



COUNTY OF WELLINGTON

COMMITTEE REPORT

To: Chair and Members of the Solid Waste Services Committee
From: Das Soligo, Manager of Solid Waste Services
Date: Tuesday, May 14, 2024
Subject: **Diversion Centre Model – Anticipated Results**

Background:

In 2015, the Solid Waste Services (SWS) Committee initiated a short to long-term strategic review of waste and diversion programmes and services. The various topics were organized and scheduled for analysis based on their relationship with other topics in their group, and the appropriate time to evaluate them.

One of these groupings of topics was titled Waste Facility Optimization, which were an assortment of short-term options considering the best use of the County of Wellington's waste facilities. In February 2019, a report titled "Solid Waste Services Strategy – Waste Facility Optimization" was presented. The topics that were evaluated were:

Topic	Task
Waste Facility Operations	
➤ Optimal number and location of waste facilities	Analyze site trends and usage and determine number and location of waste facilities, in order to balance operating costs, customer service and meeting diversion targets
➤ Vision of how to use waste facilities	Assess the best use of existing waste facilities. To be utilized as they are now, or re-oriented to be "Diversion Centres"?
➤ Explore materials that can be managed at sites	Cost-benefit analysis of collecting and diverting various materials such as leaf and yard waste, shingles, drywall, plastic bags, mattresses, carpets, etc.

In February 2019, the Solid Waste Services (SWS) Committee and County Council decided to maintain the same number of waste facilities at their existing locations, while shifting the operations to focus on diverting as many materials from landfill as reasonably possible by adopting the Diversion Centre Model that was presented in the report.

Context:

During the April 2024 SWS Committee meeting, Councillors revisited this strategic direction and re-confirmed Council's endorsement of transitioning the County's waste facilities to a Diversion Centre Model.

While the County's waste facilities manage and facilitate the diversion of many materials currently, a shift towards a Diversion Centre Model would involve a greater focus on targeting new materials for diversion, which are currently being disposed of in landfill.

Staff suggest that this change of focus is best enabled by implementing a minimum waste fee to use the County's waste facilities. A minimum fee would presumably result in less small loads of waste being delivered to the sites, as the minimum fee would work as an incentive to use the curbside collection service for household waste. Fewer small loads of waste would allow space and trucking resources to be allocated towards separating and managing new waste materials for diversion from landfill.

Staff were asked to prepare a report which assesses the impact of a shift to a Diversion Centre Model, including what can be anticipated were the County to implement a minimum waste fee for using the waste facilities.

Diversion Centre Model:

The concept of transitioning to a Diversion Centre model, would mean the County would reallocate finite space and resources at waste facilities to divert additional materials from landfill that are currently not being separated from the waste stream. The County's waste facilities manage and facilitate the diversion of many materials currently, but even more materials can avoid landfill disposal with a greater focus on waste diversion.

Following the 2019 County Council direction to implement the Diversion Centre model at waste facilities, staff applied for and received approval from the Ministry of the Environment, Conservation and Parks to accept the following materials for waste diversion;

- Shingles
- Drywall
- Mattresses
- Carpet
- Leaf and yard waste

Leaf and yard waste is already being received at County waste facilities and is diverted from landfill by being sent for composting. While the above noted materials are being targeted by staff for diversion, the Province has identified a list of items that it is considering initiating full producer responsibility programmes for. In the "Strategy for a Waste-Free Ontario: Building the Circular Economy" document, the Province stated that future producer responsibility programmes will mandate stewardship obligations for the following materials:

- small appliances
- electrical tools
- batteries
- fluorescent bulbs and tubes
- mattresses
- carpets
- clothing and other textiles
- furniture and other bulky items

Following the model of other producer responsibility programmes, there are often financial incentives for organizations to collect and manage these obligated materials. The Diversion Centre model allows for the ability to separate additional materials from the waste stream, divert them from landfill, and potentially receive funding for doing so.

The County already participates in all current full producer responsibility programmes as a collection point, accepting and diverting tires, electronics, household hazardous waste and blue box materials. The Diversion Centre Model would be well-suited to managing new full producer responsibility programmes, as it provides flexibility in using waste facilities at their highest and best use, which is by managing materials that cannot be managed at curbside.

Impact of Diverting New Materials:

Assessing the impact of diverting new materials is challenging, especially without adequate data to base estimates on. Due to limitations in how incoming waste materials are currently being tracked, any available data will significantly undercount the amount of targeted materials (shingles, drywall, mattresses, carpet) that are possible to divert from landfill.

