
2020 Business Plan & Budget

Waste Services

Prior Year Accomplishments

Economic Prosperity & Innovation

- 10 year Capital Program for Waste Services
- 10 year Equipment Replacement Strategy

Sustainable Growth

Material Recovery Facility

- Maintained the processing rates of materials and residual levels, through continued education of residential and IC&I establishments
- Maintained equipment and building structure
- Replaced a year 2014 Skidsteer
- Replaced a year 2013 Loader
- Completed necessary repairs to the building roof

Community Recycling Centres

- Implemented year-round access to HHW & E-Waste disposal at the Brighton and Bewdley CRCs
- Implemented a Styrofoam Diversion Program at our 3 CRCs
- Commenced construction of the planned upgrades to the Public Drop-Off areas at our Community Recycling Centres. Upgrades improved staff and patron safety and will enable more waste materials, such as mattresses, asphalt shingles, construction and demolition waste, wood waste, etc. to be diverted from landfill.
- Received necessary approvals and commenced construction on the new Organic Waste Transfer Station at the Brighton CRC.
- Completed detailed design and received necessary approvals for the replacement of the leachate pumping station at the Eagleson landfill. Anticipate construction will commence in the spring of 2020



Curbside Collection

- Issued and awarded a new long-term contract for the curbside collection garbage, recyclables, organic waste and leaf & yard waste
- Implemented an organic waste collection program which launched in December
- Successfully delivered Blue and Grey Recycling Boxes and Green Bins to households throughout the entire County.

Thriving & Inclusive Communities

Planning and Education

- Through newspaper, radio, social media, and door-to-door delivery of information pamphlets, provided information and education to County residents about the launch of the County's new Two Stream Recycling and Organic Waste curbside collection programs
- Held the 11th annual Mayors' Keep the County Clean Challenge, which resulted in more than 2,989 volunteers from all 7 area municipalities collecting over 19,450 kg of litter from roadsides, parks, nature areas and other public spaces from within the County.
- Received the "Silver" award from the Municipal Waste Association for the County's 2018 Waste and Recycling Information Calendar
- Received the "Gold" award from the Municipal Waste Association for the County's joint efforts with the Cobourg Rotary Club, to make the 2018 Northumberland Rib Fest "Zero Waste"

Leadership in Change

- Completed staff training in the following areas for one or more staff members
 - Training:
 - Health and Safety Training
 - Working Minds Training
 - LEAN White / Yellow Belt Training
 - Emergency and Standard First Aid
 - Transportation of Dangerous Goods
 - Workshops / Seminars / Conferences:
 - Municipal Waste Association (MWA) Spring and Fall Workshops
 - Continuous Improvement Fund (CIF) Ontario Recycler Workshop
 - Area Waste Managers Meetings
 - Schulich Masters Certificate in Municipal Leadership



2020 Service Objectives & Initiatives

Economic Prosperity & Innovation

- 10 year Capital Program for Waste Services
- 10 year Equipment Replacement Strategy

Sustainable Growth

Material Recovery Facility (MRF)

- Maximize diversion rates at the MRF through continuous improvement of processes, improve the employee working environment while operating in a cost-effective manner
- Maintain processing rates of materials and reduce residual levels, through continued education of residential and IC&I establishments
- Maintain equipment and building structure
- Transition to processing of two stream recyclables
- Look for efficiencies in production, with the loss of City of Kawartha Lakes materials commencing in October of 2020

Community Recycling Centres

- Ensure the continued environmentally sensitive and economical operation of the Brighton Landfill.
- Continue to review and update the management and monitoring strategies for the County's closed landfills.
- Continue to monitor the success of the remediation of the former Eagleson Landfill.
- Initiate the development of a remediation plan for the Highland Drive Landfill to mitigate the effects the residential component of the waste at this site is having, or could have, on the environment. This plan will need to be implemented in conjunction with or immediately following the remediation efforts undertaken by Atomic Energy of Canada Limited (AECL) to remove the low level radioactive waste at the site.
- Replace the existing leachate pumping station at the Eagleson Landfill with a below-grade leachate containment tank – Cost \$285,000 (funds already secured during the 2018 budget process)
- Continue to offer year-round access to Household Hazardous Waste (HHW) at the Brighton and Bewdley CRCs



Curbside Collection

- Implement a new long-term curbside collection contract for garbage, two stream recyclables, organic waste (a.k.a. “Green Bin”) and leaf and yard waste.

