

**THE UNITED COUNTIES OF
STORMONT DUNDAS AND GLENGARRY (SDG)**

**Regional Waste Management
A Roadmap to Collaboration**

**PHASE 1 and PHASE 2
DRAFT REPORT**

MARCH 12, 2021



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March 12, 2021

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26 Pitt Street, Suite 223
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Dear Mr. De Haan:

**Re: United Counties of Stormont Dundas and Glengarry (SDG)
Regional Waste Management - A Roadmap to Collaboration
Draft Report - Phases 1 & 2**

We are pleased to submit the draft report for distribution to and review by SDG and the Local Municipalities. This report covers Phase 1- Background Data Collection and Phase 2 - Cost Analysis. Comments received will be considered during Phases 3 and 4 and incorporated into the final report.

Please let me know if you have any questions.

Respectfully Submitted by:

DFA Infrastructure International Inc.

A handwritten signature in black ink, appearing to read 'Derek Ali', is written over a horizontal line.

Derek Ali, MBA, P.Eng.
President

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DRAFT

Disclaimer:

The information and statements contained in this report are based on the best available information at the time of preparation and intended use solely by the United Counties of SDG (SDG) and its Local Area Municipalities (LMs). The statements shall not have any meaning other than those intended by the author. The author is not in any way liable for use and/or interpretation of the information contained in the document.

1 Background

The United Counties of Stormont Dundas and Glengarry (SDG) is assisting its six (6) partner rural local municipalities (LM) with coordinating a review of their solid waste management services. The LMs are facing a variety of challenges with delivering their respective services including changing waste diversion regulations, high levels of recycling contamination, declining landfill capacities, different service levels and limited organizational capacities to sustain services at desired levels into the future. Accordingly DFA Infrastructure International Inc. was retained by SDG to calculate the LMs' cost of service for their respective solid waste functions and identify opportunities for internal process changes and collaboration among the LMs including possible roles for SDG and the City of Cornwall, to improve efficiencies and overall service delivery for all LMs.

1.1 Study Objectives

The main objectives of the review include the following:

- Identify the current levels of solid waste service delivered by each LM for each component and any potential changes that each LM may be considering in the future, and the differences among the LMs;
- Identify and assess the respective staffing levels and the roles and responsibilities of the respective staff involved in solid waste including any cross-functional duties that are unrelated to solid waste;
- Identify the services that are outsourced, the service provider and the contract expiry dates and costs;
- Identify the current status of the LMs' respective landfill sites (where applicable) and issues, any plans for extensions, etc.
- Consider all current and impending regulatory requirements and guidelines related to solid waste and particularly the impending policies and regulations under the Waste-Free Ontario Act, 2016 which is comprised of the Resource Recovery and Circular Economy Act (RRCEA), 2016 and the Waste Diversion Transition Act, 2016 and the Food and Organic Waste Framework, released on April 30, 2018;
- Identify and quantify the current and future cost of service for each LM by system component (waste collection, recycling collection, recycling processing, landfilling, etc.) to determine funding requirements for financial sustainability. This includes direct and indirect operating costs to support current and future service levels, capital costs (including asset replacement) associated with each component and landfill closure and post closure care costs. The study period is 2020 to 2044 (25 years) using 2020 as the baseline year for cost information and projections beginning in 2021;
- Develop a simple "tool" in MS Excel to assess and compare the cost of service by solid waste function and use the tool to evaluate the costs across all six (6) LMs and develop the "roadmap";
- Based on the cost assessment, an analysis of the levels of service and other relevant information:
 - Identify internal process changes that may result in cost reduction and efficiencies;

- Develop opportunities for one or more of the LMs to work collaboratively to reduce costs, achieve efficiencies and improve services;
- Develop “regional” levels of service for each component and options for a region wide approach to solid waste management that may include roles for SDG and/ or the City of Cornwall;
- Identify possible changes to the recycling program to reduce contamination as part of developing the regional level of service and positioning the LMs for transitioning to producer responsibility;
- Develop, assess and rank the collaboration opportunities to identify a preferred option(s) for implementation based on:
 - potential cost savings and efficiencies;
 - long-term financial sustainability for solid waste services
 - ability to deal with the transition of recycling (2023 to 2025) and household hazardous waste (HHW) (2020 to 2021) from municipal to producer responsibility;
 - other benefits that may be realized
 - input from the Steering Committee and County Council
 - ranking the options in order of importance and achievability
- Develop and recommend an implementation strategy for the preferred option(s) indicating key activities budgets, responsible party and timelines over the short-term (1-3 years) medium-term (3-5 years) and long-term (5-10 years);
- Ensure transparency and defensibility of the review based on factual baseline information, reasonable assumptions and input from the Steering Committee;
- Utilize this study as a template that may be used by rural municipalities in other regional settings to assess current conditions, costs and options for cross jurisdictional collaboration and how to go about undertaking such reviews to implement ‘regional’ plans;
- Undertake the study with participation and input from the appropriate staff and Steering Committee to ensure that the best available information is used and acceptance of the results of the study; and
- Seek input from County Council and Local Municipal Councils on the assessment of the options for collaboration and the possible roles and responsibilities for SDG and Cornwall prior to making final recommendations.

2 Phase 1 - Background Data Collection

This phase involved collecting and reviewing available data from the LMs and developing baseline information by LM to determine current and future levels of service and the full cost of services over the study period. Meetings were also held with each LM to review current data and obtain an understanding of each LM's current operations and unique circumstances. These form the basis for the review including costs analyses and development and analysis of collaboration opportunities for service delivery.

2.1 Current Issues and Challenges

The current issues and challenges are based on telephone interviews with LM staff. These are tabulated in Appendix A, which is a 'living' document that will be modified as additional issues are identified and discussions occur. It will be used to inform development of the options for collaboration. Some of the main issues include:

- Waste management costs are increasing.
- Diminishing landfill capacity - need to secure future capacity sooner rather than later.
- Is sharing landfill capacity among the LMs acceptable?
- How should the LMs work together? The Municipal Act allows options.
- If SDG were to be involved, should all or only some waste management components be transferred?
- How should compensation for landfill capacity be addressed?
- There is limited staff and equipment resources at the LMs.
- Do any of the LMs wish to have a role in recycling after the transition to producers to maintain a particular level of service to customers?

2.2 Staff Resources

Information on the staff involved in delivering solid waste services for each LM is presented in Appendix B. This identifies the positions with shared roles between solid waste management and other departments for each LM. It also identifies the positions that are fully dedicated to solid waste management, the number of staff in each position and whether or not the positions are union or non-union. Brief descriptions of the roles and responsibilities for each position are also provided based on a review of current job descriptions (as available).

There are 18.5 full and part-time positions across the six (6) municipalities that have shared roles in solid waste management. These generally include directors, supervisors, administrative support and equipment operators that are involved in broader public works, infrastructure or environmental services functions that also include solid waste responsibilities. Twelve (12) positions are non-union and the remaining 6.5 are union positions.

There are 16.7 full and part-time positions across the six (6) municipalities that are fully dedicated to solid waste management functions. Most of these (16.2 positions) are non-union positions and 0.5 being a union position. Most of these are in North Dundas which has a dedicated solid waste department of 6.5 staff positions and at the North Glengarry's RARE facility with 8.2 positions, all being non-union. The remaining 2 positions are in North Glengarry's Public Works Department (0.5 union position) and South Dundas' Environmental Services Department (1.5 non-union).

This information is summarized in Table 2-1 and will be used to inform development of the options for regional collaboration particularly those that may require staff sharing or transfers from the LMs to SDG should a transfer of jurisdiction be the preferred option to achieve a regionalized approach.

Table 2-1: Current Staff Resources

Local Municipality	Shared Staff		Dedicated Solid Waste Staff		Total
	Non-Union	Union	Non-Union	Union	
North Dundas			6.5		6.5
South Dundas	1		1.5		2.5
North Glengarry	3	2	8.2	0.5	13.7
South Glengarry	2	1			3
North Stormont	2				2
South Stormont	4	3.5			7.5
Total	12	6.5	16.2	0.5	35.2

2.3 Legislative & Regulatory Review

The relevant legislation and regulations that affect waste management in the LMs that comprise the United Counties of Stormont Dundas and Glengarry (SDG) and how services might be delivered in a collaborative fashion include the following:

- Environmental Assessment Act, 1990 (EAA);
- Environmental Protection Act (EPA);
- Waste-Free Ontario Act, 2016;
- Waste Diversion Transition Act, 2016;
- Municipal Act, 2001;
- Local by-laws; and
- Requirements of existing Landfill Licences.

Waste-Free Ontario Act, 2016

The Waste-Free Ontario Act, 2016 is comprised of the Resource Recovery and Circular Economy Act (RRCEA), 2016 and the Waste Diversion Transition Act, 2016 (WDTA) and sets the policies and rules for waste reduction in Ontario. The intent of the "circular economy" is for products and packaging to be designed such that they can be recovered, reused, recycled and brought back into production instead of going to waste. Under the RRCEA individual producers will become fully responsible for the life cycle of their products and be required to perform waste reduction activities in accordance with provincial policy. Producers will be required to meet mandatory material collection and recycling targets under Individual Producer Responsibility (IPR) using in-house resources or contracted services supplied by Producer Responsibility Organizations (PROs). The Resource Productivity and Recovery Authority (RPRA) established under the RRCEA has responsibility for overseeing the transition to the circular economy and IPR enforcement. Producers must register with and report to RPRA on meeting the targets.

The transfer of responsibility from municipalities to IPR will be phased in to minimize any impacts to current programs as the transition occurs.

1. The Municipal Hazardous or Special Waste Program involves the recycling and proper disposal of materials such as batteries, antifreeze, fertilizers and other hazardous or special materials. Batteries transitioned to producer responsibility on July 1, 2020, while the remaining materials will transition on July 1, 2021. Batteries include single-use and rechargeable batteries weighing 5kg or less.

All battery producers are required to register with RPRA between November 1 and November 30, 2020 and must begin submitting annual reports by April 30, 2021.

2. The Waste Electrical and Electronic Equipment Program deals with recycling and reusing electronics such as televisions, stereos and computers. This program will transition to the producer responsibility on January 1, 2021.
3. The current Blue Box Program provides recycling and reuse of printed paper, packaging and containers such as plastics, glass, aluminum and steel. First Nations and an initial group of municipalities will transition the Blue Box Program to producer responsibility on January 1, 2023. All municipalities across the province will transition by December 31, 2025.

The remaining programs, the Ontario Deposit Return Program (alcoholic and beverage containers) and the Used Tires Program have not been given transition windows; the Ontario Deposit Return Program has already been established for many years under the producer responsibility model. The last significant change occurred when liquor and wine bottles were added to the program. The Province's Used Tires Program was discontinued on December 31, 2018 and replaced by the Tire Collection Network, which already follows the producer responsibility model.

Proposed Individual Producer Responsibility (IPR) Regulation

On October 19, 2020, the Ontario government released a proposal detailing the transition of the Blue Box Program from municipalities to IPR. The proposal was open for public comment for a 45-day period until December 2, 2020. The stated goal of the transition is to improve recycling abilities province-wide and address various environmental issues associated with the current model, such as plastic pollution. The proposal includes that the transition to IPR will not disrupt current blue box services and allows for existing programs to be expanded. This will include allowing additional materials to be collected in the blue box (i.e. single-use items such as straws, stir-sticks, single-use packaging, etc.) and extending the blue box services to locations that do not have access under the current model. Overall, the objective is that under IPR producers will be able to develop more innovative solutions to reduce costs and increase diversion rates. This will aid in improving the environment while also supporting economic growth.

The proposal also states that producers with less than \$2 million in annual sales will not be required to register with RPRA or provide collection/management services for their products. Producers with \$2 million or more in annual sales will be required to register with RPRA, report and keep records, though they would be exempt from management requirements if they supply less than the following amounts for specific materials:

- 9 tonnes of paper
- 2 tonnes of rigid plastic
- 2 tonnes of flexible plastic
- 1 tonne of glass
- 1 tonne of metal
- 1 tonne of non-alcoholic beverage containers

The Blue Box Program is set to transition to the IPR model between 2023 and 2025 province wide, however registration with RPRA would begin as early as April 1, 2021. The proposed regulations contain a “Blue Box Transition Schedule” which indicates that the municipalities that make up SDG will transition sometime in 2025. The specific date will be assigned when the regulations are finalized. ***A transition date of December 31, 2025 (i.e. the latest possible date) is assumed for the purposes of the cost calculations in this study.***

Once the transition to producer responsibility is implemented, it will be the sole responsibility of producers to manage their products and packaging throughout their respective life cycles (i.e. from production to disposal). Municipalities will no longer be required to operate a recycling program under Environmental Protection Act, O.Reg.101/94, which will become obsolete.

A Transition Plan is currently being reviewed by the RPRA which will, presumably, offer more details on the transition to full producer responsibility. ***The regulations detailing the transition requirements are expected to be available soon.***

Food and Organic Waste (Green Bin) Framework

The Food and Organic Waste Framework, released on April 30, 2018, consists of two complementary components:

- Food and Organic Waste Action Plan, which outlines strategic commitments to be taken by the province to address food and organic waste, and
- Food and Organic Waste Policy Statement, which provides direction on increasing waste reduction and resource recovery of food and organic waste.

Ontario’s Food and Organic Waste Policy Statement (2018) states that select municipalities in Southern Ontario are required to develop a food and organic waste collection program with a target of achieving “50% waste reduction and resource recovery of food and organic waste generated by single-family dwellings in urban settlement areas by 2025”. The criteria set out in Policy 4(i) and Policy 4(ii) determine the type of program that municipalities must implement as follows:

- Policy 4(i) - Local municipalities with a population greater than 50,000 and population density greater than 300 persons/km² must provide curbside green bin collection to single-family dwellings in an urban settlement.
- Policy 4(ii) - Local municipalities with a population greater than 50,000 and a population density lower than 300 persons/km² or a population greater than 20,000 but less than 50,000 and a

population density of 100 persons/km² or more must provide collection options for green bin waste to single-family dwellings in an urban settlement.

Table 2-2 summarizes the populations and population densities of each of the six (6) LMs and all of SDG as indicated by the 2016 census.

Table 2-2.: Population and Density by Municipality

Municipality	Population	Density (Persons per km ²)
North Dundas	12,152	24.1
South Dundas	11,450	21.9
North Glengarry	10,595	16.5
South Glengarry	13,879	22.9
North Stormont	7,347	14.2
South Stormont	14,140	31.6
SDG Total	69,563	21.4

Based on the 2020 populations and densities, the six (6) LMs on their own would not be required to provide green bin collection options, as they do not individually meet the population or density requirements stated in Policy 4(ii). However, SDG as a whole meets the criteria with a combined population of 65,353 which exceeds the 50,000 threshold and a population density of less than 300 persons/km². The Statistics Canada 2016 Census Profile states SDG's population as 113,429. However, this is because Cornwall and the Mohawk Nation of Akwesasne are included as part of a larger census division used by Statistics Canada.

The criteria refer to the population and population density of local municipalities. However, if responsibility were to be transferred to the upper-tier municipality, then SDG would likely be required to provide green bin collection options to single-family dwellings in urban settlements (i.e. no curbside pickup would be necessary). However, the term "collection options" is not defined in the policy statement. These could potentially include having backyard composting program, drop off locations or other alternatives. ***The policy does not preclude the LMs or SDG from implementing a green bin curbside collection program for higher density areas if there is a desire to align with environmental stewardship and industry best practices and there is a supporting cost benefit analysis.***

Policy Amendments

Amendments to the Policy Statement are being considered to clarify the types of food and organic wastes to be collected while considering the current challenges facing processing facilities. The overall intent is to give the public businesses and municipalities clarity on the effort required to meet the targets and make better decisions about their respective programs. Proposed changes include:

- *"efforts **shall** be made with respect to food waste, inedible parts of plants and animals resulting from food preparation and pet food waste"*

- efforts ***should*** also be made with respect to several types of organic wastes, such as soiled paper and food packaging, coffee filters, tea bags, compostable coffee pods and compostable bags
- efforts are ***encouraged*** to be made with respect to several types of harder to manage organic wastes, such as diapers and pet waste"

Other changes include requiring continuation of efforts after targets are met, making information available to the public, and encouraging pilot projects and new technology to improve the processing and recovery of compostable materials. The proposed changes are more fully described on the Environmental Registry of Ontario.