To address this data gap, estimates of additional materials targeted for diversion were generated using a combination of available data from County waste facilities, tonnage data from selected municipalities and waste industry research.

The following table displays the estimated tonnages and cost to divert targeted materials through waste facilities, that are currently being disposed of as garbage in Wellington County.

Material	Estimated Tonnage Available for Diversion	Cost per year in processing fees
Shingles	340	\$20,000
Mattresses	130	\$180,000
Drywall	250	\$17,000
Carpet	180	N/A
Total	900	\$217,000

An estimated 900 tonnes of the above targeted materials can be captured annually for diversion. This represents 5% of the annual tonnage that is buried in the County’s Riverstown landfill. At current disposal rates, diverting this much waste annually over the course of the remaining life of the Riverstown landfill, would save a year of landfill space of remaining approved capacity. As landfill capacity steadily decreases every year in Ontario, remaining space is very valuable and provides the County cost certainty and security in providing waste disposal opportunities for its residents.

The 900 tn estimate is likely understating what can be captured and diverted. Waste industry research tends to be suggest higher tonnages of these materials would be available for diversion, but staff used data from local municipalities to base the above estimates on, where this information was available. Furthermore, there are some service model opportunities that would allow construction and demolition waste to be mixed and diverted. The convenience factor of allowing this category of waste to be mixed-together would yield significantly more tonnage than the above estimate suggests.

Furthermore, staff have explored the option of charging higher waste tipping fees for mixed/unsorted loads of garbage (for example, a contractor bin that mixes shingles and wood waste would be charged a higher fee than a load of garbage that is sorted to ease unloading into separate bins/bunkers). Should this sort of fee be utilized in the future, it would provide a monetary incentive to residents, businesses and contractors to sort their waste, with a result of increasing tonnages of materials that could be diverted from landfill.

Lastly, there are other materials that could be targeted for diversion in the future, such as concrete, rubble and materials that may one day be obligated to be managed under producer responsibility programmes. In other words, there are several different approaches and opportunities that can be explored and acted on, which would yield beneficial results for waste diversion.

Minimum Waste Fee:

A minimum waste fee to access and use a waste facility is a relatively common fee that municipalities utilize. Waste facilities can be very busy public infrastructure sites. Many residents utilize the various services, including waste and recycling drop-off, diversion services, bulky item and hazardous materials drop-off, and more. However, absent a minimum waste fee, many residents will use the convenience of dropping off household waste and recycling at their choosing, rather than using curbside collection services.

Operating a waste facility requires the allocation of finite resources; staff, physical space, and bin hauling operations. The main concept behind a minimum fee is to offset these costs to some degree, while also attempting to limit convenience use of a waste facility by patrons, who could have disposed of their waste at the curbside. Waste facilities are a strong asset to municipalities and best utilized when resources can be focused towards improving diversion from landfill, while handling materials that cannot be managed at roadside.

A minimum waste fee is applied in two different ways. One, is a simple fee assessed to every patron that visits a site, with higher fees charged depending on what or how much materials are being delivered for disposal. This system can be confusing for residents and staff if there is some arbitrary point in which a higher fee is assessed.

A more commonly employed system is when every patron is expected to use the site scale(s) to weigh in and out. There is a set tonnage amount, that any loads weighing above the set amount pays the balance owing as per scale fees, and any weight below the set tonnage rate pays the minimum fee. The below chart shows two examples of loads being charged a fee based on a minimum waste fee system.

	Scaled Weight of Load	Amount Owing with no Minimum Fee (\$135 per tonne)	Amount Owing with \$10 Minimum Fee
Patron A	207 kg	\$28	\$28
Patron B	22 kg	\$3	\$10

In the above examples, there is a minimum waste fee of \$10. Any loads weighing above 74 kilograms (kg) will have the scale fee applied. Any loads weighing below 74 kg will be charged \$10 to use the waste facility. The first example shows Patron A arriving at a waste facility with a truckload of waste. He is weighed upon entry and again after he has disposed of his load. The weight of his garbage equals 207 kg, and so at the tonnage rate of \$135 tonne (tn), he is charged \$28. The second example shows Patron B arriving with a small amount of waste in the trunk of her car. She is weighed in and out, and the scale shows an outbound weight difference of 22 kg. Since this amount is below the set minimum fee tonnage rate of 74 kg, the woman is charged the \$10 minimum fee.