Education

- Develop and enhance the County’s education and communication techniques and strategies.
- Continue to promote and educate residents about the significant changes to collection programs that were implemented in December of 2019 (e.g. new Green Bin program and transition to a two stream recycling program from the current single stream program).
- Continue to offer tours of our MRF to schools, service clubs and the general public.
- Continue to offer “guest speaker” services to service clubs and the general public, in an effort to further promote the County’s waste diversion programs.

Long Term Waste Management Master Plan (LTWMMP)

- Continue to implement the short-term goals / objectives of the LTWMMP.
- Initiate work on the Residual Waste Disposal Environmental Assessment process– Cost \$1,500,000 over 5 years, with \$337,500 anticipated in 2020.
- Continue contributing to a waste management reserve fund in order to finance the replacement of existing waste management facilities/equipment and for the implementation of any new waste management initiatives. Proposed 2020 contribution of \$400,000.

Thriving & Inclusive Communities

- Initiate work on the residual waste disposal Environmental Assessment (EA) which, though extensive consultation with the public, will ultimately determine the County’s long term solution for managing our non-divertible waste
- Continue to implement the recommendations of the Long-Term Waste Management Master Plan, in an effort to reach the goal of 75% waste diversion from landfill

Leadership in Change

- Complete staff training in various areas for staff members



Long Term Plan & Strategic Objectives

Economic Prosperity & Innovation

- 10 year Capital Program for Waste Services
- 10 year Equipment Replacement Strategy

Sustainable Growth

Overall Budget

2021:

- Attempt to develop a realistic 2021 budget.

Material Recovery Facility (MRF)

2021:

- Maximize diversion rates at the MRF through continuous improvement of processes, improve the employee working environment while operating in a cost-effective manner
- Continue to increase diversion rates and reduce residual levels through enhancing the education of residents and IC&I establishments
- Continue to maintain equipment and building structure through a proactive maintenance program

3-5 Years:

- Continue to increase diversion rates and reduce residual levels through enhancing the education of residential and IC&I establishments
- Continue to maintain equipment and building structure through a proactive maintenance program
- Plan for transition to full Producer Responsibility of recyclable materials between 2023 and 2025

Community Recycling Centres

2021:

- Ensure the continued environmentally sensitive and economical operation of the Brighton Landfill
- Continue to monitor the success of the remediation of the former Eagleson Landfill
- Continue the development of a remediation plan for the Highland Drive Landfill that will mitigate the effects the residential component of the waste at this site is having or could have on the environment. This plan will need to be implemented in conjunction with or



immediately following the remediation efforts undertaken by Atomic Energy of Canada Limited (AECL) to remove the low level radioactive waste at the site.

3-5 Years:

- Implement the remedial solution that will address the impacts of the residential component of the waste at the Highland Drive Landfill

Education

2021:

- Develop and enhance the County's education and communication techniques and strategies
- Continue to provide accurate, informative and educational communications to all users of the County's waste management system

3-5 Years:

- Continue to provide accurate, informative and educational communications to all users of the County's waste management

Long Term Waste Management Plan

2021:

- Continue implementation of short-term goals / objectives of the Long-Term Waste Management Master Plan
- Continue contributing to a waste management reserve fund in order to finance the replacement of existing waste management facilities/equipment and for the implementation of any new waste management initiatives
- Continue work on the Residual Waste Disposal Environmental Assessment
- Undertake a review / update of the Long Term Waste Management Master Plan

3-5 Years:

- Continue to implement recommendations from the Long-Term Waste Management Master Plan
- Continue work on the Residual Waste Disposal Environmental Assessment

Thriving & Inclusive Communities

- Continue work on the residual waste disposal Environmental Assessment (EA) which, though extensive consultation with the public, will ultimately determine the County's long term solution for managing our non-divertible waste
- Continue to implement the recommendations of the Long-Term Waste Management Master Plan, in an effort to reach the goal of 75% waste diversion from landfill



Leadership in Change

- Complete staff training in various areas for staff members



2020 Issue Paper

Changes to User Fees

Purpose

To recommend changes to the User Fees for waste management services.

