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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:

- 3 -

- 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 Fe	edback
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

- 4 -	October 6, 2016
 ✓ Public Feedback Compost Matters Questionnaire ✓ Broader community meeting/ open house. 	 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 ✓ Business/Academic/NGO Community Audience ✓ Stakeholder Feedback Compost Matters Questionnaire	 September – November meetings to consult and engage in conversation and discussion Feedback gathered during meeting 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.
- 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	٠	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	٠	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 Age	encies		
Halifax Waste Resource Society		•	Sept. 12
Clean Foundation		•	Sept 15
Nova Scotia Environmental Network	\checkmark	•	Sept 22
Ecology Action Centre	\checkmark	•	Nov 3
Canadian Taxpayers Federation	X	٠	N/A
Nova Scotia Environment	\checkmark	•	Sept 23
Nova Scotia Federation of Agriculture	X	•	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.

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

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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.



shapeyourcityhalifax.ca

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!



shapeyourcityhalifax.ca

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

	Dis	agree	\rightarrow	Ag	gree
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

l
The Social Context

	Dis	agree	\rightarrow	Ag	ree
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)

S 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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