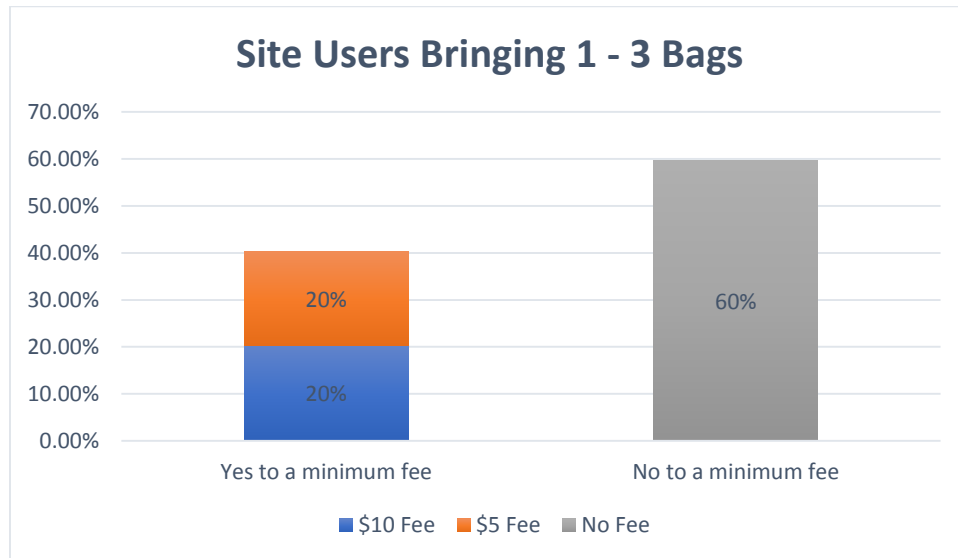
As discussed previously, minimum waste fees are employed by many municipalities. In previous studies, SWS has reviewed the fee structures of a group of comparator municipalities (a mix of neighbouring and similar sized municipalities) to support staff in recommending changes to the County's waste tipping fee. In looking at this comparator group that was used in the Solid Waste Services Strategy analysis of waste fees, every one of them employs a minimum waste fee, typically of \$10 or higher.

Municipality	Tipping Fee (per tonne)	Minimum fee per Load
Barrie, City of	\$160.00	\$10.00
Guelph, City of	\$153.00	\$10.00
Halton Region	\$194.00	\$10.00
Hamilton, City of	\$60.00	\$11.00
Kawartha Lakes, City of	\$135.00	\$11.00
Muskoka District	\$239.00	\$12.00
Niagara Region	\$125.00	\$8.00
Northumberland County	\$130.00	\$13.00
Oxford County	\$83.63	\$10.00
Peel Region	\$282.00	\$6.00
Peterborough County	\$150.00	\$12.00
Simcoe County	\$155.00	\$15.00
Southgate, Township of	\$125.00	\$10.00
Stratford, City of	\$87.25	\$20.00
Waterloo Region	\$100.00	\$12.00
Average Fee	\$145.26	\$11.33

In discussing the experience of the implementation of a minimum waste fee in two local municipalities, many residents seem to accept the logic of the new/higher fee offsetting some of the operational costs to run the facility, especially when this fee was initiated in conjunction to upgrades at the facility (as was the case with one of the communities).

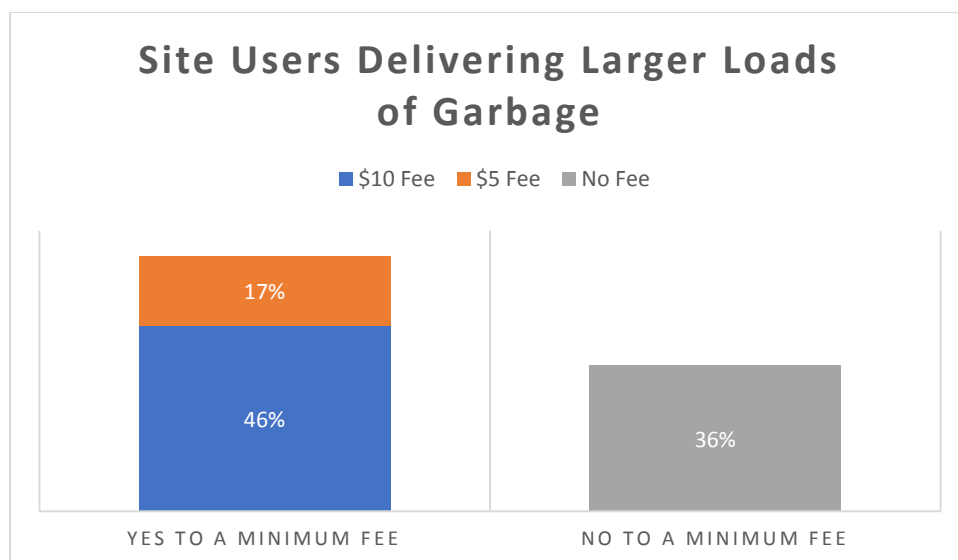
In order to better assess how a minimum waste fee would be received in Wellington County, and also to estimate the impact on waste facility traffic flows, a survey of site users was conducted in April 2024. Patrons using the County's waste facilities were asked a number of questions during the completion of the survey. Of particular relevance is the question asked to patrons who brought one to three bags of waste to County waste facilities; "would you use a waste facility if there was a minimum waste fee of \$10".