New Landfill Legislation

Bill 197, which was passed in July 2020, includes a new section that requires the approval of new landfill proposals by all impacted local municipalities. This includes obtaining approval from the municipality within which the landfill is proposed to be constructed, as well as any municipalities located within 3.5 kilometers of any of the property proposed for a landfill. This has implications to public sector and private sector landfill proposals.

There is no mention of what this means for two-tier municipalities such as SDG. This may be interpreted as meaning that a new landfill development proposed on land within one of the six (6) LMs, but that is within 3.5 kilometers of another Township's border, would require the approval of both the host Township and the Township within 3.5 kilometers. Further, if the upper-tier municipality (SDG) is recognized as a separate municipal entity, then under this new legislation, a new landfill proposed anywhere in the six (6) local municipalities would also require the approval of the upper-tier municipality as well as any bordering municipalities if the proposed landfill site is within 3.5 kilometers.

This legislation states that it only applies to new landfill proposals; however some interpret this to mean that landfill expansions are also included. These interpretations remain unclear due to limited available information at this time.

The Municipal Act, 2001

The Municipal Act, 2001 identifies the authority that the LMs and SDG may have to facilitate collaboration or a transfer of jurisdiction of some or all components of waste management to SDG from the LMs. The latter will require specific resolutions of the various Councils.

Currently, the LMs hold the power to manage solid waste as set out in the Municipal Act, 2001, Section 11 (4). The Municipal Act, 2001 also provides for two (2) or more municipalities to work together to deliver waste management services to its residents:

- LMs may offer services located in another LM provided that the other LM agrees (Section 19(2) and Section 74);
- LMs may have agreements with one another to provide joint waste management services anywhere within the participating municipalities (Section 20(1)); and
- LMs may delegate authority by by-law to a joint committee or board with representation from the participating Councils for the purpose providing a waste management service, subject to restrictions (Section 23.1(1) and(2))

Therefore, LMs may work together through a single or multiple agreements to use their collective authority under the Municipal Act, 2001 and share their assets to deliver waste management services to their residents.

The Council of SDG may, alternatively, pass a by-law under the Municipal Act, Section 189 to transfer the power to manage some or all of components of the waste management system to SDG. The transfer may be from one or more LMs. However, before the by-law can take effect, the support of the LMs would be required through resolution of their respective Councils. A "triple majority" of approval must be attained:

- A majority of SDG Council approves the transfer (Section 189 (2) (a));
- A majority of the Councils of the LMs that make up SDG approve the transfer (Section 189 (2)(b)); and
- The LMs that approve the transfer must represent a majority of the population within SDG. The respective LM populations shown in Table 2-2 suggest that any four (4) municipalities approving the transfer would provide this majority (Section 189 (2)(c).

The by-law may also provide for transitional issues to be addressed (e.g. interim operating arrangements such as waste collection, landfill operations, etc. until the transfer can be fully implemented). Once the by-law transferring powers takes effect it cannot be repealed (i.e. the decision to transfer jurisdiction is irrevocable) and enables the following:

- All LM by-laws would remain in force under SDG for a maximum period of 2 years or until SDG established its own by-law for waste management and repeals the LMs by-laws whichever comes first (Section 190(1))
- Any works, initiatives, programs etc. in progress by the LMs may continue under SDG
- Existing contracts between an LM and a service provider must be assumed by SDG
- SDG can designate facilities to be used by each LM

The Municipal Act, 2001, R.R.O. 1990, REGULATION 815 - Waste management, Section 2 addresses the protection of employees and financial adjustments for assets and liabilities. However Regulation 815 which is still in force relates to the former Section 209 of the Municipal Act that was repealed in 2002. Because of this any transfer by-laws passed after December 31, 2002 are not subject to Regulation 815. Notwithstanding this view, the issues of staff transfers and compensation related to asset and liabilities must be addressed as if Regulation 815 is applicable, as evidenced in the transfer of powers between tiers in other municipalities. This can be accomplished through negotiation and agreement between SDG and the LMs.

Under Regulation 815 SDG would be required to offer employment to waste management staff currently employed by the LMs. The requirements include the following.

- Employees of the LM primarily involved in waste management for six (6) months or more prior to the transfer of jurisdiction must be offered employment by SDG
- Employees are not obligated to accept employment at SDG but if they do will be entitled to:

- ✓ guaranteed employment for at least 1 year
 - ✓ at least the same salary as under the LM
 - ✓ the same seniority
 - ✓ continuation of service (i.e. seamless uninterrupted employment)
 - ✓ enrollment in OMERS
 - ✓ sick leave credits accumulated
 - ✓ equivalent vacation with pay
- Employees may be terminated or the above noted entitlements reduced for just cause

Regulation 815 also addresses the matter of compensation for assets and liabilities through Sections (3)(1) to (3)(5):

- If an asset is transferred to SDG from an LM then SDG would be required to pay compensation to the LM based on the market value of the asset.
- Similarly, if the market value of the asset is less than zero (i.e. a liability exists) then the LM would pay compensation to SDG an amount equal to the liability.

SDG and the LMs may agree on the list of assets and liabilities to be transferred and the terms of payment of the compensation. In the case of compensation for a liability, if there is no agreement then the compensation to SDG would be in equal installments over a 5-year period maximum.

Regardless of whether or not Regulation 815 is legally applicable the transfer of powers between the LMs and SDG must be based on fairness regarding the protection of staff and compensation for assets and liabilities. This can be achieved through discussion and agreement. There are examples of jurisdictional transfers that occurred in Ontario after Section 209 of the Municipal Act was repealed, that addressed staffing and asset and liability transfers. These are:

- Durham (Regional Municipality) v. Oshawa, [2012] O.J. No. 1558, (Court of Appeal). Although this deals with the transfer of responsibility for public transit services from lower tier municipalities to the Region, the by-law addresses staffing, asset and liabilities.
- Dufferin County transfer of waste management from local municipalities in 2010.

In summary, transferring waste management powers from the LMs to SDG must address staffing, asset and liabilities which can be accomplished through agreement by the parties.

The Environmental Protection Act, 1990 (EPA)

Regulation 347, Section 2 under the EPA addresses changes to the geographical service areas and rate of filling for landfill sites. Section 2(2) indicates that:

"a municipality that owns or operates a landfill site is exempt from section 27 of the Act with respect to increasing the service area of the site if the additional area from which the site will receive municipal waste is, (a) within the boundaries of the local municipality in which the site is located or, if the upper tier municipality in which the local municipality is located is exercising the power to provide landfilling sites for the local municipality, within the boundaries of that upper tier municipality"

This allows SDG to expand the service area for the landfill sites to within its own boundaries should it assume jurisdiction for waste disposal. Any increase in the rate of fill due to the service area expansion would be exempt from a hearing under Section 2(5). However, approvals would likely be required to address operational issues such as incremental traffic etc. LMs would require section 27 approval to expand its landfill site service area beyond its boundary.

Regulation 101/94 under the EPA sets out the requirements for municipalities regarding recycling and composting. The requirements for recycling would become obsolete once the responsibility shifts from the municipalities to producers. Municipalities will no longer be mandated to provide and report on recycling services. Regulation 101/94 Part II stipulates that all municipalities with populations of at least 5,000 must provide backyard composter to residents at or below cost. Public education and awareness relevant to backyard composting is also required. Municipalities with populations of 50,000 or more must provide leaf and yard waste collection or drop-off facilities. Regardless of population, any municipality that has a leaf and yard waste program must ensure the materials are transported to an approved compost site, composted to meet required standards and available for use directly on land. Part V sets out the standards for compost quality and how the material may be used. Parts III and IV deal with recycling depots and sorting facilities respectively.

2.4 Existing and Future Customer Growth & Tonnages

The number of customers currently serviced and tonnages were estimated using available 2019 and 2020 data from each LM. These were categorized by LM and component. Customer growth was estimated using SDG's Official Plan, recent building starts for each LM and input received from SDG and LM staff. The information was used to project the annual increase in the number of customers (by LM) and the annual increase in tonnage by program over the study period. The historical per capita or per household tonnages were used while having regard for increase in waste diversion targets as follows:

- The annual number of customers (collection stops) expected to be serviced each year was forecasted based on a review of customer growth information as noted;
- The 2018 and 2019 historical and the 2020 projected tonnages were categorized by program to determine the average per stop and per capita; and
- Using the historical average with consideration to future waste diversion targets, demand for the various services (e.g. curbside collection) was projected.

Table 2-3 summarizes the 2020 population, collection stops and tonnages disposed and diverted by LM. The 2020 information is the baseline for the future projections. Table 2-3 shows that approximately 61% of the waste disposed by the municipalities is at municipally owned landfill sites. The remaining 39% is disposed at a private landfill site.

Table 2-4 shows the increase in population, collection stops and tonnages disposed and diverted by LM over the 25-year study period (2020 to 2044 inclusive). This assumes that waste will continue to be generated at the current per capita rates and no new programs would be implemented to significantly reduce waste generation. South Glengarry is expected to close its two (2) landfill sites when their approved capacities are fully utilized and shift disposal to a private landfill site. North Dundas and South Dundas are seeking capacity expansions beyond the current approved capacities of their respective land fill sites. The North Dundas landfill site is over its approved capacity and is currently operating under an

emergency licence pending the outcome of an ongoing environmental assessment process to obtain the expansion. Although waste diversion tonnages are projected to 2044 the cost analysis is based on a transitioning recycling from the municipalities to producers on December 31, 2025.

Table 2-3: 2020 Population Curbside Stops and Tonnes Disposed & Diverted

Municipality	Population	Curbside Stops	Waste Disposed (tonnes)		Waste Diverted (tonnes)
			Municipal Landfill	Private Landfill	
North Dundas	12,152	4,300	2,087	-	609
South Dundas	11,450	4,830	4,284	-	530
North Glengarry	10,595	3,650	1,100	2,284	765
South Glengarry	13,879	5,965	3,000	-	706
North Stormont	7,347	2,700	-	1,666	400
South Stormont	14,140	5,602	358	2,853	800
SDG Total	69,563	27,047	10,829	6,803	3,810

Table 2-4: 2020 to 2044 Increase in Population Curbside Stops and Tonnes Disposed & Diverted

Municipality	Population	Curbside Stops	Waste Disposed (tonnes)		Waste Diverted (tonnes)
			Municipal Landfill	Private Landfill	
North Dundas	3,283	1,342	564	-	165
South Dundas	939	400	351	-	43
North Glengarry	399	168	41	86	29
South Glengarry	1,952	792	(3,000)	3,422	99
North Stormont	382	146	-	87	21
South Stormont	4,030	1,584	(358)	1,273	228
SDG Total	10,984	4,431	(2,401)	4,868	585

Table 2-5 shows the projected 2044 information by LM. The increases contribute to future demand for services and the costs related to each component of the solid waste management system. By 2044 approximately 58% of the waste will be disposed at the private landfill site compared to 39% in 2020. The portion of waste to be disposed at municipal landfill sites by 2044 would decline from approximately 61% in 2020 to 42%. This projected shift is due to the anticipated redirection of waste to a private landfill site following closure of South Glengarry's and South Stormont's landfill sites. The annual projections over the study period are provided in Appendix C.

Table 2-5: Projected 2044 Population Curbside Stops and Tonnes Disposed & Diverted

Municipality	Population	Curbside Stops	Waste Disposed (tonnes)		Waste Diverted (tonnes)
			Municipal Landfill	Private Landfill	
North Dundas	15,435	5,642	2,651	-	774
South Dundas	12,390	5,230	4,635	-	573
North Glengarry	10,993	3,818	1,141	2,370	794
South Glengarry	15,831	6,757	-	3,422	805
North Stormont	7,729	2,846	-	1,753	421
South Stormont	18,170	7,186	-	4,126	1,028
SDG Total	80,548	31,478	8,428	11,671	4,395

2.5 Landfill Sites

There are six (6) municipal landfill sites within SDG that are currently in use by the respective LMs for waste disposal. The closure dates for three (3) of these are within the next five (5) years based on the conditions of their Environmental Certificates of Approval (ECA). Two (2) others are due to close in 2029 and 2033. Table 2-6 shows the anticipated closure date and estimated remaining capacity for each landfill site.

The collective remaining capacity is approximately 114,800 tonnes. However, efforts are underway to obtain approval to expand the capacity and extend the use of the Boyne Road Landfill Site in North Dundas and the Matilda Landfill Site in South Dundas. If these expansions receive approval then the collective remaining capacity would be approximately 240,700 tonnes as noted in Table 2-6. The cost calculations assume that the expansions would be approved.

Table 2-6: Active Municipal Landfill Sites - Closure Dates and Remaining Capacities

Municipality	Landfill Site	Under Current Licences (ECAs)			With Approved Expansions		
		Closure Date	Remaining Years	Remaining Capacity (tonnes)	Closure Date	Remaining Years	Remaining Capacity (tonnes)
North Dundas	Boyne Road	December 31, 2022	2	4,300	December 31, 2047	27	62,700
South Dundas	Matilda	December 31, 2023	3	13,000	December 31, 2038	18	80,500
North Glengarry	Glen Robertson	December 31, 2056	36	40,600	December 31, 2056	36	40,600
South Glengarry	North Lancaster	December 31, 2025	5	6,400	December 31, 2025	5	6,400
	Beaverbrook	December 31, 2033	13	47,100	December 31, 2033	13	47,100
North Stormont	No Active Site	NA	NA	-	NA	NA	-
South Stormont	Trillium	December 31, 2029	9	3,400	December 31, 2029	9	3,400
SDG Total				114,800			240,700

There are seven (7) closed landfill sites as listed in Table 2-7 by municipality. These require perpetual care which includes annual ground and surface water monitoring, site maintenance, etc. The related costs are included in the closure and post closure care costs calculated for this study. These are liabilities that are only partially funded by some LMs.

Table 2-7: Closed Landfill Sites

Municipality	Closed Landfill Site
North Dundas	Mountain
South Dundas	Williamsburg
North Glengarry	Alexandria
South Glengarry	County Road 27
North Stormont	Finch
	Roxborough
South Stormont	County Road 29

2.6 Level of Service Inventory

The existing waste management by-laws, website information and discussions with municipal staff on current services and possible changes were used to determine the current services/ programs and the level of service offered each LM. An inventory of the level of service (e.g. waste and curbside blue box collection frequency, drop off depot operating hours, etc.) is provided in Appendix D. The services and level to which they are offered are quite similar among the municipalities. However, there are some differences/variations as noted in Table 2-8. There are opportunities to harmonize the services including those related to recycling in preparation for the transition to producer responsibility. These include consistency in the frequency of collection and materials collected. Public outreach and customer service could be a singular approach that services all the municipalities. There is also sharing the use of landfill resources including drop-off locations. These are areas that require further consideration to identify service levels that might be appropriate on a broader scale in the future.

Table 2-8: Level of Service Harmonization Opportunities

Service	Harmonization Opportunities
Waste Collection	<ul style="list-style-type: none"> • Container limits range from 2 to 8 bags per week • Exemptions from container limits • Use of bag tags and fees • Acceptable container size and weight • Materials not accepted at the curb • Large item collection
Recycling Collection	<ul style="list-style-type: none"> • Weekly vs. bi-weekly collection • Single vs. dual stream • Acceptable blue box materials • Sale of blue boxes including price
Leaf and Yard Waste Collection	<ul style="list-style-type: none"> • Curbside collection vs. drop-off • Frequency of curbside collection (no. of times per year) • Set out limits and restrictions

Service	Harmonization Opportunities
Landfill Sites	<ul style="list-style-type: none"> Operating hours vary IC&I waste acceptable at three (3) landfill sites. Residential waste only at others. Drop-off / tipping fees Acceptable materials
HHW & E-waste Collection	<ul style="list-style-type: none"> Frequency of events Location of events
Backyard Composting	<ul style="list-style-type: none"> Availability of backyard composters Fees for backyard composters
Public Education/ Customer Service	<ul style="list-style-type: none"> Tactics to generate awareness Communication methods One-call approach to customer service

2.7 Asset Inventory

Appendix E provides a listing of the tangible solid waste management assets held by each LM categorized by service component - waste collection, waste disposal, recycling collection and other diversion. The information was derived from each LM's PSAB-3150 TCA data, landfill monitoring reports to identify the number of monitoring wells and supplemented by discussions with the respective municipal staff to obtain any additional information on undocumented assets and plans for renewals replacements or new additions to the inventory. Reasonable assumptions were made where information gaps exist based on industry best practices regarding age and useful life. Table 2-9 summarizes the asset values by service component and LM. This does not include the value of existing approved landfill capacity.

