Title:Leaf and Yard Waste Compost FacilityDate:February 27, 2024Department:Engineering & Public Works



# SUMMARY

# Leaf and Yard Waste Compost Facility

The Town of Wolfville previously operated a non-compliant compost facility on Maple Ave, allowing residents to drop off leaf and yard waste, while certain commercial contractors had unsupervised access. Due to development plans, the facility closed in April 2023. An interim drop-off program was implemented due to the lack of time available for public notice, costing the taxpayers an additional \$8,200 in tipping fees in 2023.

The current basic service by Valley Waste-Resource Management covers curbside collection, providing sufficient service for most residents. Options for increased service levels include investing in a new compost facility (Option A), establishing a processing and transfer station (Option B), or negotiating a higher service level with Valley Waste (Option C). Estimated costs vary, with Option C being a potential fit with strategic directions and priority initiatives, requiring no capital investments. The decision involves trade-offs between service benefits, costs, and alignment with strategic goals. Communication with residents is crucial, regardless of the chosen option.

#### **DRAFT MOTION:**

That Council direct staff to discontinue the practice of allowing leaf and yard waste to be dropped off at Town of Wolfville facilities on an indefinite basis, and provide ample public notification and awareness messaging.

#### **ALTERNATIVE MOTION:**

That Council direct staff to begin the process of contract negotiations with Valley Waste-Resource Management to provide a higher level of service for curbside collection of leaf and yard waste, and provide ample public notification and awareness messaging.

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## 1) CAO COMMENTS

The CAO supports the recommendations of staff.

# 2) LEGISLATIVE AUTHORITY

- Nova Scotia Municipal Government Act, c. 18, s. 325-326
- Nova Scotia Environment Act, S.N.S. 1994-95, c. 1
- Nova Scotia *Solid Waste-Resource Management Regulations* made under Section 102 of the Environment Act, S.N.S. 1994-95, c. 1, s. 26-29
- Nova Scotia Activities Designation Regulations made under Section 66 of the Environment Act, S.N.S. 1994-95, c. 1, s. 8
- Nova Scotia *Approval and Notification Procedures Regulations* made under Section 66 of the Environment Act, S.N.S. 1994-95, c. 1

# 3) STAFF RECOMMENDATION

The recommendation by staff is for Council to pass the motion to discontinue the practice of allowing leaf and yard waste to be dropped off at Town of Wolfville facilities on an indefinite basis.

# 4) REFERENCES AND ATTACHMENTS

- 1. IR 001-2023 PAC Presentation East End (December 2022)
- 2. IR 009-2023 Compost Site Options (May 2023)
- 3. RFD 016-2023 East End Compost Site Closure (April 2023)
- 4. RFD 023-2023 Interim Agreement with Developers for Town Land Maple Ave (May 2023)
- 5. RFD 031-2023 Wolfville East End Secondary Plan Final (June 2023)
- 6. Nova Scotia Composting Facility Guidelines, September 2010
- 7. Nova Scotia Solid Waste-Resource Management Strategy (novascotia.ca)
- 8. Curbside Collection Valley Waste-Resource Management (vwrm.com)
- 9. Valley Waste Calendar 2024 (vwrm.com)

# 5) **DISCUSSION**

#### Background

Prior to development of the "Kenny Lands" in the Town's east end, the Town of Wolfville operated a non-compliant compost facility on the south end of Maple Ave, which allowed residents to drop off



leaf and yard waste, supervised by Town staff, on Saturdays. Commercial landscaping contractors paid a small fee to be issued a key, and were given access to use the site unsupervised. Seasonal usage was tracked by Town staff, and the historical usage is presented in Figure 1 below. The actual volumes and/or weights of the materials dropped off was not tracked historically.

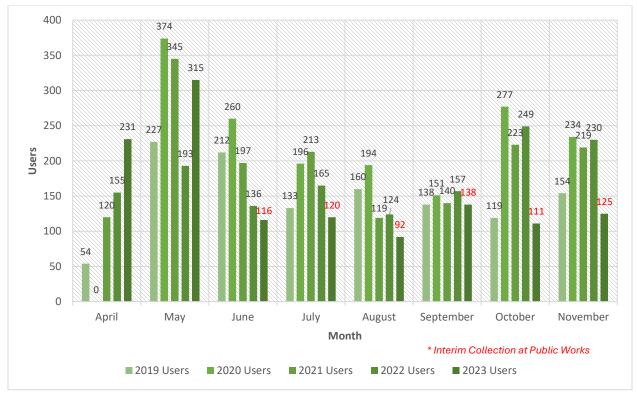


Figure 1: 2019-2022 Residential Compost Site Usage

To facilitate road connection and enable the development of the Harvest Heights subdivision, Council passed a motion in April 2023 to permanently close the compost facility on Maple Ave and entered into an agreement with the developer for access to the Town-owned parcel. At the time, Staff were directed to proceed with an interim solution to finish the season, and investigate longer term options to restore the higher the level of service provided to residents by the Maple Ave site.

