etc.
- 6. Both independent and partnership models are acceptable. HRM will deal with only one vendor and have only one contract for the entirety of this project (design, build, operate, finance). HRM will not be facilitating partnerships. Any partnerships developed between companies to deliver this project must create a new entity which is guaranteed and secured by the parent companies. Proponents must supply HRM the proposed business model. If a partnership model is chosen, confirmation letters from partners is required. The development of legal entities and registration with Nova Scotia Joint Stocks is not required to be submitted in the RFQ however, it will be a requirement for the RFP.
- 7. The proponent must have the demonstrated financial capability to undertake the scope of work and requirements for this project and their organizational structure and financial resources.

Vendors must be able to provide confirmation that they are able to obtain from a surety company with a rating of at least A- with S and P and AM Best a minimum of:

- a. \$10,000,000 construction performance bond
- b. \$10,000,000 operating performance bond
- c. \$10,000,000 commercial general liability insurance
- d. \$10,000,000 environmental impairment liability insurance
- e. \$10,000,000 all risks property insurance
- f. \$ 5,000,000 automobile insurance
- g. \$10,000,000 letter of credit/bank guarantee in order to finance the design/build

Based on the RFQ submissions these requirements may be adjusted for the RFP.

8. Facilities in HRM will only be developed at existing sites and existing infrastructure can be utilized. Existing sites are 61 Evergreen Place, Goodwood and 80 Gloria McCluskey Ave., Dartmouth. The continued operation of the existing technology at 80 Gloria McCluskey Ave is exempt from the requirement identified above in Key Term 2; however, any modifications required to meet all other Key Terms must be substantiated. Vendors should endeavour to site a facility on the existing parcel size. Plans can be submitted which alter the site footprint at 61 Evergreen Place which is to be expanded up to a maximum of 200 meters North and 100 meters East to accommodate the new operations.

Proponents may develop sites outside of HRM. If this is the chosen option a transfer station is required to be developed at one or both of the existing sites as identified above.

9. All submissions, even for the use of existing facilities, must meet at a minimum the 2010 NSE Compost Guidelines and all applicable Municipal, Provincial, and Federal regulations, by-laws etc. Technical/operational submissions other than for noise and odour management will be evaluated on their ability to meet the 2010 NS Composting Guidelines.

As part of a contingency/future state plan and in order to mitigate risks of evolving standards, vendors will be required to provide approaches on how they will address potential compost guideline, by-law and legislative changes including how they will meet maturity requirements as established in Ontario, accept pet waste and accept compostable/biodegradable plastics.

Enhanced odour management and control processes as well as details on the planned investments and technology to reduce/contain odour must be demonstrated for facilities located at 61 Evergreen Place and 80 Gloria McCluskey Ave. If processing is done outside of HRM such as on farms, at existing compost/solid waste management sites, or in more rural areas (with larger natural site buffers), at a minimum the requirements within the 2010 NSE Compost Guidelines must be met. The odour management and control processes as well as details on the planned investments and technology to reduce/contain odour must be demonstrated for facilities not located in HRM.

- 10. Operations will be designed to manage 60,000 tonnes annually with the ability to expand as required to up to 75,000 tonnes or greater.
- 11. The proponent may provide 2 processing options for review and evaluation.
- 12. The proponent will be required to provide organics management services to HRM no later than April 1, 2019. The proponent may use the existing facilities and infrastructure to accept and process materials during the development of their process. The proponent may also export the material to other NSE approved composting facilities during the transition. The proponent will be responsible for transitioning to the new organics management system.

The Key Terms are meant to provide the strategic direction for the RFQ development. The Key Terms are not intended to provide the exact language that will be included within the RFQ. The RFQ will contain other terms and conditions that are not outlined above which are more of an operational nature and less strategic. After the RFQ has closed and proponents assessed, Council may direct staff to reissue the RFQ with modifications to the Key Terms, proceed to an RFP or cancel the procurement process.

Compost Matters Consultation Report 2017



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Residential Compost Matters Survey Results

Processing organics to produce compost is important to me.	Responses	% Of Responses
Complete Disagreement	37	3.4%
Disagreement	21	1.9%
Undecided	71	6.5%
Agreement	157	14.4%
Complete Agreement	805	73.8%

Processing organics to produce compost is important to me.		
Disagree	5.3%	
Undecided	6.5%	
Agree	88.2%	

It matters to me where and how the end product (e.g. compost, fertilizer) is used.	Responses	% Of Responses
Complete Disagreement	99	9.1%
Disagreement	84	7.7%
Undecided	242	22.2%
Agreement	283	25.9%
Complete Agreement	384	35.2%

compost, fertilizer) is used.		
Disagree 16.8%		
Undecided 22.2%		
Agree	61.1%	

The process should create a product that is available for residents to use.	Responses	% Of Responses
Complete Disagreement	67	6.2%
Disagreement	77	7.1%
Undecided	300	27.5%
Agreement	246	22.6%
Complete Agreement	399	36.6%

Alternate end products of green bin material should also be considered. For example: fish and animal feed or fuel.	Responses	% Of Responses
Complete Disagreement	58	5.3%
Disagreement	75	6.9%
Undecided	237	21.8%
Agreement	322	29.6%
Complete Agreement	397	36.5%

Capture of biogas (which is generated during the anaerobic composting process) should be explored as a renewable energy source.	Responses	% Of Responses
Complete Disagreement	23	2.1%
Disagreement	41	3.8%
Undecided	160	14.7%
Agreement	310	28.5%
Complete Agreement	554	50.9%

The process should create a product that is available for residents to use.		
Disagree	13.2%	
Undecided	27.5%	
Agree	59.2%	

Alternate end products of green bin material should		
also be considered. For example: fish and animal feed		
or fuel.		
Disagree	12.2%	
Undecided	21.8%	
Agree	66.0%	

Capture of biogas (which is generated during the
anaerobic composting process) should be explored as
a renewable energy source.

Disagree	5.9%
Undecided	14.7%
Agree	79.4%



Residential Compost Survey Continued

The Halifax region should explore organics processing technologies even if they are commercially unproven.	Responses	% Of Responses
Complete Disagreement	149	13.6%
Disagreement	213	19.5%
Undecided	350	32.1%
Agreement	266	24.4%
Complete Agreement	114	10.4%

The Halifax region s	should explore organics processing
technologies even	if they are commercially unproven.

Disagree	33.2%
Undecided	32.1%
Agree	34.8%
Agree	34.8%

The Halifax region should only consider commercially proven organics processing technologies and methods.

Disagree

Agree

Undecided

25.8%

27.4%

46.8%

The Halifax region should only consider commercially proven organics processing technologies and methods.	Responses	% Of Responses
Complete Disagreement	83	7.6%
Disagreement	199	18.2%
Undecided	299	27.4%
Agreement	332	30.4%
Complete Agreement	180	16.5%

The chosen option should be the lowest- cost solution that meets all regulatory requirements.	Responses	% Of Responses
Complete Disagreement	176	16.1%
Disagreement	317	29.1%
Undecided	309	28.3%
Agreement	148	13.6%
Complete Agreement	141	12.9%

Companies being considered to provide services must have a proven track record in providing organics management and composting solutions.	Responses	% Of Responses
Complete Disagreement	15	1.4%
Disagreement	35	3.2%
Undecided	147	13.5%
Agreement	394	36.2%
Complete Agreement	498	45.7%

If it is more cost effective, the municipality should ship organics to other municipalities for processing.	Responses	% Of Responses
Complete Disagreement	222	20.3%
Disagreement	184	16.8%
Undecided	266	24.4%
Agreement	203	18.6%
Complete Agreement	217	19.9%

The Halifax region should have one processing facility to try and maximize economies of scale (minimize cost).	Responses	% Of Responses
Complete Disagreement	81	7.5%
Disagreement	192	17.7%
Undecided	449	41.3%
Agreement	201	18.5%
Complete Agreement	163	15.0%

The Halifax region should have multiple processing facilities to minimize potential risk.	Responses	% Of Responses
Complete Disagreement	75	6.9%
Disagreement	152	14.0%
Undecided	431	39.7%
Agreement	300	27.6%
Complete Agreement	129	11.9%

The chosen option should be the lowest-cost solution that meets all regulatory requirements.			
Disagree	45.2%		
Undecided 28.3%			
Agree 26.5%			

Companies being considered to provide services must have a proven track record in providing organics management and composting solutions.			
Disagree 4.6%			
Undecided 13.5%			
Agree 81.9%			

If it is more cost effective, the municipality should ship organics to other municipalities for processing.		
Disagree	37.2%	
Undecided 24.4%		
Agree	38.5%	

The Halifax region should have one processing facility to try and maximize economies of scale (minimize cost).		
Disagree	25.1%	
Undecided 41.3%		
Agree 33.5%		

The Halifax region should have multiple processing facilities to minimize potential risk.	
Disagree	20.9%
Undecided 39.7%	
Agree	39.5%



Residential Survey Continued

Facilities should be away from residential areas.	Responses	% Of Responses
Complete Disagreement	17	1.6%
Disagreement	47	4.3%
Undecided	202	18.5%
Agreement	284	26.0%
Complete Agreement	542	49.6%

Facilities should be away from residential areas.	
Disagree	5.9%
Undecided	18.5%
Agree	75.6%

I want to be able to put compostable plastic in my green bin.	Responses	% Of Responses
Complete Disagreement	182	16.7%
Disagreement	124	11.4%
Undecided	250	22.9%
Agreement	165	15.1%
Complete Agreement	369	33.9%

I want to be able to include pet waste in my green bin.	Responses	% Of Responses
Complete Disagreement	244	22.4%
Disagreement	137	12.6%
Undecided	241	22.1%
Agreement	144	13.2%
Complete Agreement	325	29.8%

I want to be able to put grass in my green bin.	Responses	% Of Responses
Complete Disagreement	180	16.6%
Disagreement	98	9.1%
Undecided	216	20.0%
Agreement	162	15.0%
Complete Agreement	426	39.4%

Investment in odour control, over and above the minimum requirements, is important.	Responses	% Of Responses
Complete Disagreement	41	3.8%
Disagreement	95	8.7%
Undecided	249	22.8%
Agreement	364	33.4%
Complete Agreement	342	31.3%

As long as the material in the bin is collected, I don't care what happens to it.	Responses	% Of Responses
Complete Disagreement	477	43.7%
Disagreement	232	21.3%
Undecided	177	16.2%
Agreement	89	8.2%
Complete Agreement	116	10.6%

I want to be able to put compostable plastic in my green bin.			
Disagree 28.1%			
Undecided 22.9%			
Agree	49.0%		

I want to be able to include pet waste in my green bin.		
Disagree	34.9%	
Undecided	22.1%	
Agree	43.0%	

I want to be able to put grass in my green bin.		
Disagree	25.7%	
Undecided	20.0%	
Agree	54.3%	

Investment in odour control, over and above the minimum requirements, is important.		
Disagree	12.5%	
Undecided	22.8%	
Agree	64.7%	

As long as the material in the bin is collected, I don't care what happens to it.		
Disagree	65.0%	
Undecided	16.2%	
Agree 18.8%		



Residential Survey Continued

Facilities should be close to the centre of organics generation in order to reduce transportation and greenhouse gas generation.	Responses	% Of Responses
Complete Disagreement	56	5.1%
Disagreement	109	10.0%
Undecided	303	27.7%
Agreement	361	33.1%
Complete Agreement	263	24.1%

Facilities should be close to the centre of organics generation in order to reduce transportation and greenhouse gas generation.		
Disagree	15.1%	
Undecided 27.7%		
Aaree	57 1%	

New facilities should be built at existing sites. (Burnside & Ragged Lake Business Parks).	Responses	% Of Responses
Complete Disagreement	45	4.1%
Disagreement	59	5.4%
Undecided	395	36.2%
Agreement	379	34.7%
Complete Agreement	213	19.5%

New facilities should be built at existing sites. (Burnside & Ragged Lake Business Parks).		
Disagree	9.5%	
Undecided	36.2%	
Agree	54.3%	
Agree 54.3%		

Facilities should be built at new sites.	Responses	% Of Responses
Complete Disagreement	161	14.8%
Disagreement	262	24.1%
Undecided	514	47.3%
Agreement	98	9.0%
Complete Agreement	51	4.7%

The Halifax region should manage its own organic material - not ship to facilities outside of the municipality even if it is	Responses	% Of Responses
more cost effective to export.		
Complete Disagreement	144	13.1%
Disagreement	214	19.5%
Undecided	264	24.1%
Agreement	230	21.0%
Complete Agreement	244	22.3%

The Halifax region should accept materials from other municipalities.	Responses	% Of Responses
Complete Disagreement	222	20.3%
Disagreement	164	15.0%
Undecided	398	36.5%
Agreement	205	18.8%
Complete Agreement	102	9.3%

Facilities should be built at new sites.	
Disagree	39.0%
Undecided	47.3%
Agree	13.7%

E.

The Halifax region should manage its own organic material - not ship to facilities outside of the municipality even if it is more cost effective to export.		
Disagree	32.7%	
Undecided	24.1%	
Agree	43.2%	

The Halifax region	n should accept materials from other municipalities.
Disagree	35.4%
Undecided	36.5%
Agree	28.1%

ΗΛLΙFΛΧ

Residential Survey Continued

Please rank the following categories in order of importance. (1 = most important; 4 = least important)	
Environment	1.65
Finances Risk	2.47
Social Context	2.89
Logistics	2.97

What type of home do you live in?	
Single family house includes	956
townhouse duplex mobile home	
Apartment with 6 units or less	52
Apartment with more than six units	46
Condo	26
Other	11



Residential Survey Feedback

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Summary of Comment memory of Comment memory of Comment and Strengthered Strengthere	102
	103
More education of backyard composting, promotion of community gardens & grasscycling (includes those who want grass left out)	61
More enforcement curbside, enforcement and access in ICI and apartments	40
Access to final product for residents	39
More education	39
Favour adding bio/compostable bags and plastics	38
Favour adding additional materials: diapers, boxboard, coffee cups, milk cartons, fabric and thread, used tissue rocks and sod, pizza boxes, septic tank waste, other not defined.	31
Favour grass collection	30
Leadership and sustainability; reducing food waste	26
Favour pet waste in carts or identified desire for other alternate	23
Think outside the box - consider alternate end products and processing methods	21
Revenue opportunities, funding and financial responsibility	19
Keep sorting easy (including provincial sorting list)	16
Facility location (current, potential, environmental racism)	15
Renewable energy should be explored	14
Would like an option for smaller cart	12
Recycling and garbage streams	12
EPR	12
Valuable/quality end product is important	11
Planning for future/long term and potential changes is important; risk management	10
Don't reinvent the wheel/look at what others are doing	8
Favour return to plastic bags for leaf and yard waste	7
Favour lowest cost option	7
Comments about survey or looking for additional consultation/details	7
Lowest cost may not be best option	7
Feel aged green carts should be replaced	6
Well-paying jobs and job creation are important	6
Regional partnerships	6
Minimize carbon footprint - close to generation (if quiet and odour free); balance cost/environment	5
Involve universities and support R&D	5
More options for leaf and yard waste disposal - includes residents who think leaf and yard waste cannot go in cart	4
Keep pet waste out	2
Upgrade existing facilities	2
Against end uses like fish/animal feed	2
We should manage our own waste/not send out	2
Non-food uses for compost only (i.e. landfill cover and remediation)	1
Allow contractors to propose solutions and be accountable	1



Caution with new technologies	1
Weekly organics and recycling collection is too much	1



Survey Feedback as Submitted

	Do you have any additional considerations you think are important when talking about the future of composting in the municipality? i.e. adding new materials, changing collection.
1	 !. NS municpalities are leading the North American continent in solid waste management sustainability from environmental perspective. Let's keep up the good work. -Expand programs to enhance environmental benefit get even more people/businesses to buy-in soil is scarce in Nova Scotia, so so turning used organics back into soil is best environmental program we have. Let's do more of it. -We can get better participation from ICI sector and many residents -Expand options for leaf and yard waste management -continue to encourage "Grass-cycling" and backyard composting -If we need new and expanded processing facilities - so be it. We have to do things right.
2	Add back the grass clippings- I truly wonder if the extra mowing I need to do to avoid raking clippings that look horrid is a positive for the environment- seems counter productive and hypocritical.
	you put this if you live in an apartment- garbage? that is not feeling like an appropriate solution either.
	Can't compost home- too many rats in the neighborhood and I don't want to contribute to that problem by adding a food source. However beginning to feel like handcuffed by composting rules.
3	How about a separate stream for yard waste, with community-based facilities where residents can drop off car loads at widely accessible hours, even if there's a charge?
4	Would like to be able to put relatively small amounts of garden/yard waste in green bin rather than paper bags. If I have a full bag of waste in a week that's ok but less than that I'd like to put in the bin.
5	 Grass clippings should not be allowed in bins, clippings should stay on lawns for maximum environmental protection and should not take up resources and manpower. Large green bins are too large and should be significantly reduced in size for efficient home storage. Most importantly, compost should be picked up EVERY WEEK OF THE YEAR!!!! Biweekly pickup
	increases the risk of disease and rat infestation, as well as being a HUGE inconvenience for storage for the citizenry, who pay a LOT of money in taxes! Other cities in Canada, like Toronto , provide weekly pickup of compost. To do otherwise is just sheer stinginess and poor service to the citizens.
	- As for the future state; Facilities should be chosen that use the latest and most environmentally sound sortation practices and manpower/equipment to eliminate the need of the citizen to sort the many different types of plastic and other materials. This should be done by the staff of the sortation plant.
	 Recycling plants should be staffed by unionized PUBLIC SERVICE workers making at least a living wage of \$20/hour, and responsibly managed by the public sector to ensure the needs of the citizenry and A HEALTHY ENVIRONMENT are being met.
	- Treatment plants should be full service facilities that do ALL sortation, treatment and recycling of ALL waste products. Obviously the plant should be located at distance for major populations, but not inefficiently far in transport costs.
	- Reusable Recycled Materials generated from the waste plants should be reinvested into infrastructure for the city.
	- It's high time to step up and become a sustainable community. NOW!!!!!!!!
6	 Weekly collection into September (if temperatures are similar to summer) or put a sticker/sign on window if need collection that week when temperatures are higher More environmentally friendly ways to dispose of pet waste Better communication as to how the organic material is used (is it used in the municipality? to fertilise gardens?)



7	There should be at least one stream producing compost that is suitable for growing food, which would also be available for ameliorating farm land, and if necessary a second for use in landscaping, flower gardens, forestry, and other non food related concerns.
8	 1 We should be able to use compostable plastic bin liners as other municipalities can. 2 Each home should have a bin size option. I will never waste enough food to fill a large bin. 3 Leaving grass clippings on lawns is effective, but not always practical. Grass clippings should be permitted in bins. 4 We used to be able to put excess material in a clear or orange bag (eg fall leaves), now only paper bags are accepted. This is a large cost increase for residents which seems unnecessary. I end up with a lot of leaves in my yard and do not have the option of backyard composting, so I am forced to spend money on a specific type of bag which I am then not able to store outside if we are getting a few days of rain. The combination of cost and impracticality is a major frustration and I am not always able to time my yard work around weather conditions and collection schedules.
9	 The Municipality should seriously enter into discussion with Provincial (and Federal) jurisdictions on the use of Waste to Energy technologies as an integrated solution to Waste Management for the Region, especially considering the need for a replacement for the Otter Lake Facility I would be interested to know why organics processing by the WSF at Otter Lake was not mentioned or included in this presentation of the current situation and future needs?
10	 Economics and compliance to current and known future regulatory requirements must be the primary considerations to ensure value for the taxpayer/residents. The end product must be suitable for the intended use and the there must be suitable demand for the end product (current and future production) PLUS must not lead to increases in future "Compostable Materials" ie " Poor Quality Compost that is laden with dormant not dead WEED Seeds that spread dandelions/other weeds through-out municipality as has been the case with compost from the HRM facility in past. Which encourages underground use of chemicals to manage HRM created weed infestations Potential Contractors need not have previous/current experience in the composting industry (not sure current contractors are complaint in operations) BUT and contractor MUST have both the Financial and Technical backing to meet &/or exceed HRM needs and expectations Important to consider and incorporate new/additional contractors in HRM Waste Management (includes Land Fill / Other Contracts) so avoid be held hostage to a select/elite few. Important to think outside the BOX , to ensure the most economic long term solution for the taxpayers of HRM and if that includes generating electricity , fuel & or feed (that has no liability on HRM) or shipping out of HRM or bring in to HRM . It's should be economic and environment and not political gains that ultimately determine the solution. Eliminate the foolish Paper Bag for Yard Waste Requirement and allow decompostible Plastic or Other CLEAR Bags that would also allow Grass Clippings but not necessarily in Green Bins Perhaps existing plants can be used as preliminary / phase 1 treatment or upgraded but decision should be based on Lowest Total Cost not simply Politics Thank You for opportunity to provide input
11	 Manage risk when evaluating new/unproven technologies and/or vendors. Look at the full picture, 360 degrees when considering the entire lifecycle of compost. Are there revenue generating/cost recapture opportunities here?
12	1. Please continue to educate the public regarding the benefits of "grasscycling" and do not bend to the will of a populace who want their grass clippings in the green bin. The same is true for leaves which should be raked into flower beds and mulched to feed lawns, NOT put in the green bin. 2. Please allow all "compostable" bags, cups & utensils to be put in the green bin. 3. IF facilities are quiet and odour-free they should be located as close to where the compost is produced to avoid high transportation costs & the carbon footprint that goes with it. 4. Accept material from other municipalities only if doing so will reduce the cost of operating the facility.



13	 Summer collection of the green-bin every week should not stop the second last week of August (in some areas). This should run to the second week of September, or the end of actual summer, as the hot temperatures and 2 week old compost-able material in green-bins made neighbourhoods disgusting with high temperatures. It would be better to collect once as month in February/March then have another year where we go two weeks in later Aug/early Sep with retched bin smells. If HRM is serious about diverting trash, its time to start banning packaging in the city that is not easily broken into refuse types. Kleenex/facial tissues are made of cardboard, yet have the plastic seal on them. This should either be biodegrade plastic, or no plastic. We cant expect everyone to remove this plastic the way these boxes are made now. Similarly, how many concentrated orange juice containers made of cardboard and metal are we seeing? These needs to be regulated or manufacturers will continue to ship inefficient packaging to our city.
14	A balance between the ecological requirements and the economic implications of meeting those requirements. The majority of municipalities recycle and compost; many actually make a profit. Perhaps a look at a few of the ideas that folks outside HRM/Nova Scotia have put into place might save some dollars spent on the re-invention of the wheel.
15	Ability to accommodate variations in material quality as well as anticipated revisions to quality requirements.
16	ability to take new materials such as pet waste. The reduction of waste plastic generation by working with processers. Return to glass bottles only?
17	Accept compostable plastic bag liners greatly reduce kitchen smells from the small bins and reduce fruit fly nuisances
18	Accepting a broad range of home generated but potentially compostable waste is important; within limits of processing cost. More is better and easier for homeowner. Perhaps build in 'filter out' systems at front end of plants to make it broader and easier for homeowner; within cost constraints.
19	Add additional materials if possible
20	Add grass collection - new or stressed laws cannot grasscycle!, longer weekly pickups into September.
21	add new materials if it is cost-effective or ship to other places that can manage that particular product. Although not compost-related - ship styrofoam to an existing facility that can deal with it - in the valley?
22	Add Styrofoam. To make sorting easier for residents, all plastics should be collected.
23	Adding as much material as possible within a reasonable cost of processing
24	Adding new materials is most important to drastically reduce materials going to landfills. Charging customers for landfill usage should be implemented to fund composting and recycling facilities. Businesses and individuals will then make wiser choices in what they consume and discard.
25	Adding used kleenex, a ban on non recyclable plastics and fines for non compliance in compost/recycling
26	 -ALL coffee cups and food containers/take-out containers should be compostable- with coffee cup lids being recyclable. -We HAVE to use the released gases to produce clean energy -Maybe even get what most European countries havewhich is a "vaccum tube" that sucks the compost from homes/businesses directly to the compost facility. Short term financial pain for a long term saving plan.
27	All compostable, organic waste should be accepted. There is no need to put animal waste in the garbage. If the product is affected. At that point it can be dealt with accordingly.
28	All grass and leaves are going back in my garden. tigs are getting mulched for my garden only weeds plants full of seeds go in green bin. I would like to see some other materials allowed in bin
29	Allow for smaller demonstration projects of new technology. City supplies raw material and Co funds the venture. Planning for the next generation.
30	Allow grass clippings in compost bins. Pick up compost bins weekly in September.