Table 2-9: Current Assets - 2020 Value

Solid Waste Component	North Dundas	South Dundas	North Glengarry	South Glengarry	North Stormont	South Stormont	SDG Total	%
WASTE COLLECTION ASSETS	271,400	-	-	-	-	560,000	831,400	5%
WASTE DISPOSAL ASSETS	1,445,846	1,471,544	5,218,163	1,081,499	291,100	369,200	9,877,353	61%
RECYCLING COLLECTION ASSETS	242,477	-	-	-	168,000	280,000	690,477	4%
MRF & OTHER WASTE DIVERSION ASSETS	25,488	-	4,639,640	-	-	-	4,665,128	29%
Total	1,985,210	1,471,544	9,857,804	1,081,499	459,100	1,209,200	16,064,358	100%
Percentage of Assets by Municipality (%)	12%	9%	61%	7%	3%	8%	100%	

The total value of the current assets (excluding the value of landfill capacity) is approximately \$16.1 million. Approximately 61% is related to waste disposal and 29% to recycling processing and other diversion assets. The majority of the disposal assets are the monitoring wells and some buildings. The diversion assets are mostly the RARE MRF assets. There are also waste and recycling collection trucks which account for 9% of the total asset value. These include three (3) garbage trucks and three (3) recycling trucks. North Glengarry's assets account for 61% of the total value. This includes the RARE

equipment and machinery and a building at the landfill site. Appendix E gives a more detailed breakdown of the asset descriptions and values.

2.8 Existing Contracts

An inventory of the major contracts is included in Appendix F. The main services that are outsourced by the six (6) LMs are listed below.

- *Curbside Waste Collection* - four (4) contracts with different expiry dates. Some also include leaf and yard waste collection.
- *Curbside Recycling Collection* - three (3) contracts with different expiry dates. Some of these are included with waste collection as a single contract for both services.
- *Landfill Disposal at Private Landfills* - three (3) contracts with different expiry dates. Two (2) expire in 2021 (one in November 2021) and the other in May 2022.
- *Landfill Site Monitoring* - six (6) contracts that are awarded each year with potentially different consultants for each LM
- *Recycling Processing* - five (5) contracts four (4) of which are with the City of Cornwall and these are negotiated annually. The other contract is with a private facility on a month-to-month basis. In this case there is also another month-to-month contract with different service provider for delivery of recyclable materials from the LM's transfer location to the private MRF.

There are opportunities to rationalize some of these contracts to achieve economies of scale and perhaps better pricing.

2.9 Gross Operating Cost Analysis & Projections

This task involved the following activities for each LM:

- Reviewing the 2020 operating budgets to quantify annual costs and allocating the gross operating costs to the following solid waste components:
 - ✓ waste collection
 - ✓ recycling collection
 - ✓ waste disposal
 - ✓ recycling processing and other waste diversion costs
 - ✓ landfill closure and post closure care costs

These were further broken down into in-house and contracted costs as appropriate to identify any differences between the two (2) operational approaches. Landfill post closure care operating costs were estimated to the extent possible to 2044. These costs would be incurred for many years beyond landfill site closure. However, for the purposes of this study, costs were considered up to 2044 and not beyond. Therefore these costs are an underestimate of the true liability.

- Projecting operating costs for the study period (2020-2044) based on the 2020 budgets, changes to annual operating costs (e.g. due to switching from in-house to contracted waste collection services or vice versa, etc.) and annual inflationary increases of 2%. ***The costs related to recycling collection and processing were projected to December 31, 2025 which is the latest proposed date for the transition to producer responsibility. The assumption is that the***

municipalities will not be responsible for the blue box program costs beyond this date.

Similarly, LM responsibility for the Household Hazardous Waste (HHW) program costs would end in 2021.

Many of the municipalities provide solid waste operations as part of another department's functions (e.g. Public Works, Infrastructure Services or Environmental Services and share some of the costs with those non-solid waste functions). In these cases, the annual budgets were assumed to provide an accurate allocation of costs to solid waste. Table 2-10 summarizes the projected 2021 gross operating cost by component for each LM. The 2021 projected costs are presented instead of 2020 costs to account for operational changes that were made by some municipalities during 2020. Accordingly, 2021 would be more reflective of current operations and related costs compared to 2020. The total 2021 gross operating costs for the six (6) municipalities is estimated to be \$7.1 million. Approximately 25% is related to disposal and 28% to waste collection. Recycling collection processing and other diversion account for 44% of the costs. Appendix G provides the gross operating cost projections for the study period for each LM.

Table 2-10: 2021 Gross Operating Costs Estimates

Solid Waste Component	North Dundas	South Dundas	North Glengarry	South Glengarry	North Stormont	South Stormont	SDG Total	%
WASTE COLLECTION COSTS (INHOUSE)	271,459	-	-	-	-	399,809	671,268	
WASTE COLLECTION COSTS (CONTRACT)	-	326,786	261,621	502,565	178,883	-	1,269,855	28%
WASTE DISPOSAL COSTS (OWN LANDFILL)	209,308	362,983	239,160	272,821	-	167,356	1,251,628	
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	-	-	198,139	-	114,720	172,386	485,245	25%
RECYCLING COLLECTION COSTS (INHOUSE)	316,944	-	-	-	99,805	207,417	624,165	
RECYCLING COLLECTION COSTS (CONTRACT)	-	326,786	173,733	237,170	-	-	737,688	19%
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	127,592	202,276	791,885	270,637	136,742	264,257	1,793,389	25%
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	15,300	110,759	25,500	2,550	36,720	33,770	224,598	3%
Total	940,604	1,329,590	1,690,037	1,285,742	566,870	1,244,994	7,057,836	100%

2.10 Capital Cost Projections

The current and future gross capital cost projections were developed for each LM as follows:

- Reviewing the 2020 capital budgets and approved forecasts and allocating these costs into the solid waste components (same as the operating costs allocations);
- Estimating future capital costs (high level) related to landfill capacity expansions and landfill closure and post closure care as needed to complement existing available information;
- Developing 2020 asset replacement costs through a combination of inflating historical costs using the historical construction price indices or current market prices as available;
- Estimating the timing for asset replacement based on the life expectancies of each asset type and including these needs in the study projections
- Projecting capital costs for the study period (2020-2044) based on the above and annual increases of 3% to reflect the construction price index. The capital costs identified were assumed to be incurred in the year needed (i.e. without debt financing).

A limitation of the capital projections is that the capital forecasts and assets were not available to the same level of detail and consistency across the six (6) municipalities. Therefore, estimates were made to

the extent possible where specific costs were not available. Landfill post closure care requirements would extend for 50-years or more beyond landfill closure. Closure and post closure care costs are included in this study to 2044 and are an underestimate of the true costs.

Table 2-11 summarizes the projected 2021 gross capital cost by component for each LM. The total 2021 gross capital cost for the six (6) municipalities is approximately \$2.5 million. Most (98%) of the capital needs is for waste disposal. Appendix G also provides the gross capital cost projections including asset management needs for the study period for each LM.

Table 2-11: 2021 Gross Capital Costs Estimates

Solid Waste Component	North Dundas	South Dundas	North Glengarry	South Glengarry	North Stormont	South Stormont	SDG Total	%
WASTE COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	0%
WASTE DISPOSAL ASSETS/ PROJECTS	799,345	744,932	328,176	-	-	520,150	2,392,604	98%
RECYCLING COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	0%
OTHER WASTE DIVERSION ASSETS/ PROJECTS	-	-	-	-	-	-	-	0%
CLOSURE & POST CLOSURE CARE CAPITAL	-	-	49,131	-	-	-	49,131	2%
Total	799,345	744,932	377,307	-	-	520,150	2,441,735	100%

2.11 Full Costs of Waste Management Services

Based on the gross operating and capital cost projections developed as described the full cost of managing each component of the waste management system was established. All costs associated with the waste management operations, program changes, replacement and/ or rehabilitation of existing assets, landfill capacity expansions, customer growth were projected over the study period by component. These estimates identify the full cost of waste management services (i.e. annual revenue requirements for waste management each year over the study period). Appendix G provides the annual cost projections for the period 2020 to 2044.

Table 2-12: 2021 Gross Operating & Capital Costs Estimates

Solid Waste Component	North Dundas	South Dundas	North Glengarry	South Glengarry	North Stormont	South Stormont	SDG Total	%
WASTE COLLECTION COSTS (INHOUSE)	271,459	-	-	-	-	399,809	671,268	20%
WASTE COLLECTION COSTS (CONTRACT)	-	326,786	261,621	502,565	178,883	-	1,269,855	
WASTE DISPOSAL COSTS (OWN LANDFILL)	1,008,654	1,107,915	567,336	272,821	-	687,506	3,644,232	43%
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	-	-	198,139	-	114,720	172,386	485,245	
RECYCLING COLLECTION COSTS (INHOUSE)	316,944	-	-	-	99,805	207,417	624,165	14%
RECYCLING COLLECTION COSTS (CONTRACT)	-	326,786	173,733	237,170	-	-	737,688	
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	127,592	202,276	791,885	270,637	136,742	264,257	1,793,389	19%
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	15,300	110,759	74,631	2,550	36,720	33,770	273,729	3%
Total	1,739,949	2,074,522	2,067,344	1,285,742	566,870	1,765,144	9,499,570	100%

Table 2-12 summarizes the projected 2021 gross operating and capital cost by component for each LM. The total gross cost for the six (6) municipalities is estimated to be approximately \$9.5 million in 2021. Approximately 43% is related to waste disposal, 20% to waste collection and 33% to recycling collection and processing and other waste diversion. Landfill closure and post closure account for only 3%-4% of the estimated gross 2021 costs.

The Net Present Values (2021 NPV) of the costs to be incurred over the period 2021-2044 are presented in Table 2-13 and represent the full cost of service over the study period in 2021 dollars. This takes into account annual revenues and reserve amounts currently available to municipalities to offset the gross cost of service. The annual revenues were allocated to disposal and recycling as appropriate based on the 2020 budget information available from each LM. Therefore the 2021 NPVs shown are "net" of revenues and available reserves and represent the baseline "do nothing" costs for comparison with alternative collaborative options.

The total cost for SDG as a whole is estimated at approximately \$94.0 million (NPV 2021). The majority of the costs relate to waste collection (39%) and waste disposal (34%). The costs related to recycling are relatively low (12%) due to the proposed transition to producer responsibility for recycling by December 31, 2025 at the latest. Landfill closure and post closure care costs represent approximately 16%. It was assumed that South Glengarry would switch to a private sector landfill site when it's current municipally owned sites close (estimated at the end of 2025 and 2033) resulting in both in-house and contracted landfill disposal costs over the long-term.

Table 2-13: 2021 to 2044 Operating & Capital Costs (2021 NPV "Net")

Solid Waste Component	North Dundas	South Dundas	North Glengarry	South Glengarry	North Stormont	South Stormont	SDG Total	%
WASTE COLLECTION COSTS (INHOUSE)	5,608,873	-	-	-	-	7,443,427	13,052,300	
WASTE COLLECTION COSTS (CONTRACT)	-	6,072,156	4,872,704	9,358,088	3,332,044	-	23,634,991	39%
WASTE DISPOSAL COSTS (OWN LANDFILL)	5,238,965	5,042,905	7,329,248	1,372,618	-	1,087,880	20,071,616	
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	-	-	3,690,413	2,520,866	2,132,579	3,232,088	11,575,947	34%
RECYCLING COLLECTION COSTS (INHOUSE)	1,507,973	-	-	-	461,422	959,844	2,929,240	
RECYCLING COLLECTION COSTS (CONTRACT)	-	1,510,902	803,736	1,097,180	-	-	3,411,818	7%
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	(223,336)	672,819	2,221,313	1,119,168	41,526	601,670	4,433,161	5%
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	1,810,414	5,935,669	1,957,216	2,570,373	853,717	1,773,542	14,900,930	16%
Total	13,942,889	19,234,451	20,874,630	18,038,293	6,821,287	15,098,453	94,010,002	100%

3 Phase 2- Cost Analysis

This phase involved developing unit costs (i.e. cost per capita, cost per curbside stop and cost per tonne) as appropriate for each solid waste component. A review of the unit costs across the six (6) municipalities is intended to identify differences and/ or similarities in costs having regard for the major differences and similarities in service levels (e.g. weekly versus bi-weekly collection, etc.). It is also intended to identify areas with the potential for cost reductions and greater efficiency for consideration in developing collaborative options going forward. Appendix H provides the unit costs for each year over the study period.

3.1 Projected 2021 Unit Costs

The unit costs presented in this section were developed using the estimated 2021 cost of service and the respective units based on the projections of population, curbside stops and tonnes presented in Section 2.4 for each LM. Table 3-1 shows the waste collection unit costs per capita and per curbside stop. Costs range from \$62 to \$72 per curbside stop with the in-house collection at the lower and upper ends of the

range. Contracted services cost between \$67 and \$72 per curbside stop except for South Glengarry at \$84 per curbside stop. All municipalities provide a weekly waste collection service.

Table 3-1: 2021 Gross Waste Collection Unit Costs

Solid Waste Component	North Dundas	South Dundas	North Glengarry	South Glengarry	North Stormont	South Stormont
Waste Collection Costs per Capita						
WASTE COLLECTION COSTS (INHOUSE)	22	-	-	-	-	28
WASTE COLLECTION COSTS (CONTRACT)	-	28	25	36	24	-
Waste Collection Costs per Curbside Stop						
WASTE COLLECTION COSTS (INHOUSE)	62	-	-	-	-	71
WASTE COLLECTION COSTS (CONTRACT)	-	67	72	84	66	-
Waste Collection Level of Service	Weekly	Weekly	Weekly	Weekly	Weekly	Weekly

Table 3-2 shows the recycling collection unit costs per capita and per curbside stop. Weekly 2-stream collection costs are approximately \$67 to \$72 per curbside stop with North Glengarry's cost lower at \$48 per curbside stop. The cost of bi-weekly single stream collection is lower than weekly collection at \$37 to \$40 per curbside stop. Collection costs appear to be driven more by the level of service (weekly 2-stream vs. bi-weekly single stream) than by contracted versus in-house services.

Table 3-2: 2021 Gross Recycling Collection Unit Costs

Solid Waste Component	North Dundas	South Dundas	North Glengarry	South Glengarry	North Stormont	South Stormont
Recycling Collection Costs per Capita						
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	26	-	-	-	14	14
RECYCLING COLLECTION COSTS (CONTRACT)	-	28	16	17	-	-
Recycling Collection Costs per Curbside Stop						
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	72	-	-	-	37	37
RECYCLING COLLECTION COSTS (CONTRACT)	-	67	48	40	-	-
Recycling Collection Level of Service	Weekly 2-Stream	Weekly 2-Stream	Weekly 2-Stream	Bi-Weekly 1-Stream	Bi-Weekly 1-Stream	Bi-Weekly 1-Stream

Table 3-3 shows the gross waste disposal and waste diversion costs per tonne. The cost of waste disposal using private a sector landfill ranges between \$60 and \$87 per tonne. Disposal by three (3) municipalities at their respective in-house landfills is more costly at \$257 to \$515 per tonne. South Glengarry's cost is more consistent with the high end of contracted disposal cost at \$90 per tonne. The South Stormont in-house disposal cost is very high and skewed by a one-time capital cost of \$430,000 targeted for 2021.

Table 3-3: 2021 Gross Waste Disposal & Diversion Unit Costs

Solid Waste Component	North Dundas	South Dundas	North Glengarry ¹	South Glengarry ²	North Stormont	South Stormont ³
Waste Disposal Costs per Tonne						
WASTE DISPOSAL COSTS (OWN LANDFILL)	473	257	515	90	-	1,898
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	-	-	87	-	69	60
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	7	26	22	1	22	10
Recycling Processing & Diversion Costs per Tonne						
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	205	379	1,034	381	340	326
Recycling Processing Facility (MRF) Used	WMI	Cornwall	RARE	Cornwall	Cornwall	Cornwall

1. North Glengarry operates the RARE MRF

2. Landfill post closure costs begin later in the period hence a low cost in 2021

3. Own landfill cost includes a one time \$430,000 capital cost in 2021

Landfill closure and post closure care costs for three (3) of the municipalities range between \$22 and \$26 per tonne disposed. The costs to the other three (3) municipalities range from \$1 to \$7 per tonne. The 2021 cost do not fully capture the true closure and post closure care costs as some of these costs will be incurred in later years.