#### Interim Option

In May of 2023, staff presented preliminary options for continuing the leaf and yard waste drop-off program, albeit at a reduced level of service. Staff developed an interim program which ran from June through November of 2023, and allowed residents to continue dropping off their leaf and yard waste for the remainder of the season. Two open-top waste transfer bins were rented from EFR and set up behind the north gate in the Town's Public Works yard at 200 Dykeland Street. This interim option was a less-than-ideal compromise that was carried out by the Town due to the lack of sufficient time for a public notice period regarding the permanent closure of the Maple Ave site. The interim option was considered a success, though it saw significantly less usage than the Maple



Ave site typically had through the non-winter months. An average approximate bulk volume per user of 4.53 m<sup>3</sup> was observed throughout the interim program.

The functional objective of the former Maple Ave drop-off site supported Council's Climate Management Priority Initiative by providing residents with an option that would allow them to reduce carbon emissions by using a local drop-off facility. The interim option required bins to be picked up and hauled out of the Public Works yard on a weekly basis, unfortunately having the opposite effect on carbon emissions. In total, the interim option cost the Town's 2023-24 operations budget an additional \$8,200 in bin rental and hauling/tipping fees. At this time, there are no plans to continue the program in the 2024 season, unless Council directs otherwise.

#### Current Basic Service Level

Curbside collection of leaf and yard waste collection is a service already provided by Valley Waste-Resource Management:

- Up to 220lbs of leaf, yard, and garden waste can be collected bi-weekly from Green Bins placed at curb;
- Up to two bundles of brush (4' by 2') can be placed at the curb for bi-weekly collection;
- Leaf, yard, and garden waste can be dropped off directly at the Eastern Management Centre in Kentville, NS. Leaves can be dropped off for free.

This level of service is sufficient for most residents, especially those who utilize backyard composters to supplement the collection service. Regardless of individual utilization, residents pay for this service through their property taxes, thereby making any service level increases or additional services provided by the Town of Wolfville a luxury.

#### **Options to Increase Service Level**

In the May 2023 staff report (IR 009-2023), staff presented a few options for possible long-term service level increases. At the time, the options were contemplated as follows:

- A. Invest in a properly sized and operated facility to accept leaf and yard waste from Town residents which would be capable of processing what's received into usable compost. This option would require siting, environmental approvals, and ongoing environmental/product monitoring.
- B. Determine a location where the Town could receive leaf and yard waste from residents, process by grinding, use what we can in town for beds, etc. (maybe even give some away), and haul the rest away. This is similar to the interim option operating more like a transfer station for leaf and yard waste.
- C. Discontinue the Town service altogether and work with Valley Waste on a value-add service (additional per capita contract service fees to Valley Waste may apply for the added curbside pickup).



### Option A – New Leaf and Yard Waste Compost Facility

Estimating an approximate annual usage can be achieved by multiplying the average number of annual users (1,467) for 2019 through 2022 by the approximate bulk volume per user of 4.53 m<sup>3</sup>/user, giving an approximate annual quantity of  $\pm$  6,640 m<sup>3</sup> per year. Composting leaf and yard waste in quantities exceeding 100m<sup>3</sup> annually is considered a *Regulated Activity* under the *Environment Act*, therefore an Approval to Operate would be required under Section 27 of the *Regulations*.

An application for approval would need to include a letter from the Town of Wolfville confirming compliance with zoning, planning restrictions, and relevant by-laws. The Town would be required to provide all necessary information specified in the *Guidelines* unless exempted by the administrator.