 Allow yard waste 100%. The city should consider weekly garbage and organics pick up to reduce household garbage. This should be local jobs, end of discussion. We have the resources, give people jobs. Any residential property should have to follow all of the rules. Apartments the same as single family buildings. An excellent initiative of HRMkeep it going. Any compostable materials should be taken, and it should be clear exactly what isn't accepted. Also, I Furthermore, collection is probably too frequent considering the size of green bins. If people are throwing away that much organic material in a couple weeks, they kinda deserve to suffer. As a citizen, I'm tired of this focus on trash and sorting and composting. Make it easier. It's a large burden on my time now. As a citizen, I'm tired of this focus on trash and sorting and composting. Make it easier. It's a large burden on my time now. As a property Mamager we have a lot of trouble with residents disposing of organics - despite plenty of education and signage they continue to put plastic, often bags containing food wastes in the green bins. A system that is able to handle this kind of contamination, Anaerobic digestion would simplify compliance issue faced by property owners. As a small-scale landord, I see how hard it is to encourage tenants of apartment buildings to compost, even when they are provided with proper bins. Their education relating composting should be made a priority. Accepting biodegradable plastic for kitchen liners might help. As long as instructions are clear, residents can adapt to any requirements for composting. I do think that our green bin system seems to be working well at the resident's end; and would like to see HRM only handle its own waste and therefore keep composting products on the mater (e.g., Lee Valley, etc.) would allow consumers more choice. Backyard	31	Allow the use of compostable plastic liners for kitchen green bins (i.e. the ones currently still being sold in various stores throughout HRM).
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48	CBRM has a biowaste composting system which permits domestic food waste to be captured in compostable bags that are quite convenient and suitable for most households - but which cannot be used in HRM. HRM should consider a system which does not exclude a variety of means for residents to put out their compostable materiel for pickup. I am very supportive of plastic recycling but it doesn't necessarily have to go in the green bin. You should have allowed for comments at the end of each of the above segments. Halifax should consider large enough composting facilities to take other municipalities material to spread the cost amongst a larger base.
49	change collections, September is getting warmer and it would be a good thing to continue weekly pickup until autumn officially begins, extend it by 3-4 weeks.
50	changing collection - green bin should be every week. Every in the country, mine is outside and the critter get to it and so do the flies and smell.
	All garbage should be every week, regular garbage, blue bags and bins.
51	Charge those, by adding an extra tax, who don't use their green bin. If 1/2 the time the bins aren't put out you could add a charge to the tax bill for that property. Extra work but extra revenue
52	Christmas trees, limbs and branches (ie clean organic natural items) should be shredded for mulch not composted Yard waste, leaves, grass, weeds should go in green bin. Paper bags are terrible, if they get wet they come apart and are a waste as they go to the same place as the rest of the green bin stuff
53	Clearly there are many considerations. A balanced approach should allow for some options that maximize multiple considerations. Ie environment is very important. Social context is important so that people support the process. Good logistics will strengthen finances and help minimize risk.
54	Collection in rural area's ie Boutiliers Point, St. Margaret's Bay need to have green pick up on a weekly basis during the spring & fall monthsmaggots are not a pleasant part of composting. Every two (2) weeks is not acceptable.
55	Collection of green bin should be weekly. Having it sit for two weeks increases smell, risk of rodents
56	Collection should be weekly in Dartmouth and other suburban areas into September and October. The green bins fill too quickly during this period.
57	Compost is a necessary thing to save the earth
58	Compost should be picked up weekly year round
59	compostable plastic bags have to be added to the system.
60	Compostable plastic should be taken no doubt. We should be a central gathering point for other places compost IF it makes fiscal sense
61	Compostible plastic bags should be able to go in green bins.
62	Composting as much as possible is wonderful, but ideally, whatever is being produced needs to be usable. Right now, I have no idea what the compost coming from the HRM is used for. I think the public would be interested in this information.
	I think there is also a role for the public, specifically with regard to reducing food waste. This is an area where people need to be educated.
63	Composting for businesses, office buildings, and APARTMENT buildings needs to be enforced.
64	composting is a good thing by diverting useful waste from landfills. Please do not consider ever bringing the Leachate to the treatment facility in Upper Sackville. This was a dump in which we don't know what toxic material is in there. If other municipalities are willing I think the facility could go there to create jobs and keep costs down in HRM?
65	Composting is an expertise that is held in the private sector. The municipality should give the service for processing to a PROVEN composting company that produces compost that is high quality, unrestricted in its use and provides a volume back to the citizens at no charge for their use. The location of the processing facility does not have to be located within the municipality, as the materials can be transferred.



66	Composting is something that I think more people would participate in. I had to drive to Dartmouth to get a less expensive composter for my backyard and the lineup was HUGE. Make these types of things more accessible.
	Provide residents with free mulch, earth etc. as a benefit. We can come get it ourselves - but this would be great and a wonderful incentive.
67	Composting is too expensive and driving up already high taxes and should be discontinued, alternatively least cost strategies should be mandatory and implemented.
68	Composting needs to be dead simple so that more people do it. The same applies to recycling. Ideally we should be able to dump a recyclable plastic container filled with apple cores into a single bin and the city will do the work required to split the recycling from the compost.
69	Composting targets/compliance should be as progressive for apartments/condos and commercial/institutional sites (e.g. restaurants, grocery stores, office buildings, schools, hospitals, recreational facilities) as they are for single family homes. I.e. if we are "leading" in composting for SFH-generated organics it is inequitable to be "average" or "lagging" for organics from other site category sources.
70	composting used tissues (Kleenexes), drink cups - Tim Horton's, fast food
71	Consider expanding weekly collection of organics to year round, educating and including citizens about the new process and what would be compostable and what wouldn't be
72	Consider provision of home composting cisterns (black, plastic, commercially available pods) to reduce some use of the composting system for households, expecially rural ones.
73	Consider the jobs that would be created. It would be good to have additional service jobs in the city - I think that's worth more some other logistical costs. Don't build in areas where there is an Indian or Black Nova Scotian population even if it's in an area of
	less development - the reason the people were settled there / allowed to live there in the first place was the same reason garbage dumps and processing centres end up getting placed there now. Respect that historical settlement placement weren't done for nice reasons and now we should not ALSO stick waste treatment there.
74	Consideration should be given to having a larger number of smaller composting facilities throughout the HRM close to the production areas.
75	Consideration should be given to using the organics waste as a renewable fuel for advanced waste conversion technologies combined with other non-marketable waste materials and resources which otherwise will end up in the ground. The program costs need to be validated but research shows significant program cost savings from these new systems which are active in Europe and Asia.
76	Considering municipal organics as part of a biorefinery concept would create value-added products while dealing with a mixed municipal organics feedstock.
77	Continue to encourage back yard composting of all 'non-meat/fat' food waste and leaves. You've done a good job and restricting grass clippings. Extend the weekly pickup of green bin further into September.
78	Continuing weekly collection through September would be helpful
79	Cost effective and cost efficient
80	Create jobs Environment and animals when considering building a new site. Don't destroy land that is important Eco system
81	Critical to accept yard waste.
82	Current system works well for us



83	Design and build all new facilities for the long term utilizing the latest technology where we have room to expand at new sites to accommodate newer technology. We have ample lands surrounding the greater HRM land mass where it would be years, (and never with proper development restrictions), where would we run into conflicts between residents, environmentalists and tourism would become issues. Working in partnership with other municipalities we may be able to accommodate additional core product to help reduce the costs per ton of treating our waste in newer larger facilities.
84	Disposable Coffee cups should be recyclable. The end product should be of high quality. I ordered a cubic yard two years ago from Elmsdale Landscaping which was half HRM compost. It was aweful. Full of rocks, and plastic, and the dirt is thick. People need to be aware of what goes where.
85	Diverting materials should be the #1 priority. A municipal by-law requiring grocery stores and restaurants to offer unsold and unspoiled food to be offered to food banks or soup kitchens. Not allowing grocery stores and restaurants to throw food in the green bin for collection at all.
86	Do not locate facilities where they have a negative impact on historically disadvantaged populations, as has been done with HRM waste management facilities in the recent past. In other word, act in a way commensurate with the principles of environmental and social justice. Ensure that money budgeted for operational costs includes paying facility workers a living wage.
87	Don't be laying off people. Create more jobs in our area please.
88	Easy access combined with information changes behavior with commitment. Commitment to recycling responsibly will result in lasting and meaningful change on this and other areas. Constraining bylaws and penalties move us toward a Compliance model. We loose the heart and commitment of people when we do that. The new bylaw disallowing grass clippings was an example of demanding compliance. I'm an environmentalist but you almost lost me on that one. I normally mulch but occasionally can't. This bylaw had me wondering which councilor's front step I should leave my clippings on ! yes, I could have gone out and purchased more bags and bagged them separately to remain compliant, not many people will do this with the same commitment. Stay with education and easy access to encouraging lasting commitment for collection principles. It will pay far more dividends than a compliance model.
89	Educating people to the ease and benefits of backyard composting
90	Educating residents who have the space and the desire how to make the most out of their own compost - limiting what is required to be picked up and processed by the municipality. Community gardens in addition to residents who want 'kitchen gardens', or small family gardens. Also making available the composted materials to the residents.
91	Education and icommunication on an ongoing basis
92	 -education re personal composting at home and how to use the product -free home composters (kind that you turn like rolling barrels -TIM HORTONS CUPS!!! they need to be recycled/recyclable!!!! -free or low cost paper bags for making composting easier and more convenient/clean for those who cannot afford to buy and don't get flyers/newspapers to use for wrapping -free bin cleaning service for low income and elderly and disabled people -force stores to use paper bags for shopping bags instead of plastic. -force manufacturing companies to use only recyclable materials in packaging, reduce packaging used -educate how to dispose of liquid grease correctly -GIVE US BACK OUR ORGANIC PRODUCT AFTER IT IS PROCESSED!!!! -apartments should be held to the maximum allowance for the "bad garbage" just like the rest of us! - my relatives live in an apt bldg. and they don't feel they have to recycle because no one is making them!


93	Educationsome people do not know how to sort, ie tossed a wine box in without removing the plastic liner? Some people may be interested in another home composterwe have 4 on the go! A different model could be introduced perhaps. Organize a build your own Compost Bin Workshop so people can get plans and see how someone else built a simple bin. We use the green bin for Norway Maple leaves infected by the tar spot fungus but save the other healthy leaves for our composters. The paper bags are expensive for some people and do not hold much. What about leaf collection in some neighbourhoodsseems to be a South End thing! I have seen landscape workers blowing the leaves from a local apt building (Dist 12) on to the streetI did not think this was acceptable.
94	Eliminating grass and like material from green bin composting is counter intuitive. Being able to mow and dispose of heavy grass at certain times of year is extremely challenging. I have two compost units on my property but need to balance Browns and greens tectonic ensure output inefficient and usable. Additionally there are time intervals when the grass is simply too heavy to leave on top of the lawn.
95	Encourage in home composting
96	Encourage or incentivize citizens to back yard compost more. It can decrease the amount of compost going to the facilities, without increasing the waste going to the landfills.
97	Encourage residents to reduce the amount of material placed in the green bin by promoting back yard composting.
98	Encouragement of residential composting especially for those of us in rural HRM. Examining what works and what doesn't in other jurisdictions and municipalities so we do not repeat their mistakes.
99	Encouraging people to compost in their own back yard and Providing free compost bins will not only reduce the amount of compost material going into the facility but will eliminate the need to build another facility and save tax payers money. I personally take pride in composting and was provided a compost bin or even 2 or 3 I would have more then enough bins to process my waste and reuse it on my property. Also providing free compost from the HRM facility would be a nice way for HRM to give back to the community
100	End result should be free for individuals for their gardens.
101	Energy production sounds like a money maker.
102	Enforce apartments/condos commercial business buildings are properly sorting. still see so many places that don't have proper green bins recycling in place.
103	Engage Dalhousie U and other universities in this process to develop applied solutions to this ongoing problem? It could be a project for students to brainstorm on solutions in particular to gain energy from composting. If it was really effective and efficient, you would think we could have a system that practically funds itself. It's taken years to educated citizens on how to compost - don't let it slip. Re-purpose the existing facilities, it reduces shipping costs. Good composting reduces the potential of rats/racoons/etc in the city. The city needs to educate newcomers and new students on composting; we need a communication/education push every Sept when new people come to the city.
104	Ensuring that compostable plastics can be accepted along with all organic materials, including grass, leaves, etc
105	Even if we don't go for additional options (biogas, etc), we need to consider / factor in possible future expansion/addition to sites. I'm strongly for diversion of as much material as possible from garbage dumps. As well, I feel we should go for the best return on selling the end product as possible, but should consider selling back to citizens of HRM and other municipalities as well.



106	Every effort should be made to maximise the composting of all organic material. Having a system that would allow compostable plastics, grass, and other organic waste will reduce the impact on the landfill system which is currently exceeding its targets for life expectancy
107	Every week green bin collection should extend until the end of September
108	Everyone could compost their own waste to some point. I have composted for 34 years. Kitchen waste in barrels to deter pests, and yard waste in a long trench. The compost goes to our small green house, and gardens. Even some our neighbours bring us their waste. It is easy, not time consuming, and we save money on fertilizers. We even have a small wood/leaf chipper to chip all our brush and course yard waste.
109	Expanding the weekly green bin pick up to include warmer spring and fa months to cut down on smell in residential bins
110	Exploring composting septic tank waste.
111	extend weekly collection through the fall due to yard waste
112	Extend weekly green cart pick to include September
113	Extend weekly pickup to June and September, maybe even October Invest in bins that can be better secured, which are already in use in Cumberland Co, and PEI - this prevents animals from getting in. Also consider a smaller size for urban areas or households which request one - also now in use in Cumberland Co.
114	Extend weekly pickup.
115	Extending weekly collection in September. Promoting and celebrating the success in the HRM of large-scale composting!
116	Extending weekly organics pick-up from the middle of June to the middle of September. Adding grass clippings back into the organics stream.
117	Feedback to the taxpayer as to whether or not recycling actually is cost effective. Has anyone explored total incineration of everything to generate power
118	First, maintain the momentum or enhance it by greater citizen buy-in.
	Second, wrestle control of end product away from private sector, if possible.
	Consider blending options and strategies over different time frames rather than choosing between two things right now. Let me know if you want further information on my thinking.
	Thank you.
119	For the most part I just care that my compost gets collected, I like that it's free. Where I used to live we had to pay a private company for trash collection, the city didn't do it.
120	Generation of green bin material is highest in June thru October and there should be weekly collection during those periods.
121	Get it right and make us proud!
122	Grass clipping need to be accepted again. "Grass Cycling" is a good concept if your lawn is healthy and weed feed. However, if you are trying to manage a weed problem the tasks becomes almost impossible without significant finical cost to the home owner due to the recycling of the weeds all over your yard



123	Greater promotional of educational resources and encouragement of localized composting (ie in household composters in backyards) would be great to see- until I attended the consultation session I had no idea we were even allowed to do this. I look forward to hearing about the proposed upgrades or new facility development when the proposal is released in the spring. Thank you for reaching out to the community
124	Green Bin collection should be done on a weekly from June to End August. Also the city needs to determine which green bins need replacing because some bin look and smell pretty disgusting.
125	Green bin pick up should be weekly from May 1st. to October 31st. To take into account for spring yard clean up and fall clean up.
126	Green bin should be like garbage, collected weekly.
	Compost MUST be available to residents at non-profit pricing, by bag or truckload.
	Facility MUST be operated on a cost recovery basis.
127	Green bins need to be collected weekly for a longer period when the temperatures are warm (i.e. June and Sept)
128	Green Bins should be collected every week in ALL areas.
129	Green bins should be emptied or collected every week all year.
130	Green collection should be expanded to weekly from early spring to late fall
131	Halifax is in a growth stage so requirements will continue to rise. Folks on the edge of the city with larger properties already do composting for their own properties, lessening the load on the system. However, city growth will burden system. Therefore, 'go big or go home'. Prepare for at least 25 future years, including size, better technologies and ability to expand/adjust process ; very important for Halifax to maintain it's forward thinking mentality.
132	Halifax should be making money by selling the finished product.
133	Have weekly pickup year round or at least into September. Green bins need to be equipped with a locking mechanism to keep animals out of the bins.
134	Heavy enforcement of the rules of green bin us and waste sorting and education of youth on the importance of the composting and the 3 R's. We think the education job is done but consumerism is countering that message. That message needs to be repeated for adults too until it is second nature. Inspectors and fines will force people to obey the rules. Too many people don't bother to put in the little bit of time to get it right.
135	 -Home composting should be encouraged as a first option, and capacious black bins offered free or at significant discount to residents. -Composting facilities should be decentralized and answer to and be managed by individual neigbourhoods. -Composting should be low-fossil demand including transportation. Facilities should accept organics
	from walk-in individuals. -Composting should be transparent to citizens and proactively educate and offer tours. -Composting should be operable off-grid or grid-feeding using mechanical, renewable and green processes such as gravity feeding, passive solar, directed airflow and hand power. -Finished compost should be available to citizens
136	Homeowners should be encouraged to make their own compost
137	HRM could significantly reduce the volume of compost it processes by better promoting and supporting residential at-home composting, via providing subsidized compost kits of varying size, from worm buckets to large multi-bin set ups.
138	HRM needs to be promoting Backyard Composting much more as an alternative to reducing the amount of organic waste trucked and processed at composting facilities. Citizens want to get involved and want to divert more waste materials. The municipality should be pushing the Province to regulate packaging and other unnecessary materials from the landfill.
139	HRM pays \$170/ton while most communities in Canada pay \$85/ton. You must reduce costs in your formula. "REDUCE" also includes taxes. You guys are out of control in spending on garbage!!!!



140	HRM should consider encouraging people to compost as much material as possible close to their homes by subsidizing worm composting either at individual households or on a block by block basis. In addition HRM should susidize easy to use and rat proof composters (e.g. turning barrels between two tripods). to households and in various public parks and gardens. Small scale biogas projects to deal with pet waste should be used to light parks or run fountains. If the projects are larger the smell is awful and the danger increases when and if electric power is lost during a storm or otherwise.
141	I am a big proponent of enabling residents to use compostable plastic bags - I was glad to see this as a future option! Not using compostable plastic bags is the biggest compliant I hear amongst neighbours, as it adds time and energy to the process (i.e. to have to clean the compost bin every night - the most dreaded chore).
142	I am concerned about racism in landfill/compost facility siting. NS has a very poor track-record in this regard; it's past time we reversed this trend.
	Economic considerations are important; the most important thing is that we prioritize local jobs and local companies in our choices.
143	I am in favour of anaerobic digesters above all as they create an energy source that could be used by the city as long as they are cost effective. I would like to see grass and leaves allowed in the compost bins again.
144	I am proud of Halifax and our waste and composting rules. Lil MacPherson would have valuable knowledge of other places around the world that have done composting for a city our size.
145	I am very proud of what we are doing and have no issue with the cost of continually improving processes that will help the environment. We need to think of future generations. I would like to see more weekly collection of organic waste
146	I believe businesses should be included in green bin collection. These bins would be on a larger scale but would assist us with the regional landfills.
147	I believe green bins would be better collected every week all year round.
148	I believe our compostable material should be available to HRM's residents as compost after it has been processed, either at a discounted cost or free. Other cities do this, and it is a great way to encourage people to compost correctly since they are directly benefiting from it.
149	I believe strongly in the future of this program and have always been proud of our "green bin" program. We must find a way to continue to be leaders in this area
150	I believe weekly collection should run from April (to cover spring cleanup) through October (to deal with fall leaves). Those months also can all be fairly warm, and produce a lot of smell in the bins.
151	I cannot wait to move far from the HRM. Add this fabrication to the recent ditch tax and ROW tax. All fabrications to rob more money from citizens. How about we just dump it in a big hole like the good old days or do what NYC does, take it out to sea and dump overboard. Does any of it really matter?
152	I disagree with the idea of allowing plastics or any non-organic matter into compost. People who live in houses with yards (suburbs, rural) should be educated and encouraged to compost their own waste. We personally separate our organics and keep those from organic fruits & veggies, as well as leaves for our own garden and the rest goes into the green bin. If everyone did this, there wouldn't be so much strain on the system.
153	I do not like the new brown paper leaf bags. It limits when I can collect my yard waste. I can't store the bags outside because they decompose if they get too wet. Also, they don't hold much. and you can't can see what is in them so people could put unacceptable items in them Weekly green bin collection from first of May until end of October would greatly help, but I doubt if it's possible. What about first of May until the end of September?

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154	I do not think animal waste should be included ever I do know people who put dog and cat litter in their bin and I do not agree with this taking out packaging was a great ideaif it's dry and can be used to move other products and it's feasible why not only soiled papercardboard should go in example pizza boxes
155	I DO NOT want a facility in my neighbourhood. We've already had a huge fight over this previous to the election. Since I have to pay the tax to the HRM - I would like my green bin collected every week - just like people in the city & my in-laws that live in Lakeside! I live in Porters lake - on the Eastern Shore, I don't want all of HRM's garbage (stinky organics) in my area thank you very much. I don't even want to be part of HRM & hate having to pay taxes to fund the god damn OVAL which my children never use - you people are crazy thinking that residents of Sheet Harbour or Middle Musquodoboit would drive all the way in there to use that thing. It only benefits people living in the city, but here I am paying for the lights & people to work there I don't want your god damn water run out our way either. I live on a well & septic tank & I love my water - keep your damn bills to yourself!!!!
156	I don't feel it necessary to allow grass to be put in the green bin. Bushes/ shrubbery yes, and thicker- stemmed greenery, but regular grass composts very readily on one's lawn or field and perhaps educating the public on those benefits is better than catering to the few that want a pristine, hay-free field each and every day. I do think we should be mindful of the environmental consequences of composting, such as potential waste products or emissions coming from processing, as well as respecting residents that live in the area and their right to clean air and water. Additionally, I would LOVE for each resident to get a certain 'quota' of compost for free each year (like 1/2 cubic yard) or to purchase at a cheap price, that they can pick up at the facility if they please - it would allow people to see the final product of their sorting and promote urban gardening/ food sustainability and self-sufficiency!
157	i dont see what this is going to do. we all know that the idiot mayor and the spendy council will do what they wish. i will proceed as always. i throw what i want in whatever color of bags i wish and they take it away.
158	I don't understand the question above - I've ranked them, but had to presume on context being related to a compost facility I definitely think you need to accept grass and sod, and ground/soil, in green bins; people don't have anyplace else to put it unless you want it hidden in garbage bags; I had neighbours who hid rocks in their garbage too, when digging new garden beds; when we want to garden on a small scale and don't have someone in to haul materials away.
159	I encourage HRM to consult with researchers at universities to identify if they are able to assist and develop new methods for composting materials, especially plastics.
160	I expect to be able to receive low- or no-cost compost for my own gardens, reliably and easily accessible. Another idea to alleviate capacity issues may be to outsource (some) anaerobic composting to existing farms - ie. contract out a portion of organics processing to farmers who will then be able to provide compost back to the city or directly to citizens. This could allow more time to expand facilities while maintaining or increasing collections, utilize our farmers in a compatible economic activity/provide an income stream, and distribute the availability of compost throughout the community (I would think that farms in neighbouring counties would also be acceptable - ie. Hants East/West, in terms of logistics/distance)



161	I feel I don't have enough information to answer some of these questions. Anaerobichow much energy/gas can it produce? Can it be sold back to the grid? Are there subsidies for renewable energy targets? Taking in others municipalities compost - it depends? Is it an environmentally wise decisionfrom where? How much will it offset the tonnage fees? How much extra energy will this produce if Anaerobic digestion processing? Can there be revenue from AD byproduct? How much is compost currently being sold for? Can byproduct from an anaerobic digestion plant be sold for more because it is better quality? How much food waste can an AD plant handle? I feel the questionaire needs another # for "Don't know/need more information". For many of the questions, there are too many variables to answer 1-5. I feel I do not have enough info to answer properly. Or need more info? For example: one processing facility vs more than onedepends on cost analysis. What are the assumptions? What are the risks? I do know, environment, social context, finances and risk and logistics are important to me in that order. I feel Halifax can be a leader in this. And through research and negotiation can look at ways to offset costs. I would like to see incentives to keep organics out of the system - incentives for backyard composters and for small business to haul compost (farmers, small local composters. Can smaller companies / farmers %. Would it be possible to break down RFP's to let some of the smaller, local businesses profit - eg. Christmas trees removal), Has there been an ask for this? Are there smaller companies? Haulers? Have they been contacted to see how the city can work with them? Contribute to the local economy?
162	I feel organics and garbage collection should be every week and recyclables every two weeks. They
	use this method in CBRM and it is very successful
163	I feel that collecting pet feces in the existing green bins makes for a very smelly problem. We don't own a pet but have had dog owners deposit their dogs' waste in my green bin in the past even though it's not allowed. Disgusting!!
164	I feel that compost should be collected weekly to reduce rodent and pest issues, especially May - Sept.
165	I feel that families in the HRM should have access to this compost to use in their home gardens. More encouragement should be given to families in producing their own food, spending more time outside, and spending time with each other. Buying compost for gardens from garden centres can be cost prohibitive for the average family and discourage them from possibly starting a very fruitful garden.
166	I feel that there should be garbage bins supplied by the municipality similar to the green bins. This would help garbage bags from being ripped open from wildlife and causing garbage to be disposed throughout a community.
167	I feel the weekly green in pickups should continue at weekly until the end of September because our Septembers have become so warm over the past few years that they are usually worse than July. The maggots and the stint of the bins is horrible walking down the street sometimes. I spray my bin after it's empty and it's still disgusting.
168	I find it almost inconceivable that this process is starting when the facilities are full and not several years ago. Fire the manager with a degree and hire me!!!! The registration process for this survey is bullshit, it took way less time and effort to vote. The 1st 3 digits of my postal code? There are only 3, the other 3 are letters.