The waste diversion costs to those municipalities that use the Cornwall MRF range between \$326 and \$381 per tonne. The 2021 tipping fee at Cornwall's MRF is \$305 per tonne. The cost variations are due to the extent to which other diversion programs are provided (leaf & yard waste composting, scrap metal, etc.). North Dundas' cost of \$205 per tonne includes the additional cost to assemble the recyclable materials at its former MRF at the landfill site and ship to Brockville. North Glengarry's cost includes the full cost of managing and operating the RARE MRF. Their costs are offset by revenues from the sale of product and tipping fees from other municipalities outside of the SDG area.

3.2 NPV Unit Costs

Table 3-4 shows the unit costs for each solid waste component based on the 2021 NPV of the costs projected to be incurred between 2021 and 2044 inclusive. These reflect the full cost of service over the study period and are more representative of the long-term costs net of revenues and reserve funds currently available for use. The unit costs for recycling are to December 31, 2025.

Waste Collection Unit Costs

The waste collection unit costs per curbside stop range from \$73 to \$97 per curbside stop with the in-house collection at the lower end of the range at \$73 to \$77 per curbside stop.

Recycling Collection Unit Costs

The weekly 2-stream collection costs are approximately \$69 to \$74 per curbside stop with North Glengarry's cost lower at \$49 per curbside stop. The cost of bi-weekly single stream collection is lower at \$37 to \$41 per curbside stop. Recycling collection costs over the long term appear to be driven by the collection frequency and streams compared to contracted versus in-house services.

Table 3-4: 2021-2044 Unit Costs Based on NPV (Net)

Solid Waste Component	North Dundas	South Dundas	North Glengarry	South Glengarry	North Stormont	South Stormont
Waste Collection Costs per Capita						
WASTE COLLECTION COSTS (INHOUSE)	26	-	-	-	-	31
WASTE COLLECTION COSTS (CONTRACT)	-	33	30	42	29	-
Waste Collection Costs per Curbside Stop						
WASTE COLLECTION COSTS (INHOUSE)	73	-	-	-	-	77
WASTE COLLECTION COSTS (CONTRACT)	-	79	86	97	79	-
Recycling Collection Costs per Capita						
RECYCLING COLLECTION COSTS (INHOUSE)	26	-	-	-	14	15
RECYCLING COLLECTION COSTS (CONTRACT)	-	29	17	17	-	-
Recycling Collection Costs per Curbside Stop						
RECYCLING COLLECTION COSTS (INHOUSE)	74	-	-	-	38	37
RECYCLING COLLECTION COSTS (CONTRACT)	-	69	49	41	-	-
Waste Disposal Costs per Tonne						
WASTE DISPOSAL COSTS (OWN LANDFILL)	144	74	430	58	-	387
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	-	-	104	101	82	62
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	50	87	37	53	33	32
Recycling Processing & Diversion Costs per Tonne						
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	(78)	281	649	350	23	163

Waste Disposal Unit Costs

The cost of waste disposal using private a sector landfill ranges between \$62 and \$104 per tonne over the long-term. The in-house landfills are more costly with three (3) ranging between \$144 and \$430 per tonne. South Dundas' cost is more consistent with the lower end of contracted disposal cost at \$74 per tonne. South Glengarry's in-house disposal cost is estimated at \$58 per tonne over the period. However, it assumes that these costs would be shifted to contracted disposal costs beginning in 2026 resulting in a lower in-house disposal costs compared to the other LMs' in-house disposal costs.

Landfill closure and post closure care costs range between \$32 and \$87 per tonne disposed. These unit costs are more reflective of the true closure and post closure care costs compared to the 2021 unit costs. However, they do not fully represent the true landfill liability for closed sites as those costs would extend well beyond 2044 which is the last year of the study period for this review.

Waste Diversion Unit Costs

The waste diversion unit costs are based on the NPV of the costs from 2021 to December 31, 2025 net of available reserves and expected annual revenues. Therefore, for two municipalities (North Dundas and North Stormont) there is a unit revenue or relatively low unit cost. Otherwise, the cost per tonne ranges from \$163 to \$350 with North Glengarry higher at \$649 per tonne.

3.3 Preparing for Transition to Producer Responsibility

The overall purpose of the transition to producer responsibility is to bring accountability for the life cycle of packaging materials, consistency across the province in materials collected, benefit from economies of scale and improve efficiencies. The transition will occur between 2023 and 2025 inclusive to allow producers and municipalities sufficient time to prepare for and manage the transfer in an orderly fashion. This is intended to reduce the risks and costs to both sides and minimize disruption of the blue box services. Following transition the producers would be fully responsible for recycling under the RRCEA. The LMs would no longer be bound by O.Reg.101/94 which mandates municipalities to have curbside programs. However, the municipalities would need to decide on the future role they wish to play after the transition as they would be allowed to bid on collection and/ or processing services if they so wish.

The factors to be considered in addressing potential risks and identifying key steps to be taken by the LMs and/or SDG in preparation for the transition are noted below.

- Existing contractual obligations that the LMs may have their costs and the timing of the expiry of these contracts.
- Existing equipment and their potential for re-purposing or continued use in recycling. This would include consideration of the North Glengarry MRF.
- Consistency in the materials currently collected by each LM.
- The public education that would be necessary to advise residents of the changes due to transitioning from municipal to producer responsibility.
- The potential triggers for service disruption
- The risk of LMs giving up direct control over curbside collection and link with residents
- The possible criteria that producers may use to prioritize the municipalities to be transitioned. These may include:
 - ✓ Cost effectiveness and efficiencies
 - ✓ Geographical location and grouping of municipalities
 - ✓ Readiness to transfer (e.g. expiry of or ability to end existing contracts, decisions on future role and use of existing assets, preference of the LMs regarding timing of the transfer, etc.)
- ✓ The need for staff resources to facilitate the transition including liaison and coordination with the RPRA. Registration with the RPRA may be required if the LM or collaboration group plans to have a future role in the recycling service.
- ✓ The possible roles the LMs may have based on staff capacity and equipment availability and the need to make the RPRA and producers aware of these.

4 Next Steps

The next steps in the review process include the following.

- Obtain feedback from SDG and LMs on the information presented in this document and incorporate into the final report
- Obtain input from SDG and LMs on potential collaboration opportunities for further consideration and more in-depth analysis
- Develop a list of action items for transitioning to producer responsibility
- Phase 3 - Collaboration Opportunities
Based on the information developed in Phases 1 and 2 there are collaboration opportunities that would be fully developed and costs determined. These may include the following among others:
 - ✓ Unified public relations/ education/ communications particularly regarding transitioning to producer responsibility for recycling
 - ✓ Sharing of equipment and staff resources for waste collection to achieve economies of scale and coverage as needed in emergency/ back-up situations
 - ✓ Sharing of landfill capacity to provide convenient drop off locations to residents in all LMs, optimize remaining capacity and reduce disposal costs.
 - ✓ Develop a potential regional level of service with flexibility to accommodate specific additional services as may be desired by one or more LMs
 - ✓ Consideration of different collaboration structures including inter-municipal agreements, establishing a management board or transferring responsibility to SDG.The collaboration options and management structures would be developed and fully explored based on a set of "Guiding Principles" to guide the development and prioritization of the collaboration opportunities
- Phase 4- Implementation Strategy
 - ✓ Prepare the "Road Map" identifying the key activities, timing and roles and responsibilities
- Prepare Final Report & Presentation to Councils

Appendix A

Issues List

Issues	Relevant Information	Possible Resolution(s)
Collaboration		
How should the LMs work together - through agreements, a board of management or involve SDG	<ul style="list-style-type: none"> The Municipal Act allows the LMs to: <ul style="list-style-type: none"> - work together through agreements to share their resources - delegate to a board with representation from the participating municipalities - transfer one or more waste management components to SDG from one or more LMs provided there is a "triple majority" 	<ul style="list-style-type: none">
If a board of management is preferred which LM or would SDG act as agent to the board for all administrative and operational functions	<ul style="list-style-type: none"> The Municipal Act allows the LMs to have agreements regarding delegation to a board 	<ul style="list-style-type: none">
If SDG were to be involved, should all components of solid waste or only some be transferred to SDG?	<ul style="list-style-type: none"> LMs have the capacity to service own needs at the moment- will require additional resources and/or adjustments to current services to facilitate collaboration depending on the component. Waste management costs are high for the LMs and expected to increase 	<ul style="list-style-type: none">
Should closed landfill sites be transferred to SDG if the SDG were to take on waste management or should that responsibility remain with the respective LMs?	<ul style="list-style-type: none"> Landfill closure and post closure care costs for all 6 LMs are estimated to be at least \$15 million (in \$2021) over the next 25 years (i.e. a liability) This liability is currently under funded. 	<ul style="list-style-type: none">
The LMs have limited capacity to undertake the functions of waste management planning and public relations/ education. How should they best work together?	<ul style="list-style-type: none"> LMs have limited capacity/ staff to do proper planning and development of waste management programs e.g. reuse etc. going forward. The transition to producer responsibility will require proactive public education to build customer awareness of the change in responsibility and any adjustments to the program. The transition to producer responsibility will occur at the same time for the 6 LMs requiring coordination. 	<ul style="list-style-type: none">
Is sharing landfill capacity acceptable in principle?	<ul style="list-style-type: none"> There are currently 6 active landfill sites with 4 due to be at full capacity within 8 years. Initiatives are underway to expand capacity at two landfill sites at significant cost to the respective LMs? No scales at some landfill sites making it difficult to have true user pay system at these landfill sites Opportunity to reduce some landfill related costs or achieve economies of scale e.g. for annual monitoring 	<ul style="list-style-type: none">
What approvals would be necessary to expand service areas for landfill sites under collaboration options or transfer to SDG?	<ul style="list-style-type: none"> SDG allowed to expand the service area for the landfill sites to within its own boundaries should it assume jurisdiction for waste disposal. Only an administrative change to the licence. However, The MECP would likely ask that operational issues such as incremental traffic etc. be addressed. MECP approvals would be required if 2 or more municipalities to share a landfill site. Need to confirm the scope of the approvals with the MECP. 	<ul style="list-style-type: none">
Should residential drop off currently available in some municipalities be consolidated and be made	<ul style="list-style-type: none"> Opportunity to reduce costs 	<ul style="list-style-type: none">

Issues	Relevant Information	Possible Resolution(s)
available to residents from other municipalities	<ul style="list-style-type: none"> MECP approvals would be required if 2 or more municipalities to share a landfill site. Need to confirm the scope of the approvals with the MECP 	
Compensation/ Equity		
Should compensation for existing landfill capacity be established and applied if capacity is shared by 2 or more LMs through agreement?	<ul style="list-style-type: none"> The Municipal Act allows LM to work together through negotiated agreements. The matter of compensation would be at the participating LMs' discretion and negotiated accordingly 	<ul style="list-style-type: none">
How should compensation for existing landfill capacity be established and applied if SDG were to assume responsibility?	<ul style="list-style-type: none"> Regulation 815 of the Municipal Act indicates that compensation should be made by SDG to the LMs for the transfer of assets and by the LMs to SDG for any liabilities assumed. Identification and valuation of assets and liabilities to be transferred would be required e.g. trucks, equipment, buildings etc. Agreement between SGD and the LMs would be required. 	<ul style="list-style-type: none">
Are there other areas where compensation should apply?	<ul style="list-style-type: none"> 	<ul style="list-style-type: none">
Should waste management be transferred to SDG are there any assets that the LMs would prefer to keep for use in other areas e.g. trucks, etc.?	<ul style="list-style-type: none"> 2 municipalities provide in-house waste and recycling collection. 1 other municipality provides in-house recycling only Trucks bodies are typically designed for waste and recycling collection. However these can be removed and replaced with bodies suitable for other functions. 	<ul style="list-style-type: none">
Staffing		
Is there the staff capacity available to coordinate/ deliver services under a collaboration agreement between 2 or more LMs?	<ul style="list-style-type: none"> Current LM staffing levels are sufficient to service own needs 	<ul style="list-style-type: none">
If LMs decide to establish a board or transfer to SDG is there any staff currently involved in waste management that the respective LMs would prefer to retain for service in other areas?	<ul style="list-style-type: none"> There are currently 18.5 staff positions across the 6 LMs that are shared between waste management and other departments. 12 are non-union and 6.5 union. There are 16.7 positions with 100% waste management responsibilities. 16.2 are non-union and 0.5 union. SDG would be required to transfer in the dedicate solid waste staff from the LM should SDG assume waste management responsibility 	<ul style="list-style-type: none">
Recycling / Diversion		
What role, if any, do the municipalities wish to play in recycling after the transition to producer responsibility?	<ul style="list-style-type: none"> Producers may not support recycling collection from the IC&I sector LMs would no longer have the direct contact with its residents and control of recycling to address any impact on level of service LM would have to register with RPRA and become contractors to producers under a fee for service arrangement 	<ul style="list-style-type: none">
Is there a role for the RARE MRF after transition to producer responsibility?	<ul style="list-style-type: none"> RARE would require a capacity expansion and more staff to handle materials from all SDG municipalities RARE is aging and in need of work 	<ul style="list-style-type: none">

Issues	Relevant Information	Possible Resolution(s)
Should blue box collection be bi-weekly or weekly and single stream or dual stream?	<ul style="list-style-type: none">3 LMs have 2- stream weekly collection and 3 have single stream bi-weekly collectionProducers will become responsible from 2026 onward at the latest but will be required to maintain the going level of service at that time.	<ul style="list-style-type: none">
Should LMs participate in the organics collection (green bin) program with Cornwall?	<ul style="list-style-type: none">There is no regulatory or Provincial requirement for the LMs or SDG to provide curbside collection of organics because their respective populations and densities are below the threshold required by Provincial policy.Provincial policy does not preclude LMs and SDG from implementing a green bin curbside collection program for higher density areas if there is a desire to align with environmental stewardship and industry best practices. This would support the working relationship since the LMs / SDG may also wish to work with Cornwall on other aspects of waste management including waste disposalWaste diversion levels in the LMs are currently stagnant. An organics program would help to boost waste diversion and extend use of available landfill capacity but at a relatively high cost.	<ul style="list-style-type: none">
Should leaf and yard waste collection be included in the standard level of service or should this be at the discretion of each municipality	<ul style="list-style-type: none">LM s have different levels of service for leaf and yard waste - different number of days per year or drop off only at the landfill site (i.e. no curbside collection), etc.	<ul style="list-style-type: none">
Challenges		
There are no weigh scales at some of the landfill sites to accurately weigh vehicles and bill according to the tipping fees.	<ul style="list-style-type: none">Weigh scales are expensive and require maintenance and periodic calibration	<ul style="list-style-type: none">
Waste management costs are increasing	<ul style="list-style-type: none">high and increasing cost of service being experience by municipalities based on discussions with staffThere are multiple contracts for landfill site monitoring and lab testing that could perhaps be rationalized to achieve economies of scale and reduce costsHigh cost of truck maintenancelimited available of back up trucks in case of breakdowns, etc.	<ul style="list-style-type: none">
Diminishing landfill capacity - need to secure new capacity sooner while capacity is still available rather than later	<ul style="list-style-type: none">Closure of 4 landfill site within next 8 years (expansion applications in progress at significant costs at 2 landfill sites)	<ul style="list-style-type: none">
Increasing liability as landfill sites close – mostly unfunded	<ul style="list-style-type: none">Under PSAB 3280 municipalities are required to account for the liability resulting from closed landfill sites and their perpetual care and demonstrate how this might be fundedCurrently this liability is underfunded by municipalities	<ul style="list-style-type: none">

