
REPORT TITLE: Long Term Processing Approach for Peel Region's Green Bin Organic Material and Yard Waste

FROM: Kealy Dedman, Commissioner of Public Works

RECOMMENDATION

1. That the Region of Peel meet its long-term processing needs for green bin organic material by competitively procuring, in accordance with Procurement By-law 30-2018, as amended, long-term (20-year) third party haulage and processing capacity for 100 per cent of Peel's projected green bin organic material (an estimated 90,000 tonnes per year in 2025, growing to an estimated 120,000 tonnes per year by 2045) as described in the report of the Commissioner of Public Works, listed on the June 30, 2022 Waste Management Strategic Advisory Committee agenda titled "Long Term Processing Approach for Peel Region's Green Bin Organic Material and Yard Waste"; and
2. That staff continue to competitively procure, in accordance with Procurement By-law 30-2018, as amended, interim processing capacity for green bin organic material and yard waste as required until the recommended long-term processing solutions are in place; and
3. That the interim processing capacity for green bin organic materials not include an expanded list of green bin materials such as diapers and pet waste; and
4. That the Region of Peel meet its long-term processing needs for yard waste by processing up to 35,000 tonnes per year of Peel's yard waste in-house and competitively procuring, in accordance with Procurement By-law 30-2018, as amended, long-term (10 to 20-year) third party haulage and processing capacity for the balance (i.e., an estimated 22,000 tonnes per year in 2025, growing to an estimated 28,000 tonnes per year by 2045) as described in the report of the Commissioner of Public Works, listed on the June 30, 2022 Waste Management Strategic Advisory Committee agenda titled "Long Term Processing Approach for Peel Region's Green Bin Organic material and Yard Waste"; and
5. That staff develop an implementation plan that addresses the logistical changes and staging necessary to implement the recommended long-term processing solutions; and
6. That funds in the amount of \$5 million be provided to the Capital Project 21-6943, financed from Capital Long Term Waste Management Reserve (R1140) for preparation of the implementation plan, completion of design work and preparation of procurement documents for the capital improvements to Peel's in-house facilities and preparation of procurement documents for merchant processing capacity, including consultant costs.

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REPORT HIGHLIGHTS

- Peel's in-house organics processing infrastructure is aging, operating at its design capacity and cannot process materials such as diapers and pet waste that are intended to be included in an expanded green bin organics program.
- In July 2021, Regional Council cancelled the Request for Proposal to Design, Build, Operate and Maintain Peel's proposed Anaerobic Digestion Facility, which was intended to provide long-term processing capacity for Peel's Green Bin organic material (Resolution 2021-902).
- A new long-term organics processing strategy is required to enable Peel to expand its green bin organics program to include additional materials, process increased tonnage from population growth, contribute to Peel's 3Rs diversion target of 75 per cent by 2034, and meet provincial organics diversion targets. Depending on the approach taken, there is strong potential to contribute to Peel's interim target of reducing greenhouse gas emissions by 45 per cent below 2010 levels by 2030 and future ambition of net zero emissions by 2050.
- In April 2022, Regional Council endorsed the approach recommended by staff to evaluate the following processing options to address Peel's long-term processing needs for green bin organic material and yard waste (Resolution 2022-293).
 - Processing options for green bin organic material included: retrofitting Peel's composting system at the Peel Integrated Waste Management Facility and Peel Curing Facility; ongoing utilization of merchant capacity through multiple short-term (five-year) contracts; utilization of merchant capacity through one or more long-term (20-year) contracts; and a combination of these options.
 - Processing options for yard waste included: primary composting at the Peel Integrated Waste Management Facility with secondary composting at the Peel Curing Facility; Composting at the Peel Curing Facility; utilization of merchant capacity; and a combination of these options.
- The April 2022 report indicated that staff would consider the following attributes in its evaluation of the processing options: cost; provision of contingency/buffer capacity and knowledge; ability to increase diversion; net reduction in greenhouse gas emissions and other environmental attributes; operational reliability; timing; and integration and impact on current and potential future operations.
- Based on this analysis, staff recommends the use of merchant capacity procured on a long-term basis to process green bin organic material and a combination of in-house processing and long-term merchant capacity for yard waste.