169	I find that previous decisions made around garbage and compost collection made sense on paper but was a hassle when put into practice. I feel it is unfair to dictate not only THAT people recycle and compost but exactly HOW and WHAT they can recycle and compost. If my grass isn't something you want to compost, then allow me to throw it in the trash if I choose. It's silly to dictate that I'm not allowed to bag my grass to dispose of it. That, or there should be a rebate for buying a lawnmower with a grass bag since we're not allowed to use them.
170	I have asked before that cotton scraps and thread that quilters use be included in the composting process. To date no one has ever answered. It is organic waste.
171	I have put a number of 3's as I think that the experts should have the space to do the correct analysis. We must not go backwards in this regard, homeowners and soon apartment dewellers are used to source separation it should be encouraged as well as reduction of waste. Thanks
172	I know it is already in the survey, but I think that pet waste should definitely be allowed to go into our green bins. It would help offset even more waste from the garbage, which the city seems very focused on reducing already. I think it would also be advantageous if we were able to put box board in the compost bin again. The amount of extra plastic bags that get used in my household because I have to put out recycling separately has definitely increased since that change in the collection system happened. Another idea might be to invest in bins for recyclables like other major cities, thus decreasing the need for bags. I am aware that the idea of weekly green bin collection through the month of September is being floated around, and I think that is a very good idea considering how hot September often is.
173	I like the idea of residents being able to buy finished compost.
174	I like the way we are going. Every 2 weeks is fine by me as I backyard compost. Pet waste is a concern, but cost should be weighed against the current environmental cost of landfill for it now.
175	I may not understand how this works, but if the facilities are at capacity, the municipality should just give the compost away to anyone who wants it (including residents and farm folks), and have community pick up points where people can come and get compost from dump trucks etc. I suppose that only helps with the finished product, and not if the facilities are at max capacity for the currently degrading stuff. Another way that HRM could try and reduce capacity would be to provide residents with a rat-proof composter they could use in their own backyard. We have a backyard compost for garden waste like leaves and grass, and would definitely compost our own food if it didn't mean risking a rat infestation.
176	I own a rental property with many tenants from out of town who don't understand our system. I am constantly trying to educate them with personal contact, HRM educational materials and schedules and regular notification of problems by email but to no avail. Using proper bag colours for recyclables, separation of paper and corrugated cardboard from regular garbage, use of banned "compostable" plastic and not tying corrugated cardboard are regular problems. I notice other small rental properties nearby having the same problems. Is an after collection sort solution too costly. Also, many properties are not putting out their garbage, recycling and compostables on a regular basis. This piled up garbage attracts rodents and other critters.
177	I personally don't find being able to use the compost a motivator (I do this myself) but I do feel it is an important educational tool
178	I really very little knowledge of what happens to our green bin contents, so thanks for sharing. I'm just happy we are all composting and it is just a way of life now. My daughter moved to Ottawa for school and is so frustrated she can't compost in her apartment as that's how she grew up in Halifax. I'm sure you will find the best solutions!
179	I recommend encouraging more at home on site composters/disposal of (ie wood stoves to handle increasing volumes of composting materials not shipping materials for processing at hrm facilities where possible, seems a much more practical solution rather than building larger facilities.

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180	I said above that I do not think Halifax should accept compost from other places. However, if it was more cost-efficient or gave us economies of scale then I would change that response to a 4.
181	I think adding the option to put compostable plastic into green bins will create more problems that benefits. Citizens already mistakenly put plastic into green bins and allowing special plastic will increase the mistakes and make very poor/expensive end product.
182	I think an important consideration is the usefulness and cleanliness of end product. Perhaps sorting would allow for other materials (compostable plastic /grass) to be added yet still allow door the generation of usable soil
183	I think homeowners should be encouraged to compost their own organics.
184	I think HRM should encourage more residents to compost their own food waste by subsidizing back yard composters and providing education about how to do it well and properly.
185	I think if you were to allow the use of the compostable plastic in the green bins it would reduce rodents getting into the compost, make composting cleaner for residents and easier to handle especially if we were allowed to use the large bags that fit the green bins. Collection could be done faster as the trucks could handle as they do regular waste by grabbing the bag and throwing it in the truck. It would also make winter collection easier and cleaner as the waste wouldn't be frozen in the green bins and left till spring before it thaws enough to be dumped. Weekly pick up in the summer months should be extended to the end of September at least as warm weather extends well into September.
186	I think it is important for residents, both symbolically and educationally, to be able to purchase the compost they contribute the raw material to provide. It should not disappear from our lives once the green bid has been collected. I would like to see the end product in bags in some stores.
	This makes sense only if there is some evidence that consumers are willing to buy back their waste. Alternatively, perhaps every residential customer should receive, once a year, a bag of compost on their doorstep.
187	I think it's very important that waste stay as close to where it was generated as possible. This not only saves money and resources that would be spent transporting it; it encourages people to be responsible for their waste since they will have to live with it.
188	I think more emphasis needs to be put on making the system as easy as possible for residents. Two changes I see as important are:
	1) Accepting/offering a smaller sized green cart - we're not all curbside and transporting bins from home to pick-up location isn't easy or possible for all of us (rural, seniors, people without trucks).
	2) Accepting biodegradable plastic - this is by far the cleanest, easiest way to deal with compost. More people would accept the process if this leak & odour proof method were acceptable.
189	I think residents could do a great deal more in doing their own composting where they have the space - there's enough technology and knowledge about the process that it should not be an odour or aesthetics issue.
190	I think that having a clearer understanding of the good, we as generators of waste products, are doing by recycling, composting, or re using them.
	gains to being a leader in waste management.
191	I think that HRM should also consider penalties, like fines, for those who blow leaves into the street, or burn them, and not cap bag pickup (not sure if this happens) as many home collect leaves from trees on city property and should actually be thanked for this.
192	I think the green bins are getting old and broken. Are we able to get new bins, especially bins that can be cleaned easier than our current bins
193	I think there should be weekly collection for composting through to the end of September.



194	I think this is a great opportunity for Halifax to properly plan for future needs and uses of compost materials. Priority should be to allow collections of as many materials as possible, in a cost effective manner. If this means shipping to other municipalities, then so be it. If it means going bigger and accepting from others and generating some revenue to offset operational costs, that's great too!
195	I think we need to be innovative and consider out the ripple effects of decisions. For example if an option is more expensive but it creates more jobs then that may be worth the outlay of money. I also think that renewable energy and low environment footprint should be considered in all aspects of how the plant is run and what comes out of it.
196	I think we need to think this over as we can't continue to raise taxes to pay for extravagant features. As for environment I have Three trucks picking up my garbage now, compost truck, blue bag truck and clear bag truck. I am not convinced we are saving the environment but we all feel good to think we are. Suggest we do the reduce first, packaging rules for stores would probably be a good place to start
197	I think weekly green bin pick up should be extended at least one extra week in September due to the fact our summer extends into September. If this is too costly then the first week of July should be negated for the week into septemver
198	I think weekly pick up throughout the year is impt. It is great during the summer. Every two weeks is too long to keep the materials for pick up
199	I think your grading system for your questions ,changed,to give you answers you want
200	I understand how difficult it is for authorities to manage collections but, residents should be made aware that continually leaving their bins on the street as static fixtures should be discouraged and those who continue to offend or re-offend should be subject to fines or penalties as applicable
201	I understand residential areas who don't want to be burdened by smelly plants. The city should have the guts to use land that seems to be currently given cheaply to broad expanses of parking lots servicing sprawling one-story mega-stores. Use our land wisely and make sure our garbage is handled by us. I would rather a new compost facility than a new IKEA.
202	I used to use my green bin, but not anymore. I have a black composter I use for personal use. I do not put paper towel or meat bones in my composter, I was putting bones/towels in the deep freeze until organics day, then into the green bin to keep animals away. I have a long, steep driveway and it was a hassle to drag it down to the road side for a few bones/paper towels so I left the empty bin outside. I suspect a raccoon got into it while it was upright and chewed a large hole in the bottom by the vent to escape and I haven't used it since. I do not rake grass clippings. When I lived in Hants County, they had free compost give away for resident twice a year. I have never heard of this in the 12 years I have been in HRM. It either doesn't happen or is not advertised well.
203	I very strongly think grass clippings should be included.
204	I want to be able to put kitty litter in the bin like Truro. I read that wallboard was being used to make animal bedding. Why not accept small quantities of wallboard. Please extend curbside weekly collection into September as it is still warm and fruit flies are the worst
205	I was a lifelong garden composter until we moved onto the Halifax Peninsula. The only thing that went in the green bin was branches too big to compost and organics not suitable for home bin. Now we don't have the garden space to put two bins and generate too much vegetable waste to get by with only one. There is also the vermin problem, even though we never put anything except vegetable matter in the bin. So we made the decision to put everything in the municipal green bin and get rid of the home bin. This makes me sad but there are good sources of inexpensive compost to buy if you know where to look. I would like the opportunity to have access to municipal compost but only if it is of certified high quality. There were problems with this in the past, I gather. I would like the solution to be one that builds for a long-term future and is sustainable, even if the initial cost is higher. We have to stop looking at short term solutions if we are ever to be a progressive city that addresses environmental problems rather than 'green washing'. And we have to get tough on residents and landlords who don't obey the regulations.
206	I was in Fredericton NB and they were offering FREE compost to residents, and thoughts of doing that in HRM?

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207	I would like for our green bins to be picked up weekly year around . and even replacing the green bins . my green bin that sits out next to my house has a split in it . I feel these should be replaced at least every 5 years.
208	I would like to add pet waste and grass/yard material back into the green bin. The service needs to be as cost effective as possible, although the main point of composting is for environmental considerations.
209	I would like to be able to compost PLA materials (compostable plastics) such as cutlery and food containers.
210	I would like to be able to include all boxboard in organics again. Not just as containers for household organics.
211	I would like to be able to purchase the compost for use on my own property. I think it is imperative that we find a way to ensure that pet waste is eliminated from the Otter Lake facility and managed in a more environmentally friendly way, i.e. as part of the compost or some other system that will break it down into a less toxic substance.
212	I would like to be able to use the cornstarch bags in my compost. Discarding liquids is impossible with the system we have. Many people I know are dumping it into the sewer system UGH The system in place for grass clippings isn't working either. Unless you are able to mow your lawn weekly the clippings are too long to leave in place if you [me] wish to maintain a healthy lawn and home composting is out of the question with the rat epidemic we have in the city. Home composting = rat nests. UGH x2 Paper bags don't work with biweekly pick up. The are useless in our rainy climate and no one wants yard waste kept in their homes for two weeks. I also think there should be more sorting at the plant and less at our homes. Having 7 different waste receptacles is really just causing folks to hide stuff rather than sort properly. When you make the process too complicated for home owners they are less likely to comply.
213	I would like to propose compost used get put towards community gardens/HRM gardens which specifically grow food for food banks and are distributed to areas where getting fresh produce is difficult (downtown Halifax, or senior complexes). Additionally (as an aside) perhaps we could look at court ordered community service being served attending these gardens.
214	I would like to see blue boxes. I lived in Waterloo Region for many years and became very dependent and used to the blue box for non-organic materials; newspapers, cans, plastic containers, etc. It saves on plastic which we should be eliminating as often and as much as we can.
215	I would like to see green bin extended to end September on a weekly basis. I would like to see another bin for grass clippings even if the cost of the bin is optional to homeowners and the bin picked up on a rotational basis.
216	I would like to see more materials being accepted such as pet waste. This would alleviate the problems caused by overflowing public waste bins and pet waste being washed into the lakes and waters of our city.
217	I would like to see the weekly compost pickup not be monthly limited but by weather. My compost STINKS when warm and with NS weather that could be well into Sept and some of June. Bears, racoons, etc are attracted so it is more than just smell. I agree with the no grass collection, just mulch and feed the lawn, maybe more education on that, should be an easy sell, it's easier to not rake and bag!
218	I would like to see us be a pioneer of testing/trialling new and exciting compost and energy reclamation techniques, but doing so responsibly on-top or alongside proven methods that can support our projected future output of organic waste. We should be okay taking strategic risk, if those trials will help us learn to be even more efficient in the future.
	personal use, but I believe it's to the greater and equal public good if the system generate the most return from selling organic material (as long as it is done locally to reputable buyers, and it's shipping is reasonably close), or generating energy from organic waste, and passing those returns back to all residents.
219	I would like week Y collection in June and September.



220	I would love to be able to compost baby diapers like they do in Toronto. Also, frequency of picking up green bins may need to change of course, if we are composting more.
221	I would love to be able to use compostable plastics in my green bin. It cuts down on odour and mess in my green bin. My green bin is only collected every 2 weeks as I am in Lower Prospect
222	I would love to see the city take a leadership rol ein promoting environmental health and alternative energy. If composting can generate energy we should explore that and promote the urgency of protecting the environment and reducing greeenhouse gasses.
223	I would really like to see some form of pet waste composting ability, rather than have all that go to a land fill. I'd also really like to have access to high quality compost to be used in resident's gardens.
224	I would Really like To be able to use compostable bags in my kitchen green bin. Thank you.
225	I'd like to have access to the composted material even if it cost a bit. It should cost less than compost purchased at are retail store. A delivery service when a large amount is requested would be a nice to have.
226	I'd like to see a facility that exceeds current standards and allows for expansion and changes to regulation. Spending a little more now will save money later. This is a chance to show that Halifax is ready to make a commitment to improving this community.
227	I'd like to see the collection expand to increase weekly when the temperature is above 20 degrees or so. ie June and Sept.
	It is not necessary to introduce decomposable plastics etc. or allow grass clippings if it taxes the system and costs more. Just getting people to support the basic concept of composting appears to be challenging enough without adding new material and gear to sort. I imagine the sorting of foreign matter in the compost is taxing to the system.
	A large concern I see is composting (and recycling) not done by largely populated areas such as apartment building, malls etc. That appear to undermine the work the majority of us are trying to do.
228	I'd support anything that HRM can do to encourage backyard composting, neighbourhood-level composting to produce good quality compost for gardens (private or community) and reduction of food waste. Obviously, education would be required.
229	Ideas to use the product, whether for sale compost product, burn etc. are important. Importance to keep facilities away from residential areas. Importance to try and ask residents to continue to compost easy items such as grass and municipality to begin composting additional items to reduce amount going into landfill (and more recycling). Importance to ensure area does not produce smell outside facility even if in industrial park since wind carries smell.
230	If HRM can generate an economy by taking others waste then do it. Sweden currently imports other countries garbage, and uses the garbage to make electricity. HRM/Nova Scotia could do very well if we adopted this same mind set. We'll charge to import your waste, generate electricity, then sell the electricity back and a decent rate.
231	If I have to sort all my garbage than I should get a lower tax bill and not more. Seeing I am doing the job for the company etc. Why should they be able to raise the cost to pick it up than make money on selling the compost? Seeing I am giving the compost than I should be able to get it back and it not be given to the city to use in there flower beds. It is time that HFX look around as there is other cities that have much better systems that are cheaper and I don't have to do all the work. Remember I pay the city for garbage removal and all this is garbage so I should not be paying as hi as I am to have it removed after I sort it all. My time sorting is worth money as well. Maybe I should sent the city for my time to sort my garbage



232	If it is cost effective to transport materials to an outside location than the Province should consider building one or more composting sites on land in the rural areas of the province. With so much empty land and lack of jobs in rural areas it could be beneficial to everyone.
233	If it is possible to keep the existing plants operational and build new plants in different areas. Has worms been considered for composting. There would have to be a change in collecting as meat and dairy produces can not be in the compost.
234	If we are serious about composting, we must extend weekly collection through to September or build in a policy like the NS Power Act, where biweekly collection begins when the temperature drops below zero.
	The level of financial investment is difficult to gauge without considering the costs associated with garbage disposal at municipal dumps. Numbers without proper context make it impossible to make an informed decision.
	I agree with energy recovery, but strongly oppose fish and animal food. We simply cannot establish what pesticides or other harmful ingredients work their way into collected waste, or its biological impact on animal populations.
235	If we could generate enough Biogas, vehicles could use it, saving \$\$\$. Keep searching for new technology that meets our criteria and volume. Education is key to reducing material we have to process. Since we analyse what waste we pick up at the curb, we know what breaks down and what does not. Penalise those whose products do not break down easily, and those whose products are not re used, recycled or returned. Think outside the box when it comes to Waste Management and related costs to taxpayers.
236	If we create the compost, we deal with it, and not send to someone else to do deal with. I feel the same about garbage.
237	I'm hardly an expert and know nothing. I hope that the municipality is not spending a lot of money on garnering peoples opinions such as mine, because, really, the money and time spent on polling us, should be spent by HRM and industry experts, figuring out the solution themselves. It's dumb that the program has been deemed a success, congratulations, but now we don't know what to do with it. Now THAT was a lack of planning.
238	I'm proud of our composting efforts in Halifax. You are doing a good job, but we can always do better. I encourage the city to be leading age when it comes to composting.
239	I'm strongly for anaerobic digesters but it would be nice to see a comparison chart (initial cost, continued cost, size, workforce, power generated, compost generated) and have links to the alternative technologies.
240	In Alberta they have brown bins for your garbage and green bins for your compostable so there is no need for the separating clear plastic, black bag which is a pain!! You put in brown bin what doesn't get put in the green bin - seems simple to me.
241	In areas where it's feasible, particularly further out in the municipality, residential based composting systems should be encouraged, and perhaps subsidized. This reduces the volume required for transport, and processing, while allowing those most likely to want output from these systems direct no cost access to them.
242	In areas with single family dwellings (e.g., R-1 zones) collecting organics weekly in the summer seems to be an unnecessary waste of resources. Those of us with a single house on one standard size R-1 lot have sufficient yard space to keep green bins away from areas where the odours might be a nuisance.
	Also those of us with standard size or larger R-1 & R-2 lots have enough space for our own, on site composting facility. By composting most of our own material, rather than putting it out for the municipality to pick up & deal with, we are reducing costs for everyone. We should get some consideration for this.
	Similarly, weekly pickup of recyclables seems unnecessary. Most of us have sufficient space to accumulate 2 weeks or more of such material.



243	In order to cover costs of additional compost pickups during peak season, I believe recycling pickup could be reduced to biweekly.
244	In regard to "wanting to be able to put compostable plastic in the green bins," I gave it this score because even though it's not supposed to, I noticed well intentioned people putting their refuse in plastic (grocery store bags) and throw all in the green bin. If it was compostable plastic or not I don't know. Can more information about compostable plastics be "put out their"?
245	In the construction of new apartment buildings, condo buildings, they should not be allowed to be constructed without a shoot for compost. Existing buildings need to have compost bins available for all units, and at every shoot. Staff should be responsible for cleaning compost bins at each garbage shoot so that residents have an option. for composting if they forget. This allows for them to remember and pick through.
	Buildings need to enforce residence with fines for this infractions. The companies need to fine the company for bad garbage. If the company takes bad garbage then the city has the right to refuse it and fine the company for picking up the bins waste.
246	Increase the length of time of weekly collection (i.e.: during spring/fall when yard cleanup quickly fills the bins)
247	Is it marketable? Perhaps if the end result is good for say- home garderners- if they collect from the depot it's free, if they wish to have the convenience of elsewhere, charge a small competitive price.
248	It is extremely difficult to please everyone in this regard. I want HRM to have the best composting at most cost effective way that is possible.
249	It is time to look at other locations of the municipality for some of our waste stream. Centralizing all waste resourcing in one area is simply wrong. The composting should be dealt with in various centers across the municipality in areas far from residential and commercial centers A. minimize carbon foot print B. reduce unpleasant impact like odor on residents
250	It would be a very good idea to extend the weekly green bin collection. Till at least the middle of September.
251	It would be nice if halifax was not only a canadian leader in waste management but a world leader. We need to start putting our environment in this province at the forefront. It needs to be sustainable for our future. The environment will only grow as a topic of discussion, job creation, political platforms etc. So lets please be ahead of the curve.
252	It would be nice if organics were picked up weekly within areas with a high wildlife population, such as in Hammonds Plains. After speaking with the Department of Natural Resources, we come to find out that they were strongly AGAINST composting/organics within the area of Hammonds Plains because of the wildlife. The bins absolutely STINK after a few days, let alone 2 weeks. They're horrendous! I refuse to put waste/organics in my freezer until garbage day like some people. This is absolutely disgusting. The program that has been implemented may work for the municipality, but as a household member, I, and others I have spoken with, feel as though their homes & garages have been turned into mini "garbage facilities" because of the number of bags and sorting bins that are required within a household. What looks good on paper isn't always the best solution.
253	It,s great to have a weekly collection in summer.
254	it's a hard system for apartment complexes. Mine and many others only have one green bin for an entire building so it's constantly over flowing. and moving into this building I was not provided with the mini green bins needed to keep in the home. I know this is a common issue in most apartment buildings. it makes it hard to compost.
255	It's important to consider all aspects listed above and to weigh the pros and cons of each item listed above with respect to the other items. For example, if one were to consider adding compostable plastic to the list of acceptable materials, what does that mean in terms of cost, existing composting processes, final product, etc.? One cannot think about one factor without addressing the others.
256	Keep it as economical as possible. If not dig a hole and bury it.



257	Keep looking at all new technologies and partner with NSCC & universities that have programs related to this issue. Allow communities to think small about how to help.
258	Leaf collection should be allowed in clear bags. bulky items in good repair should not be placed at the curb, lots of this stuff is reuseable. Garbage and bulky items that is garbage should be burned to generate energy, why is it buried when it can be burned.?
259	Learn from countries such as Sweden how to utilize compost for heating
260	Learn from the city of Calgary on they collect and process garbage and organics efficiently.
261	Learning to waste less. Charge grocery stores for additional extra waste. If we look to the root of the problem we can fix it there. Stop waste!
262	Local, small scale pilot commercial value added innovative technology is important. front end education for better segregation using rejected stickers at curbside is important.
263	look at ways they compost in Germany they are 30+ years ahead of us in how they do it. Don't reinvent a wheel that's more efficient in another country
264	Love that composting is available in our area. Would be nice to have the end product available for the public to use in their gardens
265	Make finished compost available at low cost to public. Educate the public on home composting ei; free work shops and low cost bins or ways to compost without the smell and mess (wrapping in news paper).
266	Make it easier on residents to do the right thing, even if it is not perfect for the environment. i.e. if you start policing those of us who do right by recycling etc for the few offenders it disrespect those of us who play by the rules. Let's just not make the rules more cumbersome.
267	make it simple
268	Make sure the compost ables are used in a useful manner, power, compost and other uses are great as long as the potential isn't wasted.
269	Make sure the materials being processed make a quality product and don't cause it to be unmarketable.
270	Making composting information more available to people whether at home or while visiting a restaurant, other public places, etc.
271	More can be done to encourage home composting. People should also get compost makers if they want for domestic use.
272	More education programs to help the every day person understand what goes into what category (greenbin, bluebag, garbage) and why composting is so important. Maybe have some sort of incentive program in place for those (individuals or communities) that make the most positive change or contribute the most to the composting program. Or maybe a tax break/reduction if certain requirements are met.
273	More effort is needed in the apartment building sector. We live in a 96unit building that offers 2compost bin! Diversion is inadequate and needs more compliance.
274	more frequent collection in September
275	More needs to be done with restaurants and the fast food industry as it appears that everything goes into one bag and gets taken to the garbage dump right now. Also some smaller apartment buildings only have a green compost bin to serve many,many people and this needs to be remedied.
276	More opportunities for value added products (i.e. biogas, animal feed, high grade fertilizer, etc.) should be a significant focus of any new comporting facilities.
277	Most garden composte materials occur in September during the harvesting and therefore a September every week pickup would be more suitable then the current July and August which was likely modelled after the old grass clipping collection days which currently do not apply.
278	Multi-unit dwellers should be able to participate to the same extent as house/duplex dwellers.
279	Municipal composting is a great thing. More needs to be done to educate people though, as not enough people bother to do it correctly. There must be an expectation on restaurants and fast food outlets to stream their waste. Finally, the city also needs to continue to encourage back-yard composting.