Appendix B

Staff Positions Roles and Responsibilities

North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
Department Responsible for Solid Waste Services					
<ul style="list-style-type: none"> Public Works Waste management is blended with other public works functions the municipal landfill operations are overseen by the Environmental Services Manager with dedicated landfill staff The recycling facility - RARE is a stand-alone solid waste facility overseen by the General Manager, RARE & Solid Waste with dedicated facility staff. The Administrative Clerk also does the Water QMS Internal Audits 	<ul style="list-style-type: none"> Infrastructure Services All solid waste functions done by Infrastructure services staff are part of the regular routine integrated with other roads and infrastructure functions/ duties. This seems to work well. Roads division does the transfer of materials from the drop-off area at the landfill site to the face using rented equipment Roads staff also operates the compactor at the landfill face 	<ul style="list-style-type: none"> Waste Management Only municipality with a stand-alone solid waste management department All staff 100% dedicated to waste management under the Director of Waste Management Lead-hand (1) coordinates waste and recycling collection and landfill operations Curbside recycling material transferred to roll off bins at the former MRF located at the landfill site, for transfer to a contracted MRF by a private hauler. In-house landfill operations Minor equipment maintenance done by staff Major equipment maintenance done by Town's garage staff 	<ul style="list-style-type: none"> Environmental Services This department also responsible for drainage and parks and recreation Waste management is blended with other environmental services functions Director Environmental Services coordinates the recycling and waste collection contract Coordinate the L&Y waste composting operations at Morrisburg and Iroquois Staff operate the drop off activities and compaction at the landfill site 	<ul style="list-style-type: none"> Public Works Waste management is blended with other public works functions The Public Works Superintendent oversees solid waste services and handles all customer issues. Recycling collection is done by public works staff 	<ul style="list-style-type: none"> Public Works Waste management is blended with other public works functions Waste and recycling collection by staff Public Works Coordinator handles all customer queries and contract for disposal Public works staff operate grader that buries waste delivered to landfill site by residents Other non-solid waste staff would cover on regular staff days off
Staff with Shared Roles Between Solid Waste and Other Non-Solid Waste Functions					
<ul style="list-style-type: none"> Public Works Director (1) Environmental Services Manager (1) ✓ Responsible for Landfill Site operations Administrative Assistant (1) ✓ Handles public enquiries/calls including those related to solid waste. However this is minimal as most calls are handled at RARE Public Works Equipment Operators (2) - Union Position 	<ul style="list-style-type: none"> General Manager Infrastructure (1) Roads Manager (1) – Oversees landfill site operations Compactor Operator (1) Outside staff is unionized (CUPE) 	<ul style="list-style-type: none"> All staff dedicated to solid waste management 	<ul style="list-style-type: none"> Director of Environmental Services (1) ✓ Responsible for management of environmental infrastructure including parks, waste management facilities, and municipal drains. <u>Waste Management</u> ✓ Develop and implement a sustainable business plan for the municipality's waste management assets including the landfill ✓ Assist in the development and monitoring of a sustainable reserve 	<ul style="list-style-type: none"> Public Works Superintendent (1) Recycling Collector (0.5) – Public Works staff 	<ul style="list-style-type: none"> Director of Public Works (1) ✓ Oversee the operation and maintenance of the Town's water system, roads, storm water management systems, streetlights, equipment and machinery. ✓ Participate with CAO in strategic planning and member of Senior Management Team ✓ Provide support to CAO in staff relations and promoting health and safety ✓ Prepare and submit annual business plan and operating and capital budgets

North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
<ul style="list-style-type: none"> ✓ Compactor operation ✓ Waste transfer to landfill face Other public works functions 			<ul style="list-style-type: none"> for the landfill’s operational and capital requirements ✓ Assist in the development of a Regional Waste Management plan that considers the efficiencies of handling all waste regionally with the United Counties of Stormont, Dundas, and Glengarry. ✓ Prepare Provincially mandated annual reports for disposal and diversion ✓ Work closely with Provincial agencies to ensure compliance with environmental regulations. ✓ Read and interpret environmental monitoring information and determine appropriate actions to control potential hazards as required. ✓ Develop and implement techniques for disposing of waste in sanitary landfills that provide human health and environmental protection while maximizing airspace utilization and complying with regulatory requirements associated with gas and leachate collection and treatment. ✓ Recommend and enforce techniques for applying cover material to waste to reduce leachate generation, odours, vermin, and eliminate wind-blown litter. ✓ Oversee and direct employees on diversion related programming at the landfill such as removal of Freon from appliances, tire storage and processing, handling of yard trimmings and composting, recovered materials storage and 		<ul style="list-style-type: none"> ✓ Review and approve contracts and change orders ✓ Lead the management of capital projects ✓ Develop and recommend new or improved policies for Public Works ✓ Provide oral presentations and reports to Council and other stakeholders from the Public Works Department ✓ Participate in the corporate-wide program and promote the services provided by the Public Works Department ✓ Develop and maintain contact network with peers in other municipalities and industry ✓ Represent the department on all business related matters ✓ Identify and track best practices and trends ✓ Review and approve operations and maintenance procedures and standards and specifications ✓ Undertake regular inspections and implement QA/QC ✓ Monitor operating performance make adjustments as needed and provide periodic reports to CAO ✓ Implement preventative maintenance and Integrate life cycle management into the Town's Asset Management Program ✓ Monitor legislative and regulatory requirements and monitor Town's department's compliance • Administrative Coordinator, Public Works (1) ✓ Administrative and technical support to Public Works under direction of Director ✓ Coordinate appointments and

North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
			<p>processing, electronics, and other diversion activities.</p> <ul style="list-style-type: none">✓ Develop and implement a public education campaign which promotes reduction, reuse and recycling of waste and highlights the environmental benefits of participating in the waste diversion programs available.✓ Develop procurement documents (tenders, RFP, RFQ) that ensure high levels of customer satisfaction for curbside collection of garbage and recycling.✓ Liaise with contractors as required on the level of service, customer satisfaction, and anticipated changes to service due to legislation or Council direction.✓ Participate in stakeholder discussions regarding the municipal blue box		<p>meetings for the department including prepare and distribute minutes</p> <ul style="list-style-type: none">✓ Project management support to Director including maintaining the project tracking system✓ Process and route incoming communications & customer queries✓ Assists with the development and distribution of Department communications.✓ Maintain water and wastewater customer accounts and process billing✓ Maintain and update meter supplies and inventory & coordinate meter reading✓ Update and maintain employee training files for the Department.✓ Prepare and submit routine and special reports✓ Prepare Department purchasing documents✓ Conduct research as required✓ Maintain the records management (hard copy and electronic) and archiving systems for the Directors,✓ Perform other administrative support duties and tasks✓ Support and assist other employees as appropriate• Public Works Supervisor (1)✓• Public Works Coordinator (1)✓

North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
					<p><i>Equipment Operator/ Truck Driver/ Labourer (3)</i></p> <ul style="list-style-type: none">✓ Assist in all public works operations.✓ Daily collection and transportation of curbside waste and recycling materials.✓ Assist in the repair, construction and maintenance of municipal roads, equipment, property and other assets.✓ Operate trucks utilized by the public works department in a safe, effective and efficient manner to maintain township roads and properties;✓ Operate heavy construction equipment utilized by the public works department; equipment may be owned, leased or rented by the Town;✓ Repair and maintain water and wastewater infrastructure;✓ Complete other duties as required by the Director of Public Works or Supervisor. <p><i>Landfill Attendant (Part-time) (0.5)</i></p> <ul style="list-style-type: none">✓ General duties at Landfill site including load inspections and directing customers

North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
Staff with 100% Solid Waste Management Roles					
<p>General Manager, R.A.R.E. & Solid Waste (1) - 35hr/ week</p> <ul style="list-style-type: none"> ✓ Reports to the Township's senior management ✓ Responsible for all aspect of the MRF operations including regulatory compliance, public education, materials marketing, grant applications ✓ Administration of the solid waste collection contract(s) ✓ Administration of agreements with other municipalities under contract to the recycling plant <p>Administrative Clerk (1) 35 hrs/ week</p> <ul style="list-style-type: none"> ✓ Reports to the GM RARE ✓ Maintain all incoming materials production and sales records ✓ Procure weekly quotes from commodity customers ✓ Handles all customer queries ✓ All bookkeeping duties including shipping bills and revenue reconciliation ✓ Help organize special events e.g. HHW days etc. ✓ Prepare all reports as needed. <p><u>Non-Solid Waste Responsibilities</u></p> <ul style="list-style-type: none"> ✓ Responsibility for the QMS Internal Audit Procedure for the Waterworks Department <p>Operations Supervisor, R.A.R.E. (1) - 40hrs/week.</p> <ul style="list-style-type: none"> ✓ Reports to the GM RARE 	<ul style="list-style-type: none"> • No dedicated Solid Waste Division or staff 	<p>Director of Waste Management (1)</p> <ul style="list-style-type: none"> ✓ Reports to the CAO ✓ Ensure compliance with the rules and regulations of the Ministry of Environment Conservation and Parks (MECP) ✓ Ensure all municipal programs goals objectives and policies are implemented ✓ Ensure all waste management capital projects are designed in accordance with professional engineering standards ✓ Work with the Waste Diversion Organization of Ontario to obtain grants and other available funding for waste reduction programs ✓ Attend Council meetings and provide regular reports and information o pertinent matters ✓ Manage day to day operations of all waste management facilities including scheduling of employees and related payroll issues ✓ Negotiate contracted services and oversee day to day operations ✓ Responsible for all facility and equipment maintenance ✓ Ensure appropriate record keeping ✓ Provide compliance reports as required ✓ Act as liaison with MECP ✓ Provide support to and liaise with CAO and other departments as needed 	<p>Landfill compactor operator (1)</p> <ul style="list-style-type: none"> ✓ Operate the compactor at the landfill site <p>Part-time landfill site attendant (0.5) - Operates compactor as necessary</p> <ul style="list-style-type: none"> ✓ Conduct load inspections as per Waste Screening Protocol ✓ Determine appropriate disposal fees in accordance with Rate Schedule, collect fees and direct customer to appropriate area of disposal site. ✓ Answer customer questions related to policies and regulations governing landfill ✓ Compact waste using Cat 816F Compactor ✓ Oversee contractors completing work on-site ✓ Ensure that the waste remains in the identified zones and meets requirements set out in the sites ECA ✓ Other duties as assigned 	<ul style="list-style-type: none"> • No dedicated Solid Waste Division or staff 	<p>No dedicated Solid Waste Division or staff</p>

North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
<div>✓ Ensure that the production line is in full working order and prepare the final product for shipment.</div> <div>✓ Create and implement a maintenance plan and maintain detailed records on each piece of facility equipment.</div> <div>✓ Responsible for the labour of the equipment operators in all the work areas in and out of the plant.</div> <div>✓ All training</div> <div>Production Supervisor (1) - 40 hrs/ week.</div> <div>✓ Reports to the GM RARE</div> <div>✓ Supervise overall production of the material sorting lines, including direction and coaching of the staff</div> <div>✓ Ensure the continuous operation of the mechanical equipment.</div> <div>✓ Responsible for the labour and production of the sorting staff at all work stations: pre-sort, Mezzanine, back belt</div> <div>✓ Production planning and reports</div> <div>✓ Participate in or help organize Township events such as MSHW (Hazardous waste Day), etc.</div> <div>MRF Equipment Operator (1) - 40 hrs/week</div> <div>✓ Reports to Operations Supervisor</div> <div>✓ Move recycling material using the skid steer loaders, load vans and containers.</div> <div>✓ Safely operate the balers and keep records of baled material.</div> <div>✓ Work as a recycling sorter as needed.</div> <div>✓ Maintain accurate records of the</div>		<div>✓ Prepare and monitor waste management budget and approve expenditures and tenders according to purchasing policy</div> <div>✓ Member of Management Team to meet regularly to share information on daily operations and long range planning</div> <div>✓ Prepare all motions related to waste management for approval by Council</div> <div>✓ Work with Management Team to draft annual budget and new or amended personnel policies for Council consideration</div> <div>✓ Communicate with public, media, boards and agencies on waste management issues</div> <div>✓ Develop policies procedures and systems as they related to waste management</div> <div>✓ other duties as assigned</div> <div>Lead-hand (1)</div> <div>✓ Perform the duties of the Director of Waste Management in his/her absence.</div> <div>✓ Supervision and training of full and part-time employees</div> <div>✓ Assist with collection and sorting of curbside recycling.</div> <div>✓ Assist with truck and equipment maintenance including pre-trip inspections which includes reporting issues to Township mechanic.</div> <div>✓ Assist in the safe operation of specialized equipment.</div> <div>✓ Responsible for handling and shipping of recyclables.</div> <div>✓ Assist with the handling, sorting,</div>			

North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
<p>material loaded on vans</p> <p>✓ Assist with set up of events such as MHSW (Hazardous Waste Day), Electronics Waste Depot, or similar.</p> <p>MRF Recycling Sorter (3.5) - 3 x 40hrs/ week and 1 x 17.5 hrs /week</p> <p>✓ Reports to Production Supervisor</p> <p>✓ Manually capture recyclable material (plastic, metal cans, paper, cardboard, and aluminum cans) from household blue box recycling and sort them into the correct chute or barrel.</p> <p>✓ Work in front of a conveyor belt and pick out the type of material needed at his/her workstation. Toss the items into a chute or a barrel. Regularly lift and empty sorting barrels.</p> <p>✓ Rotate to all workstations, including the sorting room (mezzanine), the pre-sort area, and occasionally from the tipping area.</p> <p>✓ Provide labour at, or may be required to help set up, Township events such as MHSW, etc.</p> <p>Janitor at RARE (0.2) - 8 hrs/week</p> <p>✓ Overall facility clean-up.</p> <p>Landfill Site Attendant (0.5 contract) - Union Position</p> <p>✓ General duties at Landfill site including load inspections and directing customers</p>		<p>storing and shipping of household hazardous waste.</p> <p>✓ Assist with collecting tipping fees and issuing receipts.</p> <p>✓ Responsible for snow removal at facility in winter months.</p> <p>✓ Responsible for the Opening and Closing of Facility on a daily basis.</p> <p>✓ Responsible for promoting and ensuring good communication with staff and the Director of Waste Management.</p> <p>✓ Promote a positive, professional image to the public.</p> <p>✓ Maintain department records as assigned.</p> <p>✓ Understand health and safety requirements, emergency procedures and Township policies with the responsibility to promote to the staff and to ensure compliance.</p> <p>✓ Other duties as assigned.</p> <p>Waste & Recycling Truck Driver/ Labourer (2)</p> <p>✓ Engage in a variety of indoor and outdoor tasks as it relates to the day to day operation of the Township of North Dundas Waste Management Facilities and associated curb-side pick-up.</p> <p>✓ Responsible for pick-up and sorting of curbside recycling.</p> <p>✓ Responsible for truck and equipment maintenance including pre-trip inspections.</p> <p>✓ Responsible for the safe operation of specialized equipment.</p> <p>✓ Responsible for handling, sorting, baling and shipping of recyclables.</p> <p>✓ Responsible for handling, sorting, storing and shipping of household</p>			

North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
		<div>hazardous waste.</div> <div>✓ Responsible for collecting tipping fees and issuing receipts.</div> <div>✓ Promote a positive, professional image to the public.</div> <div>✓ Some weekend work required</div> <div>✓ Other duties as assigned.</div> <div>Landfill Attendant (1)</div> <div>✓ General duties at Landfill site including load inspections and directing customers</div> <div>Landfill Compactor Operator (1)</div> <div>✓ Operates the compactor at the landfill site</div> <div>Part-Time Truck Driver /Floater(0.5)</div> <div>✓ Responsible for pick-up and sorting of curbside recycling.</div> <div>✓ Responsible for handling, sorting and baling of recyclables</div> <div>✓ Responsible for the safe operation of specialized equipment.</div> <div>✓ Promote a positive, professional image in public.</div>			
Number of Solid Waste Positions (FTEs)					
<div>• Number of Staff with Shared Roles = 5. All non-union</div> <div>Union = 2; Non-union = 3</div> <div>• 100% Solid Waste Staff = 8.7 FTEs</div> <div>Union = 0.5 Non-union = 8.2</div>	<div>• Number of Staff with Shared Roles = 3.</div> <div>Union = 1; Non-union = 2</div>	<div>• All staff 100% solid waste roles = 6.5 all non-union</div>	<div>• Number of Staff with Shared Roles = 1 non-union</div> <div>• 100% Solid Waste Staff = 1.5 FTEs both non-union</div>	<div>• Number of Staff with Shared Roles = 2 both non-union</div> <div>• 100% Solid Waste Staff = 0</div>	<div>• Number of Staff with Shared Roles = 7.5. All non-union</div> <div>Union = 4; Non-union = 3.5</div> <div>• 100% Solid Waste Staff = 0</div>
Anticipated Retirements in Next 5 Years					
<div>•</div>	<div>•</div>	<div>•</div>	<div>•</div>	<div>•</div>	<div>• Possibly 2 staff</div>

Appendix C

2020-2044 Population Curbside Stops and Tonnage Projections

United Counties of SDG
Regional Waste Management – A Roadmap to Collaboration
APPENDIX C: 2020-2044: POPULATION CURBSIDE STOPS TONNAGE PROJECTIONS