Background

Recently, County Council awarded a new long-term waste collection contract that will provide residents with weekly collection of two stream recyclables, food waste, and garbage, and monthly, seasonal collection of leaf and yard waste. The annual cost of these services will be approximately \$5,340,000. The cost of the new collection contract is approximately \$1,240,000 more than was anticipated. In an effort to try and minimize the impact the new collection contract for the new collection services will have on the Waste Services Division's operating budget, staff have undertaken a review of the user fees (Tipping Fees and Bag Tags specifically), that the Division charges for certain waste management services.

Bag Tags

The cost of a Bag Tag was last increased twelve years ago, in 2007. At that time, the price of a Bag Tag was increased from \$2.00 per tag to \$2.75.

Historically, the revenue generated from the sale of Bag Tags has offset the cost of Curbside Waste Collection services. For example, in 2018, Bag Tag revenue was \$2,601,000, and the contracted services for curbside waste collection amounted to \$2,479,000.

With the provision of a curbside collection program for food waste (a.k.a. the "Green Bin" Program), residents will be able to divert food waste from their garbage bag into their green bin. This will result in fewer Bag Tags being purchased by residents who participate in the Green Bin program. Staff estimates that there will be a 20% reduction in the number of Bag Tags purchased each year, going forward, as a result of the new Green Bin program.



In an effort to keep up with future inflationary pressures, and to minimize the gap between future Bag Tag revenues and curbside waste collection costs, staff is recommending that the cost of a Bag Tag be increased from \$2.75 to \$3.75.

Below is a breakdown of the predicted net impact the proposed increase in the Bag Tag fee would have:

Current Bag Tag Budget:	\$2,500,000
Est. 2019 Y/E Bag Tag Revenue:	\$2,700,000
Reduction due to Green Bin Program:	\$540,000 (20% of current)
Net Bag Tag Revenue if fee remains at \$2.75:	\$2,160,000
Additional Revenue if fee increased to \$3.75:	\$785,000
Annual Revenue if fee increased to \$3.75:	\$2,945,000
Net Increase in Bag Tag Revenue:	<u>\$445,000</u>

Tipping Fees

Currently the Waste Services Division charges \$115 per tonne, for the disposal of waste at our Community Recycling Centres, with a minimum rate of \$11.50 charged for loads weighing less than 100 kg.

The tipping fee was last increased in 2013.

The County currently has a number of different tipping fee rates for various materials (e.g. Drywall \$95/tonne, L&Y Waste \$40/tonne, with first 500 kg accepted for free, and recyclables, scrap metal, bulky plastics, tires, HHW, E-Waste and Styrofoam all accepted free of charge).

Understanding that there are still costs associated with managing the materials we accept for free, but still wanting to ensure that these materials are diverted, versus being sent to landfill, Staff is recommending that one tipping fee be implemented for almost all materials we receive (with the exceptions being Tires, E-Waste and HHW – which would still be accepted free of charge).

The proposed new rate would be \$125 per tonne, with a minimum rate of \$12.50 charged for loads weighing less than 100 kg. It would be mandatory that patrons sort all of the divertible materials into the appropriate bins / bunkers.

If patrons do not want to sort the divertible materials from their waste load, or are unable to do so (e.g. commercial collection), then a surcharge of \$125 per tonne would be added on to the



standard rate of \$125 per tonne. This would result in an overall tipping rate for unsorted loads of \$250 per tonne, with a minimum rate of \$25.00 for loads weighing less than 100 kg.

In 2018, we received a total of 62,850 loads of residential waste, weighing a total of 17,100 tonnes. The average weight of a residential load was approximately 270 kg or 0.27 tonnes.

In 2018, we received a total of 12,150 loads of IC&I waste, weighting a total of 4,900 tonnes. The average weight of a residential load was approximately 400 kg or 0.40 tonnes.

Based on 2018 tonnages, the increase in the proposed tipping fee from \$115 per tonne to \$125 per tonne would generate \$220,000 in additional revenue (22,000 tonnes x \$10/tonne)

Assuming that 5% of patrons would be unable or unwilling to sort their waste loads, this would result in an additional increase in tipping fee revenue of approximately \$135,000 annually.