DISCUSSION

1. Background

Peel's in-house composting system utilizes a two-step process where green bin organic material and yard waste are combined, ground up and composted in aerated tunnels for seven-10 days at the Peel Integrated Waste Management Facility on Torbram Road in Brampton and then trucked to the Peel Curing Facility on King Road in Caledon where the material is put in windrows and composted for a further six-eight weeks.

Peel's in-house organics processing infrastructure is nearing the end of its service life, is operating at its design capacity, and cannot process materials such as diapers and pet

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waste that are contemplated in an expanded green bin organics program. Nor does it contribute to its potential in reducing greenhouse gas emissions.

In July 2021, Regional Council cancelled the Request for Proposal to Design, Build, Operate and Maintain Peel's proposed Anaerobic Digestion Facility, which was intended to provide long-term processing capacity for Peel's Green Bin organic material (Resolution 2021-902).

As a result, a new long-term organics processing strategy is required to enable Peel to expand its green bin program to include additional materials such as diapers and pet waste, to process increased tonnage from population growth, to contribute to Peel's 3Rs diversion target of 75 per cent by 2034, and to meet provincial organics diversion targets. Depending on the approach taken, there is strong potential to contribute to Peel's interim target of reducing greenhouse gas emissions by 45 per cent below 2010 levels by 2030 and its future ambition of net zero emissions by 2050.

In April 2022, staff presented Regional Council with options to address Peel's processing needs for green bin organic material and yard waste along with a proposed evaluation methodology and indicated that staff would carry out the evaluation and report back to the Waste Management Strategic Advisory Committee with a recommended long-term processing approach (Resolution 2022-293).

2. Long-Term Processing for Green Bin Organic Material

As described in the April 2022 report, the long-term processing options being considered for green bin organic material include:

1. Retrofitting and refurbishing Peel's in-house composting system to process an expanded list of green bin materials such as diapers and pet waste
 - This option includes three sub-options: expanding the in-house capacity to handle 100 per cent of Peel's green bin material; expanding it to handle 50 per cent of Peel's green bin material (which would require merchant capacity for the remaining 50 per cent); and, keeping the in-house capacity the same (which would accommodate approximately 25 per cent of Peel's green bin material and require merchant capacity for the remaining 75 per cent).
2. Utilization of merchant capacity procured through short-term five-year contracts
 - This option would include ongoing procurement of short-term organics processing contracts (five-year terms) with gradual increases of processing capacity as the Region's green bin organics tonnage grows from 73,000 tonnes in 2023 to 90,000 tonnes in 2025 with the addition of diapers and pet waste and to 120,000 tonnes in 2045 due to population growth.
3. Utilization of merchant capacity procured through a long-term 20-year contract (or contracts)
 - This option includes third-party processing of all projected quantities of green bin organic material (an estimated 90,000 tonnes per year in 2025, growing to an estimated 120,000 tonnes per year by 2045) for a 20-year term procured through a single contract or two smaller contracts.
4. A combination of options 1 to 3

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- This option would include having a portion of the Region's green bin organic material processed in-house and the balance processed using merchant capacity.

Evaluation of Processing Options for Green Bin Organics Material

Based on the evaluation methodology described in the April 2022 report, staff concluded that 100 per cent in-house processing would not be feasible due to the significant impact it would have on other operations at the Peel Integrated Waste Management Facility, including the displacement of the waste transfer station, which would require Peel to develop or procure replacement capacity and displacement of the material recovery facility, which is needed for some time to process Peel's blue box recyclable material. It would also require doubling the size of the Peel Curing Facility and the acquisition of an additional property to support curing operations. Along with the operational challenges, this option comes at a significant capital cost. For those reasons, this option is not viable.