280	My area has an issue with rats and mice. The green bins attract these vermin, it would be good to consider rodent control as part of the green bin strategy
281	My office doesn't compost, what can I do?
282	need extensive training outreach each september when new students arrive in the south end
283	Need to develope ideas on how to incourage those living in apartment/ condo complexes to compost
284	Newer Greenbins that prevent animals from entering
285	No but what we are doing re: composting makes me proud and happy to live here. I am in support of HRM's work on this and efforts to improve on what we can do and think promoting environmental responsibility is the direction we have to move in.
286	No one is perfect, however, living in a household that separates garbage for recycle it is disappointing to see the number of households in the neighbourhood that don't even try - with no consequences. If we are going to invest tax money into upgrading/improving recycling facilities more attention should also be given to enforcement/spot checks.
287	Not included in the survey five people the option to compost at home. Help them with availability/cost of home composting.
	This would be less expensive, less greenhouse gas emissions (due to pickup), and could eliminate the need for central composting expansion.
	It would also engender in people the sense of participation, and personal responsibility.
288	NS should continue to be a leader in composting solutions in Canada.
289	Old rules were easier to understand e.g. boxboard, grass Should recycle coffee cups etc
290	On a weekly basis I smell the compost facility located in Goodwood when I buy fuel at the Irving nearby. This smell takes away from the enjoyment and value of the surrounding area. Local citizens were told there would be no smell. Wherever future compost sites are they should be well away from people homes and businesses with the prevailing winds working in favour of keeping the smell away from most people most of the time.
291	on last question, "3" was only option provided
292	Ongoing education and marketing of the composting process/benefits needs to be undertaken. We need to be reminded of the benefits and responsibilities of good composting. This is one of the companies and process that I think should be explored: http://www.composter.com/
293	Organic collection should be every week 100% of the time. Anything else drives poor behaviour and people will throw out organic waste into garbage and landfills.
294	Our waste collection is one of, if not the highest cost in Canada. We need to look at ways to reduce the cost NOT INCREASE IT !! There are many municipalities across North America managing waste at much lower costs, use the most cost effective standards available to meet the enviornmental standards of Canada. If the Nova Scotia provincial governmental is imposing higher than acceptable standards, you need to inform us that this is what is causing the higher cost so they can be dealt with at election time. Halifax residents should not bear unnecessary waste costs, as they relate to other municipalities across Canada.
295	People should be encouraged to compost at home. Instead of collecting ALL residents compost and taking it to one central facility, home-sized compost bins should be made available along with public education to support home composting. This would benefit homeowners interested in creating their own compost for gardening and yard care, and would take some of the burden off of the municipal system. We need long-term, sustainable solutions to waste, not another expensive "fix" with a limited time span!



296	People will put plastics in their green bins. When I visited the compost facility in Goodwood, I was shocked to see that a considerable amount of plastic waste was mixed in with the organic waste. Please create facilities that are best suited to process the plastic that will end up in the compost. Also, I'd like to see weekly compost pickup continue until the end of September.
297	Pet waste is a huge concern and should be addressed. Millions of pounds of pet waste currently enter land fills or if not picked up water ways. An appropriate alternative is required.
298	Pet waste is becoming a very serious pollution problem. Pet waste from dog parks (e.g Shubie) should be part of the program (with free compostable pet waste bags provided on site. As an ancillary/supportive policy, non-compostable bags should not be legal to sell or give away (e.g, as part of grocery purchase) in HRM.
299	pet waste, absolutely should be accepted. It is also annoying that I used to be able to buy the compost but no longer can. I understand that it is owned by the facility but they should be required to provide some minimum amount to the general public. Perhaps in the form of max one yard per household. Voucher system?
300	Pick up in him should be weekly not biweekly beyond the old city limits during fall and winter
301	Placing boxboard in the organics bin was very convenient, environmentally friendly, and also used less plastic bags. It would be great to incorporate that back into the plan instead of it being used only as organic liners or sorted in with the paper in a clear bag.
302	Plan for Halifax but not be in isolation that we area small, rural province and much of our rural lands can accommodate facilities likely necessary to manage everybody's organics. And it will benefit farmlands and agriculture too.
303	Plan the system with the intent of accepting new materials down the road as they become more popular (i.e. compostable plastic and coffee cups). Make the system flexible to adapt to changing needs of consumers (more frequent pick up in fall and peak times). Demonstrate how our compost is used, and how it could be used in the future. We have the opportunity to set the bar for the rest of the country when designing this system. Think outside the box.
304	Plastic (or even paper!) kitchen bin liners would make a HUGE difference to the convenience of managing my organic waste. I recently lived in Berkeley California where we were allowed plastic bin liners, and it made organic waste so much more convenient than what we have in Halifax.
305	Plastic bottle caps should be recycled along with the bottles they come with, not really a composting issue but still should be recycled.
306	Plastic compost able bags should be permitted. Also grass. Also weekly pickup. HRM NEEDS TO GET WITH THE PROGRAM AND GIVE SERVICE LIKE OTHER AREAS I'VE LIVED.
307	Please allow for Pizza Boxes. These are the only boxes I want to put into the bin. They have food on them anyways.
308	Please consider adding grass and pet waste to green carts. Also, please extend the weekly green cart to include the month of September. September has become a 'summer' month and should definitely be included in weekly pickup.
309	Please locate facilities away from those poor communities that have borne the brunt of solid waste facilities in past years and be fair with location of new facilities including consultation and benefits to chosen communities.
310	Possible incineration of diapers?
311	Prospect is done stop trying to stuff it more so otherwise don't get facility
312	Provide smaller household containers for transporting organics to the bin (especially for apartment buildings), ability to use compostable plastic bags to dispose of organics in the bin
313	Provide Weekly collection of organics and reduce garbage collection frequency to offset additional organics collection costs.
314	providing more access and education towards at home composting (ex: backyard composter sales, subsidies/grants for communities who wish to take composting initiatives)

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315	Question above - not understood what you want - categories of WHAT?
	 More EDUCATION needed and encouragement to compost in our own yards New approach should be considered. Compost as close to source as possible Develop program whereby apartment buildings can compost (preferably on their own property) Collect from those who don't. Encourage green roofs and community gardens so people have use for own composting Think about neighbourhood compost piles where the compost can be used by neighbourhood gardeners. ALL of these would reduce the need for larger central system with associated costs. Like so many things, it is easier to deal with something at the source rather than a large central operation/facility. E.g. making solar panels available through the Solar City program. Great idea!
240	superiors, are the nener reader waste here really helding up well in our environment? if nearly contained
316	store them for 2 weeks don't they disintegrate in the meantime. In the urban area i usually have 15 + bags/green bin pickup even in the summer schedule. i am not alone.
317	Regarding the question on the alternate uses for the end product - I don't feel fish/animal feed question should be linked to using compost for fuel. If the end product can be used for fuel I would agree with the question asked. Using the end product to feed animals, with the end product in question entering the food chain, I would totally disagree with.
318	regarding: Transport: rail, not road should be the primary means; this may mean improving rail system in NS. Privatization: this should not be a Commercial for Profit venture; wages of managers must be closely manage otherwise the whole thing will skyrocket out of control.
319	Regular (weekly) collection is important to prevent people disposing of stuff improperly. There's nothing grosser than your green bin covered in maggots during warm weather, which DOES NOT end on August 31st! Also accepting grass and pet waste are BIG issues for me, I want BOTH grass and pet waste in my
	tracking the grass clippings into the house after morning dew or rain! It's a PAIN!
320	Related to recycling generally. I would love it if HRM issued *blue bins* for metal / plastic / paper rather than requiring us (ironically) to use more plastic bags in our recycling efforts.
321	Renew the education program to ensure the immigrant and student populations are kept abreast of expectations. Renew enforcement of offices and apartment buildings.
322	Residents should be able to purchase for a very minimal price the completed compost.
323	Right now I think the only material that should be added is animal waste. I'd prefer to see the existing facilities upgraded with newer more efficient technologies to reduce the impact to the environment. IE: solar panels on the roof the provide so of the energy required.
324	Right now, the amount of fruit flies, maggots and people putting doggy doo in the green bin is OUT OF CONTROL! !!
325	Rural communities need the summertime "every week service" service extended to October. The bears get into our bins every week sometimes several times per week.
326	Seeking alternatives and new technology from larger cities and countries and revenue generation from end product will help deal with future issues as our city and suburbs grow.
327	Sell compost at reasonable price to residents, lawn companies to lower amounts in storage.
328	sell it back to residence
329	september weekly pickup



330	Shipping of composting materials is of concern and there should be consideration to minimize the carbon footprint of the operation
331	Should consider a sliding range for weekly green bin collection based on annual temperature trends and reviewed every 5 years. Example: combination of weather predictions and previous years temperatures show September and 1st week of October will be warm, do weekly green bin collection to end of September. Or predictions and historical average show spring will be cold, start weekly collection later.
332	Simplify categories of waste/collection containers for residents. Getting it right the first time is better-but don't delay or fear making decisions. Crack down on abusers of current system-they live amongst us and are an embarrassment and a disincentive for others! For goodness sakes, force the commercial abusers into compliance, eg: Tims and others!!!
333	Since compost is heat treated, we currently add meat, bones etc. I am assuming, therefore, that the eventual product is only used for non-food (fruit/vegetable) gardening purposes. As an aside the recent decision to go to clear bags has ended up with more confusion, unfortunately - - many people do not want to buy 2 or 3 different kinds of plastic bags. I have seen garbage trucks pick up clear bags of recycled materials (bottles, cans etc.) mistaking them as garbage. Not everyone will buy blue bags and clear bags should be an option for recycling both glass/cans and paper/cardboard.
334	Since the removal of the compostable bags, our green been has been very difficult to control odor. Please re-instate these.
335	Smaller green bins like toronto and racoon proof would be a huge cost savings in long term.
336	smaller rolling bins -to big right now, need a medium size
337	Sod, rocks and soil should be added to the list of approved material. Small scale gardening often produces an excess of the materials listed above, which home owners sometimes need to dispose of. These small amounts are too small to warrant contracting a private company to dispose of therefore the municipality must offer an easy alternate solution such as curb side pick-up.
338	Some of the questions asked cannot be considered in isolation. If a location is chosen that is not near homes, then yes we should consider min. odour control. If putting plastic and pet waste is more cost effective collected in the green bin it should be considered but if status quo is more cost effective, why consider the change?
339	Standardizing acceptable materials with other larger muni cipalities (e.g. Truro) would be appreciated. Its hard to get used to the variances when travelling between towns.
340	Start to use more fuel efficient trucks to pick up organics. e.g.biogas/hybrid system
341	Start weekly collection earlier in the year. I get a lot of yard waste during the spring cleanup.
342	Stop waiting money on the stupid H/LIF/X crap.
343	Strongly in favour of a system which allows grass clippings and biodegradable plastics. Those are the 2 main things that need to be considered in my opinion.
344	structure the operation to access federal infrastructure money
345	Styrofoam recycling is important too, not necessarily at/in HRM?
346	Supply and delivery of compost to interested residents without a cost
347	Taking grass clippings is a very important topic for me.
348	Thanks
349	That we do it correct once and not have to rebuild because our collections are increasing. Please attempt to insure that we don't get one built and realize that it is not going to handle the capacity in ten or whatever number of years.
350	The best environmental and logistical balance while keeping within the reality of our fiscal situation would be the best case scenario in my opinion. Especially if it is with a company or department that has proven that it can deliver on promises rather than just the lowest bidder.

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351	The bins are nasty, compostable bags are essential. Diapers are an ecological disaster if not composted. Does landfill cost more the composting?
352	the cheapest option is windrow but they can't be so big as to be unmanageable. Possible to hire contractors to deal with i.e. leaves in the fall, christmas trees and perhaps grass clippings. The city would have first option on the compost to remix and product a product that then could be sold to landscapers, veggie growers and homeowners. Access to clean compost is a growing need as people are seeking out alternatives to imported foods.
353	The companies who produce environmentally unfriendly products such as plastics should be made to find ways to make plastics, etc. more friendly. We the public use these products as we have no control over it AND they can be essential products.
	This is very, very important.
354	The crucial point for me is to accept all organics produced in the municipality, whether collected or user delivered to a facility. Leaving holes in the "needs" equation only results in illegal dumping or inappropriate handling. I do also believe that a reasonable percentage of total funding (1.5% - 2%) should be applied to research and development to ensure that new emerging technologies can be assessed for our climate and environmental impact.
355	The current bins we use are far too big for the normal household. consider smaller bins like what is used in Ottawa. Households that don't compost should be taxed. I see numerous houses in my neighbourhood that never have green bins at the curb.
356	The existing Goodwood site should not be expanded.
357	The Goodwood Composting Facility was supposed to function as an odourless operation. This has never been the case and in recent years the odour released from the facility is unbearable at times. The people operating the facility have no concern for for the effect of the odour on neighboring families and businesses and any expansion of the facility would only compound the problem.
358	The Green bins are getting to twenty years old, mine is cracked and missing a few bits, its time for a new one.
359	The how part doesn't matter to me, as long as we have a sustainable system. Sustainable to me looks like it is cost effective (possibly even producing consumer-available products), it is easy to divert this resource from landfill (composting bags accepted), and it will meet our needs well into the future (e.g. capacity and reliability of technology).
360	The Miller facility in Burnside has very a noticeable odor and this is not something anyone wants in their back yard. If we can expand the facilities and limit residential/commercial activities around them is the best path. Any new technologies will most likely have challenges. If we can engage our students at the local universities/colleges to look at this more closely and tie their studies into other places that are using new technologies. We do not want to over look our local talent pool.
361	The more we can put in the bins the better! I don't have the space or desire to run my own composting bin at home why have green bins if we can hardly use them?
362	The municipality and province should explore means to ban such things as stickers on fruit and excessive packaging for food, which adds to issues with our compost.
	Also explore effective ad campaigns with simple facts about what belongs in compost. "compostable plastic does not belong"
	Fast food businesses are most-likely the worst offenders for collecting substances that do not belong in our compost. It may be better to simply not have them contribute.



363	The one-size-fits-all approach needs to go. My family generates very little compost (or waste, or recycling, for that matter). Germany allows families to buy half-size bins and/or reduce their collection frequency, reducing the costs accordingly. This will be a further incentive to reduce consumption and help meet waste generation goals. Weekly green cart collection in warm months helps improve quality of life on the Peninsula. We should strive to compost all organic materials, not just those with clear secondary markets. We should explore the use of electric collection vehicles. This could require siting compost facilities (or transfer depots) closer to residents.
364	The owner of the Halifax Exhibition Centre and the Goodwood Family businesses both have plans for future residential developments. In addition, there are some who wish to develop residential subdivisions in the area between Ragged Lake and Highway 103. The existing operations at Goodwood have a less than acceptable odour management record. With the potential for additional residential developments occurring in the areas noted, it is less than desirable to continue to process compostable materials in the existing location and that means expanding operations in that location should not occur. The existing lands used for today's composting facilities should be rezoned to allow new residential development since it would cost far less to extend municipal services to this location, far less expensive than many of the proposed future residential processing services should be located farther out from the urban core. Look 50 to 100 years down the road and pln for that scenario; HRM needs to expand its look ahead from a Municipal Planning Strategy to at least 50 if not 100 years into the future. The existing Municipal Plans are filled with wish- list policies that are implemented without good monitoring, tracking & reporting to determine if they are effective and they certainly are not proactive enough to meet the future requirements 50-100 years into the future. It costs money to do things right and doing thing right in the first place, costs less money in the long run. HRM has got to stop looking at the lowest cost solutions as being the BEST solutions for HRM. HRM said it wants to be BOLD, start with composting, but do not stop there.
365	The path that we choose can re-inspire the future of composting. We were trailblazers in the past, and now we have the opportunity to reshape our future. Wake up to the needs of the environment, and the people that live within that environment. NS people are moving towards more sustainable modes of living we are almost an island treat it as such!
366	The Ragged Lake facility was poorly chosen (leaches into valuable WATERSHED) and SMELLS of cover-up perfume. A peoper facility should NOT smell ANYTHING and should recuperate off-gasses as fuel. We compost all our orgaines AT HOME and so should ALL citizens with the space to do so. Our «Green Bin» is a WASTE as it COULD be used to keep garbage from being spread over the roadway by vermin but instead is EMPTY and taking up space — UNused! You need to be less rigid in your operation!
367	The residents of HRM are providing the raw material for free take it, make money, and give back to the community that gave you the ingredients to begin with.
368	The sheer cost of pandering to the 'organic green movement' concerns me, especially when the composted material ends up in the dump regardless. Call me old fashioned, but I see the organic green movement as a wonderful in concept but basically an economic failure.
369	there are a lot of countries especially in Europe that have been composting for a long time. Scandanavia has facilities where they use garbage to produce pollution free energy. Since so many technologies already exist, I don't think Halifax has to reinvent the wheel, just look at what is already out there.
370	There is a need to increase efforts to encourage residents to compost on their properties. Backyard composting, leaf mulching, etc. Possibly identifying the issue with the greatest impact (leaf mulching?) and focusing on that to start? I see alot of leaf bags at the curb in my neighborhood.



371	There is a growing number of residents within HRM who are more concerned about the environment and our impacts. While the green bin collection is a great program, I think with the growing number of "urban farmers" (people who grow their own vegetables, keep a couple of chickens, etc.) We should look at providing all single detached, townhouse and semi-detached households with a black composter along with green bins. If people wish, they could then produce their own fertilizer and earth for vegetable gardens and flower gardens. I think we would see a huge reduction in the tonnage of compost waste and more people growing their own plants and vegetables.
372	There should be more regulations to make commercial and rental units recycle. apartment building and food courts produce far more organics than single family homes I think.
373	There should be penalties in place for residents who don't participate in this program I feel this would be difficult to enforce but something has to be done to make people aware of the good recycling is for our future.
374	There should be the ability to use biodegradable plastic bags.
375	There should be weekly composting everywhere and also use the compostable bags
376	This is complex and will require more consultations. Prospective contractors should propose solutions and face penalties if they do not perform.
377	This survey was hard to answer because each question involves so many variables. The questions are poorly designed for community response but the explanations are good. The last four questions are not mutually exclusive and the ranking system is too simplistic. I don't believe when these answers are tallied you will get a true picture of the public feedback, but maybe you don't give a damnyou usually don't. If you want real answers hire another survey company who knows what they are doing! From a professionally trained economist and statistician.
378	 Thoughts on collection should be addressed. The collection of green bin material should be collected at the same rate as recycle (weekly). If people are separating their waste properly, actual garbage pick up should be less frequent to allow for this change and wouldn't/shouldn't make a huge impact on a household (smell, capacity etc). Provide households with a PROPER and more user friendly home composting system. The old black plastic composters from 20ish years ago were a fail for home owners due to the impractical style of the kit. Proper barrel style on a stand and turnable home compost kits could cut down immeasurably on the amount of food and yard waste being sent to the compost facilities. Making businesses (including fest food restaurants, apartment buildings, condo complexes etc) comply with proper sorting and disposal of waste materials should be a priority or risk being fined. More proper education in schools so going forward the next generation will understand the importance of sustainability and the thre R's. These subjects are glazed over however are infinitely important to our world and us in it.
379	Time to start replacing the large green bins. Their life is done - can't be cleaned any longer; can't remove the smell in the plastic.
380	To be able to use compost able plastic bags would greatly increase compost participation!
381	To minimize the pressure on the facility from a volume perspective, could you consider composting some organics (e.gg. leaves, x-mas trees) in windrows in some of our many unmanaged parks? Alternatively, could the xmas trees be sent to a biomass plant? Alternatively, residents could be encouraged (via small tax rebate?) to keep all their leaves on site. We manage all our leaves (large street tree and several sycamore maples in the back) in the backyard of our 33' x 100' urban lot. Also, community gardens might be encouraged to take more leaves and divert them from the central facility.
382	Too many Halifax residents are still not composting because its either time consuming, too smelly or they don't want to get their hands dirty. Many people in apartments don't participate as well as some homeowners. Very frustrating for those of us who have been on board since the 90s.

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383	Use best practise models from other jurisdictions. For instance - smaller household bins (such as Toronto) result in less insect and animal issues. Balancing cost/environmental interests/social concerns is never easy but CAN be done. Composting material close to source and in multiple locations (if possible) mitgates risk, reduced cost and reduced environmental impact in the long run. While quality of end product is important to ensure it is safe and clean (especially in regard to heavy metals & pathogens) end use of compost is best reserved for environmental remediation, cover for landfill and non residential or food producing uses.
384	Very disappointed compost is not available for public use. My neighbours lived in Ontario 20 years ago and compost was offered to residents free of charge. And it seems pointless to have a system that no longer accepts yard waste.
385	We do our own compost at home. We only use the green bin for meat, fat, bones etc. We would also use it for animal waste if it was an appropriate option. We would also buy some copmost from the city if it was suited for gardening. *Which is more important to us then where our dogs poop goes.
	We loved the initiative of giving some small (Dark veddar) compost bin. We use it daily and we could use a second one. Alsoour green bin is filty and I don't like when I need to go use it. We only put it on the curb 1 or 2 /year. Oh and what about compostable diapers?
386	We garden and use most of our organics. We want to be able to use a SMALLER green cart, as we are seniors with a long driveway and we do not generate much for organics pickup. Can trucks be retrofitted to handle the smaller carts or can they be dumped manually? The large standard green carts do not work well for us.
387	We have been a leader in this regard. Let's maintain that standing. Keep regular collection in summer, expand to end of September, begin in early June.
388	 We need to look at composting holistically and focus on making it easy for the end user. Reducing total landfill waste is paramount. We should incentivize the contractors to move to all electric truck fleets to minimaize noise and pollution. We should consider moving to multiple bin sizes so that small familes or those who generate less waste are afforded cost savings. See Germany for a good price model.
	Create incentives for community gardens to take compost to process for their use.
	Invest in reducing food waste to reduce total tonnage in system.
	Look at district energy opportunities for waste heat.
389	We need to make the whole system of green bin and recycling easier. Right now you have to have a desperate garbage room in your house It is ridiculous. And the fruit flies in the house are awful No matter what you do. Refusing grass clippings in ridiculous and residents having to pay to have their bins cleaned is just more work and cost for residents. No other city expects residents to do so much at such inconvenience and cost. There must be a way to make this easier for people.



390	We shoild process our own waste and also build facilities where we can take in additional watse as a source of reveue to offset the operational costs of the facility. Green cart collection every week durng the summer shouild continue. Unused food from resturants and stores should be given to soup kitches for daily use to feed the hungry.
391	We should be creating a value added product that is commercially viable such as biogas. The biogas can be sold to nearby users of natural gas or used on site to create power or heat for the facility. Methane is >20x more harmful as a greenhouse gas than CO2 and as such should be either captured and used or reduced.
392	We should be doing this fully in-house. Contacting out to other companies is both inefficient and more expensive in the long run.
393	We should be open to the possibility of hybridized plants that combine anaerobic digestion and aerobic composting at the same site. There could be a market for aerobically composting the leaf and yard waste to give residents their cleaner compost, while also processing the wetter food wastes in a water-negative process (AD) that can produce biogas.
394	We should be set up as a business , composting in one end and soil out the other for sale to public.
395	WE SHOULD NOT NEED NEW FACILITIES.if the program is working properly all the composted material should be reused in HRM.
396	We still have a problem with collection and separation, in that there are single bin garbages all over the city Even at my kid's school! But in our parks, in apartment buildings, etc. There are all kinds of places where separated bins are not available. On the education front, we should have folks going in to schools to talk to kids about garbage, and every school kid in HRM should be visiting all of our waste processing facilities before they complete elementary.
397	We used to be leaders in composting and waste management and reduction. I would like to see us be leaders again. For example plastic can be processed to become a useful component of road-paving asphalt. Are we doing anything like that? Have we considered placing a tax or fee on unnecessary packaging - or urging the responsible government levels to do that? Municipalities bear the cost of dealing with waste and litter. Too many ephemeral items come in packages which will endure for thousands of years. :(
398	We would prefer chosing an option that allows us to compost our pet waste and grass clippings
399	We, (HRM) do a good job when it comes to compost. Any changes should not come with any extra incurred extra costs to the community, tax payers.
400	Weekly collection all year
401	Weekly collection from June 1 - Oct 1, as summer is warmer for longer. Sell compost back to citizens (see Toronto, for example) to encourage more environmentally-friendly gardening practices. Include ability to compost pet waste, as it is a large trash contributor at present.
402	Weekly collection in Sept would be really helpful
403	Weekly collection in September would be good!
404	Weekly collection in September would be great, if that is affordable.
	Encourage backyard composting (of appropriate materials) to lessen the amount of stuff being sent to the composting facilities.
405	Weekly collection into Sept/Oct. Better containers to keep out fruit flies and reduce odors. Collect grass clippings. Provide incentives for home owners to start backyard composting. Whatever changes take place it must not cost morethis place is already way to expensive to live let's not continue to make it worse!!
406	Weekly collection needs to be longer in the warmer months. My green bin was nasty in September because of the heat and it sat for two weeks at a time. I don't have freezer space to keep the stuff until green bin collection.