Municipality	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
North Dundas																	
Residential Population	12,152	12,410	12,666	12,923	13,179	13,435	13,542	13,649	13,756	13,862	13,969	14,075	14,181	14,287	14,392	14,498	14,603
Curbside Stops	4,300	4,403	4,507	4,610	4,714	4,817	4,860	4,904	4,947	4,991	5,034	5,077	5,121	5,164	5,208	5,251	5,294
Waste Disposed at Municipal Landfill Site(Tonnes)	2,087	2,131	2,175	2,219	2,263	2,307	2,326	2,344	2,362	2,381	2,399	2,417	2,435	2,454	2,472	2,490	2,508
Waste Disposed at Private Landfill Site (Tonnes)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Diverted (Tonnes)	609	622	635	648	660	673	679	684	689	695	700	705	711	716	721	727	732
South Dundas																	
Residential Population	11,450	11,519	11,578	11,638	11,697	11,756	11,816	11,868	11,920	11,971	12,023	12,075	12,099	12,124	12,148	12,172	12,196
Curbside Stops	4,830	4,859	4,884	4,909	4,934	4,959	4,984	5,006	5,028	5,050	5,072	5,094	5,104	5,115	5,125	5,135	5,146
Waste Disposed at Municipal Landfill Site(Tonnes)	4,284	4,310	4,332	4,354	4,376	4,398	4,421	4,440	4,460	4,479	4,498	4,518	4,527	4,536	4,545	4,554	4,563
Waste Disposed at Private Landfill Site (Tonnes)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Diverted (Tonnes)	530	533	536	539	541	544	547	549	552	554	557	559	560	561	562	563	565
North Glengarry																	
Residential Population	10,595	10,611	10,628	10,644	10,661	10,677	10,694	10,710	10,727	10,743	10,760	10,776	10,793	10,809	10,826	10,842	10,859
Curbside Stops	3,650	3,657	3,664	3,671	3,678	3,685	3,692	3,699	3,706	3,713	3,720	3,727	3,734	3,741	3,748	3,755	3,762
Waste Disposed at Municipal Landfill Site(Tonnes)	1,100	1,102	1,103	1,105	1,107	1,109	1,110	1,112	1,114	1,115	1,117	1,119	1,121	1,122	1,124	1,126	1,127
Waste Disposed at Private Landfill Site (Tonnes)	2,284	2,288	2,291	2,295	2,298	2,302	2,305	2,309	2,313	2,316	2,320	2,323	2,327	2,330	2,334	2,337	2,341
Waste Diverted (Tonnes)	765	766	767	769	770	771	772	773	775	776	777	778	779	781	782	783	784
South Glengarry																	
Residential Population	13,879	13,962	14,044	14,127	14,209	14,292	14,374	14,456	14,538	14,620	14,702	14,784	14,865	14,946	15,028	15,109	15,190
Curbside Stops	5,965	5,998	6,031	6,064	6,097	6,130	6,163	6,196	6,229	6,262	6,295	6,328	6,361	6,394	6,427	6,460	6,493
Waste Disposed at Municipal Landfill Site(Tonnes)	3,000	3,018	3,036	3,054	3,071	3,089	1,802	1,812	1,823	1,833	1,843	1,853	1,864	1,874	-	-	-
Waste Disposed at Private Landfill Site (Tonnes)	-	-	-	-	-	-	1,305	1,312	1,320	1,327	1,335	1,342	1,350	1,357	3,248	3,266	3,283
Waste Diverted (Tonnes)	706	710	714	719	723	727	731	735	740	744	748	752	756	760	764	769	773
North Stormont																	
Residential Population	7,347	7,378	7,403	7,428	7,453	7,478	7,502	7,523	7,545	7,566	7,587	7,608	7,617	7,626	7,636	7,645	7,654
Curbside Stops	2,700	2,712	2,721	2,730	2,740	2,749	2,759	2,767	2,775	2,783	2,791	2,799	2,802	2,806	2,809	2,813	2,817
Waste Disposed at Municipal Landfill Site(Tonnes)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Disposed at Private Landfill Site (Tonnes)	1,666	1,673	1,679	1,684	1,690	1,696	1,701	1,706	1,711	1,716	1,720	1,725	1,727	1,729	1,731	1,734	1,736
Waste Diverted (Tonnes)	400	402	403	404	406	407	408	410	411	412	413	414	415	415	416	416	417
South Stormont																	
Residential Population	14,140	14,310	14,479	14,649	14,819	14,989	15,158	15,327	15,496	15,665	15,835	16,002	16,170	16,338	16,506	16,674	16,840
Curbside Stops	5,602	5,668	5,734	5,800	5,866	5,932	5,998	6,064	6,130	6,196	6,262	6,328	6,394	6,460	6,526	6,592	6,658
Waste Disposed at Municipal Landfill Site(Tonnes)	358	362	367	371	375	380	384	388	392	397	-	-	-	-	-	-	-
Waste Disposed at Private Landfill Site (Tonnes)	2,853	2,887	2,922	2,956	2,990	3,024	3,058	3,093	3,127	3,161	3,596	3,634	3,672	3,710	3,748	3,786	3,824
Waste Diverted (Tonnes)	800	810	819	829	838	848	858	867	877	886	896	905	915	924	934	943	953

United Counties of SDG
Regional Waste Management – A Roadmap to Collaboration
APPENDIX C: 2020-2044: POPULATION CURBSIDE STOPS TONNAGE PROJECTIONS

Municipality	2037	2038	2039	2040	2041	2042	2043	2044
North Dundas								
Residential Population	14,707	14,812	14,916	15,021	15,125	15,228	15,332	15,435
Curbside Stops	5,338	5,381	5,425	5,468	5,511	5,555	5,598	5,642
Waste Disposed at Municipal Landfill Site(Tonnes)	2,526	2,544	2,562	2,580	2,597	2,615	2,633	2,651
Waste Disposed at Private Landfill Site (Tonnes)	-	-	-	-	-	-	-	-
Waste Diverted (Tonnes)	737	742	748	753	758	763	768	774
South Dundas								
Residential Population	12,220	12,245	12,269	12,293	12,317	12,341	12,366	12,390
Curbside Stops	5,156	5,167	5,177	5,188	5,198	5,209	5,219	5,230
Waste Disposed at Municipal Landfill Site(Tonnes)	4,572	4,581	4,590	4,599	4,608	4,617	4,626	4,635
Waste Disposed at Private Landfill Site (Tonnes)	-	-	-	-	-	-	-	-
Waste Diverted (Tonnes)	566	567	568	569	570	571	572	573
North Glengarry								
Residential Population	10,876	10,893	10,909	10,926	10,943	10,960	10,977	10,993
Curbside Stops	3,769	3,776	3,783	3,790	3,797	3,804	3,811	3,818
Waste Disposed at Municipal Landfill Site(Tonnes)	1,129	1,131	1,133	1,134	1,136	1,138	1,140	1,141
Waste Disposed at Private Landfill Site (Tonnes)	2,345	2,348	2,352	2,355	2,359	2,363	2,366	2,370
Waste Diverted (Tonnes)	785	787	788	789	790	791	793	794
South Glengarry								
Residential Population	15,270	15,351	15,431	15,512	15,592	15,672	15,751	15,831
Curbside Stops	6,526	6,559	6,592	6,625	6,658	6,691	6,724	6,757
Waste Disposed at Municipal Landfill Site(Tonnes)	-	-	-	-	-	-	-	-
Waste Disposed at Private Landfill Site (Tonnes)	3,301	3,318	3,335	3,353	3,370	3,387	3,405	3,422
Waste Diverted (Tonnes)	777	781	785	789	793	797	801	805
North Stormont								
Residential Population	7,664	7,673	7,682	7,692	7,701	7,710	7,720	7,729
Curbside Stops	2,820	2,824	2,827	2,831	2,835	2,838	2,842	2,846
Waste Disposed at Municipal Landfill Site(Tonnes)	-	-	-	-	-	-	-	-
Waste Disposed at Private Landfill Site (Tonnes)	1,738	1,740	1,742	1,744	1,746	1,748	1,751	1,753
Waste Diverted (Tonnes)	417	418	418	419	419	420	420	421
South Stormont								
Residential Population	17,006	17,172	17,339	17,505	17,671	17,837	18,003	18,170
Curbside Stops	6,724	6,790	6,856	6,922	6,988	7,054	7,120	7,186
Waste Disposed at Municipal Landfill Site(Tonnes)	-	-	-	-	-	-	-	-
Waste Disposed at Private Landfill Site (Tonnes)	3,862	3,900	3,937	3,975	4,013	4,051	4,088	4,126
Waste Diverted (Tonnes)	962	972	981	990	1,000	1,009	1,019	1,028

Appendix D

Current Levels of Service

APPENDIX D: CURRENT LEVEL OF SERVICE (DRAFT MARCH 12 2021)

Item	North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
Curbside Waste Collection						
Collection Frequency	<ul style="list-style-type: none"> Weekly No holiday collection – shifted to 1 day before or after holiday Earth day/ Pitch In week (in April) 	<ul style="list-style-type: none"> Weekly Large items, including furniture, mattresses, box springs, plastic lawn furniture, toilets, and carpeting ONLY collected during Large Item Pick-Up day in May. NOT be collected during weekly curbside collection. 	<ul style="list-style-type: none"> Weekly 	<ul style="list-style-type: none"> Weekly Christmas collection deferred by 1 day No campgrounds will be collected under new by-law approved for implementation in May 2021 	<ul style="list-style-type: none"> Weekly 	<ul style="list-style-type: none"> Weekly (Tuesday to Friday)
Waste Collection Set-out Time (Based on By-law)	<ul style="list-style-type: none"> Set out by 6:00 a.m. on collection day 	<ul style="list-style-type: none"> Set out by 6:00 a.m. on collection day 	<ul style="list-style-type: none"> Not specified 	<ul style="list-style-type: none"> Set out by 7:00 a.m. on collection day, but no earlier than 6:00 p.m. the previous day 	<ul style="list-style-type: none"> Set out by 7:00 a.m. on collection day, but no earlier than 7:00 p.m. the previous day 	<ul style="list-style-type: none"> Set out by 7:00 a.m. on collection day, but no earlier than 7:00 p.m. the previous day
Container Limit (Based on By-laws)	<ul style="list-style-type: none"> 2 Containers/ bags – Max. weight 23 kg (or 50lbs) Tags required for extra bags/ containers Exemptions from limits: <ul style="list-style-type: none"> -Families with special needs (medical) -Special events Bags must be placed in a covered container 	<ul style="list-style-type: none"> 8 Containers/ bags 	<ul style="list-style-type: none"> Residential - 2 Containers/ Bags Commercial – 6 Bags/ Containers Farm - 4 Bags / Containers No bag tags. Extra bags left at curb or collected at collector's discretion depending on the size and weight (e.g. if it is a small grocery bag) Excess IC&I waste is collected by private collector under separate contracts with individual properties 	<ul style="list-style-type: none"> Residential & Businesses - 2 Containers/ Bags Farm - 4 containers - must register with Township annually Additional bags (must be purchased from the Township are required for set out exceeding 2 containers/bags) Households may apply for extension of limits (up to a maximum of 26 additional bags per year) through annual completion of a Home Healthcare Waste Application - for diapers/incontinence products No issues from public except that current contractor uses older trucks so collection is sometimes delayed 	<ul style="list-style-type: none"> Residential - 2 bags per unit Commercial, agricultural, and industrial - 10 bags per occupied address Tags required for extra bags/containers Residents may apply for a conditional extra bag pick up in the following situations: <ul style="list-style-type: none"> - Someone who lives in the home has a medical condition that requires them to set out more waste - Residents have been away for an extended period of time New residents of the Township who have excess waste left by the previous home owner may, with the approval of the Public Works Superintendent, be granted 	<ul style="list-style-type: none"> Residential -2 containers/bundles per dwelling Commercial, agricultural, and industrial - 6 containers/bundles per address Tags required for extra bags/containers

Item	North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
					an extra landfill pass	
Tag Fee & Availability	<ul style="list-style-type: none">• Purchase tags for \$3.00 each at: R.A.R.E. or Municipal Office	<ul style="list-style-type: none">• No Tag system	<ul style="list-style-type: none">• No Tag system	<ul style="list-style-type: none">• Purchase tags for \$1.25 each at: South Dundas Municipal Centre (Morrisburg) Mustard’s Variety (Iroquois) Brinston General Store (Brinston) SDG County Library- Morrisburg Branch, Iroquois Branch and Williamsburg Branch• 	<ul style="list-style-type: none">• 	<ul style="list-style-type: none">• Purchase tags for \$1.50 each at: Ingleside - Foodland Long Sault - Town Hall St. Andrews West - Crossroads Convenience
Container Size & Weight (Based on By-laws)	<ul style="list-style-type: none">• Maximum size of garbage containers is 80 cm high by 50 cm (width or diameter)• Maximum size of garbage bags is 80 cm high by 65 cm wide• Bags must be placed in a covered container• Max. weight 23 kg (or 50lbs)	<ul style="list-style-type: none">• Container with capacity not larger than 30 gallons, not higher than 71 cm (28”), and diameter no bigger than 45.7 cm (18”) with watertight lid and 2 handles• Plastic bag with capacity not more than 0.09 cubic metres and made from a minimum of 1 ½ mil. gauge material that can hold 27 kg (60 lb) of material without tearing	<ul style="list-style-type: none">• Container/bags must have a maximum width of 66 cm (26”) and maximum height of 91 cm (36”), and not exceed 22.5 kg (50 lb) when full (no 45 gallon drums accepted)	<ul style="list-style-type: none">• Set out in plastic bags not exceeding 0.08 cubic metres and strong enough (not less than 1-1/2 mil. gauge material) to hold 23 kg of material without tearing• Households may apply for extension of limits (up to a maximum of 26 additional bags per year) through annual completion of a Home Healthcare Waste Application - for diapers/incontinence products	<ul style="list-style-type: none">• Garbage bags must be between 60 cm x 90 cm (24 in x 36 in) and 106 cm x 120 cm (42 in x 48 in), and weigh 50 lb. maximum.• Any receptacle that is already broken or that breaks while being lifted will not be collected.	<ul style="list-style-type: none">• Container must be waterproof, durable, rust resistant, non-absorbent with watertight cover and two handles. Container may not exceed 22 kg (50 lb.) when full• Capacity of container may not exceed 82 L (22 gallons) and must be specifically designed for garbage
Unacceptable Materials (from By-laws)	<ul style="list-style-type: none">• Any items that are in Schedule "A" Acceptable "Blue Box" Recyclable Material• Any plastic item with the recycling symbol on the bottom of container with a	<ul style="list-style-type: none">• E-waste• Tree stumps• Building supplies• Broken glass• Hardware	<ul style="list-style-type: none">• Recyclable material• Tires• Demolition and construction material• Animal feces	<ul style="list-style-type: none">• Any explosive or highly combustible materials of any nature whatsoever• Construction debris• Sawdust and/or shavings	<ul style="list-style-type: none">• Bio-Medical Waste• Building Waste• Bulk Waste• Carcasses of dogs, cats, fowl, and other creatures, or parts	<ul style="list-style-type: none">• Bio-Medical Waste• Building Waste• Bulk Waste• Carcasses of dogs, cats, fowl, and other creatures, or parts

APPENDIX D: CURRENT LEVEL OF SERVICE (DRAFT MARCH 12 2021)