Similarly, a combination of 50 per cent in-house and the balance to long-term merchant capacity is also expensive, would displace the waste transfer station at the Peel Integrated Waste Management Facility and require expansion of the Peel Curing Facility. For those reasons, it is also not viable.

The in-house option that maintains the current in-house capacity is the least disruptive and least expensive in-house option. It is included in Table 1 below, along with the two merchant capacity options for comparison.

Table 1: Green Bin Organics Processing Evaluation Summary

Evaluation Considerations	In-house at current capacity supplemented by merchant capacity	Utilization of short-term merchant capacity	Utilization of long-term merchant capacity
Region contingency capacity and knowledge	<ul style="list-style-type: none"> • Region retains partial processing operation which could provide some contingency capacity. Region would likely also need to build contingency capacity into merchant contracts. • Region continues in-house operation and gains knowledge from doing so. Region also gains knowledge from its merchant contractors. 	<ul style="list-style-type: none"> • Frees up additional space at Peel's waste facilities, which could be used for contingency capacity for other operations such as transfer capacity. • Contingency capacity would need to be built into merchant contracts. 	<ul style="list-style-type: none"> • Frees up additional space at Peel's waste facilities, which could be used for contingency capacity for other operations such as transfer capacity. • Contingency capacity would need to be built into merchant contracts.
Ability to increase diversion	<ul style="list-style-type: none"> • Diapers and pet waste could be added to the green bin program once all retrofits have been completed. Peel's in-house composting system design is such that these items would need to be separated out prior to composting, which would limit the diversion of these materials. 	<ul style="list-style-type: none"> • Merchant facilities can accept diapers and pet waste (subject to price premiums). • Most existing merchant facilities separate these materials out as residue. 	<ul style="list-style-type: none"> • Merchant facilities can accept diapers and pet waste (subject to price premiums). • Long term procurement could seek options that have higher diversion rates for these materials.
Greenhouse gas emissions reduction and	<ul style="list-style-type: none"> • Limited ability to specify additional environmental requirements for merchant capacity. 	<ul style="list-style-type: none"> • Potential for more utilization of anaerobic digestion to produce renewable natural gas, which can 	<ul style="list-style-type: none"> • Potential for more utilization of anaerobic digestion to produce renewable natural gas which can

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environmental attributes	<ul style="list-style-type: none"> • Reduced overall greenhouse gas (GHG) emissions resulting from less haulage. • Potential for greater GHG reductions if merchant uses green fleet. 	significantly reduce net GHG emissions. <ul style="list-style-type: none"> • Limited ability to specify additional environmental requirements. • Potential for greater GHG reductions if merchant uses green fleet. 	significantly reduce net GHG emissions. <ul style="list-style-type: none"> • Potential for shorter haulage distances. • Ability to specify additional environmental requirements. • Potential for greater GHG reductions if merchant uses green fleet.
Operational reliability	<ul style="list-style-type: none"> • Greater Toronto Airports Authority (GTAA) approval is uncertain due to potential bird hazard. • Increased risk of odours at Peel's facilities. • Requires outsourcing during retrofit. 	<ul style="list-style-type: none"> • Retaining multiple vendors reduces operational risk. • Higher risk that price may fluctuate over time as other generators seek capacity. • Higher risk of reduced availability or increased pricing for merchant capacity over time if vendors have a preference for cleaner sources of organics. 	<ul style="list-style-type: none"> • Operational risk if all processing is contracted to a single provider. • Greater operational reliability with two vendors instead of one.
Timing to implement	<ul style="list-style-type: none"> • 1-3 years 	<ul style="list-style-type: none"> • 1 year (2023 start) 	<ul style="list-style-type: none"> • 3-5 years • Would use short term merchant capacity in the interim.
Integration and impact on current and potential future operations	<ul style="list-style-type: none"> • Displaces other waste operations at Peel Integrated Waste Management Facility including the transfer station; lose opportunity to incorporate alternative future use of site. 	<ul style="list-style-type: none"> • Requires greater transfer capacity (but frees up space where in-house composting operations currently take place). 	<ul style="list-style-type: none"> • Requires greater transfer capacity (but frees up space where in-house composting operations currently take place).
Cost*	<ul style="list-style-type: none"> • Capital cost \$8-10 Million. • Operating cost, including capital repayment, of \$173 per tonne in 2025 (\$15.6 million per year). • Subject to market price fluctuations and potentially limited availability with each contract renewal. • Subject to cost increases from supply chain issues. 	<ul style="list-style-type: none"> • Operating cost including transfer, haulage and processing of \$160 per tonne in 2025 (\$14.4 million per year). • Subject to market price fluctuations and potentially limited availability with each contract renewal. • Subject to cost increases from supply chain issues. 	<ul style="list-style-type: none"> • Operating cost including transfer, haulage and processing of \$170 per tonne in 2025 (\$15.3 million per year). • Offers price security. • Subject to cost increases from supply chain issues.