Consultation/Options

The Waste Service Division underwent an extensive, multi-year consultation process between 2011 and 2013, to develop the currently approved Long Term Waste Management Master Plan (LTWMMP). Key recommendations of this plan were: to implement an organic waste collection and diversion program; to transition to a two stream recycling collection program; and to maintain the current revenue balance between User Fees and Property Tax support.

Staff have reviewed tipping fees charged at nearby Landfills and Waste Transfer Stations. Based on this review, an increased tipping fee of \$125 per tonne would put the County's rate more in line with what is being charged by these other nearby facilities. The risk in having a lower tipping fee rate than nearby facilities, is that individuals and businesses located outside of Northumberland County may try to dispose of their waste at the County's facilities, due to the lower rate. Below is a comparison table of tipping fees charged at nearby Landfills and Waste Transfer Stations.



Facility	Tipping Fee Charged (\$/Tonne)	Comments
Region of Durham	\$125 per tonne	
City of Kawartha Lakes	\$110 per tonne	Rate going up to \$120 / tonne by 2021. Surcharge of \$100 / tonne for unsegregated loads
Northumberland Waste Transfer	\$129.95	Minimum fee of \$22.60

Note: all Tipping Fees noted in the above table are inclusive of HST.

Financial Impact

If the increases in user fees for Bag Tag and Tipping Fees are approved, it would have the following financial impacts on the 2020, and future year's Waste Services Divisions Operating Budgets:

Increased Revenue from \$3.75 Bag Tag Fee:	\$445,000
Increased Revenue from \$125/Tonne Tipping Fee:	\$220,000
Increase Revenue from Tipping Fee Surcharge:	<u>\$135,000</u>
Total Projected Annual Revenue Increase:	<u>\$800,000</u>

If Council were to approve the recommended changes to the Bag Tag and Tipping Fee user fees outlined in the above report, the net impact to the Waste Services Division's revenues would be an increase of approximately \$800,000, annually.

Risk Considerations

Whenever a change in Bag Tags or Tipping Fees is contemplated, concerns are raised about the possibility of illegal dumping increasing throughout the Community. Similar concerns were raised when the Bulky Waste Voucher program came to an end in 2019. When the Bag Tag fee was increased in 2007; when the tipping fees were revised in 2013; and when the Bulky Waste Voucher program ceased in 2019, there were no significant increases in illegal dumping observed.



Impacts to Member Municipalities/Partners

Not applicable.

Included in 2019 Long Term Plan: YES/NO

No. The review of user fees, by staff was prompted, as a means of trying to offset the higher than anticipated cost of curbside waste collection services.

2020 Issue Paper

Equipment Replacement Strategy

Purpose

The County's Waste Services Division has developed a sustainable equipment replacement strategy, which includes the annual contribution of \$400,000 to a reserve account. This reserve allows for timely and affordable replacement of the equipment and facilities necessary to operate its landfill, transfer stations, and Material Recovery Facility (MRF).

Background

Northumberland County uses a fleet of approximately 30 pieces of mobile equipment for the operation of the Brighton, Bewdley and Seymour Community Recycling Centres (CRCs), and the MRF, ranging from a ½ ton truck for the collection of illegally dumped waste on municipal roadsides, to heavy equipment for work in the landfill, and transfer areas of the CRCs, and our MRF. There is also a significant amount of processing equipment at the MRF. Combined, the replacement value of this equipment is approximately \$8 million.

The one (1) item recommended for purchase / replacement, or repair in 2020, as part of the Waste Services Division's 10 Year Equipment Purchase and Replacement Strategy is:

- Replacement of a year 2007 backhoe.

Consultation/Options

Justification for replacement of a year 2007 backhoe

The Waste Services Division has three backhoes (one at each of the three CRCs). Each of these backhoes is used to perform a number of functions including, but not limited to:

- Compaction of waste in Roll-Off Bins;
- Turning of windrowed Leaf & Yard Waste materials to produce compost;
- Snow removal; and
- Miscellaneous site grading and excavation works.