For leaf and yard waste composting facilities processing up to 10,000 tonnes annually, Section III of the *Guidelines* outlines specific requirements, such as facility design and construction being required to address odor control, leachate and storm runoff management, groundwater and surface water monitoring, and provide for proper removal and disposal of by-products. The facility would be required to maintain specified separation distances from off-site structures, property boundaries, and watercourses (which include marsh bodies). Flexibility over these distances may be considered based on environmental controls and local conditions, subject to consultation with the Department of Environment, other applicable regulatory bodies, marsh and dyke land preservation societies, and in certain cases, written consent from affected property owners. A draft project plan describing the likely steps, timeline, and estimated high-level budget figures for proceeding with this option is presented as follows.

#### Step 1 - Needs Assessment, Site Selection, and Budget Planning

Budget: ±\$50,000 for external consultant (by public RFP)

#### Scope:

- Review previous facility usage and desired service level;
- In-depth regulatory review of Approval requirements (Nova Scotia Environment, and planning if outside of Wolfville town boundary);
- Assess space and facility requirements to inform preliminary budgeting and site selection process;
- Identify possible suitable sites on Town-owned land, or elsewhere:
  - Verify any environmental or other development constraints on identified sites for a decision matrix;
  - Rule out any inappropriate sites and provide short list with parcel acquisition costs;
  - Factor acquisition costs into the preliminary assumed budget.
- Review options for project delivery type;
- Present preliminary options and budget details for each option and phase in a report, present to Council for RFD, including operational impacts (staff level and lifecycle costs);
- Go/no-go decision.

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#### Timeline:

Issue RFP in May 2024, completion September 2024, information for 2025/26 budget planning.

#### Step 2 - Pre-Design Phase with Public and Regulatory Consultation

Budget: \$30,000 to \$50,000

#### Scope:

- Regulatory notifications and regulatory engagement process (critical path item);
- Land acquisition (if required) after regulatory approval in principle (critical path item);
- Preliminary site and facility design with sketches/plans;
- Class C estimate for design, construction, and operational planning/budgets;
- Public notifications and public engagement process.

#### Timeline:

- Begin land acquisition process (assuming special budget approval for land purchase) if required timeline unknown;
- RFP for external consultant as early as October 2024:
  - Begin regulatory consultation immediately upon award;
  - Allow minimum 3 months for preliminary design.
- Public consultation and engagement process Feb-Apr 2025;
- Report to Council May 2025.

#### Step 3 - Detailed Design, Procurement/Construction, and Operational Planning

Budget: TBD

#### Scope:

- Prepare detailed designs, specifications, and tender package;
- Review budget allowances and verify assumptions;
- Tender phase support services, Q&A;
- Construction phase support, QC/QA, and field review of construction;
- Final regulatory submissions and develop templates for required periodic reporting;
- Prepare staff training goals;
- Operating and maintenance planning and budget setting.

#### Timeline:

- 1. RFP for detailed design as early as June 2025. Tender ready by December 2025 with updated budget assumptions and verifications;
- 2. RFT for construction issued February 2026 (RFD if budget updates are required). Option to wait to tender until after CIP 2026/27 is approved instead of Feb 2026 with RFD if needed;
- **3.** Construction through summer of 2026, completion by October 1, 2026 for immediate use that fall season.



#### **Option B – Permanent Processing and Transfer Station**

This option contemplates a location within town where the staff could receive leaf and yard waste from residents, process by grinding, use the materials in town for beds, etc. Extra processed materials could be given away free of charge, and whatever remains would require hauling away. This would be similar to the interim solution carried out in 2023, operating as a transfer station for leaf and yard waste rather than a composting facility.

A project plan similar to that presented for Option A would be required, with the exception of Step 2, as the regulatory requirements for this option would be less stringent.

#### Table 1: Pros/Cons over Option A

Pros	Cons
Lower design and professional costs	Similar or higher upfront capital investment for equipment (requiring purchase of transfer bins and processing equipment)
Smaller land footprint	Higher maintenance and operating costs due to additional staff effort for processing
Facility could be in operation one year sooner	Tipping fees would still be payable by the Town for unused materials
Less stringent monitoring and reporting requirements	Lines – only one user at a time would be able to drop off materials

#### Option C – Increase Service Level from Valley Waste-Resource Management

This option contemplates negotiating a higher level of service with Valley Waste-Resource Management for curbside collection on a value-add service (additional per capita contract service fees to Valley Waste will likely apply for the added curbside pickup).