* Based on pricing as of May 2022. The market is very volatile, and the prices could change, potentially significantly.

Recommended approach for Long-Term Processing of Green Bin Organic Material

Considering each option's costs, risks, and potential for achieving the Region's objectives, staff recommends utilizing merchant capacity procured through a long-term 20-year contract.

Evaluation of green bin organics processing options concluded that retrofitting the Region's current processing system is not feasible due to significant space limitations, especially at the Peel Integrated Waste Management Facility, where a retrofitted or expanded organics processing system would displace the waste transfer station, have a significant capital investment, and overall higher costs than the other options. Other barriers to the in-house

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options include potential challenges obtaining approvals (due to bird hazards and potential for greater odours), increased potential for odour impacts, and the requirement to temporarily outsource capacity while the in-house system is being modified.

The evaluation concluded that ongoing utilization of short-term merchant capacity is risky due to potentially insufficient capacity over time, market-price and capacity fluctuations, demand for quality material, increased transportation costs, and limited ability to specify requirements.

The recommended option includes third-party processing of all projected quantities of green bin organic material (90,000 tonnes per year in 2025, growing to an estimated 120,000 tonnes per year by 2045) for a 20-year term, split between two vendors.

Several merchant organics processing facilities are under development but not yet under construction. This option could require the merchant to construct a new facility or expand an existing facility.

This approach offers the opportunity for the Region to specify requirements beyond basic regulatory compliance with the understanding that each requirement would add to Peel's overall cost. For example, if anaerobic digestion is proposed, the Region could require the contractor to transfer ownership of the renewable natural gas (RNG) and associated environmental attributes to the Region for use at corporate facilities to count towards achieving the Region's 2030 GHG emissions reduction target. However, the processing price would be higher to reflect the cost of the transferred RNG and associated environmental attributes.

Outsourcing green bin organics processing capacity would free up additional space at the Peel Integrated Waste Management Facility and the Peel Curing Facility for other waste management uses. This is particularly important at the Peel Integrated Waste Management Facility, which houses the Region's main waste transfer station.

Implementation of long-term merchant capacity will likely require three-five years: one-two years to procure and two-three years to design, permit, construct and commission. However, if the merchant does not own or have a permitted site, siting and planning approvals could take an additional two or more years.

It is also recommended that the Region procure long-term capacity through two smaller contracts as it provides more operational reliability in the event of service disruptions. Based on the market sounding, there should be no significant price difference between one or two contracts, however operational reliability risks increase significantly with a single processing contract. This risk is highlighted in the risk section later in this report.

Short-term contracts would be utilized to bridge the development timeline until the long-term facilities are operational.

Although, our long-term waste management strategy calls for the addition of diapers and pet waste to the green bin program, existing merchant capacity is unable to separate these materials in a way that they can be diverted and instead separates them as residue for disposal. As such, staff does not recommend adding diapers and pet waste while the Region is using short-term merchant capacity as there is no waste diversion benefit.