The oldest of the three backhoes is a 2007 model year, which has been in use between 5 and 6 days per year for the past 12 years. This Backhoe was approved to be replaced as part of the 2018 budget, however, given the proposed changes that will be occurring to the public drop-off areas at the County's Community Recycling Centres, it was decided that it would be better to replace the 2007 Backhoe with a new or quality used frontend loader, since a Frontend Loader would be more versatile and useful for packing bins, moving bins and loading materials contained within bunkers.

The \$120,000 that was allocated in the 2018 Budget, for the replacement of the 2007 Backhoe, is currently in reserves.

Staff recommends that an additional \$80,000 be allocated, in the 2020 Budget, to facilitate the replacement of the 2007 Backhoe, with a new or quality used Frontend Loader.

Financial Impact

The attached table outlines the ten-year Equipment Purchase and Replacement Plan for the major waste management vehicles and equipment.

In 2020, the Waste Services Division is proposing that \$200,000 be spent on the replacement of a year 2007 Backhoe, and that the Backhoe be replaced with a new or quality used Frontend Loader. \$120,000, of the estimated \$200,000 required to purchase the Frontend Loader would come from reserve funds already earmarked for the replacement of the 2007 Backhoe. An additional \$80,000 would be required in the 2020 budget to cover the proposed equipment purchase.

The proposed 2020 budget for equipment purchases / replacements, and major repairs allows for the following:

- Replacement of a year 2007 Backhoe (\$200,000).

It is recommended that \$120,000 from the Waste Services Division's Capital Reserve and \$80,000 from the Waste Services Division's Operating Budget be allocated to replace the above-noted pieces of equipment.

WASTE MANAGEMENT 10 YEAR CAPITAL EQUIPMENT REPLACEMENT PLAN

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
LANDFILL EQUIPMENT										
1988 Ford Tandem (WM02)										
1996 Volvo Rock Truck (WM11)										\$ 200,000
2017 Roll-off Truck							\$ 200,000			
2007 W Star Roll-off Truck (WM14)										
2012 Roll-off Truck		\$ 200,000								
2007 Roll-off Trailer (WM19)										
2000 CAT 816 Compactor (WM23)						\$ 300,000				
1993 CAT Excavator (WM03)										
1993 Case 580 Backhoe (WM06)										
2003 CAT D4 Bulldozer (WM04)										
1996 JCB Loader (WM12)										
2007 Backhoe	\$ 200,000								\$ 120,000	
1985 944 John Deere Loader (WM15)										
2010 Case Backhoe (WM22)			\$ 200,000							
2015 Backhoe					\$ 200,000					
2008 D6N Bull Dozer (WM24)				\$ 250,000						
2015 Excavator							\$ 250,000			
MISC VEHICLES										
2004 Chev ½ Ton (WM07)										
2013 Pick-up Truck				\$ 45,000						
2018 Pick-up Truck									\$ 45,000	
Small Trailer (WM13)										
2011 Pick-up Truck		\$ 45,000								
MRF EQUIPMENT										
2014 Skidsteer		\$ 45,000							\$ 45,000	
2016 Skidsteer				\$ 45,000						
2012 Toyota Forklift		\$ 45,000								
2018 Toyota Forklift						\$ 45,000				
2013 Loader								\$ 200,000		
2011 Fiber Baler										
2010 Container Baler										
2011 Hydraulic Lift										
MISC EQUIPMENT										
Roll-off Bins			\$ 50,000					\$ 50,000		
TOTAL	\$ 200,000	\$ 335,000	\$ 250,000	\$ 340,000	\$ 200,000	\$ 345,000	\$ 450,000	\$ 250,000	\$ 210,000	\$ 200,000



Risk Considerations

Not applicable.

Impacts to Member Municipalities/Partners

Proposed equipment replacement will have no impact on member municipalities.

Included in 2019 Long Term Plan: YES/NO

Yes.

2020 Issue Paper

Staffing at Community Recycling Centres

Purpose

To recommend changes to the staffing levels at the County's Community Recycling Centres.

Background

In 2017 Council approved staff's Issue Paper concerning changes to Waste Operations. The Issue Paper recommended enhancing the role of Scale Attendants to include oversight of the public drop-off area and staffing of the year-round HHW operations at our Community Recycling Centres (CRCs). The position of Scale Attendant was revised to Transfer Station Attendant.

The current number of hours for Transfer Station Attendants is approved at 14,603 annually.