#### Table 2: Pros/Cons over Option B

Pros	Cons
No design/construction costs or new assets to manage	Curbside collection would still have limitations that bulk drop-off does not
No regulatory approvals	No composted or processed materials available for use by Town operations staff
No ongoing time burden to staff	
Higher service level could begin as soon as contract negotiations with VWRM are successful	

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# 6) FINANCIAL IMPLICATIONS

At a very high level, the known financial implications are presented below. At this time, there are many unknowns (such as land acquisition costs) which may significantly affect the financial and time requirements of the available options, and subsequently the feasibility of one option over another. Without commitment to an increased service level and support from external consultants, staff are unable to refine these estimates any further at this point in time. Ranges are subject to increase or decrease by orders of magnitude.

<u>Service Level</u> <u>Option</u>	Initial Capital Cost	Operating Cost	Implementation		
CURRENT	\$0	\$0	Ongoing		
Increase - A	\$500,000 to \$700,000 <sup>1</sup>	\$60,000 to \$100,000	Fall 2026		
Increase - B	\$400,000 to \$600,000 <sup>1</sup>	\$100,000 to \$150,000	Fall 2025		
Increase - C	\$0	UNKNOWN <sup>2</sup>	UNKNOWN		
Note 1: Ranges do not include unknown land acquisition costs, if required.					

#### Table 3: Estimated Summary of Probable Costs

Note 2: Unknown cost of service increase to IMSA partnership agreement with VWRM.

All options that provide an increased level of service have an additional cost burden for taxpayers whether they want the increased level of service or not.

### 7) REFERENCES TO COUNCIL STRATEGIC PLAN AND TOWN REPORTS

The current service level and options for increased service levels are tested in Table 4 against the strategic directions from the 2021-2025 Strategic Plan:

- Economic Prosperity
- Social Equity
- Climate Action
- Community Wellness

In addition, the options are tested against applicable Council Priority Initiatives:

- Multi-purpose regional complex (with an aquatics facility)
- Revitalization and maintenance of road, sidewalk, crosswalk infrastructure and traffic management
- Economic sector growth and support for businesses (retention and attraction)
- Climate management related initiatives (reduce carbon emissions, support local transportation, food security, environmental protection).

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#### Table 4: Summary and Recommendations Relative to Strategic Plan

Service Level Option	Applicable Strategic Directions	Applicable Priority Initiatives	<u>Staff</u> <u>Recommendation</u>
CURRENT	Meets all	Climate management initiatives: reduce carbon emissions, environmental protection	Yes
Increase - A	Meets: Economic Prosperity, Climate Action, and Community Wellness. <b>Does not meet</b> <b>Social Equity.</b> <sup>1</sup>	Climate management initiatives: environmental protection. <b>Does</b> <b>not abide by: reduce carbon</b> <b>emissions.</b> <sup>2</sup>	No
Increase - B	Meets: Economic Prosperity, Climate Action, and Community Wellness. <b>Does not meet</b> <b>Social Equity.</b> <sup>1</sup>	Climate management initiatives: environmental protection. <b>Does</b> <b>not abide by: reduce carbon</b> <b>emissions.</b> <sup>2</sup>	No
Increase - C	Meets: Economic Prosperity, Climate Action, and Community Wellness. <b>Does not meet</b> <b>Social Equity.</b> <sup>1</sup>	Climate management initiatives: reduce carbon emissions, environmental protection	If an increased service level is desired by Council. <sup>3</sup>

Notes:

1. Increased service levels do not meet Social Equity strategic direction due to the additional tax burden. The service level increases would be paid for by everyone, but only the few who take advantage of the higher level of service would benefit.

2. Building a new facility, and requiring residents to transport leaf and yard waste by car or truck to the new facility does not meet the priority initiative to reduce carbon emissions since alternative Option C and the current level of service both offer curbside pick-up, which occurs regardless.

3. If an increase in service level is desired, Option C best fits with the adopted Strategic Directions and Priority Initiatives, in addition to requiring no capital investments.

# 8) COMMUNICATION REQUIREMENTS

All options, including staying with the current level of service provided by Valley Waste-Resource Management require ample public messaging. As the Town will no longer be offering collection in the Public Works yard, residents will have to be made aware of what services they are currently entitled to with their curbside collection.

If any of the options to increase the level of service are selected, these will require public notice as well. If options A or B to construct new facilities are selected, there will likely be a lengthy site selection and public engagement process.

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# 9) ALTERNATIVES

Alternatives are presented and discussed throughout this report.

Prepared by:Alexander J. de Sousa, P.Eng., Director of Engineering & Public WorksDate Revised:April 25, 2024