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3. Yard Waste Processing

As described in the April 2022 report, the options for yard waste processing include:

1. Primary processing at the Peel Integrated Waste Management Facility and secondary composting at the Peel Curing Facility
 - This option includes continuing to receive yard waste at the Peel Integrated Waste Management Facility and pre-processing it prior to transfer to the Peel Curing Facility for curing or composting.
2. Merchant capacity
 - This option includes third-party processing of all projected quantities of yard waste (63,000 tonnes per year) and marketing of the finished product for a 10 to 20-year term.
3. A combination of options 1 and 2
 - This option would include having a portion of the Region's yard waste processed in-house and the balance processed using merchant capacity.

Evaluation of Yard Waste Processing Options

Based on the evaluation methodology described in the April 2022 report, the results of the staff evaluation of the options are presented in Table 2, below.

Table 2: Yard Waste Processing Evaluation Summary

Evaluation Considerations	100% in-house	Long-term Merchant Contract (100%)	50% In-house and rest to long-term Merchant Capacity
Region contingency capacity and knowledge	<ul style="list-style-type: none"> • Region continues in-house operation and gains knowledge from doing so but would lose the benefit of learning from its merchant processing contractors. • Region retains full processing operation and would need to build in sufficient contingency capacity 	<ul style="list-style-type: none"> • Frees up additional space at Peel's waste facilities for other uses, which could be used for contingency capacity for other operations such as transfer capacity • Contingency capacity would need to be built into merchant contracts 	<ul style="list-style-type: none"> • Region continues in-house operation and gains knowledge from doing so. Region also gains knowledge from its merchant contractors • Region retains partial processing operation which could provide some contingency capacity. Some contingency capacity should also be built into merchant contracts.
Ability to increase diversion	<ul style="list-style-type: none"> • No additional diversion achieved 	<ul style="list-style-type: none"> • No additional diversion achieved 	<ul style="list-style-type: none"> • No additional diversion achieved
Greenhouse gas emissions reduction and environmental attributes	<ul style="list-style-type: none"> • Reduced GHG emissions resulting from shorter average haulage distances 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Reduced GHG emissions resulting from shorter average haulage distances • Ability to specify additional environmental requirements
Operational flexibility	<ul style="list-style-type: none"> • Requires outsourcing during retrofit 	<ul style="list-style-type: none"> • Greater operational reliability with two contracts instead of one contract 	<ul style="list-style-type: none"> • Greatest operational reliability • Requires outsourcing during retrofit

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Evaluation Considerations	100% in-house	Long-term Merchant Contract (100%)	50% In-house and rest to long-term Merchant Capacity
Timing	• 4-6 years	• 3-5 years	• 3-5 years
Integration and impact on current and potential future operations	<ul style="list-style-type: none"> • There is not enough space to accommodate 100% of yard waste composting at existing sites • Requires expansion of Peel Curing Facility curing pad • Requires acquiring a new site to support curing operations 	<ul style="list-style-type: none"> • Requires additional transfer and haulage 	<ul style="list-style-type: none"> • Requires expansion of Peel Curing Facility curing pad
Cost*	<ul style="list-style-type: none"> • Capital cost \$40-50 Million, including cost to acquire a new site, prepare of new site and purchase equipment, as well as the expansion of Peel Curing Facility curing pad Operating cost, including capital repayment, of \$140-\$150 per tonne(\$8.8 million - \$9.5 million per year). 	<ul style="list-style-type: none"> • Operating costs, including transfer, haulage and processing of \$90-\$110 per tonne(\$5.7 million - \$6.9 million per year) with risk of increased prices due to limited capacity 	<ul style="list-style-type: none"> • Capital Cost for in-house upgrades of \$5-8 Million including decommissioning of the current system at Peel Curing Facility and Peel Integrated Waste Management Facility, repaving existing curing pad, as well as the expansion of Peel Curing Facility. • Combined operating cost, including capital repayment for in-house upgrades and transfer, haulage and processing for portion sent to merchant facility, of \$90-\$100 per tonne(\$5.7 million - \$6.9 million per year).

* Based on pricing as of May 2022.