Item	North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
	number 3 or 6. <ul style="list-style-type: none"> Electronic and Electric Equipment Waste (WEEE waste) Hazardous Waste Pathological Waste Trade Waste Automotive wastes, discarded vehicle parts, tires, tire rims and other accessories Liquid wastes, including liquid in sealed containers Used deposit-return beverage containers Sod, soil, dirt, manure, sand, root balls, stumps, aggregates, concrete products, bricks or stones; Sharp-edged material such as broken glass, broken crockery, cut metal or anything of a similar nature unless such material is placed in separate, secure container and whose contents are clearly marked Glass plate windows, mirrors, doors, table tops, shower doors Carcasses of any animal (including animal parts) or fowl or live animal or fowl with the exception of bonafide Household Organic Waste Ashes(warm or hot) Swill or any other organic not properly drained or wrapped Celluloid cuttings, including moving picture film 	<ul style="list-style-type: none"> Tires Fences Construction materials Loose garbage Loose branches 	<ul style="list-style-type: none"> Liquids Furniture and appliances Paints Oils Batteries Propane tanks Other hazardous material 	<ul style="list-style-type: none"> Liquid or semi-liquid garbage Hay, straw and manure Carcass of any animal, or thereof Grass clippings, garden material, tree limbs, branches and trunks, brush, clean lumber and stones (“Environmentally Friendly Landfill Material,” as per MOE Major appliances and/or large household furnishings, appliances Any material that is frozen or otherwise stuck to a container that cannot be removed by shaking Tires Biomedical waste Automobiles, vehicles, or any parts thereof Fences, Fence posts, page wire Hazardous material Propane tanks Crates or packing material 	thereof <ul style="list-style-type: none"> Earth, brick, and stone Hazardous Waste Household Hazardous Waste Human and animal excrement (except for Household Pet Waste and diapers Industrial, Commercial, and Trade Waste Leaf and Yard Waste Liquid Waste Recyclable Materials Sawdust, Shavings, and Vermiculite Steel Barrels Car Parts Wood in excess of 0.9 M (3 feet) in length, Wooden boxes and barrels Wire, wire mesh and fencing White Goods 	thereof <ul style="list-style-type: none"> Earth, brick, and stone Hazardous Waste Household Hazardous Waste Human and animal excrement (except for Household Pet Waste and diapers Industrial, Commercial, and Trade Waste Leaf and Yard Waste Liquid Waste Recyclable Materials Sawdust, Shavings, and Vermiculite Steel Barrels Car Parts Wood in excess of 0.9 M (3 feet) in length, Wooden boxes and barrels Wire, wire mesh and fencing White Goods

APPENDIX D: CURRENT LEVEL OF SERVICE (DRAFT MARCH 12 2021)

Item	North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
	<ul style="list-style-type: none"> Sewage Any other material or item designated as Non-Collectible Waste by the Township Any other materials designated as "designated waste" by the Waste Diversion Act or other applicable legislation 					
Curbside Recycling Collection						
Collection Frequency	<ul style="list-style-type: none"> Weekly Alternate Stream each week 	<ul style="list-style-type: none"> Bi-Weekly 	<ul style="list-style-type: none"> Weekly (as of July 13 2020) Alternate Stream each week Collect from driveways (instead of curb) in special cases 	<ul style="list-style-type: none"> Weekly Alternate Stream each week 	<ul style="list-style-type: none"> Bi-Weekly 	<ul style="list-style-type: none"> Bi-Weekly
Single Stream or Dual Stream?	<ul style="list-style-type: none"> Dual Stream 	<ul style="list-style-type: none"> Single Stream 	<ul style="list-style-type: none"> Dual Stream 	<ul style="list-style-type: none"> Dual Stream 	<ul style="list-style-type: none"> Single Stream 	<ul style="list-style-type: none"> Single Stream
Acceptable Materials (from By-laws)	<p><i>Plastic</i></p> <ul style="list-style-type: none"> Food Grade Plastic, plastic grocery bags Plastic items with the recycling symbol on the bottom of container with the numbers 1, 2, 4, 5, & 7 only (3 & 6 not accepted) <p><i>Glass</i></p> <ul style="list-style-type: none"> Glass food and beverage bottles and jars <p><i>Metal</i></p> <ul style="list-style-type: none"> Aluminum foils, plates and trays Metal aerosol and paint cans (emptied and lid removed) 	<p><i>Containers</i></p> <ul style="list-style-type: none"> Clear glass containers Coloured glass containers Plastic containers including PET, HDPE, mixed plastics, tubs and lids (generally numbers 1, 2, 5) Plastic clam shell packages Aerosol cans (empty, no propane or butane containers) Metal paint cans (empty, dry, lids removed) Frozen juice containers, cartons (milk, juice, cream) Steel cans and containers Newspaper, mixed paper, 	<p><i>Containers</i></p> <ul style="list-style-type: none"> Glass bottles & jars Metal cans (steel and aluminum) Plastic bottle, jars & jugs Aluminum trays & foil (clean) <p><i>Paper</i></p> <ul style="list-style-type: none"> Box board (cereal boxes, rolls from paper towels, toilet tissue, shoe boxes, tissue boxes) Soft cover books (telephone books) Corrugated cardboard (flattened/bundled/tied) Detergent boxes Egg cartons (paper) 	<p><i>Blue Box (containers):</i></p> <ul style="list-style-type: none"> Glass food and beverage bottles and jars Metal food and beverage cans Clean empty paint cans (lids removed) Aerosol cans and Styrofoam packaging Plastic bottles Plastic containers marked with recycling symbol and numbers 1, 2, 3, 4, or 5 Aluminum pie plates and foil Rigid foil containers and trays Margarine and yogurt tubs <p>Green Box (paper):</p>	<p><i>Containers</i></p> <ul style="list-style-type: none"> Aseptic containers (drinking boxes) Dry empty metal paint and empty aerosol cans Gable-top containers (juice and milk cartons) Glass bottles, jars and containers Metal beverage and food containers, foil and plates Plastics #1-#7, packaging and containers from food, beverage and household products, including: <ul style="list-style-type: none"> - Plastic bottles and jugs - Plastic soft drink and water containers - Tubs and lids 	<p><i>Containers</i></p> <ul style="list-style-type: none"> Aseptic containers (drinking boxes) Dry empty metal paint and empty aerosol cans Gable-top containers (juice and milk cartons) Glass bottles and jars and containers Metal beverage and food containers, foil and plates Plastics #1-#7, packaging and containers from food, beverage and household products, including: <ul style="list-style-type: none"> - Plastic bottles and jugs - Plastic soft drink and water containers - Tubs and lids

APPENDIX D: CURRENT LEVEL OF SERVICE (DRAFT MARCH 12 2021)

Item	North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
	<ul style="list-style-type: none"> Steel / aluminum food and beverage cans <p><i>Paper</i></p> <ul style="list-style-type: none"> Beverage cartons and boxes & polycoat containers Aseptic containers (tetra pak) containers for juice, soup, wine Gable top cartons for juice, milk Polycoat containers for ice cream Corrugated cardboard Newspapers Boxboard and household papers Books - hard or soft cover (plastic slip covers removed, hard cover- front and back covers, while recyclable, must be removed) Cereal boxes (liners removed) Fibre egg cartons and takeout trays Flour and sugar bags Kraft paper Magazines Paper plates Pizza boxes All remaining paper and paper products generated by households Any other item defined as recyclable by the Township from time to time 	<ul style="list-style-type: none"> boxboard, magazines, catalogues, household fine paper Books, soft cover or hard cover (hard cover must be removed), telephone books Brown bags, wrapping paper, corrugated cardboard Aseptic cartons Aluminum cans, containers, plates, and foil Egg cartons 	<ul style="list-style-type: none"> Kraft (brown) paper bags Magazines, catalogues, junk mail and office paper Newspapers and flyers (plastic bags removed) Pizza boxes (clean) Gable end milk and juice cartons Juice and soup boxes (tetra-pak) 	<ul style="list-style-type: none"> Newspaper and flyers (glossy or plain) Popsicle wrappers Paper potato bags Flour bags Sugar bags Paper cups Fine paper Boxboard such as cereal, cracker, and cookie boxes Detergent/laundry cartons File folders Shoe and tissue boxes Apple baskets Over the counter drug boxes (i.e. toothpaste, toiletries, cough syrups, medicine, and cosmetics) Paper egg cartons Toilet and paper towel rolls and pizza boxes Magazines, catalogues, telephone directories and greeting cards Cardboard and corrugated cardboard 	<ul style="list-style-type: none"> - Frozen juice containers <p><i>Paper</i></p> <ul style="list-style-type: none"> Boxboard (cereal and cracker boxes) Corrugated cardboard Envelopes, direct mail advertising, paper egg cartons, greeting cards and all remaining paper and paper products (except tissue, paper towels, napkins, waxed paper, laminated, lined and metalized paper and contaminated paper) Fine paper Magazines Newsprint Telephone books Soft cover books and hard cover books (cover removed) Hot beverage paper cups 	<ul style="list-style-type: none"> - Frozen juice containers <p><i>Paper</i></p> <ul style="list-style-type: none"> Boxboard (cereal and cracker boxes) Corrugated cardboard Envelopes, direct mail advertising, paper egg cartons, greeting cards and all remaining paper and paper products (except tissue, paper towels, napkins, waxed paper, laminated, lined and metalized paper and contaminated paper) Fine paper Magazines Newsprint Telephone books Soft cover books and hard cover books (cover removed) Hot beverage paper cups

Item	North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
Recycling Collection Limits/ Restrictions (from By-laws)	<ul style="list-style-type: none">No limit to number of Blue Boxes (can also be placed in clear plastic bags)Weight (container and materials) not to exceed 20 kg (44 lb.)Cardboard/boxboard/other “large fibre” material must be flattened, tied with string, placed beside Blue Box, and not exceed 1 M by 0.3 M	<ul style="list-style-type: none">No limit to number of containers set out for collectionLarge recycling bins (35 gallons) are not permitted	<ul style="list-style-type: none">No limit to number of containers set out for collection	<ul style="list-style-type: none">No limit to number of containers set out for collection	<ul style="list-style-type: none">No limit to number of containers set out for collectionMay be set out in blue or black plastic boxes with a lip for handling to contain Recyclable Materials without spilling and 130 litres (35 gallons) and shall be specifically designed for recycling collectionMay be placed in clear or blue plastic bags, maximum 22 kilograms (approximately 50 lb.)Fibres and other waste paper tied in bundles not larger than 1 M X 1 M X 0.5 m (approx. 3 feet by 3 feet by 12 inches), maximum 22 kilograms (approximately 50 lb.)	<ul style="list-style-type: none">No limit to number of containers set out for collectionMay be set out in blue or black boxes with lip (for handling) with capacity not exceeding 60.5 L (16 gallons), and must be specifically designed for recycling collectionMay be placed in clear plastic bags not exceeding 22 kg (50 lb.) when fullFibres and other waste paper must be tied securely in bundles not exceeding 1 M x 1 M x 0.5 M (3 feet x 3 feet x 1 foot) and weigh no more than 22 kg (50 lb.)
Obtain Blue Boxes	<ul style="list-style-type: none">	<ul style="list-style-type: none">	<ul style="list-style-type: none">No charge	<ul style="list-style-type: none">\$7.00 per boxAvailable at the Municipal Building at 34 Ottawa, Morrisburg	<ul style="list-style-type: none">	<ul style="list-style-type: none">2 free for new homes\$5 eachAvailable at Town Hall
Curbside Bulk Waste Collection						
Bulk Waste Collection Frequency	<ul style="list-style-type: none">Drop off at Landfill Site	<ul style="list-style-type: none">Bulk waste collected once per year in May at no cost to customers	<ul style="list-style-type: none">Drop off at Landfill Site	<ul style="list-style-type: none">Drop off at Landfill Site	<ul style="list-style-type: none">500kg Free Landfill PassesDrop off at Landfill Site	<ul style="list-style-type: none">Drop off at Landfill Site
Bulk Waste Materials Collected	<ul style="list-style-type: none">	<ul style="list-style-type: none">Large items, include furniture, mattresses, box springs, plastic lawn furniture, toilets, and carpeting	<ul style="list-style-type: none">	<ul style="list-style-type: none">	<ul style="list-style-type: none">	<ul style="list-style-type: none">

APPENDIX D: CURRENT LEVEL OF SERVICE (DRAFT MARCH 12 2021)

Item	North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
Curbside Leaf & Yard Waste Collection						
L&Y Collection Frequency	<ul style="list-style-type: none"> 2 times per year – once in May and once in November No collection in small hamlets rural areas and along County roads 	<ul style="list-style-type: none"> L&Y Waste collection in spring and fall only Christmas Trees collected by Township staff during January 	<ul style="list-style-type: none"> 1 pick-up in fall in Village of Winchester and Chesterville. 5 depots set up for Christmas trees 	<ul style="list-style-type: none"> No curbside collection – drop off facilities provided Iroquois Composting Site 10 Bouck Street Iroquois, ON K0E 1K0 Hours: Saturdays: 10:00am – 12:00pm, April – November Compost site not an official compost site- no ECA for the facility 	<ul style="list-style-type: none"> One collection day in May Christmas Trees collected one day in January 	<ul style="list-style-type: none"> Once per month from May to November Curbside delivered to GFL N/C Drop off at Trillium Landfill Site at no charge every Friday and Saturday Built up areas only (more than 20 homes either side of road in a 1km stretch) Upon request
Limits/Restrictions	<ul style="list-style-type: none"> Not specified 	<ul style="list-style-type: none"> No limit No shrubs, large branches, or bundles collected Sticks and branches up to 4 feet are accepted, as long as they are bundled Must be in paper bags or reusable containers such as garbage bins or recycling bins 	<ul style="list-style-type: none"> Not specified 	<ul style="list-style-type: none"> Not specified 	<ul style="list-style-type: none"> Limit of 20 bags/bundles per dwelling/unit Must be placed in paper bags with the tops folded Boughs, twigs, and cuttings must be securely tied in bundles not exceeding 1 M by 1 M by 0.5 M (3 feet x 3 feet x 1 foot) and weigh no more than 22 kg (50 lb.) Receptacles already broken or broken while being lifted will not be collected Leaf and yard waste placed in plastic bags is not accepted Collection is for residents inside villages and hamlets only 	<ul style="list-style-type: none"> Limit of 20 bags/bundles per dwelling/unit Must be placed in paper bags with the tops folded Boughs, twigs, and cuttings must be securely tied in bundles not exceeding 1 M by 1 M by 0.5 M (3 feet x 3 feet x 1 foot) and weigh no more than 22 kg (50 lb.) Receptacles already broken or broken while being lifted will not be collected Leaf and yard waste placed in plastic bags is not accepted
Unacceptable Materials	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> NA 	<ul style="list-style-type: none"> Use only compost bags (no plastic bags) 	<ul style="list-style-type: none"> Use only compost bags (no plastic bags)

Item	North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
Residential Drop-Off Stations						
Location(s)	<ul style="list-style-type: none">At the active – accepts residential waste only	<ul style="list-style-type: none">At 2 Municipal Landfill Sites North Lancaster - 4580 2nd Line Road Beaver Brook Road Landfill site - 19281 Beaver Brook Road, east of Chapel Road	<ul style="list-style-type: none">At Municipal Landfill Site - Boyne Road landfill site5 depots set up for Christmas trees	<ul style="list-style-type: none">At Municipal Landfill Site – Matilda - 10815 Seibert Road Iroquois, ON K0E 1K0 <u>The following locations for Compost:</u><ul style="list-style-type: none">Drop-off only at compost facilities in Morrisburg and IroquoisMorrisburg Composting Site 70 Prospect Road Morrisburg, ON K0C 1X0 Hours:24 hours, 7 days a week, year-roundIroquois Composting Site 10 Bouck Street Iroquois, ON K0E 1K0 Hours: Saturdays: 10:00am – 12:00pm, April – November	<ul style="list-style-type: none">At Private (GFL)At both Public Works Patrol Yards (Scrap metal, Tires and E-waste only)	<ul style="list-style-type: none">At Trillium Landfill Site – residential waste only
Operating Hours	<ul style="list-style-type: none">Alexandria Landfill - Monday, Tuesday, Thursday, Friday - 8:00 a.m. to 4:00 p.m. in summer, Wednesday & Saturday - 8:00 a.m. to 12:00 p.m. in winter	<ul style="list-style-type: none">North Lancaster Landfill Site Thursday and Saturday 9:00 A.M. to 5:00 P.M. from June 1st, 2017 to September 30th, 2017Beaver Brook Road Landfill Site October 1st to May 31st on Tuesdays and Saturdays from 9:00 am to 5:00 pm.	<ul style="list-style-type: none">8 am to 4 pm Monday to Friday.Saturdays -First Sat in May till last Sat in October- 8 am till 11:30 am.Open first Sat in November, December, January, February, March and April 8 am till 11:30 am.	<ul style="list-style-type: none">Matilda Disposal Site - Wednesday & Friday, 8:00 a.m. to 1:00 p.m.; Saturday, 1:00 p.m. to 4:00 p.m.Williamsburg Disposal Site is closed	<ul style="list-style-type: none">Insert hours for all locations	<ul style="list-style-type: none">8am to 4pm every Friday and Saturday
IC&I Waste Accepted?	<ul style="list-style-type: none">No	<ul style="list-style-type: none">Yes	<ul style="list-style-type: none">Yes	<ul style="list-style-type: none">Yes	<ul style="list-style-type: none">NA	<ul style="list-style-type: none">No
Unacceptable Materials at	<ul style="list-style-type: none">Kitchen waste not accepted	<ul style="list-style-type: none">Car parts and motors	<ul style="list-style-type: none">Concrete and large tree	<ul style="list-style-type: none">Any explosive or highly combustible materials of any	<ul style="list-style-type: none">Not specified	<ul style="list-style-type: none">Bio Medical Waste