407	weekly collection of green bins should occur from May to September.
	compliance takes motivation and reminders. I think you do a good job with those that know, but not the newcomers - students etc.
408	Weekly collection of the green bin should go beyond the July/August timeframe as the weather is still quite hot. The city needs to educate people about compostingrats are appearing everywhere. Please make the compost bins available to anyone who wants to purchase one at anytime - or - have one set at each property just like what is done with the outside green binseach house has one. Create regulations for apartment buildings so they can compost and recycle as well.
409	Weekly collection through September please. I use cereal boxes now, but my dog poop goes in the garbage in plastic. Allowing compostable bags and dog poop = ideal for me. And grass clippings! We don't always have a chance to mow weekly and we can't afford a fancy mower, so when the grass gets long, leaving the clippings on the lawn kills it! I know lots of people who sneak grass into the middle of the bin anyway.
410	Weekly collection. Ability to use composting plastic bags.
411	Weekly collections in warmer months, not only July and Augustmaybe June July August and September
412	Weekly Green bin collection should be extended several months! The bins are revolting enough during summer weekly collection.
413	Weekly green bin collection should extend from early- to mid-June until mid- to late-September. A more automated pick-up method should be looked into, mainly for more congested areas to increase collection rate.
414	weekly green bin collection would be better in spring, summer and fall instead of only in the summer months.
415	Weekly green bin pickup in Sept. should be added. Grass clippings in green bins should be allowed.
416	Weekly green bin pick-up should take place May 1 to November 30
417	Weekly greenbin collection in September
418	Weekly pick up should be extended to mid October given warmer temperatures and the recent rodent infestation!
419	Weekly pickup until October.
420	What are other places doing for composting I know Saint John New Brunswick takes animal waste?



421	When this Green Bin program was first in the pilot phase (only a few streets in Halifax, such as Kline Street) and then approved for the rest of the province, it was promised by the Government that each household would, eventually, (once ready) receive a portion of the compost. That has never happened and I've always felt that this is an example of why people don't trust the way that most Provincial Government offices. The other problems with the program are that different areas accept different, or don't, types of waste for the bin, which is infuriating and confusing. Who decides what's allowed into the Green Bin? The municipalities, the counties? I know many people who are my age and live in apartment buildings and they lack enough Green Bins for the residents; this ends up with them overflowing with waste and attracts rats and other things like ants and fruit flys. Making using the Green Bin for people who are living in apartments easier to use would have a huge impact on the amount of waste being thrown in the garbage. Another issue with apartments is that there's no way to identify the residents who still continue to use only black garbage bags and fill them with organics, paper products and plastics. The climate is only getting warmer and the Green Bin should be run, weekly, from May to October (until Thanksgiving is over), as this will help reduce the horrific number of rats that are all over the city and surrounding areas. Make it easier for people to do, and they'll generally do it. I'm about to be 35 and I know that my cohorts in age, want desperately to participate (and most do) in the Green Bin program but it's not made easy and clear, which leads to people not participating. Apartment buildings and there owns need to be held accountable for making sure that the residents of the units are actually participating in the Green Bin Program and make it work, and if after a grace period (6 months) they're failing to comply, then they should be fined for every single day of non-participation and also every
422	While I would normally rate the Environment as #1, I have put social context first as the success of programs can be positively or negatively affected by social context that arises from knowledge or lack of, attitudes etc. In the end, if the social context is managed and people of varying opinions are listened to sincerely, the environment will win out.
423	why are we only able to respond to 4 under logistics? If you want our opinion you should give us the options to answer
424	Why can't the christmas trees be chopped up and given back so our gardens get the mulch, maybe have a mobile unit?
425	Wish to add styrofoam as in the Valley!
426	With a warmer trend of weatherweekly green compost should be extended to end of September because of flies, and stink from warm bins.
427	with the number of clear bags we are allowed it should be collected every week. We are only allowed 3 pluss one green. I have 2 cats, one has a kidney problem. Three clear bags every 2 weeks are not enough. We sort everything, but the cat litter thing is a real problem. If you put too much in a bag they are to heavy. I am not the only one with this problem. Its easy to fix. Please do so.
428	would be good to be able to recycle Styrofoam
	would also like to be able to recycle silver lined bags (ie: potato chip bag)
429	would like grass and boxboard to be allowed back into green bins, as well as pet waste.
	If it's at all possible, it would be great if we could use biogas for energy, as well as any other technologies that could squeeze every bit of value from our trash.
430	Would like to have weekly collection mid-April to mid-Nov for yard waste.
431	Would like to see boxboard return to green bins it helps a sort so waste and keep bin cleaner.
432	Would love to be able to dispose of pet waste in the green bin. Would also like to see weekly green bin collection to continue through to the end of September.



433	yes I have a next door neighbour, that does not put a paper bag in there green bin, they just come out and put food from there plate or pot in the green bin, it smells, and the maggots, and flys, are very bad, and we have to close our windows in summer and fall, we tried to take to them, but no go, they wont listen, what should I do, I though you had to put paper bag in green bin, the garbage man empty there bin, and don't put a sticker on it, and black bags, they tell us one black bag, but if you look at city housing in pub area, bayers road, romans ave, some people have 20 black bags and they take them, it not the same for every buddy,
434	Yes I would like to see new materials added such as take away coffee cups, caps and lids of bottles, pet hair, etc.
435	Yes, compost should be a weekly pick-up due to health, rat infestation etc. People are now using privacy bag as their alternative compost pickup which defeats the purpose. If you had weekly pickup and smaller bins this would make more sense. The blue bag and garbage should be every two week. Dumping garbage on our highways and street could be prevented if we can use blue bins for recyclables instead of blue bags. This will keep our City clean and environmental friendly. People who collect bottles can search more easily in a bin instead of taking the entire bag and dumping recyclables somewhere else. Look at how they pick up in Ontario, this is more efficient. Just tire of seeing garbage on our streets.
436	Yes, since this waste is a profitable product then use the capital to finance the new facilities and avoid paying bonuses which should be unthinkable when tax payers are alrady footing the lion's share of the cost
437	You mention the cost of composting but not the profit from selling it, because it should be sold.
438	You need to collect all organics including those produced by apartment dwellers and commercial enterprises.
439	you should accept milk cartons as they are great for collecting organics in on a kitchen counter - other areas take them. the little green bins are awful - lots of people I know use them anyway to put their organics in and then just dump the carton in their green bin - none has been rejected yetalso we should be allowed to use the biodgradable plastic bags to line whatever we collect our organic waste in - much neater and cleaner.



Emails to Compost Matters

Email 1:

From:	Ross Cantwell
То:	Compost Matters
Subject:	Compost and apartment buildings
Date:	November-13-16 2:17:20 PM

As an owner of 235 apartments in HRM (and another 100 under construction) I want to give you my feedback on composting.

due to the high percentage of foreign tenants, education about the waste stream diversion is difficult. the bins we use need international images to help people understand which bin to use.

For the life of me, I don't know why HRM doesn't provide small compost bins for each apartment. my partners and I refuse to buy them out of principal (given the high rate of taxes that we pay) and I know the lack of small compost bins in each apartment reduces the participation rate at each building.

We have one bin for a 34 unit building, two for a 42 unit building. I know the amount of waste diversion we get is very low, as my wife and I can fill up a bin at our house in two weeks, yet they have a hard time at our apartment buildings. something is wrong.

- 1. Provide free bins
- 2. educate, educate, educate

Ross

Ross Cantwell HRM Apartments PO Box 8474 Halifax, NS B3K 5M2 www.hrmapartments.ca www.marshviewapts.ca



位在自己的问题的知道的意思。
Compost Matters
Re: Compost Matters
October-25-16 11:48:49 AM

Appreciate the invite but never got it in time to attend. But not trying to be negative but why ask our opinion when your going to do what you feel is best and with no concerns to the citizens as I see more garbage on the roads or sides of roads now then ever since you changed to only being allowed on dark bag every two weeks.

I feel if it is a single person maybe one dark bag but trying looking after a disabled person or 4 little ones and doing everything I feel if you were put in that position you would not do so well either I feel if you are leaving it this way then at least increase it to two black bags.

I don't know for sure but feel the way things are going is that the government in all categories seem to be cutting back and it is up to the people and if this is the case then the people should get more help or where is the money going since with the cutbacks etc. it is more back in the system to re-spend then if the the people are doing so much and have to fund raise in order to get help in schools, and various other places I feel the government needs some cut back as people on Social Services have been cut back and cut back how is anyone supposed to live and eat properly or would you rather they just take medication out of your pocket/government to pay for it for some they would feel better but others it is a way to hopefully take away or fix what the system/doctors can't frustrated for sure.

Yes some waste it as for me myself I did good for 6 weeks then Social Service & the Federal government did cutbacks on me more well not that anyone really cares but I am not doing so well good job I have a brain on my shoulders as obviously some do not and book smart does not make things great.

If this does not make sense to you please feel free to ask.

Have a good day and please at least respond and let me know you got this message.

ΗΛΙΓΛΧ

Email 3:

 From:
 Ross Cantwell

 To:
 Compost Matters

 Subject:
 Re: Compost Matters

 Date:
 October-19-16 6:19:08 AM

Here is my feedback. We own 250 apartment units so buying compost bins for each apartment will cost US \$2500 but will save YOU money by sorting the waste stream. We already pay enough taxes (more than a quarter of a million dollars per year) so we won't buy them.

HRM should provide waste bins for apartments like they do for households.

Ross

Ross Cantwell HRM Apartments www.hrmapartments.ca

Email 4: From:

To: <u>Compost Matters</u>

Subject: Re: Compost Matters

Date: September-26-16 11:28:48 AM

Why don't you just force us by law to deal with it at our expense even though we already pay taxes for you to like you did with the clear garbage bags?



Email 5:

From: Ken Donnelly [mailto:ken@beyondattitude.com] Sent: December-08-16 9:51 AM

To: Keliher, Matthew

Cc: Office, Clerks; Adams, Stephen; Burns, Jamie R; Iain Rankin; Reg Rankin; John Cascadden

Subject: Organics Management Strategy and Avoiding More Stink in Goodwood

Hello Matt,

Please find attached a submission to the consultation on the organic management strategy. It addresses specifically what I believe to be a misguided notion of building a new compost facility in the Ragged Lake Industrial Park.

To be clear, this submission is from me and my company only. It is independent of any association I have with any other organizations or people.

--

Cheers, Ken

Ken Donnelly

President, Beyond Attitude Consulting

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ken@beyondattitude.com www.beyondattitude.com

@beyondattitude

BY EMAIL

December 8, 2016 Matthew

Keliher Manager, Solid Waste Resources PO Box 1749 Halifax, NS B3J 3A5

Dear Mr. Keliher,

Re: Consultation on organic management strategy

I appreciate the opportunity provided by Council to provide comment on the strategy before the process of selecting a preferred technology and vendor has been implemented.

I have already provided input through the Shape Your City portal, but am also taking the opportunity to send a written submission.

I am particularly concerned about the seeming acceptance of the status quo at the Ragged Lake Industrial Park. The staff report to Council on the options for organic processing points out the opportunity to build a bigger, new composting facility at Ragged Lake. The report points out the availability of land on the existing site, and the fact that it meets the required separation distance from residences. However the report is silent on the legacy of al- most 20 years of a horrible stink from that operation.

I used to live on the Prospect Road and I have often experienced the smell of the New Era Farms composting facility. I have been contacted many times over the years by residents and business operators in Goodwood who have complained about the odour from the plant. Because of my involvement with the development of HRM's waste-resource strategy in the 1990's, some people in the area have the mistaken impression that I was involved in site selection, and others seem to think I have some power to fix it.

People in the area know all too well how bad a neighbour that facility has been. Most times that I have stopped to get gas at the nearby Irving station, I have encountered the smell of that plant. Last month, I stopped filling my tank half-way through because the smell was so bad and I wanted to get out of there.



Siting that facility in that place was a mistake. I don't blame the people who made that decision 20 years ago because there was limited understanding of the potential impacts from what was promised to be an odour-free, closed system. Once it was built and the problems associated with it realized, it was not practical to shut it down, so the people of the area have endured the consequences of that mistake now for 17 years, and are likely to be impacted for a few more years at least.

There is no reason to be confident that there will not be similar impacts from the next facility. To plan to put another facility there is an indication that HRM is just fine with building another facility that could foul the air in Goodwood for another generation. No matter how much assurance a vendor might provide that there will be no odour, given the experience to date it would be reckless to build another composting facility there. As well, building another composting facility in that spot would send a message to the people who live and work in that are that HRM does not care about the potential impacts to the community. Building another composting plant in Goodwood would be an example of bureaucrats being ruled by policies like separation distance requirements while being blind to common sense.

There is a lot of land in HRM. There is no reason to make the same mistake twice by building another compost plant in that space. The first mistake was understandable because of a lack of information and a lack of experience. To make the mistake again, with all of the information and experience gained in the last 17 years, would be inexcusable.

Sincerely yours,



Ken Donnelly President

cc: Councillor Stephen Adams Reg Rankin, Executive Director, CMC Community Monitoring Committee Members HRM Clerk's office Iain Rankin, MLA Jamie Burns, Nova Scotia Environment





Stakeholder Compost Matters Survey Results

STAKEHOLDER GROUPS

Business/Academic Community	Meeting Date	
Dalhousie University Office of Sustainability	Sept 7	
Dalhousie University Innovative Waste Management Research Program Faculty of Agriculture	Sept 7	
Landscape Nova Scotia	Sept 19	
Restaurant Association of NS	Sept 21	
IPOANS (Investment Property Owners Association of Nova Scotia)	Sept 14	
Fusion Halifax	• Sept 9 & 28	
Heritage Gas	• Sept 15	
Local Business's Surrounding Ragged Lake / Goodwood Facility (Halifax C&D)	Sept 28	
Restaurants Canada	Sept 21	
Retail Council of Canada	Sept 21	
Saint Mary's University Seminar	• Oct 28	
Saint Mary's University Office of Environmental Science	• Oct 13	

Government & Non-Governmental Agencies

Halifax Waste Resource Society	•	Sept. 12
Clean Foundation	•	Sept 15
Nova Scotia Environmental Network	•	Sept 22
Ecology Action Centre	•	Nov 3
Nova Scotia Environment	•	Sept 23 & Nov 8

Organization Who Declined Consultation Invitation

Halifax Chamber of Commerce		
Greater Burnside Business Association		
Greater Halifax Partnership		
Canadian Federation of Independent Business		
Canadian Taxpayers Federation		
Nova Scotia Federation of Agriculture		



Stakeholder Compost Survey Continued

Processing organics to produce compost is important to me.	Responses	% Of Responses
Complete	1	10.0%
Disagreement		
Disagreement	0	0.0%
Undecided	1	10.0%
Agreement	2	20.0%
Complete	6	60.0%
Agreement	Ö	00.0%

It matters to me where and how the end product (e.g. compost, fertilizer) is used.	Responses	% Of Responses
Complete Disagreement	1	10.0%
Disagreement	0	0.0%
Undecided	1	10.0%
Agreement	2	20.0%
Complete Agreement	6	60.0%

The process should create a product that is available for residents to use.	Responses	% Of Responses
Complete	1	10.0%
Disagreement	I	10.076
Disagreement	3	30.0%
Undecided	2	20.0%
Agreement	1	10.0%
Complete Agreement	3	30.0%

Alternate end products of green bin material should also be considered. For example: fish and animal feed or fuel.	Responses	% Of Responses
Complete	1	10.0%
Disagreement	I	10.070
Disagreement	0	0.0%
Undecided	0	0.0%
Agreement	8	80.0%
Complete	1	10.0%
Agreement		10.0%

Capture of biogas (which is generated during the anaerobic composting process) should be explored as a renewable energy source.	Responses	% Of Responses
Complete	1	10.0%
Disagreement	•	101070
Disagreement	0	0.0%
Undecided	1	10.0%
Agreement	2	20.0%
Complete	6	60.0%
Agreement	Ö	00.0%

Processing organics to produce compost is important to me. Disagree 10.0% Undecided 10.0% Agree 80.0%

It matters to me where and how the end product (e.g. compost, fertilizer) is used.			
Disagree 10.0%			
Undecided 10.0%			
Agree 80.0%			

The process should create a product that is available for residents to use.			
Disagree 40.0%			
Undecided 20.0%			
Agree 40.0%			

Alternate end products of green bin material should also be considered. For example: fish and animal feed or fuel.			
Disagree 10.0%			
Undecided 0.0%			
Agree	90.0%		

Capture of biogas (whi the anaerobic compost explored as a renew	ich is generated during ting process) should be able energy source.
Disagree	10.0%
Undecided	10.0%
Agree	80.0%

ΗΛΙΓΛΧ

Stakeholder Compost Survey Continued

Facilities should be away from residential areas.	Responses	% Of Responses
	0	0.0%
Disagreement	0	0.0%
Undecided	5	50.0%
Agreement	3	30.0%
Complete Agreement	2	20.0%

I want to be able to put compostable plastic in my green bin.	Responses	% Of Responses
Complete	1	10.09/
Disagreement	Ι	10.0%
Disagreement	1	10.0%
Undecided	4	40.0%
Agreement	2	20.0%
Complete Agreement	2	20.0%

I want to be able to include pet waste in my green bin.	Responses	% Of Responses
Complete Disagreement	1	10.0%
Disagreement	1	10.0%
Undecided	3	30.0%
Agreement	4	40.0%
Complete Agreement	1	10.0%

I want to be able to put grass in my green bin.	Responses	% Of Responses
Complete Disagreement	1	10.0%
Disagreement	3	30.0%
Undecided	2	20.0%
Agreement	2	20.0%
Complete Agreement	2	20.0%

Investment in odour control, over and above the minimum requirements, is important.	Responses	% Of Responses
Complete Disagreement	0	0.0%
Disagreement	1	10.0%
Undecided	3	30.0%
Agreement	2	20.0%
Complete Agreement	4	40.0%

As long as the material in the bin is collected, I don't care what happens to it.	Responses	% Of Responses
Complete Disagreement	5	50.0%
Disagreement	3	30.0%
Undecided	0	0.0%
Agreement	1	10.0%
Complete Agreement	1	10.0%



Facilities should be away from residential areas.		
Disagree	0.0%	
Undecided	50.0%	
Agree 50.0%		

I want to be able to put compostable plastic in my green bin.	
Disagree 20.0%	
Undecided 40.0%	
Agree 40.0%	

I want to be able to include pet waste in my green bin.	
Disagree	20.0%
Undecided	30.0%
Agree	50.0%

I want to be able to put grass in my green bin.	
Disagree	40.0%
Undecided	20.0%
Agree	40.0%

Investment in odour control, over and above the minimum requirements, is important.		
Disagree	10.0%	
Undecided	30.0%	
Agree	60.0%	

As long as the material in the bin is collected, I don't care what happens to it.	
Disagree	80.0%
Undecided	0.0%
Agree	20.0%
Stakeholder Compost Survey Continued

The Halifax region should explore organics processing technologies even if they are commercially	Responses	% Of Responses
unproven.	2	20.09/
Disagreement	2	20.0%
Disagreement	1	10.0%
	4	40.0%
Agreement	3	30.0%
Complete Agreement	0	0.0%
The Halifax region should only consider commercially proven organics processing technologies and methods.	Responses	% Of Responses
Complete Disagreement	0	0.0%
Disagreement	1	10.0%
Undecided	3	30.0%
Agroomont	3	40.0%
Complete Agreement	4 2	+0.0%
	۷ ۷	20.0%
The chosen option should be the lowest-cost solution that meets all regulatory requirements.	Responses	% Of Responses
Complete Disagreement	4	40.0%
Disagreement	2	20.0%
Undecided	1	10.0%
Agreement	1	10.0%
Complete Aareement	2	20.0%
provide services must have a proven track record in providing organics management and composting solutions.	Responses	% Of Responses
Complete Disagreement	1	10.0%
Disagreement	1	10.0%
Undecided	4	40.0%
Agreement	3	30.0%
Complete Agreement	1	10.0%
If it is more cost effective, the municipality should ship organics to other municipalities for processing.	Responses	% Of Responses
Complete Disagreement	3	30.0%
Disagreement	1	10.0%
Undecided	0	0.0%
Agreement	1	10.0%
Complete Agreement	5	50.0%
The Halifax region should have one processing facility to try and maximize economies of scale (minimize cost).	Responses	% Of Responses
Complete Disagreement	0	0.0%
Disagreement	2	20.0%
Undecided	4	40.0%
Agreement	2	20.0%
Complete Agreement	2	20.0%
The Halifax region should have multiple processing facilities to minimize potential risk.	Responses	% Of Responses
Complete Disagreement	0	0.0%
Disagreement	1	10.0%
Undecided	6	60.0%
Agreement	2	20.0%
Complete Agreement	1	10.0%
Somplete Agreement	1	10.070



The Halifax region should explore organics processing technologies even if they are commercially unproven.			
Disagree	30.0%		
Undecided	40.0%		
Agree 30.0%			

The Halifax region should only consider commercially proven organics processing technologies and methods.		
Disagree	10.0%	
Undecided	30.0%	
Agree	60.0%	

The chosen option should be the lowest-cost solution that meets all regulatory requirements.		
Disagree	60.0%	
Undecided	10.0%	
Agree 30.0%		

Companies being considered to provide services must have a proven track record in providing organics management and composting solutions.		
Disagree	20.0%	
Undecided 40.0%		
Agree	40.0%	

If it is more cost effective, the municipality should ship organics to other municipalities for processing.		
Disagree	40.0%	
Undecided	0.0%	
Agree	60.0%	

The Halifax region should have one processing facility to try and maximize economies of scale (minimize cost).		
Disagree	20.0%	
Undecided	40.0%	
Agree	40.0%	

The Halifax region should have multiple processing facilities to minimize potential risk.	
Disagree	10.0%
Undecided	60.0%
Agree	30.0%

Stakeholder Compost Survey Continued

Facilities should be close to the centre of organics generation in order to reduce transportation and greenhouse gas generation.	Responses	% Of Responses
Complete Disagreement	2	20.0%
Disagreement	3	30.0%
Undecided	1	10.0%
Agreement	4	40.0%
Complete Agreement	0	0.0%
New facilities should be built at existing sites. (Burnside & Ragged Lake Business Parks).	Responses	% Of Responses
Complete Disagreement	1	10.0%
Disagreement	1	10.0%
Undecided	3	30.0%
Agreement	3	30.0%
Complete Agreement	2	20.0%
Facilities should be built at new sites.	Responses	% Of Responses
Complete Disagreement	1	10.0%
Disagreement	3	30.0%
Undecided	4	40.0%
Agreement	1	10.0%
Complete Agreement	1	10.0%
The Halifax region should manage its own organic material - not ship to facilities outside of the municipality even if it is more cost effective to export.	Responses	% Of Responses
Complete Disagreement	4	40.0%
Disagreement	1	10.0%

The Halifax region should accept materials from other municipalities.	Responses	% Of Responses
Complete Disagreement	0	0.0%
Disagreement	2	20.0%
Undecided	1	10.0%
Agreement	5	50.0%
Complete Agreement	2	20.0%

1

1

3

10.0% 10.0%

30.0%

Please rank the following categories in order of importance. (1 = most important; 4 = least important)		
Environment	1.56	
Finances Risk	1.67	
Logistics	3.33	
Social Context	3.44	



Undecided

Agreement

Complete Agreement

Facilities should be close to the centre of organics generation in order to reduce transportation and greenhouse gas generation.		
Disagree	50.0%	
Undecided	10.0%	
Agree	40.0%	

New facilities should be built at existing sites. (Burnside & Ragged Lake Business Parks).			
Disagree	20.0%		
Undecided	30.0%		
Agree	50.0%		

Facilities should be built at new sites.				
Disagree	40.0%			
Undecided	40.0%			
Agree	20.0%			

The Halifax region should manage its own organic material - not ship to facilities outside of the municipality even if it is more cost effective to export.		
Disagree	50.0%	
Undecided	10.0%	
Agree	40.0%	

The Halifax region should accept materials from other municipalities.			
Disagree	20.0%		
Undecided	10.0%		
Agree	70.0%		

Stakeholder Letters

Please rank the following categories in order of importance. 1 to 4 using each number only once where 1 = most important; 4 = least important.

Environment	
Social Context	43
Finances & Risk	3
Logistics	2



Do you have any additional considerations you think are important when talking about the future of composting in the municipality? i.e. adding new materials, changing collection.

oam Lo Ms. Linda Davis, Nova Scotia Environmental Network

Thank You

ΗΛLΙϜΛΧ

shapeyourcityhalifax.ca

Ecology Action Centre 2705 Fern Lane - Halifax - Nova Scotia - Canada - B3K 4L3 2:902-429-2202 - f: 902-405-3716 - e: Info@ecologyaction.ca - www.ecologyaction.ca

1 December, 2016

Matthew Keliher Manager, Solid Waste Resources Halifax Municipality By Email

Dear Mr. Keliher,

We are pleased to provide the following comments following the meeting between Solid Waste Resources. Halifax and EAC on November 3rd with respect to the management of organics and the work of Halifax to develop an organics management strategy.