Recommended Approach for Long-Term Processing of Yard Waste

Considering each option's costs, risks, and potential for achieving the Region's yard waste needs, staff recommends having approximately 50 per cent of the Region's yard waste processed in-house and the balance processed using merchant capacity under 10-20 year long-term contracts.

Staff's assessment showed that Peel's in-house yard waste processing capacity is limited and even with an expanded curing pad at Peel Curing Facility, the Region will not be able to process 100 per cent of its yard waste. Processing all of Peel's yard waste in-house would require the Region to purchase a new site and make a significant capital investment.

The analysis also showed that sending all of Peel's yard waste to merchant capacity would be more costly because adding such a significant tonnage to the market would use up all available composting capacity resulting in increased prices. It would also leave the Region without in-house expertise or contingency capacity to handle emergency situations such as windstorms and flooding or to comply with provincial mandates. In the past, as a measure to prevent the spread of invasive species such as the Emerald Ash Borer, the Region was required to process yard waste collected from areas affected in-house. While it is difficult to

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predict future infestations, having in-house contingency capacity will be helpful should such an infestation occur.

The recommended option includes utilization of in-house processing capacity for up to 35,000 tonnes per year of Peel's yard waste (with pre-processed grinding only) at the Peel Integrated Waste Management Facility then haulage to a redeveloped Peel Curing Facility for composting, and merchant capacity secured through 10-20 year long term contracts to process the balance.

This option would provide operational flexibility for both short-term and long-term processing. Short-term external processing capacity would be needed during the decommissioning of the current green bin organics processing system and redevelopment of the Peel Integrated Waste Management Facility and Peel Curing Facility to process yard waste only.

This option allows the Region to retain in-house expertise, contingency processing capacity and receive competitive pricing for outsourced material.

Implementation of this option would take three to five years and require expanding the current curing pad at Peel Curing Facility which staff identified as feasible.

This approach would allow for Peel to reduce global GHG emissions from waste transportation as merchant capacity for yard waste processing is primarily located one to two-hours outside of Peel. Further, processing approximately 50 per cent of yard waste in-house would reduce the number of loads sent outside of Peel.

4. Proposed Implementation Next Steps

Subject to the approval of the recommendations contained in this report, staff will:

- Conduct a competitive procurement process for long-term green bin organics processing with the option to include diapers and pet waste. It is expected to take at least a year, and perhaps longer, to prepare and issue this procurement document since a consultant will need to be retained to assist staff with technical aspects of the procurement. It will take another year for proponents to prepare their bid and staff to evaluate them, so an award is not expected for at least two years. The successful vendor would then need around three years to develop their facility, so processing capacity is not expected to be in place through this process for at least five years.
- Conduct a competitive procurement for long-term yard waste processing. Since this procurement is less complex than the one for green bin organics it is expected that long-term yard waste processing capacity can be in place in as little as three years.
- Conduct a competitive procurement process to secure interim processing contracts for green bin organics and yard waste with new short-term contracts commencing once existing contracts expire in April 2023 to bridge the gap until the long-term solutions are implemented. This procurement process will most likely be phased, with the first phase of procurement occurring this year to replace current third-party capacity and a subsequent phase of procurement occurring in a few years to replace current in-house capacity. Subsequent phases of procurement will be detailed in the implementation plan.

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- Develop an implementation plan for the transition to the recommended long-term solutions, including a staging plan to make sure that Peel's existing processing infrastructure is properly deconstructed to minimize service disruption and to ensure that sufficient capacity is in place to transfer additional green bin organics and yard waste to merchant capacity.

Staff will report back to a future meeting of the Waste Management Strategic Advisory Committee with an implementation plan that addresses the logistical changes and staging necessary to implement the recommended long-term processing solutions including any necessary staffing changes.