The number of hours required for Transfer Station Attendants is based on historic demand at the sites, plus the facilitation of year-round access to HHW & E-waste disposal, and full-time oversight of the public drop off areas.

Even with the recent opening of a privately owned and operated Waste Transfer Station within the County, usage of the County's CRCs has steadily increased over recent years.

The table below contains a comparison of the total number of patrons per site, per year, for the years 2013 and 2018.

Site	Number of Patrons per Year		% Change
	2013	2018	
Bewdley	38,800	61,442	58% increase
Brighton	27,955	33,405	19% Increase
Seymour	20,110	19,248	4% decrease
Overall	86,865	114,095	31% Increase

Overall, the usage of the sites had increase by 31% over the past 5 years, with a largest increase in demand (58%) at the Bewdley CRC.



Given the increased usage at the sites, staff is recommending that the number of approved hours for Transfer Station Attendants be increased by 3,834 hours, from 14,603 to 18,437 hours annually.

This represents a 26% increase. The increase in hours would enable two (2) Transfer Station Attendants to provide full-time coverage of HHW operations and continuous coverage of the public drop off area, at both the Brighton and Bewdley CRCs.

The recommended increase in staffing hours would result in an annual operating cost increase of approximately \$131,000.

Consultation/Options

The Waste Service Division underwent an extensive, multi-year consultation process between 2011 and 2013, to develop the currently approved Long Term Waste Management Master Plan (LTWMMP). One of the Key recommendations of this plan was to upgrade the transfer stations to permit drop-off of a wide variety of materials such as dimensional lumber, wooden pallets, electronics and textiles is a very flexible and cost-effective method to address the challenges of a changing waste stream, and to rebrand these facilities as “Community Recycling Centres”.

As part of the 2017 Budget process, Council supported offering year-round access to Household Hazardous Waste and Electronic Waste disposal to residents.

It has become apparent that one (1) Transfer Station Attendant working outside of the Scale Building cannot manage the volumes of Household Hazardous and Electronic Waste being brought in by patrons, and also provide effective oversight of the public drop off area at each site. As a result, it is being recommended that a second Transfer Station Attendant be scheduled to work outside, each day the Brighton and Bewdley CRCs are operational.

While not ideal, another option Council could consider, would be to provide an additional 5 hour Transfer Station Attendant shift at the Brighton and Bewdley CRCs, year-round, versus the recommended 8.5 hour shift. This would result in an estimated annual operating cost increase of \$54,500 as compared to the \$131,000. Under this scenario, there will likely be times when full-time oversight of the public drop off area isn't possible (i.e. when Transfer Station Attendant is busy with HHW operations).

If Council cannot support increasing the staffing levels for Transfer Station Attendants at the Brighton and Bewdley CRCs, Staff could investigate the feasibility of limiting the number of days



per week during which HHW is accepted at these CRCs. Reducing the days that HHW is received would reduce the number of Transfer Station Attendants required on days when HHW is not being received. Under this option, HHW would continue to be accepted at the Brighton and Bewdley CRCs year-round, but not every day that the facilities are open to the public. For example, HHW may only be accepted on Tuesdays, Thursdays and Saturdays at Bewdley, and Wednesdays, Fridays and Saturdays at Brighton.

Financial Impact

If Council approves having two (2) Transfer Station Attendants working outside at the Bewdley and Brighton CRC's, versus the currently approved one (1), each day that the sites are open, the financial impact would be approximately \$131,000 annually

Risk Considerations

If we continue to staff the Brighton and Bewdley CRC's with just one (1) Transfer Station Attendant outside overseeing HHW operations and other on-site diversion programs, there is a high risk that divertible materials will simply be thrown into the garbage bins on site, since the Transfer Station Attendant will not be able to safely manage the HHW materials, and provide continuous oversight of the Public Drop Off area. This will also, very likely, lead to the continued contamination of materials in the diversion bins as well (e.g. garbage being thrown into drywall, scrap metal, bulky plastic or other diversion bins).

Impacts to Member Municipalities/Partners

Not applicable.

Included in 2019 Long Term Plan: YES/NO

No. The review of user fees, by staff was prompted, as a means of trying to offset the higher than anticipated cost of curbside waste collection services.