Halifax has been a leader in the management of organics in Canada and internationally since 1999. The development of an organics materials management strategy provides the opportunity for Halifax to continue its leadership. The Ecology Action Centre believes that the following should be reflected in the strategy and the investments to implement the strategy:

- 1. Organics should be managed so that the material value of organics is retained. This means that organics should be digested through aerobic or anaerobic processes, but processes that involve thermal treatment, incineration or related technologies (either directly or indirectly after the manufacture of, for example, pellets) should be rejected.
- The EAC notes that anaerobic digestion applied to the wide range of source separated organics continues 2. to present technical difficulties and incurs high cost. This technology may therefore present a higher risk than the application of aerobic processing (i.e. composting). In the event that anaerobic treatment is selected, the residue should be composted for land application.
- 3. A key priority should be to achieve high quality standards. It is possible this may imply that some organic materials (e.g. landscaping materials) are managed separately from other organic materials if this is necessary to avoid contaminants from one stream reducing the quality of finished compost manufactured from all streams.
- Compost that is produced from organics generated in Halifax is sold as a commodity product of little 4. value. This is also the case with compost produced by many municipalities across Canada. Different approaches to marketing can bring much higher value to the compost product. Halifax should consider the benefits of a marketing strategy that raises the value of compost and generates new revenues. Opportunities may include tailoring compost to specific crops through addition of micro-nutrients, packaging of compost to target high value markets and other initiatives.
- Provision should be made for the increasing prevalence of "compostable" organics in organics 5. management systems. "Compostable" organics present challenges to regulators, the public, the traditional plastics recycling sector and to organics processors. However, this segment of the plastics industry is growing, and "compostable" plastics are finding ever-greater applications. Halifax should ensure that these plastics are integrated into the organics management strategy and its implementation.
- 6. EAC applauds the Municipality's continued support of backyard composting by residents. Halifax should consider providing a rodent proof composting bin.

Yours truly,

Mark Butler Policy Director

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Halifax C & D Recycling Ltd. 16 Mills Drive, Goodwood, Nova Scotia B3T 1P3 (902) 876-8644 Fax (902) 876-1878

December 7, 2016

Compost Matters Questionnaire:

I have submitted a questionnaire and am adding an additional copy numbered to be able to comment both personally and professionally from a waste recycling business point of view.

Our Environment:

- A) Absolutely
- 8) The product produced in HRM has been very poor and lack of investment in quality control measures have led to an unmarketable product.
- C) I listen to my neighbours and they always ask the questions "Where does this all go and how come we can't buy the finished product or have access to it.
- D) Fish and animal feed should be fresh, not from a bin that it is more than one to three weeks old. Especially if those animals are going to be entered into the food chain, as for fuel that would be incineration as food waste is not a quality fuel.
- E) I have never seen a viable biogas plant that can handle mixed green bin waste on the scale that HRM produces, these biogas plants are all R&D projects.

The Social Context:

- A) The facilities should be far from urban residents and not be in areas where they don't have the space to properly cure their material. Both existing facilities have been a nuisance to residents and the businesses that surround them, although nobody wants them in their backyards.
- B) I agree but only if there is a true compostable bag but if the system is efficient, it will remove the uncompostable material in its finished product.
- C) I think pet waste should be included but I am concerned with what residents collect or package their pet waste in. (i.e. plastic poop bags)
- D) I mulch, but my neighbours have been saying that they would like to include grass clippings.
- E) Odour controls are important everywhere but in the middle of an industrial park it is more important. In the country near farming communities it shouldn't be an offensive odour.
- F) Unfortunately, this happens a lot and that's why there is a large landfill in West Hants.

Finance and Risk:

- A) Halifax should not invest taxpayer dollars into an R&D project for any waste management.
- B) Absolutely but the facility should be responsible from receiving to end use and not ship product to unknown end users or stockpilers.
- C) Lowest cost is good but if you take into the account of the long term environmental effects that can arise, the low-cost option may become the most expensive option (i.e. RDM Landfill)
- D) We have just gone through 17 years of companies with proven track records and most of the compost is sitting beside the Nine Mile River. The companies should have a proven track record in proper waste management processing and that doesn't mean companies that just pick up waste from the curb.
- E) Only if the process is monitored and the end products are being used properly but Halifax residents would like to have access to the product and we as Halifax residents seem to be proud of our recycling efforts when visiting other jurisdictions so why would we send that somewhere outside of Halifax to be processed.
- F) Only if that facility can truly handle the volume of intake and end use.
- G) Just like the question above, we have one very under performing facility now and another should only be receiving a maximum 10,000 tonnes per year to be compliant.

Logistics:

- A) We are in Halifax, our 2 hour transport is the same as driving from one side of Toronto to the other side. What is the difference between a truck sitting on Barrington Street to driving on the highway.
- B) The Ragged Lake Facility should be demolished and an environmental clean up should take place. It may work as a transfer station but that will take a sizable cash investment. Burnside should be a transfer station but repairs would be too costly. Neither facility should be a composting facility, the Burnside site possibly for 10,000-15,000 tonnes per year but that would be costly also.
- C) | believe a world class facility could be built in HRM on a new site.
- D) Again, we brag about our organic system, shipping it outside HRM would mean that we are the best collector's and transporters.
- E) Only if the facility can handle it, but not if it jeopardizes the Halifax system.

Regards,



Dan Chassie, President Halifax C&D Recycling Ltd.



5121 Sackville Street, #201 Halifax NS, Canada B3J 1K1 www.restaurantscanada.org

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November 21, 2016

Matt Keliher Manager, Solid Waste Resources Halifax Regional Municipality PO Box 1749 Halifax, Nova Scotia B3J 3A5

Dear Mr. Keliher:

I would like to thank you for meeting to discuss possible changes to the Halifax composting system and providing the foodservice industry an opportunity to weigh in and share the industry's view on this issue.

Restaurants Canada represents the owner/operators of Nova Scotia's restaurants, bars, caterers and pubs. Foodservice operators and our employees are an integral part of Nova Scotia's social and economic fabric. In financial terms, our industry is made up of more than 2,000 small business operators doing over \$1.7 billion in sales. On top of this, for every dollar spent in a restaurant, an additional \$1.85 is spent in the rest of the economy. With 33,000 employees, we are the fourth-largest, private-sector employer in the province.

Solid waste is an important issue for restaurant operators and they are engaged in many waste reduction initiatives. Some of these include composting, recycling, waste oil programs, cardboard recycling, reusable shipping containers, food bank donations, bulk purchasing and the use of recycled materials. Through investments in equipment, staff training and source separation it is safe to say that the foodservice industry has successfully surpassed the provincial diversion rate target. This success has come through hard work and at a high cost to small business operators who pay some of the highest prices in Canada to deal with their solid waste. Unlike residents, these waste charges are on top of high commercial tax rates because businesses must pay separately for waste pick up. Any new initiatives must focus on reducing the high cost burden on small businesses while continuing to achieve Nova Scotia's environmental standards and diversion targets.

Restaurants Canada believes that changes to composting should be focused on two goals – reducing costs and achieving regulatory standards. Other than these, Halifax should not limit its options or place unnecessary restrictions on proposals. All options should be explored if they can reduce costs while maintaining provincial standards.

Organic waste processing technologies such as anaerobic digestion have the potential to allow the IC&I sector to divert a greater range of compostable materials from the waste stream and generate more revenue over the long term. Combined with the ability to produce biogas to generate electricity or heat, fuel for vehicles, and liquid or solid fertilizer, this is an option that should be evaluated by Halifax. Serious consideration must also be given to consolidating waste facilities or allowing compost to be imported or exported within the province if cost reductions can be realized and provincial standards maintained. More flexibility is needed in Halifax and across Nova Scotia to create the economies of scale necessary in the waste management system to halt the rise of waste management costs, with the goal of reducing them in the future.

To be environmentally sustainable and increase waste diversion, a waste management system must also be economically sustainable throughout the supply chain. By controlling the costs of operating the system, Halifax would provide increased incentives for businesses to divert more materials without continuing to escalate the costs to their businesses.

The consultation process explored a number of different options and discussed many points of consideration. On behalf of the restaurants in Halifax, I recommend that all options be explored with the ultimate goal of reducing costs within the system.

I trust you will give the views of this important industry due consideration. If you have any questions, please do not hesitate to contact me.

Sincerely,

Luc Erjavec, P.Eng. Vice President, Atlantic Canada



November 28, 2016

To whom it may concern:

As an organisation aimed at making Halifax a better place to live, work and play, Fusion Halifax is pleased to provide feedback in the *Compost Matters* questionnaire. With a focus on engaging young professionals to think forward and take charge of our city's future, we believe it is vital to consult youth and the organisations that represent them when making decisions on municipal infrastructure that will have long-lasting impacts on our region's inhabitants and environment.

First and foremost, Fusion Halifax believes that updated organics management facilities for the Halifax Regional Municipality should be environmentally ambitious. Processing compost instead of sending organic waste to landfills is a major way that municipalities can contribute to climate change mitigation, a priority issue for our demographic (20- to 40-year-old Haligonians). When it comes to assessing the trade-offs among different compost processing mechanisms, we believe that environmental considerations should take priority; yet, the social context must also remain a priority so as to avoid any instances of environmental injustice.

In order to maximize the ecological benefit of Halifax's organics management system, we believe that our compost should be processed within the HRM to avoid the need for greenhouse gas-emitting transportation of organic waste for processing. Accordingly, we believe the HRM should generally avoid processing organic waste for other municipalities, except in temporary situations in which other municipalities lack alternative options to process organic waste. Facilities should remain relatively close to the centre of organics generation in the HRM in order to minimize the emissions required to transport waste, while still ensuring that local residents are not significantly impacted by processing facilities. Maintaining two or more compost facilities within the HRM would also be preferred, in order to mitigate risk and avoid the need to send organic waste to landfills if one facility becomes incapacitated.

Whenever possible, the expansion of Halifax's composting facilities should make it easier for residents to compost to their maximum ability. As young professionals, many of Fusion Halifax's members live in apartment complexes with communal waste facilities in the basement. The ability to include compostable plastic bags in our compost system would make the process of taking out the green bin much easier

and cleaner, encouraging more young people to be enthusiastic about composting. Increased public education about our compost system – in schools, through social media campaigns, and in partnership with communities – would also help increase the impact and community ownership of the HRM composting program.

We believe that innovative opportunities to increase our compost facilities' capacity while improving other municipal services, such as transit, should be given particular consideration. For example, the capture of biogas to power municipal buses should be seriously considered, as its development could have a two-fold impact on reducing Halifax's greenhouse gas emissions. Fusion Halifax also supports the possibility for innovation when determining which companies to involve in our organics processing system. There should be a balance between allowing newer companies and technologies proven at a small scale to compete with larger, commercially-proven options and the need to respect the precautionary principle to avoid potentially adverse environmental, social or economic impacts of unproven options.

We are proud of Halifax's early role in becoming the first major Canadian municipality to adopt source-separated composting in the 1990s; as such, the HRM should take this opportunity to once again lead by example and develop an environmentally ambitious expanded organics management system that encourages all of our residents to participate in composting to their fullest capacity.

Sincerely,

Naomi Hill Director of Sustainability Fusion Halifax

FUSION HFX PD BOX 34032 HALIFAX, NS / B3J 351





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November 30, 2016

HAND DELIVERED

Mr. Matt Keliher Manager, Solid Waste Resources Halifax Regional Municipality P.O. Box 1749 Halifax, Nova Scotia B3J 3A5

Dear Mr. Keliher,

On behalf of IPOANS, I'd like to thank you for inviting us to participate in Halifax's Compost Matter's survey.

We at IPOANS continue to share a similar vision as your department to enhance environmental stewardship through increased waste diversion and reduced negative environmental impacts. We will always be a willing partner in the process and continuing dialogue.

IPOANS does not profess to be experts in the field of Organic Process Management. We prefer to entrust the decision of selecting a site or one process/technology over another, based on independent technical and environmental impact studies, to Solid Waste Resources' Managers. That said;

1. <u>All Organic Processes Including AWC (Alternative Waste Conversion) Technologies</u> <u>Must Be Vetted</u>

All organic management processes including AWC technologies be extensively vetted to ensure taxpayers are receiving "value" for taxpayers' monies invested. We understand AWC technologies have been successfully developed with fully operational facilities located in both North America and Europe.

2. Transparency

Solid Waste Resources' Managers provide transparency by publicly releasing detailed reasoning behind the business case to select or not to select one organic management process/ technology over another.

3. Solid Waste Management Practices Affects Housing Affordability

A main priority of IPOANS is ensuring apartment affordability. Rising rental rates are particularly hard on those who can least afford rental increases, low-income families. Therefore, the organic management process selected must not only meet provincial environmental proposed regulations, but also be delivered at the lowest cost possible.

Noted in Statistics Canada 2008 Waste Management Industry Survey: Business and Government Sectors, "Nova Scotia spent the most per person on the operation of organics processing facilities at \$9 per person compared to the national average of \$2 per person," a 350% cost gap compared to the rest of the country. If current cost figures available continue to show a similar cost gap, then IPOANS is of the opinion Solid Waste Resources' Managers have room to substantially reduce rather than raising costs and still achieve proposed regulation changes.

4. Transporting Organic Waste Outside Municiple Boundaries

If organic management processes/technology investigated cannot reduce the "cost gap" then IPOANS respectfully recommends investigating the cost and environmental impact of having HRM's organic waste processed outside Halifax's municiple boundaries.

5. Organic Waste Wheelie Bins - Biodegradable Environmental Friendly Plastic Bags

Organic waste wheelie compost bins are not large enough to handle the volume of organic waste created by tenants living in larger apartment buildings. Insufficient sized organic waste bins limit organic waste diversion efforts. Tenants' ability to utilize biodegradable environmental friendly plastic bags for organic waste materials might lead to the development of more suitable larger organic waste bins for the Multi-Residential industry. IPOANS believes the combination of biodegradable plastic bags use and larger organic bins opens the possibility of increasing tenant participation in organic waste diversion.

6. <u>Joint Education and Marketing Programs for the Multi-Res sector needs to be enhanced</u> and delivered by HRM Waste in partnership with IPOANS.

IPOANS, through this letter, speaks for the member organizations in the association, representing approximately 34,000 apartments in HRM. Our member companies have invested considerable resources in understanding the issue discussed in this letter and are hopeful that you will take into consideration our observations and recommendations for points presented.

Thank you for the opportunity to contribute to this important initiative.

Sincerely .







November 30, 2016

Matt Keliher Manager, Solid Waste Resources Halifax Regional Municipality PO Box 1749 Halifax, Nova Scotia B3J 3A5 e-mail: <u>kelihem@halifax.ca</u>

Re: Compost Matters - Consultation

Dear Mr. Keliher:

Thank you for taking the time to meet with me on November 21, 2016 to discuss possible changes to the composting system for the City of Halifax.

As the voice of retail in Halifax and across Nova Scotia, Retail Council of Canada (RCC) speaks for an industry that touches the daily lives of Canadians in every corner of the country — by providing jobs, career opportunities, and by investing in the communities we serve. The retail sector is the largest private sector employer in Nova Scotia with much of that employment occurring in Halifax. Our members range from small independents to large chain stores; and include both unionized and non-unionized workforces.

As you know, retailers have been leaders in working with the city and the province to implement modern, efficient, results oriented waste reduction initiatives. Through the efforts of RCC members, innovative approaches have been developed for ICI waste that lessen the burden on Halifax processing facilities while achieving the regulatory standards, set by the provincial government.

In your discussions on the future of the organics management program, RCC asks you to consider the following points:

Harmonization:

RCC understands the need for the City of Halifax to develop an organics management program that meets its specific needs. However, organics management is not a new concept and thus, there are best practices that have been successfully developed and implemented in municipal units all across the country. Given that many RCC members have retail operations in provinces throughout Canada our members prefer dealing with municipal programs that are rooted in best practices that are familiar to retailers.



Atlantic Office: Suite 201, 5121 Sackville Street, Halifax, NS B3J 1K1 (902) 422-4144 Fax (902) 422-1161 <u>atlantic@retailcouncil.org</u>

Costs:

Retailers have robust environmental policies but they also need to be mindful of costs. Nova Scotia is a world leader in its solid waste and organics management which results in businesses paying some of the highest costs in Canada to maintain and even exceed provincial levels for compliance. As new strategies are developed, RCC calls on the city to understand that any proposal to increase fees charged to the ICI sector needs to be tempered by the realization that businesses are already paying their fair share. In addition to significant corporate and property taxes, the ICI sector has to contract and pay for its own solid waste collection and transportation. This is in addition to the significant training / person hours required for retail staff to implement a source separation / food donation process into retail stores.

Unless it can be shown that building one, large organics processing facility would result in significant cost savings while achieving environmental goals, RCC would prefer to see investment occur in two facilities. RCC would also prefer to see one facility on each side of the Halifax Harbour. With two locations, the city would have a safeguard if incidents occurred that resulted in a temporary shut-down of one facility. Also, with one facility on each side of the harbor, businesses that transport organics would conceivably have less distance to travel. Finally, in having two facilities, the city could have the flexibility to try and achieve different types of composting at each facility through designating certain feedstock for each location. Having more than one site could also allow for innovative practices such as capturing biogas and using it as a revenue generator.

Flexibility within the program:

RCC asks the city to ensure that its organics management program is flexible enough to continue allowing the ICI sector to transport its organics outside of the municipality while being open to opportunities to bring in organics / solid waste / recyclable material from other municipalities. Although, these suggestions may seem contrary, choice and flexibility can often lead to innovative and cost saving / revenue generating solutions.

RCC members throughout Halifax will continue to play a lead role in solid waste and organics management. Retailers appreciate the opportunity to provide comment in advance of decisions being made on the future of the organics management program for the City of Halifax.

Please contact me should you wish to discuss.

Sincerely,

Jim Cormier Director (Atlantic) Retail Council of Canada

Halifax Waste-Resource Society

P.O. Box 213 Lakeside, NS B3T 1M6

November 29, 2016

Matt Keliher Manager, HRM Solid Waste 1841 Argyle St. Halifax, N.S. B3J 3Y8

Dear Mr. Keliher :

Reference: Public Consultations on Composting Operations Post 2019

At the outset, The Halifax Waste-Resource Society (The Society) wishes to express appreciation for directly engaging our organization as a part of your public consultation on the above subject.

As you know, the public mandate of the Society has been, and continues to be, the oversight of the celebrated Halifax Waste Management Integrated System Strategy. And that the Society is a not for profit incorporated organization composed of a Board of elected representatives from across The Halifax Municipality. The Society's essential raison d'etre is to provide timely comment to all our publics including The Municipality. And, to take a position on such public issues, The Society deems helpful to the Strategy's successful evolution.

Today, we are responding to your position paper on Compost options going forward beyond 2019. And we note, heralded and prompted by the forthcoming, more stringent, provincial regulations governing compost operations.

As the Society understands the Province will require that our compost facilities produce a higher standard of marketable compost effective 2019. And in addition, at the same time, certain HRM compost operating contracts with the private sector, originating almost 20 years ago, are soon up for options including terms for their possible continuance. So, it is a convergence of two important factors – one, an external government imperative, the other an internal one, but a timely opportunity to realign our deliverables with revised best practices in this industry.

The Society, against this background, would advise the Municipality to take the broadest approach with testing the industry for best practices. This openness in the RFP will need to be clear in the call for proven (or verifiable) effectiveness on defined outcomes; together with its proven net costs on the proponents' technology.

In this latter regard, we would caution not to limit technologies to anaerobic, aerobic, or its possible variations or its combinations found throughout the industry. Or indeed, not to exclude a potential proposal for converting compost to energy in another form other than mineral compost (humus).

Halifax Waste-Resource Society

P.O. Box 213 Lakeside, NS B3T 1M6

As to siting any new compost facility The Society wishes to underscore the very reasonable public expectation that such proposed siting be subject to meaningful public consultation. And especially provided to the affected community. This requirement for public consultation – and what defines a new facility - would apply to any proposed expansion or substantial change to existing HRM compost facilities. In addition, the definition of a facility would include compost curing treatment sites as to its establishment, expansion or its substantial alteration.

A final advisory from The Society on one of the two existing compost facilities operating through contractual arrangements with the Halifax Municipality. It is with the former privately owned New Era facility located in Goodwood , just recently acquired by Halifax Municipality. This same operation, in the opinion of the Municipality 's own hired experts have deemed it not sustainable beyond the short term; and further, not worth the required capital investments to update the less than satisfactory technology. The Society agrees with this objective assessment. And a statement from the Municipality, as an outcome of this public consultation, would be to provide to the affected community a fixed termination date for the closure of this acknowledged terminal case. Further, in its place, The Society highly recommends that this site, owned by The Municipality itself, considers this to be a special opportunity in restoring trust and good faith to the long afflicted affected community. This can be accomplished by the repurposing of the site to its original purpose as a light industrial zone for small industrial operations similar and compatible to the existing surrounding uses.

Sincerely, cadden, President

Copies to:

Board Members, HWRS Deputy Minister, DOE Mayor Savage



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Halifax Regional Municipality Solid Waste Resources P.O. Box 1749 Halifax, NS B3J 3A5

November 28, 2016

Dear Mr. Keliher,

On behalf of Clean, we thank you for this opportunity to provide input into the planning process for the next generation of organics processing in Halifax. After providing brief background on our organization, our comments will address:

- the consultation process itself;
- the desirability of a life-cycle accounting approach to evaluating potential technologies;
- the value of pursuing a closed loop system in selecting technology options;
- the importance of considering innovative (but not commercially unproven) technologies; and
- the benefits of considering opportunities to collaborate with other waste regions.

Clean Foundation

Established in 1988, Clean helped the province tackle the challenge of solid waste reduction, and played an integral role in assisting Nova Scotia to achieve its historic waste diversion goals. We are now one of the largest environmental organizations in Atlantic Canada with a broad mandate to collaborate with all sectors of society. We do this through community engagement, experiential education, and innovative program design and delivery.

We remain committed to smarter waste management in Nova Scotia through programs like the Great Nova Scotia Pick-Me-Up which, with generous support from Halifax and other likeminded organizations, has mobilized over 200,000 Nova Scotians to reduce litter in their communities. Our environmental superhero, Eddie the Cat, has visited over 35,000 Nova Scotian students as part of *Eddie's Litterless Road Tour* to teach them how they and their families can manage their waste more responsibly.

We have been proud to support Nova Scotia's innovative approaches to solid waste management over the last two decades, including our early adoption of then leading-edge organics processing system. We see the challenges posed by our aging organics

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infrastructure and stricter compost maturity guidelines as opportunities. We can engage in innovative thinking about how to not just divert organics from landfills, but to implement systems that create useful, valuable outputs and minimize the risks posed by other pressing environmental challenges like climate change.

Comments on the Process

We would like to strongly commend Halifax for implementing a genuine stakeholder consultation process for this issue. We recognize the additional work and uncertainty that this approach can entail versus simply asking for comments on a completed draft RFP that, realistically, has little tolerance for material changes. Instead, the Solid Waste Resources unit is engaging broadly and at the earliest planning stages to invite stakeholders to help define the key indicators of success that will influence drafting of the RFP. This approach demonstrates awareness of the technical, social, environmental, and financial complexity of this issue and the number of view-points that are likely to emerge, as well as a genuine desire to engage in collaborative planning. For this reason, we feel confident that the ultimate decision that emerges from this process will be a strong one.

However, there are some challenges we encountered in completing the stakeholder questionnaire. In particular, we were unable to answer the final question that asks stakeholders to rank the categories of "Environment", "Social Context", "Finances & Risk", and "Logistics" against one another in terms of their relative importance in defining what technology(ies) are ultimately selected.

We struggled with the same question during our in-person session. Upon reflection, we feel the problem is that this question is implicitly assuming that the ultimate solution(s) can only be found by making trade-offs between economic, social and environmental concerns. However, we would prefer that this not be assumed from the outset. Instead we would like to see a process geared toward equal consideration of all three concerns that strives to identify the solution that best advances all interests. Trade-offs are sometimes unavoidable, but we would rather see a process that has as its target outcome a solution that can be justified socially, environmentally and financially. For this reason, we have declined to answer this final question on the questionnaire.

Closing the Loop

In considering the range of potential technologies and processes for managing Halifax's organic waste, we would like to see a drive to 'close the loop' as an animating force in the decision. This means that the products of the organics processing should be, as much as possible, valuable inputs for other essential products and services. Clean does not have expertise in the many types of organics processing technologies, but we strongly support Halifax in exploring their potential fit as local solutions. For example, biogas production would be a valuable output which, if incorporated into the municipal fleet, could also help reduce GHG emissions from more carbon-intensive fossil fuels. For this reason, Clean

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Organics Processing Consultation Dec. 1, 2016 Page 3

supports the exploration of technologies that capture biogas generated during anaerobic composting.

As a corollary, we are wary of continuing to produce compost as the primary product of our organics processing. Experience has shown that there is little demand for this product among HRM residents. There is no shortage of commercially available, better quality compost at reasonable prices. Better instead to prioritize value-added products that would help meet a real demand, particularly where the use of the value-added product could contribute to a lowered GHG emission profile.