RISK CONSIDERATIONS

Key risks and mitigating measures are detailed below for each recommended option.

a) Green Bin Organics Processing

- a. Supply Chain Risk Allocation and Cost: Costs estimates in the report are based on the best estimate of the day assuming there are no new major supply chain issues. Currently, there is significant stress on the supply chain, resulting in price increases, material delays, and premiums on equipment and labour. In the current marketplace, vendors are significantly more risk averse than previously, especially with respect to capital projects, but also for significant operating contracts. Staff may have to pursue more aggressive risk sharing mechanisms to procure competitive bids. To mitigate this risk, staff will carefully assess risk allocation during the procurement process and consider appropriate risk sharing mechanisms. By keeping the existing processing system (in-house and third party) in place until the long-term solutions are operational, the Region will be in a position to defer implementation of the long-term solutions should significant supply chain issues arise.
- b. Operational reliability: The procurement process will include a rigorous review of the operational reliability of proposed processing systems but there is a risk of service disruptions due to unexpected odour issues, repairs, etc. A single long-term contract for the entire tonnage would provide less operational reliability in the event of such a service disruption. It would also reduce the Region's bargaining power in the event that negotiations are needed during the term of the contract. This risk will be mitigated by splitting the supply to multiple processors in the short term and two processors in the long term.
- c. Haulage costs and emissions: Existing merchant facilities are located outside of Peel's boundaries. It is expected that new facilities will also be located outside Peel's boundaries. This requires significant haulage, with greater exposure to fuel price escalation and higher carbon costs. This risk can be mitigated by including haulage costs and net GHG emissions in the evaluation process to encourage shorter haul distances and use of greener fuels.

b) Yard Waste Processing

- a. Lack of local support: There is a risk that local stakeholders will not support redevelopment of the Peel Curing Facility for yard waste composting. The Region

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can mitigate this risk by holding consultation sessions with the Peel Curing Facility Liaison Committee. A key benefit that would need to be communicated is that there would be less odours as the site would no longer process green bin organics.

- b. Service interruptions: A single long-term yard waste contract could be subject to service interruptions. To mitigate this risk, the Region could split the supply to multiple yard waste processors ensuring more operational reliability.
- c. Uncompetitive pricing: Due to the limited number of large Yard Waste processing vendors in Southern Ontario, the Region could expect pricing to be relatively uncompetitive if all tonnage is awarded in a single contract. To mitigate this risk, the Region could split the tonnage into two contracts.
- d. Contingency capacity for unexpected events: Fully decommissioning Peel's in-house composting system and relying entirely on third party processing could leave Peel without contingency capacity to handle sharp and sudden volume increases following storms or in-Region processing capacity if needed to satisfy a provincial order to process certain materials in-Region as was the case with ash trees affected by the Emerald Ash Borer. Retaining some in-house composting capacity will mitigate this risk.

FINANCIAL IMPLICATIONS

It is proposed that funds in the amount of \$5 million be provided to the Capital Project 21-6943, financed from Capital Long Term Waste Management Reserve (R1140) for preparation of the implementation plan, completion of design work and preparation of procurement documents for the capital improvements to Peel's in-house facilities and preparation of procurement documents for merchant processing capacity, including consultant costs. There are sufficient funds available in the reserve to carry out the report's direction.

Cancellation of the Anaerobic Digestion Facility procurement by Regional Council on July 8, 2021, released previously committed internal reserve funding of approximately \$44 million.

CONCLUSION

The recommended approach for green bin organics processing is to secure long-term merchant capacity and for yard waste is a combination of in-house processing capacity and long-term merchant capacity. The recommended approach will enable Peel to expand its Green Bin program, process increased tonnage from growth, contribute towards Peel's diversion target of 75 per cent by 2034, and has strong potential to contribute to Peel's interim target of reducing greenhouse gas emissions by 45 per cent below 2010 levels by 2030 and its future ambition of net zero emissions by 2050 and meet provincial organics diversion targets.

Subject to Regional Council approval of the recommended approaches, staff will procure short-term green bin organics and yard waste processing capacity to bridge the gap until the recommended long-term processing solutions are in place and report back to the Waste Management Strategic Advisory Committee with an implementation plan.

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