As can be seen below, 20% of these users bringing one to three bags of waste said that they would continue to use the site. Of those that replied that they would not use the site with a \$10 minimum waste fee, another 20% said they would if the fee was only \$5. Accordingly, 40% of site users delivering small loads of bagged waste stated that they would continue to use a waste facility with a minimum waste fee. The actual number may be higher, as these small load site users would presumably occasionally need to deliver loads that would cost more than the minimum waste fee.



Furthermore, two local municipalities shared their experience with a minimum fee and observed that overall, traffic to their waste site(s) decreased. However, site users tended to consolidate their loads, and the reduction in tonnage managed at the waste facilities was not as pronounced as the reduction in site traffic.

Patrons bringing in larger loads were also asked if they would continue to use the County's waste facilities were there a \$10 minimum fee. Those that stated they would not, were then asked if they would use the sites if the minimum fee was \$5. Given that those who bring in larger loads would expect to pay more than \$10, it is unsurprising that a majority (63%) stated they would continue to use the waste facilities with a minimum fee in place.



The below table provides an estimate for the impact on site usage that could be expected following the introduction of a minimum waste fee. The table displays the number of visits to County waste facilities in 2023, and also provides an estimate of the number of visits following the initiation of a minimum waste fee.

	Estimated Change in Site Users with a Minimum Fee Implementation						Total
	Aberfoyle	Belwood	Elora	Harriston	Riverstown	Rothsay	
Total – 2023	20,221	57,135	83,688	27,873	21,726	9,210	219,853
Estimate w/ \$10 Minimum Fee	13,462	38,624	52,144	17,161	16,627	5,880	143,898

It is challenging to predict resident behaviour towards a new fee with certainty. A high-level estimate was established by assuming 70% of small load (one to three bags of waste) visitors would not use the County's waste facilities following the implementation of a minimum waste fee. This estimate was produced with an assumption that three-quarters of those who indicated they would continue to use the waste facilities with either a \$10 or a \$5 minimum fee, would do so with a \$10 minimum fee.

Although 60% of these residents said they would not use the transfer stations with a minimum fee in place, the experience of other municipalities suggests load consolidation can be anticipated. Furthermore, as waste facility users typically bring multiple materials to waste facilities, such as bulky items or household hazardous waste, these trips would presumably include household waste.

Financial Impact:

Just as estimating resident behaviour towards a minimum waste fee is challenging, it is also uncertain how these usage changes will impact the County from a revenue standpoint. Anecdotal evidence from other communities, as well as the nature of the County's integrated waste management system, suggests that an increase in revenues will occur.

The County's full user pay system means that there would be no reduction in revenues from bags of waste that would be set to the curbside, rather than being delivered to waste facilities. Staff from local municipalities stated that they budgeted for and received additional revenue from their minimum waste fee.

Staff estimate an annual incremental revenue increase of \$196,000 following the adoption of a minimum waste fee. This estimate was produced through a combination of site usage patterns and analysis of the recent site survey data and is considered a conservative estimate.

The main risk in implementing a minimum waste fee at the sites is that it may be unpopular with users of these facilities. Through communications and educating residents on the rationale and benefits of making this change, site users may come to appreciate that a minimum fee helps offset costs of operating waste facilities, while supporting the conditions where more materials avoid being landfilled. Positive messaging around these important issues will increase awareness of environmental stewardship and of the value in diverting waste from landfill amongst the public.

Strategic Action Plan:

This report relates to the following objectives and priorities in the County's Strategic Action Plan:

- Making the Best Decisions for the Betterment of the Community

Recommendation:

That the report titled "Diversion Centre Model – Anticipated Results" be received for information.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Das Soligo', with a stylized flourish extending to the right.

Das Soligo
Manager of Solid Waste Services