Nova Scotia's History of Innovation

Nova Scotia has a history of innovation in solid waste management. Given the many technological advances that have emerged since our current system was instituted, we feel that there is a lot of value to be gained by being open to the rapidly expanding suite of solutions to organics waste management.

At the same time, given that the new organics processing system will be supported by public funding, it is not appropriate to select technologies that have been untested in comparable commercial settings. The risk of failure and the impact on the public purse make such 'bleeding edge' technologies difficult to justify. Conversely, the challenges facing our solid waste management as a whole and the particular challenges facing organics processing call for a willingness to adopt technology(ies) that are at the leading edge, but which have been successfully operating in at least one other jurisdiction for a reasonable period of time.

Life Cycle Assessment

We were pleased to hear the commitment to engage in life cycle assessment for technological options in order to ensure that the true cost of solutions are being evaluated. It is also reassuring to hear that the Solid Waste Management unit is looking for solutions that will be future proof, in that they can adapt to changing organics processing standards and regulations. Installing technologies that have the capacity to adapt to changes in the regulatory environment may be more expensive up-front, but are often less costly than renovations to retrofit an outmoded technology that can no longer comply with legal standards.

Envision as a Potential Lens?

As a part of the planning process, we recommend that the Solid Waste Management unit consider using the Envision rating system for sustainable infrastructure project design. This system embodies precisely the balanced framework of economic, environmental and social considerations that we recommend above. It is a framework that also incorporates meaningful stakeholder input, to which Halifax has already demonstrated a strong commitment.

Organics Processing Consultation Dec. 1, 2016 Page 4

Regional Collaboration is Worth Considering

Nova Scotia is a small province with a small population; we feel that there are many opportunities to avoid duplication and realize economies of scale by coordinating with other waste regions. It can also help to standardize waste management operations in Nova Scotia and create consistent messaging for the public in regards to managing waste across regions. Therefore, we have no principled objections to solutions that would involve importing or exporting waste from Halifax to other waste regions in the province, so long as it makes sense at a systemic level.

Logistics

Questions of logistics should follow from the technology(ies) ultimately chosen. All other things being equal, it would be preferable to re-use an existing facility and to minimize the GHG emissions associated with transporting organics. However, we do not feel that these considerations should be determinative of the selected technology(ies).

Sincerely,



Erin Burbidge Director of Programs & Regulatory Affai^rs T: (902) 420-8832 E: eburbidge@clean.ns.ca



Waste & Restoration Program Coordinator T (902) 420-7937 E: <u>crobertson@clean_ns_ca</u>



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HRM Organics Processing Consultation Submission

November 25, 2016

Heritage Gas is interested in the organics processing options that HRM is evaluating because we believe that there is an opportunity to capture and upgrade biogas to renewable natural gas (RNG) at the new facility through the integration of anaerobic digestion processing. Well-established technology exists to upgrade biogas to RNG¹; it could be injected into the Heritage Gas natural gas pipeline system and used interchangeably with natural gas in furnaces, boilers, and engines. RNG is a renewable and carbon neutral energy source that results in the reduction of greenhouse gas (GHG) emissions when used in place of natural gas. Production of RNG at the new facility could also provide two revenue streams for HRM to help offset the cost of operating the facility:

- 1. Sale of RNG to customers who are interested in purchasing renewable and carbon neutral fuel, and
- 2. Monetization of the GHG reductions in the form of carbon credits as part of Nova Scotia's recently announced carbon cap and trade system.

As HRM explores and reviews a range of organics processing options, Heritage Gas recommends completing a business case for the integration of anaerobic digestion processing in the new facilities. Based on processing 50,000 to 75,000 tonnes of organics annually, and assuming 4 GJs of biogas per tonne of organic material, an anaerobic digestion facility could potentially produce 120,000 to 210,000 GJs/year of RNG.

Heritage Gas has engaged in preliminary discussions with Halifax Transit and Dalhousie University to assess their potential interest in purchasing RNG if it is available and could be distributed to them through the Heritage Gas natural gas pipeline system. If Halifax Transit converts some buses from diesel fuel to compressed natural gas (CNG) they may be interested in purchasing RNG. Dalhousie University has indicated interest in purchasing RNG to help them achieve their GHG emission reduction targets and to secure natural gas for a stable and predictable price on a long term purchase agreement.

One opportunity would be for the operator of the organics processing facility to partner with Heritage Gas and Dalhousie University to capture biogas and upgrade it to RNG at the organics processing facility, inject it into the natural gas pipeline, and sell it to Dalhousie University on a stable, predictable, and competitive long-term price contract. This could help Dalhousie to achieve their GHG emission reduction targets and support the business case for a proposed on-campus cogeneration project. Dalhousie University could purchase all of the RNG produced at the facility at a long-term contracted price, mitigating RNG volume and revenue risk to the facility. Heritage Gas could be interested in becoming a partner in the ownership and/or operation of the biogas upgrading facility, or could purchase the RNG from the owner of the facility on behalf of Dalhousie University.

For this opportunity to be economically viable the new organics processing facility would likely need to be located in close proximity to the current Heritage Gas natural gas distribution pipeline. A new organics



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processing facility located at or near the existing Miller facility in Burnside or in the Aerotech Park would be close to the existing natural gas pipeline. A facility located at or near the existing New Era organics processing facility in Ragged Lake would require a significant capital investment in new pipeline infrastructure that would impact the economic feasibility of the project.

For example, the City of Surrey, B.C. is building a biofuel facility to produce and utilize RNG from organic waste. Surrey has recently partnered with Orgaworld to develop the Surrey Biofuel Facility, a closed-loop biofuel facility that converts organic waste into biofuel using dry anaerobic digestion². The City of Surrey's goal was to create a fully integrated model for organic waste management that maximizes the diversion of source separated organic (SSO) waste from the landfill, and is both economically and environmentally sustainable. The facility will process up to 115,000 tonnes/year of SSO and produce biogas that will be upgraded to approximately 160,000 GJ/year of RNG (>96% CH₄)³. The dry anaerobic digestion process also produces 40-tonnes/year of Class A compost and 3,500 tonnes/year of ammonia sulphate for use as fertilizer^{4,5}.

References:

- 1. QUEST Business Case Renewable Natural Gas; The Ontario Opportunity. July, 2012
- 2. http://www.surrey.ca/city-services/13015.aspx
- 3. <u>http://www.solidwastemag.com/downloads/312/download/SWR_AM16_scrn.pdf?cb=ea821abab63d1e491f4</u> 56163901975dc, pages 15-16.
- 4. http://www.atcanswana.org/atlanticwasteconference/pdfs/2016/conf/EstablishedAndEmergingEnergyFromW asteTechnologies/HSAT2d1OostelbosSurreyBiofuelFacility.pdf
- 5. <u>http://cwma.bc.ca/events/2015/conference/presentations/Rob%20Costanza%20CWMA%202015%20presentation.pdffacility-to-turn-organic-waste-into-biogas/</u>



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http://www.surrey.ca/city-services/13015.aspx

Surrey Organic Biofuel Facility

The Surrey Biofuel Facility is a smart, sustainable solution for Surrey's organic waste.

The City is in the process of implementing the second phase of the <u>Rethink Waste Program</u>, an organic waste biofuel processing facility. The City of Surrey's goal is to create a fully integrated model for organic waste management that:

- maximizes the diversion of source separated organic waste from the landfill, and
- is both economically and environmentally sustainable.

Once established, the biofuel facility will process the City's organic waste into a 100% renewable natural gas (RNG). The RNG will then be used to fuel the City's natural gas powered waste collection vehicles, its growing fleet of natural gas powered operations service vehicles, and provide a renewable fuel source for the new <u>District Energy System</u>, which will heat and cool Surrey's City Centre. Taking this step will significantly reduce the <u>City's corporate carbon footprint</u>. The facility will also produce a high end compost product that will be used in agricultural and landscaping applications.

The facility will be situated on City-owned property located in Port Kells, adjacent to the <u>Surrey Transfer</u> <u>Station</u> and will be capable of processing upward of 115,000 tonnes of organic waste per year. The majority of this waste will come from Surrey's residential curbside collection program; however, commercial organic waste will also be processed at this facility. Processing commercial organic waste helps support the <u>Metro Vancouver</u> <u>Food Scraps Recycling Program</u>.

The facility will have a <u>state of the art odour mitigation system</u> in place, which will significantly reduce the risk of fugitive odours impacting neighbouring communities. The main feature of this system is a powerful ventilation system, operating under negative pressure and directing 100% of the treated and filtered air out of the 70 meter stack located at the back of the facility, to ensure optimal natural dispersion.

Rioux (Barry), Natasha

From:	Rochelle Owen <rochelle.owen@dal.ca></rochelle.owen@dal.ca>
Sent:	December-01-16 11:03 PM
То:	Rioux (Barry), Natasha
Subject:	RE: Input on Organics Management in HRM Survey
Attachments:	Survey.pdf

Hi Natasha,

Please find attached a completed survey. On the final page I said see letter. Instead of a letter please see comments below.

- Dalhousie is interested in an organic management system that:
 - provides more flexibility in composting products such as PLA lined paper based cups and bowls used in catering.
 - o enables the composting of bathroom paper towel and wax paper like other municipalities do.
 - provides a bio-gas product that can be cleaned to RNG that the university can purchase. We are looking for a stable gas price with a low carbon footprint and an AD system could help meet this opportunity. This would likely provide better economics to the municipality. Dal has met with Heritage gas to discuss bio-gas options and we are aware this is referenced in their letter.

Thank you Rochelle

Rochelle Owen, BSc, MES, LEED GA Director Office of Sustainability Email: Telephone: Cell: 1236 Henry St., Central Services Bid. PO Box 15000 Halifax NS B3H 4R2 Canada

dal.ca



Input from Public Meetings

Compost Matters Public Information Sessions-October 24 & November 2nd, 2016. Comments & Questions from public – Staff compiled notes

Public Session October 24, 2016 – 3pm – 5:00 p.m.

18 Attendees

- What is our current carbon footprint and costs implication of the new carbon tax?
- Need to build for future capacity and growth. How do we know 60-70,000 tonnes will be enough?
- Compare HRM current organic costs and benchmark with other regions. Need to focus on – onsite management of grass, backyard composting (BYC) and food waste reduction
 reducing generation at source that will in turn reduce need for system to manage in the first place.
- Interest in benchmarking current greenhouse gas emissions from our organics processing.
- Concerned about adding pet waste where there may be toxins harmful to fetus
- Adding grass clippings should not occur when these materials are best managed onsite and there is no need for including in the organics collection system costs.
- Current organics tip fee is less than half the true cost per tonne to process Do we see that fee increasing?

Public Session October 24, 2016 – 6pm – 8:00 p.m. 16 Attendees

- Need to focus on backyard composting. Survey doesn't have mention of backyard composting. Misses real opportunity. Biggest opportunity should be at heart of program.
- Interest in compost end product being available to residents.
- Interest in re-directing organic material away from the WSF as unacceptable for landfill and enforcement such that no organics be acceptable at Otter and stricter enforcement at ICI sector waste generation.
- Discussion of what happens to excess leaf and yard waste, who is processing and what it the cost.
- Interest in grass clippings acceptable back in green bin as it was taken away



- Resident concerned that she did not know about this public session HRM should have distributed a Mail out to promote the event as she didn't know about it until today.
- Interest in location of other compost facilities in NS, system types and materials accommodated. If they accept pet waste in Amherst, why can't we?
- Pet waste is connected to plastic bags. Concerns expressed that this adds to plastic as a contaminant in the system. HRM should look at Seattle as model where focus is on reducing plastic bag waste.
- Question if we will consider adding fishing by-products in organics green bin feedstock. Also option of end product from organic processing used as fish food as alternative to importing feed used in fish farms in NS.
- Interest in how grass clippings are being managed now that they are not allowed in the green bin.
- Micro-plastics are as harmful as greenhouse gases. Anaerobic composting can contribute to this. Meaningful consultation by citizens who consider nuances, otherwise citizens may not feel questions are answered. Long term citizen based strategy important.
- Would like to see benefit of compost. Would like to see other ways to encourage people to compost. Report out of BC about Walmart.
- Resident of Goodwood and can smell compost of existing facility from gas station.
- Why isn't Otter Lake and option for a site location?

Public Session November 2, 2016 – 3pm - 5:00 p.m.

20 Attendees

- Comment that the video shown in the session be provided in all schools as it is an excellent educational tool.
- Interest and questions about the costs of processing organics vs landfill
- Concern about costs of collection, suggest reducing frequency of collection to save money, reducing organics generation with onsite management such as BYC and only need to collect organics monthly.
- With shifting of boxboard to recycling, there should be less tonnes in green bin to manage, measure impact and only build for necessary capacity, do not waste money on capacity not needed.



- Consider implication of carbon footprint impact with exporting organics with increase in transportation and costs Bins size – too big, city should look at smaller compost carts like in Toronto for ease of use. HRM should look at fee for service models and user pay that is in place in Germany as a means to encourage and reward for waste reduction.
- Question about how the four compost matters categories (environment, social context, etc.) will reflect the options for potential facilities/organics processing.

Public Session November 2, 2016 – 6pm- 8:00 p.m.

18 Attendees

- What are tax costs in Burnside?
- Interest to understand anaerobic digestion process, costs, end products, and track record of other AD operations.
- What is \$ value/efficiency/cost/benefit for HRM to manage organics vs supporting grass roots community driven solutions.
- HRM should support opportunities for small business operators to collect from breweries and farm markets rather than looking at facility options when small business can manage specific items such as pumpkins and Christmas trees and save the city on capacity and costs.
- HRM should control product flow to end use and have access to product and not under the sole control of a third party.
- Concern expressed about noxious weeds and not knowing how to properly manage
- Interest in vermicomposting.





SOLID WASTE

COMPOST FACILITY GOODWILL

MAP 3 Current Site Plan with Conservative 100 m

🔨 Stream

Compost Facility Property Boundary



Buildable Area

Buffer Areas



30 m buffer between active area and watercourse

100 m buffer between active area and nearest property boundary

250 m buffer between active area and nearest commercial or industrial building

<u>Seperation Distance</u> <u>Commerical or</u> <u>Industrial Buildings</u> Minimum Buffer = 250 m

Property Included

Irving Oil PID: 40682825 599 Prospect Rd

Royal Environmental Inc PID: 41325929 14 Evergreen PI

The Pace Group Limited PID: 41325911 16 Evergreen PI







SOLID WASTE

COMPOST FACILITY GOODWILL

MAP 1 Proposed Property Boundary Site Plan Property Extension= 200 m x 100m





Buildable Area

Buffer Areas



250 m buffer between active area and nearest commercial or industrial building



30 m buffer between active area and watercourse



100m buffer between active area and nearest property boundary

<u>Seperation Distance</u> <u>Commerical or</u> <u>Industrial Buildings</u> Minimum Buffer = 250 m

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Item No. Environment & Sustainability Standing Committee October 6 2016

TO: Chair and Members of Environment & Sustainability Standing Committee

SUBMITTED BY:	Original Signed		
	Bruce Zvaniga, P.Eng., Director, Transportation & Public Works		
DATE:	September 28, 2016		
SUBJECT:	Organics Management and Processing Stakeholder Engagement		

INFORMATION REPORT

<u>ORIGIN</u>

February 23, 2016 Halifax Regional Council directed staff to initiate the process to identify a service provider for organics management and processing as per the scope of work and requirements included as Attachment A to the report dated January 6, 2016 and that Halifax Regional Council further direct staff to:

- 1. Consult with stakeholders to receive input in the development of the Request for Qualification and the Request for Proposal;
- 2. Return to Council with a recommended RFQ for input and approval prior to its issuance along with consultation feedback;
- 3. Return to Council with an update on the RFQ and a recommended RFP for input and approval prior to its issuance; and
- 4. Return to Halifax Regional Council to award the organics management and processing contract.

September 8, 2016 Environment and Sustainability Standing Committee (ESSC) requested an update on the progress of stakeholder engagement.

LEGISLATIVE AUTHORITY

Administrative Order 1, Schedule 5, section 3 states that the Environment and Sustainability Standing Committee shall advise the Council on matters respecting solid waste management, including the responsibility to receive reports and to keep the Council informed respecting all matters related to the Solid Waste Management Program in the municipality.

BACKGROUND

In Nova Scotia organics (i.e. food and yard waste) are banned from disposal in landfills. Halifax was the first large municipality in Canada to implement a source separate organics program in 1998, including curbside collection of green carts. Over 53,000 tonnes of organics are processed annually at one of two centralized compost facilities and other third party entities.

HRM's current organics facilities are over 17 years old and with the success of our programs have reached their processing capacity. As well, new compost maturity guidelines were adopted by Nova Scotia Environment (NSE) in 2010, with compliance expected by 2019/20. Our existing facilities cannot meet these guidelines without expansion or replacement.

There have been many advances and insights made in the field of compost. Halifax now has an opportunity to look at a range of options with a long term outlook of managing our organic waste. No decisions have been made as to what type of system will be used.

DISCUSSION

Objectives for Organics Management

There have been many advances in the field of organics processing. Halifax has the opportunity to explore and review a range of processing options. Therefore staff have not developed a solution to managing organic material; instead it was recommended and approved by Halifax Regional Council to allow market innovation to assist in procuring the most capable and cost effective solution for processing organics. Proponents may utilize existing assets, facilities and sites in their proposals. By allowing the market to develop organics management and processing options it provides for alternative methods to be proposed which may or may not have been analyzed by staff.

Halifax Regional Council has endorsed the below goals/objectives to help guide the procurement process. These goals/objectives will allow the market to provide Halifax with an organics management and processing solution that:

- A. Minimizes capital and operating costs, including reducing current processing costs,
- B. Minimizes impact to the community (odors, noise etc.),
- C. Meets the 2010 NSE Guidelines for compost post 2019,
- D. Increases organics processing capacity from 50,000 tonnes to 60,000 tonnes per year, with the option to increase to 75,000 tonnes per year in the future.

In order to assist and guide staff in the development of a Request for Qualification (RFQ) and Request for Proposal (RFP), Council directed Solid Waste to consult with stakeholders. The intent of the consultation process is for stakeholders to provide staff with insight on their values and aspirations for each stakeholder group. Residents are also being consulted in order to seek their values and aspirations of the program as well. The consultation process will provide the opportunity for stakeholder groups and community members to clearly express their positions for the future direction of the organics management program. This information will then be consolidated, reviewed and presented along with RFQ criteria for Councils consideration. The RFQ will be used as method to prequalify potential vendors. An RFP will then be issued by invitation only to the vendors who have been prequalified.

Engagement Process and Goals

Staff are seeking public and stakeholder input on compost systems and operations to learn what criteria they consider important to include in requests to qualify vendors to provide for our future compost processing needs. Criteria and options previously identified in the consultant (GHD) business case/report

have been grouped into 4 conversation topics or themes that staff will discuss in stakeholder meetings. These topics are meant to gather input on the future system and in no way limit what can/will be discussed during the consultative process:

- 1. Our Environment
 - a. Current organic systems, process and end products.
 - b. Ways to improve environmental performance.
- 2. The Social Context
 - a. Ways to manage organics to maximize resource value and minimize impact on our community.
 - b. Facility location and how technology and systems selection may affect a community.
 - c. The acceptance of additional material(s).
- 3. Finances and Risk
 - a. Current and new system estimated costs.
 - b. Pros/Cons with commercially proven and unproven systems will be explored.
 - c. One site verses multiple sites.
- 4. Logistics
 - a. Remain at the current site(s).
 - b. Import material from other regions.
 - c. Export HRM's organic material.

The engagement plan is titled "Compost Matters". The goals of this engagement project are to:

- Solicit feedback from stakeholder groups identified by staff as well as those who self-identify as well as the general public.
- Educate stakeholders on the current organics management and processing program.
- Share the municipality's goals/objectives for the organics management and processing system.
- Encourage open dialogue and positive exchange of ideas and opinions.
- Document stakeholder's and residents views and opinions on how to evolve the organics management system.
- Ensure participants understand their input is valued and illustrate this through a consolidated stakeholder engagement review document which will be presented to Halifax Regional Council.
- Use the input provided to staff to develop the RFQ and RFP criteria for the evolution of the system.

To assist in the consultation and engagement process there will be:

Tools	Timing			
Shape Your City Community Engagement Hub – Public Feedback				
This will serve as the primary engagement tool to provide input and where resource materials will reside.				
✓ Compost Matters Discussion Forum	• Launched the week of September 12 th			
 ✓ Compost Matters Education Information Sheet (FAQ's) 	 Included on the hub the week of September 12th 			

 Public Feedback Compost Matters Questionnaire Included on the hub the week of September 12th Location and time to be determined and communicated on the engagement hub as well as through print and radio ads. Sites will be close to high frequency transit services and offer ample parking. Stakeholder Meeting Forums & Staff Presentations September – November meetings to consult
 Public Feedback Compost Matters Questionnaire Broader community meeting/ open house. Location and time to be determined and communicated on the engagement hub as well as through print and radio ads. Sites will be close to high frequency transit services and offer ample parking. Stakeholder Meeting Forums & Staff Presentations September – November meetings to consult
 Broader community meeting/ open house. Location and time to be determined and communicated on the engagement hub as well as through print and radio ads. Sites will be close to high frequency transit services and offer ample parking. Stakeholder Meeting Forums & Staff Presentations Business/Academic/NGO Community September – November meetings to consult
Stakeholder Meeting Forums & Staff Presentations ✓ Business/Academic/NGO Community • September – November meetings to consult
 ✓ Business/Academic/NGO Community September – November meetings to consult
Audience and engage in conversation and discussion ✓ Stakeholder Feedback Compost Matters Questionnaire Feedback can be submitted after meeting

During the consultative process the municipality is asking stakeholder groups to:

- Complete the one hardcopy survey and return to Halifax Solid Waste with the position of the stakeholder group;
- Provide formal correspondence which outlines any and all positions of the stakeholder group;
- Promote the completion of the online survey, submission of questions and positions of individual members as well as the community at large.

In addition to the stakeholder groups, the municipality is asking residents to:

- Review the materials on the Shape Your City Community Engagement Hub website;
- Complete the online survey;
- Provide comments, questions and feedback to Solid Waste staff through <u>compostmatters@halifax.ca</u>

HRM Community Engagement Strategy - Public Involvement Practices

The public involvement practices included within the 2008 Council approved HRM Community Engagement Strategy will help guide this consultation. Outlined below are the ten practices along with how Solid Waste staff intend to meet these objectives:

- 1. Citizen participation is recognized as an asset, is valued and encouraged.
 - Staff value participation and understand there may be time constraints for residents to be able to fully participate. Therefore three months have been provided for consultations. This provides adequate time for staff to individually meet with each stakeholder group.
 - Staff are meeting with a number of stakeholder groups which have diverse backgrounds and organizational goals (list below Table 1).

- Additional stakeholder groups are encouraged to contact Solid Waste for individual meetings.
- Resident participation is being encouraged through an awareness campaign.
- Consultation / Open house session(s) will be provided for the general public at accessible locations.
- Information received will be used to assist staff in developing proposals for Councils consideration.
- 2. The purpose and process are clear to all participants.
 - Stakeholders will be regularly reminded that staff have not selected, nor have recommendations been made to Halifax Regional Council on a preferred approach to organics management. All participants will know that the consultation process will assist staff in understanding the values and aspirations of stakeholder groups as well as residents and will help guide the direction of the criteria for a solution to Council.
 - Presentation to stakeholder groups is available for all residents.
- 3. Everyone potentially affected by the process has an opportunity to become involved.
 - Consultant reports, Council reports and other documents are available online to help provide background and context.
 - Presentations and updates are available online.
 - Survey questions through Shape Your City Community Engagement Hub will help identify trends in values, priorities and aspirations.
 - Correspondence can be sent to <u>compostmatters@halifax.ca</u>
 - Stakeholder groups can self-identify and be a part of the process.
- 4. Barriers to access are recognized and overcome to ensure diverse, inclusive and balanced participation.
 - Staff are individually meeting with a diverse group of stakeholders when and where it works for their schedules.
 - Consultation / Open house session(s) will be provided for the general public at accessible locations. Sites currently being explored will be close to high frequency accessible public transit and will have adequate parking available. Two Halifax Transit bus tickets will be provided to all residents who attend. The purpose is to remove barriers and ensure all residents have access and transportation to the session regardless of socio-economic conditions.
- 5. The process is respectful, fair, effective and transparent.
 - Survey and written submissions will be analyzed in two distinct groups (stakeholder, general public) in order to provide Council with distinct representative views.
 - Meetings with stakeholders are being conducted with only one stakeholder group at a time. This will allow each group to feel comfortable to express their opinions and for staff to provide timely feedback to questions.
 - Individual stakeholder meetings will facilitate a personalized discussion that can address the particular needs and interests of the group.
 - Information will be made available to Council on the consultation process.
 - All formal correspondence will be provided to Council.
- 6. Communication is clear, timely and effective.
 - Staff is striving to simplify the content and context of all information.
 - Shape Your City Community Engagement Hub will allow for easy access of information.

- Messages and information will being sent to the 40,000 registered users of the What Goes Where application as well as the 1,500 registered users of the Shape Your City Portal.
- Staff will respond to online questions. The question and answer will be posted online.
- Consultation process will end December 1, 2016.
- 7. Public involvement is adequately resourced.
 - Staffing and budget is appropriately resourced to consult and engage.

- 6 -

- 8. Participants are informed of outcomes of community engagement.
 - Reports to ESSC and Halifax Regional Council will be made available to all stakeholder groups and residents. They will also be posted on the Shape Your City Community Engagement Hub.
- 9. The public has an opportunity to provide feedback at the various stages of the process.
 - Stakeholders and residents will be asked to provide feedback throughout the process.
 - Staff will welcome comments and suggestions throughout the process in order to assist in continual improvement.
- 10. Community engagement is evaluated and improved.
 - After analyzing the feedback on this approach to engagement and consultation, staff will review the information to determine what was successful and what wasn't.
 - Solid Waste will share this experience with other municipal departments.

Identified Stakeholder Groups

Staff conducted outreach to the following community stakeholders to determine their interest in participating. The responses are noted in below:

Table 1 – Identified Stakeholder Groups

- 7 -

Business/Academic Community		Meeting Date	
	-		
Halifax Chamber of Commerce	\checkmark	•	ТВА
Greater Burnside Business Association	\checkmark	•	ТВА
Dalhousie University Office of Sustainability	\checkmark	•	Sept 7
Dalhousie University Innovative Waste Management Research Program Faculty of Agriculture	\checkmark	•	Sept 7
Greater Halifax Partnership	\checkmark	•	ТВА
Landscape Nova Scotia	\checkmark	•	Sept 19
Restaurant Association of NS	\checkmark	•	Sept 21
IPOANS (Investment Property Owners Association of Nova Scotia)	\checkmark	•	Sept 14
Fusion Halifax	\checkmark	•	Sept 9 & 28
Heritage Gas	\checkmark	•	Sept 15
Canadian Federation of Independent Business	\checkmark	•	ТВА
Local Business's Surrounding Ragged Lake / Goodwood Facility (Halifax C&D)	\checkmark	•	Sept 28

As there is no Ragged Lake Business Park Association, staff are actively seeking feedback from local businesses within close vicinity to the current Ragged Lake Compost Facility such as the Irving, John Ross & Sons, Halifax C&D, Ace Towing, and the Halifax Exhibition Center.

Government & Non-Governmental Agencies				
Halifax Waste Resource Society	\checkmark	•	Sept. 12	
Clean Foundation	\checkmark	•	Sept 15	
Nova Scotia Environmental Network	\checkmark	•	Sept 22	
Ecology Action Centre	\checkmark	•	Nov 3	
Canadian Taxpayers Federation	Х	•	N/A	
Nova Scotia Environment	\checkmark	•	Sept 23	
Nova Scotia Federation of Agriculture	Х	•	N/A	
 Accepted invitation to be consulted X Declined invitation to be consulted 				

The Canadian Taxpayers Federation and the Nova Scotia Federation of Agriculture provided no comment as to why they were not interested in being consulted. If either organisation wishes to meet with Solid Waste on this matter, staff will make themselves available.

FINANCIAL IMPLICATIONS
There are no financial implications with this report.

COMMUNITY ENGAGEMENT

This is a report on community engagement.

ATTACHMENTS

- 1. Staff Presentation Slides
- 2. Compost Matters Information Sheet
- 3. Compost Matters Survey

A copy of this report can be obtained online at http://www.halifax.ca/commcoun/index.php then choose the appropriate Community Council and meeting date, or by contacting the Office of the Municipal Clerk at 902.490.4210, or Fax 902.490.4208.

Report Prepared by: Matthew Keliher, Manager, Solid Waste 902.490.6606

Report Reviewed by: Original Signed Bruce DeBaie, Managing Director, Corporate Communications 902.490.2348

ΗΛLIFΛΧ

Compost Matters

The future of organics management

September-27-16

Agenda

- Introductions
- Why we're here today
- Organics Management Brief History
- Current opportunities and challenges
- Halifax Goals
- Conversation
- How to provide further feedback



Introductions

- Matthew Keliher Manager, Solid Waste Resources
- Laurie Lewis Program Manager – Policy & Outreach, SWR
- Deanna Wilmshurst Marketing & Communications Advisor, HRM
- Shannon Betts Waste Resource Analyst, SWR
- Natasha Rioux Administrative Assistant, SWR



Why We're Here Today

Staff have not selected, nor have recommendations been made to Halifax Regional Council on a preferred approach to organics management.

Through a collaborative consultation staff will;

- Provide a forum for open communication;
- Engage in meaningful discussion to understand what you value about organics management in the region;
- Listen to and document your ideas, opinions and points of view;
- Gain insight into what you're hearing within your organization and communities;
- Gather information to
 - inform Council on how to direct staff to proceed with the organics management program;
 - develop the criteria for a Request for Qualifications (RFQ).



IAP2 Spectrum of Public Participation







Organics Management Brief History

- Halifax first large municipality in Canada to implement source separated organics in 1998.
- Currently process 53,000 tonnes annually
 - Residential: 37,000
 - ICI: 16,000
- Capacity at municipal facilities is 50,000 annually (facilities meeting permit requirements)
 - Excess capacity processed by third party contractor



Organics Management Current Opportunities and Challenges







Organics Management

Current Opportunities and Challenges

- After 17 years, we have aging infrastructure and facilities have reached processing capacity.
- Facilities do not meet the new NSE compost maturity guidelines (proposed 2019/20 deadline proposed for municipality to meet).
 - Ragged Lake facility cannot meet new guidelines without significant upgrades.
 - Miller facility can meet new requirements with some investment, however, site location and space restricts expansion.
- New composting technologies have emerged.



Halifax Goals For The Program

- Allow the market to provide Halifax with an organics management and processing solution to:
 - Minimize capital and operating costs
 - Minimize impact to the community
 - Meet the 2010 NSE compost guidelines
 - Increase organics processing capacity for up to 75,000 tonnes



Our Request

The stakeholder group:

- Complete the one hardcopy survey and return to Halifax Solid Waste with the position of the <u>stakeholder group;</u>
- Provide formal correspondence which outlines any and all positions of the <u>stakeholder group;</u>
- Promote the completion of the online survey, submission of questions and positions of <u>individual</u> <u>members as well as the community at large</u>.



Timeline

- September to December 1, 2016
 - Engagement
 - Individual stakeholder group meetings
 - Residents through Shape Your City Portal
 - Public session(s)
- February March 2017
 - Halifax Regional Council
 - Engagement Review
 - Direction on Request for Qualification (RFQ) criteria



Conversation Topics

- Our Environment
- The Social Context
- Finances and Risk
- Logistics



Our Environment

- What is composting?
- Are there different systems?
- Why isn't compost currently available to residents?



The Social Context

Finding ways to manage organics that minimizes impact on community

- Where should facilities be located?
- What should be done with finished material?
- Should more items be allowed in the green bin?



Finances and Risk

- What is the cost of processing organics?
- What about new technology?
- What if regulations change again?
- Should there be one site or multiple sites?



Logistics

- Remain at the current site(s)?
- Import material from other regions?
- Export material?



How to provide further feedback

- Compost Matters Questionnaire
- Visit the Shape Your City website <u>www.shapeyourcityhalifax.ca</u> for up-to-date information
- Contact Halifax Solid Waste through
 <u>compostmatters@halifax.ca</u>



THANK YOU



Compost Matters Information Sheet

In Nova Scotia organics (i.e. food and yard waste) are banned from disposal in landfills. The Halifax region was the first large municipality in Canada to implement a source separate organics program in 1998, including curbside collection of green carts. Over 53,000 tonnes of organics are processed annually at one of two centralized compost facilities and other third party entities.

Our current organics facilities are over 17 years old and with the success of our programs have reached their processing capacity. As well, new compost maturity guidelines were adopted by Nova Scotia Environment in 2010, with compliance expected by 2019/20. Our existing facilities cannot meet these guidelines without expansion or replacement.

There have been many advances and insights made in the field of compost. The Halifax region now has an opportunity to look at a range of options with a long term outlook of managing our organic waste. No decisions have been made as to what type of system we will engage.



Our Environment

What is composting?

Composting is the process by which organic material breaks down into a product that can be used to add nutrients and moisture to soil. Many residents manage organic waste on their properties through backyard composting, mulch mowing and grasscycling.

Are there different systems for composting?

Yes.

Aerobic (with air) composting is used in our current facilities. Simply put, nitrogen-rich food waste and carbon-rich yard waste are mixed along with oxygen and moisture (if needed). These controlled conditions encourage micro-organisms to break down the organic material. Heat is generated during this process, which kills bacteria and pathogens. The end product is compost.

- Our current facilities process material inside a building. Material remains in the building for up to 28 days, after which it is transported off site for further processing.
- Open windrow operations are an outdoor process where material is piled in rows and turned by machines. The material stays in these rows for up to 12 months before it is ready to be used.



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Anaerobic digestion is the breakdown of organic material (i.e. food waste, yard waste) in an oxygen-free environment. Anaerobic processes can typically handle wetter organic material. The active microorganisms in this process create a combustible gas (methane and carbon dioxide), known as biogas.

Biogas can be an energy source when captured and converted to electricity or a form of natural gas. Anaerobic digesters optimize conditions and help reduce odours. The end product (digestate) can be composted and used as a fertilizer. Anaerobic digestion facilities generally accept materials not traditionally captured in an aerobic process (i.e. plastic and compostable bags and pet waste).

On-farm anaerobic digestion facilities typically use manure as the main feedstock. Other organic materials (such as food waste) can be added to increase the biogas production. On-farm anaerobic operations do exist in Nova Scotia, but there is no proven experience with green bin waste material.

Why isn't compost currently available to residents?

The compost end product is managed by a third party who owns the material. This means the product is not currently available to be returned to residents as is the practice in many other municipalities.



The Social Context

Where will compost facilities be located?

Finding ways to manage organics that maximize resource value and minimize impact on our neighbours is essential. Organics processing facilities generate **odours and noise** as a result of operating equipment and managing green bin material. This has the potential to negatively affect the local community if not well managed.

The municipality currently operates two compost plants (in Burnside and in Goodwood, Halifax) located within a 10 km radius of the centre of where the majority of organics are generated.

Existing facilities may be used with the new processing solution, the current sites may be used for new infrastructure, or other approved sites may be used. New sites are subject to approval by Nova Scotia Environment and must comply with municipal land use By-Laws.

How large a facility will we need?

Facility size will vary depending upon the **technology selected**. Aerobic composting typically requires a larger facility footprint than a fully mechanical process such as anaerobic digestion. Accommodating a new plant or process on an existing compost facility site or the need to develop a new location will largely depend on the technology selected.



What is the cost of processing organics?

Processing organics costs the municipality approximately \$9 million per year (\$170/tonne). A new system is estimated to cost between \$150–\$210 per tonne, depending on the technology and process chosen.

What about new technology?

New composting technologies exist but some are unproven. Using unproven technology increases the financial and operational risk. The Halifax Regional Municipality has been a pioneer and leader in organic waste management. Our future may include selecting commercially proven technology for processing source-separated organics, or less tested and perhaps more innovative solutions that can also meet our needs.

What if regulations change again?

It is important that any proposed technology is robust enough to potentially meet future requirements. This can be accomplished through developing a system which exceeds current standards, or ensuring the proposed solution can be conveniently upgraded. Stricter compost quality requirements recently introduced in Ontario could forseeably be applied to Nova Scotia over the operating life of the new facility.

Logistics

How large of a facility will be required?

The current capacity of each facility is 25,000 tonnes, but the municipality generates over 53,000 tonnes annually. This means during high-volume periods (spring, fall and Christmas tree removal), material must be re-directed to alternative sites. Future planning will allow for potential tonnage of 60,000 to 75,000 tonnes.

Is a new facility necessary?

Not necessarily. One consideration is determining whether expansion can occur at existing sites. This could occur through expanding the current process technology or perhaps adding new technology to co-exist on one of the existing sites and work in tandem with current facilities. Alternatively, an existing facility could be demolished to facilitate a new operation. Other options include a new site and facility or keeping an existing facility operational through renovation.

How long would it take to have a new site operational?

New site identification, permitting and zone approval and community consultation may be required to ensure the proposed development is consistent with land use in the area. This affects project deadlines, operations and cost. It is likely that this process will take a few years depending on the planning and approval process through various levels of government.



We are seeking your input on what attributes you feel are important when considering compost systems and operations. This information and feedback will help guide staff in the formation of a Request for Qualifications (RFQ) in which industry will submit proposals for a solution to the Halifax region's organics management. The goal is to have new strategy/solution operational 2019/20. Attributes have been grouped under four themes: Our Environment, The Social Context, Finances & Risk and Logistics.

Please take a few minutes to join the conversation at www.shapeyourcityhalifax.ca/compost-matters or send an email to compostmatters@halifax.ca. Think outside the bin!



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Compost Matters Questionnaire

As a result of all the hard work and dedication shown by residents, our region has an extremely successful organics management program—so much so, our current compost facilities are at capacity. For the last 17 years residents and businesses have been contributing to the ongoing success of the program, one banana peel at a time. Fantastic job!

The Halifax region has been a leader in organics processing since 1999 but our organics management facilities are aging and have reached their processing capacity. In addition, new compost maturity guidelines were adopted by Nova Scotia Environment in 2010, with compliance expected by 2019/20. Our existing facilities cannot meet these guidelines without expansion or replacement. As a result, the region must make investments in our composting facilities to increase capacity, meet new guidelines and recapitalize current assets or build new infrastructure to ensure continued long-term success of the program.

Since 1999 there have been many advances made in the field of compost. The Halifax region now has an opportunity to explore and review a range of processing options for our municipality. The goal of which is to ensure value for money, adherence to compost regulations, minimizing the impact to residents and planning for future expansion. No decisions have been made as to what type of system(s) will be used.

The municipality is seeking your input on what attributes you and your organization feel are important when considering compost processing systems and operations. This will help guide staff in the formation of a Request for Qualifications (RFQ) in which industry will submit proposals to provide solutions to the Halifax region's organics management.

Please help us identify and rate what is important to you and/or your organization. Think outside the bin. Please take a few minutes to join the conversation at www.shapeyourcityhalifax.ca/compost-matters or send an email to compostmatters@halifax.ca.



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Questions

On a scale from one to five, please rate your level of agreement with the following statements. (1 = complete disagreement; 5 = complete agreement)



Our Environment

our Environment					
	Disagree		\rightarrow	→ Agree	
Processing organics to produce compost is important to me.	1	2	3	4	5
It matters to me where and how the end product (e.g. compost, fertilizer) is used.	1	2	3	4	5
The process should create a product that is available for residents to use.	1	2	3	4	5
Alternate end products of green bin material should also be considered. For example: fish and animal feed or fuel.	1	2	3	4	5
Capture of biogas (which is generated during the anaerobic composting process) should be explored as a renewable energy source.	1	2	3	4	5

The Social Context

	Disagree		\rightarrow	Agree	
Facilities should be away from residential areas.	1	2	3	4	5
I want to be able to put compostable plastic in my green bin.	1	2	3	4	5
I want to be able to include pet waste in my green bin.	1	2	3	4	5
I want to be able to put grass in my green bin.	1	2	3	4	5
Investment in odour control, over and above the minimum requirements, is important.	1	2	3	4	5
As long as the material in the bin is collected I don't care what happens to it.	1	2	3	4	5

Questions

On a scale from one to five, please rate your level of agreement with the following statements. (1 = complete disagreement; 5 = complete agreement)

Finance & Risk					
	Dis	agree	\rightarrow	Ag	ree
The Halifax region should explore organics processing technologies even if they are commercially unproven.	1	2	3	4	5
The Halifax region should only consider commercially proven organics processing technologies and methods.	1	2	3	4	5
The chosen option should be the lowest-cost solution that meets all regulatory requirements.	1	2	3	4	5
Companies being considered to provide services must have a proven track record in providing organics management and composting solutions.	1	2	3	4	5
If it is more cost effective, Halifax should ship organics to other municipalities for processing.	1	2	3	4	5
The Halifax region should have one processing facility to try and maximize economies of scale (minimize cost).	1	2	3	4	5
The Halifax region should have multiple processing facilities to minimize potential risk.	1	2	3	4	5

👝 😽 Logistics					
	Disa	agree	\rightarrow	Ag	ree
Facilities should be close to the center of organics generation in order to reduce transportation and greenhouse gas generation.	1	2	3	4	5
New facilities should be built at existing sites (Burnside and Ragged Lake Business Parks).	1	2	3	4	5
Facilities should be built at new sites.	1	2	3	4	5
The Halifax region should manage its own organic material—not ship to facilities outside of the municipality even if it is more cost effective to export.	1	2	3	4	5
The Halifax region should accept material from other municipalities.	1	2	3	4	5



Please rank the following categories in order of importance. 1 to 4 using each number only once where 1 = most important; 4 = least important.	Environment	
	Social Context	
	Finances & Risk	
	Logistics	



Do you have any additional considerations you think are important when talking about the future of composting in the municipality? i.e. adding new materials, changing collection.







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Consultation Overview Compost Matters

The future of organics management

October 6, 2016 ESSC Presentation

Organics Management Current Opportunities and Challenges

- After 17 years, we have aging infrastructure and facilities have reached processing capacity.
- Facilities do not meet the new NSE compost maturity guidelines (proposed 2019/20 deadline proposed for municipality to meet).
 - Ragged Lake facility cannot meet new guidelines without significant upgrades.
 - Miller facility can meet new requirements with some investment, however, site location and space restricts expansion.
- New composting technologies have emerged.



Halifax Goals For The Program

- Allow the market to provide Halifax with an organics management and processing solution to:
 - Minimize capital and operating costs
 - Minimize impact to the community
 - Meet the 2010 NSE compost guidelines
 - Increase organics processing capacity for up to 75,000 tonnes



Purpose of Consultation

Staff have not selected, nor have recommendations been made to Halifax Regional Council on a preferred approach to organics management.

Through a collaborative consultation staff will;

- Provide a forum for open communication;
- Engage in meaningful discussion to understand what is valued about organics management in the region;
- Listen to and document, opinions and points of view;
- Gain insight into what stakeholder groups and residents are hearing within their organizations and communities;
- Gather information to
 - inform Council on how to direct staff to proceed with the organics management program;
 - develop the criteria for a Request for Qualifications (RFQ).



IAP2 Spectrum of Public Participation







Goal of Consultation

- Solicit <u>feedback</u> from stakeholder groups as well as the general public.
- <u>Educate</u> stakeholders on the current organics management and processing program.
- <u>Share</u> the municipality's goals/objectives for the organics management and processing system.
- Encourage open dialogue and <u>positive exchange of ideas and</u> <u>opinions</u>.
- <u>Document</u> stakeholder's and residents views and opinions on how to evolve the organics management system.
- Ensure participants understand their <u>input is valued</u> and illustrate this through a consolidated stakeholder engagement review document which will be presented to Halifax Regional Council.
- <u>Use the input</u> provided to staff to develop the RFQ and RFP criteria for the evolution of the system.



Community Engagement Strategy

1. <u>Citizen participation is recognized as an asset, is valued and encouraged.</u>

- Three months have been provided for consultations. This provides adequate time for staff to individually meet with each stakeholder group.
- Staff are meeting with a number of stakeholder groups which have diverse backgrounds and organizational goals.
- Additional stakeholder groups are encouraged to contact Solid Waste for individual meetings.
- Consultation / Open house session(s) will be provided for the general public at accessible locations.
 - Dartmouth Sportsplex October 24 (3pm & 6pm)
 - Halifax Forum November 2 (3pm & 6pm)



Community Engagement Strategy

Dartmouth Sportsplex October 24 (3pm & 6pm)



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Community Engagement Strategy

Halifax Forum November 2 (3pm & 6pm)




Business/Academic Community		Μ	Meeting Date	
Halifax Chamber of Commerce	\checkmark	•	TBA	
Greater Burnside Business Association	\checkmark	•	TBA	
Dalhousie University Office of Sustainability	\checkmark	•	Sept 7	
Dalhousie University Innovative Waste Management Research Program Faculty of Agriculture	\checkmark	•	Sept 7	
Greater Halifax Partnership	\checkmark	•	TBA	
Landscape Nova Scotia	\checkmark	•	Sept 19	
Restaurant Association of NS	\checkmark	•	Sept 21	
IPOANS (Investment Property Owners Association of Nova Scotia)	\checkmark	•	Sept 14	
Fusion Halifax	\checkmark	•	Sept 9 & 28	
Heritage Gas	\checkmark	•	Sept 15	
Canadian Federation of Independent Business	\checkmark	•	ТВА	
Local Business's Surrounding Ragged Lake / Goodwood Facility (Halifax C&D)	\checkmark	•	Sept 28	



Government & Non-Governmental Agencies

Halifax Waste Resource Society	\checkmark ·	Sept. 12
Clean Foundation	<·	Sept 15
Nova Scotia Environmental Network	\checkmark ·	Sept 22
Ecology Action Centre	\checkmark .	Nov 3
Canadian Taxpayers Federation	Х.	N/A
Nova Scotia Environment	\checkmark .	Sept 23
Nova Scotia Federation of Agriculture	Х .	N/A



2. <u>The purpose and process are clear to all participants.</u>

- Staff have not selected, nor have recommendations been made to Halifax Regional Council on a preferred approach to organics management.
- Assist staff in understanding the values and aspirations to help guide the direction of the criteria for a solution to Council.
- 3. Everyone potentially affected by the process has an opportunity to become involved.
 - Consultant reports, Council reports and other documents are available online to help provide background and context.
 - Survey questions through Shape Your City Community Engagement Hub will help identify trends in values, priorities and aspirations.
- 4. <u>Barriers to access are recognized and overcome to ensure diverse,</u> <u>inclusive and balanced participation.</u>
 - Staff are individually meeting with a diverse group of stakeholders when and where it works for their schedules.
 - Consultation / Open house session(s) will be provided for the general public at accessible locations.
 - Two Halifax Transit bus tickets will be provided to all residents who attend. The purpose is to remove barriers and ensure all residents have access and transportation to the session regardless of socio-economic conditions.



5. The process is respectful, fair, effective and transparent.

- Survey and written submissions will be analyzed in two distinct groups (stakeholder, general public) in order to provide Council with distinct representative views.
- Meetings with stakeholders are being conducted with only one stakeholder group at a time.
 - Allow each group to feel comfortable to express their opinions and for staff to provide timely feedback to questions.
 - Individual stakeholder meetings will facilitate a personalized discussion that can address the particular needs and interests of the group.
- Information will be made available to Council on the consultation process.
- All formal correspondence will be provided to Council.

6. <u>Communication is clear, timely and effective.</u>

- Staff is striving to simplify the content and context of all information.
- Shape Your City Community Engagement Hub will allow for easy access of information.
- Messages and information will being sent to the 40,000 registered users of the What Goes Where application as well as the 1,500 registered users of the Shape Your City Portal.
- Staff will respond to online questions. The question and answer will be posted online.
- Consultation process will end December 1, 2016.



7. Public involvement is adequately resourced.

- Staffing and budget is appropriately resourced to consult and engage

8. Participants are informed of outcomes of community engagement.

 Reports to ESSC and Halifax Regional Council will be made available to all stakeholder groups and residents. They will also be posted on the Shape Your City Community Engagement Hub.

9. <u>The public has an opportunity to provide feedback at the various stages of the process.</u>

- Stakeholders and residents will be asked to provide feedback throughout the process.
- Staff will welcome comments and suggestions throughout the process in order to assist in continual improvement.

10. Community engagement is evaluated and improved.

- After analyzing the feedback on this approach to engagement and consultation, staff will review the information to determine what was successful and what wasn't.
- Solid Waste will share this experience with other municipal departments.



Conversation Topics

- Our Environment
- The Social Context
- Finances and Risk
- Logistics



Our Request

Stakeholder groups:

- Complete the one hardcopy survey and return to Halifax Solid Waste with the position of the <u>stakeholder group</u>;
- Provide formal correspondence which outlines any and all positions of the <u>stakeholder group;</u>
- Promote the completion of the online survey, submission of questions and positions of <u>individual members as well as</u> <u>the community at large</u>.

Residents:

- Become involved;
- Complete the online survey;
- Provide feedback, comments and questions.



Timeline

- September to December 1, 2016
 - Engagement
 - Individual stakeholder group meetings
 - Residents through Shape Your City Portal
 - Public session(s)
- February March 2017
 - Halifax Regional Council
 - Engagement Review
 - Direction on Request for Qualification (RFQ) criteria



How to provide further feedback

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THANK YOU