Item	North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
Landfills	<ul style="list-style-type: none">Commercial construction materials not accepted		stumps	<p>nature whatsoever</p> <ul style="list-style-type: none">Liquid or semi-liquid garbageManureCarcass of any animal, or thereofGrass clippings, garden material, tree limbs, branches and trunks, brush, clean lumber and stones (“Environmentally Friendly Landfill Material,” as per MOEBiomedical wasteAutomobiles, vehicles, or any parts thereofHazardous materialPropane tanks		<ul style="list-style-type: none">Building Waste as a result of a house or structure fireCommercial wasteIndustrial wasteCondemned or dead animals or their carcassesHazardous WasteHousehold Hazardous WasteExplosives or highly flammable materials or chemicalsMotor vehicles or parts of motor vehiclesWaste oil or petroleum products
Customer Drop Off Station	<ul style="list-style-type: none">Drop off areas depending on material	<ul style="list-style-type: none">Customers can drop off waste at both landfill sitesThere are containment areas for waste and bins for e-waste and recyclables	<ul style="list-style-type: none">There are containers at the bottom of the landfill site for those who have difficulty in backing up to the face.Recyclables are dropped off at MRF located at the landfill siteHHW also received at site from both North Dundas and South DundasNo safety issuesThere is site surveillance	<ul style="list-style-type: none">No station. A new drop off container station will be established in October 2020 and operated in-house. Roads department will transport bins to faceResidents currently drop off at the face	<ul style="list-style-type: none">Township has 3 “depots” for drop-off at its 2 municipal patrol yards, as follows:<ul style="list-style-type: none">White Goods & Scrap Metal BinElectronic Waste BinTire - designated area, tires must be rubber and removed from rimsThere are signs and camerasScrap metal hauled away by GFL at no costE-waste is hauled away as part of provincial programTires are hauled away at no costProperty owners also entitled to 500kg free disposal at GFL. Could be used for bulk waste	<ul style="list-style-type: none">Yes at TrilliumThere are concrete bunkers for designated materials

Item	North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
					items	
Acceptable Materials	<ul style="list-style-type: none">	<ul style="list-style-type: none">Large items, including furniture, mattresses, box springs, plastic lawn furniture, toiletsConstruction and demolition materialsHousehold wasteE-Waste (Bins available)	<ul style="list-style-type: none">Household wasteTiresE-wasteMetalRecyclablesHousehold Hazardous waste(specific days)Leaf and yard wasteSoil (contaminate and Non)White goods (Freon removal)	<ul style="list-style-type: none">Household wasteTiresE-wasteMetalRecyclablesBurnable woodWhite appliancesConstruction and demolition materials. However considering program to divert waste to a C&D recycling facility near OttawaMattresses	<ul style="list-style-type: none">Scrap metalTiresE-Waste	<ul style="list-style-type: none">Household wasteTiresE-wasteMetalRecyclablesL&Y WasteWhite appliances
Tipping Fees Charged	<ul style="list-style-type: none">Free pass that covers 2 loads is sent out annually with tax bill Proof of residency must be providedProof of residency must be providedCertified Freon-free refrigerators, freezers, and air conditioners acceptedTires accepted free of chargeLeaf and yard waste accepted free of charge	<ul style="list-style-type: none">Yes by type of vehicle and wasteFree access 3 times per year - 2 in May (Beaver Brook) and 1 in June (North Lancaster) for residents non-hazardous waste only. Registration required for a \$10 feeVehicle used for disposal must be registered	<ul style="list-style-type: none">\$15 per cubic yard\$25 per cubic yard for shinglesLeaf and yard waste freeFreon removal- \$20 per itemContaminated soil \$25/tonne	<ul style="list-style-type: none">Yes by type of vehicle and wasteTipping fee schedule (for October 2020 in drop box)	<ul style="list-style-type: none">No fee at yardFree pass that covers 2 free loads per year (up to 500kg)Fees apply at GFL after free 500kg certificate is usedOne free landfill pass (to GFL Environmental Inc. site) per dwelling unit (property owner, or with permission of owner, lessee of the property)Landfill passes are issued on an as-requested basisLandfill pass may only be used by spouse or member of household/dwelling unit with knowledge of pass ownerPerson who landfill pass is issued to may be held responsible for misuse of passTownship may suspend, terminate or restrict use of	<ul style="list-style-type: none">Yes by type of vehicle and wasteLandfill Pass for 2 free disposals per year

APPENDIX D: CURRENT LEVEL OF SERVICE (DRAFT MARCH 12 2021)

Item	North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
					landfill site pass for any misuse, or continued contravention of this by-law	
Recycling Processing						
Processing Facility (MRF) Used	<ul style="list-style-type: none"> Own Facility – RARE (opened in 1990) 265 Industrial Blvd. Alexandria, Ontario K0C 1A0 Also processes recyclables from other municipalities Limited capacity to handle SDG materials Conveyor and other equipment in need of replacement/ upgrades 	<ul style="list-style-type: none"> City of Cornwall 2590 Cornwall Centre Road 	<ul style="list-style-type: none"> Former MRF at Boyne Road Landfill site is now a transfer station for recyclables Recyclables shipped to WMI Brockville for processing on a month-to month contract Town has access to weigh scale within 5km 	<ul style="list-style-type: none"> City of Cornwall 2590 Cornwall Centre Road Option included in new tender set to begin May 2021 	<ul style="list-style-type: none"> City of Cornwall 2590 Cornwall Centre Road 	<ul style="list-style-type: none"> City of Cornwall 2590 Cornwall Centre Road
Household Hazardous Waste & E-Waste Collection						
HHW & E-Waste Collection Frequency	<ul style="list-style-type: none"> Collection (drop-off) once per year during Township's Hazardous and Electronic Waste Collection Program 	<ul style="list-style-type: none"> HHW Collection once per year in September 8:00am to noon E-waste bins at landfills 	<ul style="list-style-type: none"> HHW Once per month drop off from 8 am till 12 noon between May and October inclusive E-waste during open Landfill hours 	<ul style="list-style-type: none"> Drop Off at North Dundas' Boyne Road landfill site On the following dates from 8 am to Noon: May 18, 2019 June 15, 2019 July 13, 2019 August 10, 2019 September 7, 2019 October 5, 201 	<ul style="list-style-type: none"> HHW Drop Off once per year (June) at west patrol yard E-Waste ongoing drop off 	<ul style="list-style-type: none"> Drop Off April to November 1 Sat and 2 Wed per Month
Collection Location	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Smithfield Park, 119 Military Road, Lancaster South Glengarry has an agreement with the City of Cornwall. South Glengarry residents can dispose of HHW at the City of Cornwall Landfill Site free of charge, as long as 	<ul style="list-style-type: none"> E-waste drop off on designated days at Cornwall Landfill site, may be dropped off during regular hours for free at Boyne Road Landfill Site HHW may be dropped off on designated days at Cornwall 	<ul style="list-style-type: none"> Arrangement to use the North Dundas Hazardous Waste Facility. Boyne Landfill 12620 Boyne Rd. Winchester, ON K0C 2K0 (613) 774-2105 E-Waste accepted at Matilda 	<ul style="list-style-type: none"> HHW at West Patrol Yard E-waste bin at municipal both Patrol Yards 	<ul style="list-style-type: none"> Cornwall Landfill Site

Item	North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
		they have valid I.D. <ul style="list-style-type: none">The Township pays a \$35.00 Tipping Fee for all residents who dispose of HHW at the City of Cornwall Landfill	Landfill Site and North Dundas Landfill Sites	and Williamsburg Landfill Sites		
Restrictions	<ul style="list-style-type: none">	E-Waste not collected at HHW Day – availability of E-Waste bins year round at landfill sites			<ul style="list-style-type: none">	<ul style="list-style-type: none">Paints prior to 1977, PCBs, flares, fireworks, ammunition
Composting						
Backyard Composting	<ul style="list-style-type: none">	<ul style="list-style-type: none">Promotes Backyard composting on Website	<ul style="list-style-type: none">Can purchase at two locations in North Dundas	<ul style="list-style-type: none">N/A	<ul style="list-style-type: none">Composters available at Town Hall	<ul style="list-style-type: none">Composters available at Town Hall for \$30 each
Source Separated Organics Collection (SSO)	<ul style="list-style-type: none">None	<ul style="list-style-type: none">None	<ul style="list-style-type: none">None	<ul style="list-style-type: none">None	<ul style="list-style-type: none">None	<ul style="list-style-type: none">None
Public Education/ Customer Service						
Main Types of Communication	<ul style="list-style-type: none">	<ul style="list-style-type: none">Annual Collections Calendar mailed in JuneWeb brochure with information on all programs	<ul style="list-style-type: none">Recycle coach on website	<ul style="list-style-type: none">Face bookNewspaperWebsiteCommunity GuideRecycle Coach	<ul style="list-style-type: none">Recycle coach on website	<ul style="list-style-type: none">
Frequency of Communication	<ul style="list-style-type: none">	<ul style="list-style-type: none">	<ul style="list-style-type: none">	<ul style="list-style-type: none">Once a month	<ul style="list-style-type: none">	<ul style="list-style-type: none">
Customer Service Software?		<ul style="list-style-type: none">	<ul style="list-style-type: none">	<ul style="list-style-type: none">Access E11		
First Point of Contact for Customers	<ul style="list-style-type: none">Administrative staff RARE or Municipal Office	<ul style="list-style-type: none">Administrative Staff	<ul style="list-style-type: none">Boyne Road Landfill	<ul style="list-style-type: none">Administrative Staff at the Municipal Office	<ul style="list-style-type: none">	<ul style="list-style-type: none">
Responsibility for Follow-up on Customer Issues	<ul style="list-style-type: none">Recycling Supervisor	<ul style="list-style-type: none">General Manager Infrastructure or Roads Manager	<ul style="list-style-type: none">Director of Waste Management	<ul style="list-style-type: none">Administrative Staff (depends on level of customer issue)	<ul style="list-style-type: none">	<ul style="list-style-type: none">

Appendix E

Asset Inventory

United Counties of SDG
Regional Waste Management – A Roadmap to Collaboration
APPENDIX E: ASSET INVENTORY

TABLE E-1: WASTE COLLECTION ASSETS

Asset ID	Asset Description	Asset Historical Cost	2020 Asset Value	Asset In-Service Year	Asset Life Expectancy (Years)
NORTH DUNDAS					
VH077	2012 International 4300 Roll-off Truck Vin #	\$ 91,391	\$ 112,400	2013	15
VH038	2020 International Truck #1, SN: TBD	\$ 159,000	\$ 159,000	2020	7
Subtotal		\$ 250,391	\$ 271,400		
SOUTH DUNDAS					
-	-	\$ -	\$ -	0	0
Subtotal		\$ -	\$ -		
NORTH GLENGARRY					
-	-	\$ -	\$ -	0	0
Subtotal		\$ -	\$ -		
SOUTH GLENGARRY					
-	-	\$ -	\$ -	0	0
Subtotal		\$ -	\$ -		
NORTH STORMONT					
-	-	\$ -	\$ -	0	0
Subtotal		\$ -	\$ -		
SOUTH STORMONT					
13-01	Garbage Truck	\$ 280,000	\$ 280,000	0	0
13-02	Garbage Truck	\$ 280,000	\$ 280,000		
Subtotal		\$ 560,000	\$ 560,000		
Total Assets		\$ 810,391	\$ 831,400		

NOTE: The South Stormont trucks are not included as capital items because the costs are included in the operating rate as part of the operating budget.

TABLE E-2: WASTE DISPOSAL ASSETS

Asset ID	Asset Description	Asset Historical Cost	2020 Asset Value	Asset In-Service Year	Asset Life Expectancy (Years)
NORTH DUNDAS					
EQ213	CAT 252B2 Ma8 SSL With heat	\$ 59,582	\$ 82,475	2009	15
EQ212	Fab roll-off container	\$ 5,346	\$ 7,400	2009	15
VH061	2009 Chevrolet Silverado, SN:	\$ 18,735	\$ 25,934	2009	8
EQ448	Landfill Compactor CAT 816K	\$ 604,913	\$ 623,060	2019	30
BD017	Landfill Office/Storage Building/Blue box	\$ 143,428	\$ 318,596	1993	50
BD017	Unit Heater	\$ 2,785	\$ 3,425	2013	20
BD047	Cameron Road Landfill Office	\$ 5,983	\$ 11,465	1998	50
BD016	Cover-All Shed (Landfill Site)	\$ 18,030	\$ 31,616	2001	50
PL025	Landfill Office/Storage Building/Blue box	\$ 14,356	\$ 29,184	1996	25
LI139	Monitoring Wells Installed in 2016, Golder	\$ 11,733	\$ 13,206	2016	40
LI088	Well, Bedrock Aquifer Monitoring Well # 07-	\$ 3,173	\$ 7,100	2007	40
LI087	Well, Overburden Monitoring Well #07-25,	\$ 2,115	\$ 7,100	2007	40
LI086	Well, Overburden Monitoring Well #07-24,	\$ 2,115	\$ 7,100	2007	40
LI085	Well, Overburden Monitoring Well #07-23,	\$ 2,115	\$ 7,100	2007	40
LI084	Well, Overburden Monitoring Well #06-22,	\$ 1,982	\$ 7,100	2006	40
LI083	Well, Overburden Monitoring Well #06-21,	\$ 1,982	\$ 7,100	2006	40
LI082	Well, Overburden Monitoring Well #06-20,	\$ 1,982	\$ 7,100	2006	40
LI042	Screens A,B, & C installed on BW1 (open	\$ 9,518	\$ 13,977	2007	40
LI041	Multilevel Monitoring Well, Monitoring Well	\$ 2,115	\$ 7,100	2007	40
LI040	Multilevel Monitoring Well, Monitoring Well	\$ 2,115	\$ 7,100	2007	40
LI039	Multilevel Monitoring Well, Monitoring Well	\$ 2,115	\$ 7,100	2007	40
LI038	Multilevel Monitoring Well, Monitoring Well	\$ 2,115	\$ 7,100	2007	40
LI037	Multi Level Well, Overbuden Monitoring Well	\$ 1,596	\$ 7,100	2002	40
LI036	Multi Level Well, Overbuden Monitoring Well	\$ 1,596	\$ 7,100	2002	40
LI035	Multi Level Well, Overbuden Monitoring Well	\$ 1,596	\$ 7,100	2002	40
LI034	Multi Level Well, Overbuden Monitoring Well	\$ 1,596	\$ 7,100	2002	40
LI033	Multi Level Well, Overbuden Monitoring Well	\$ 1,596	\$ 7,100	2002	40
LI032	Multi Level Well, Overbuden Monitoring Well	\$ 1,596	\$ 7,100	2002	40
LI031	Multi Level Well, Overburden Monitoring	\$ 1,394	\$ 7,100	1999	40
LI030	Multi Level Well, Overburden Monitoring	\$ 1,394	\$ 7,100	1999	40
LI029	Multi Level Well, Overburden Monitoring	\$ 1,394	\$ 7,100	1999	40
LI028	Multi Level Well, Overburden Monitoring	\$ 1,394	\$ 7,100	1999	40
LI027	Well, Overburden Monitoring Well # 3, 10891	\$ 1,213	\$ 7,100	1993	40
LI026	Well, Overburden Monitoring Well # 2, 10891	\$ 1,213	\$ 7,100	1993	40
LI025	Well, Overburden Monitoring Well # 1, 10891	\$ 1,213	\$ 7,100	1993	40
LI024	Well, Bedrock Aquifer Monitoring Well # 3,	\$ 1,820	\$ 7,100	1993	40
LI023	Well, Bedrock Aquifer Monitoring Well # 2,	\$ 1,820	\$ 7,100	1993	40
LI021	Well, Overburden Monitoring Well # 19,	\$ 1,596	\$ 7,100	2002	40
LI020	Well, Overburden Monitoring Well # 18,	\$ 1,596	\$ 7,100	2002	40
LI019	Well, Overburden Monitoring Well # 17,	\$ 1,596	\$ 7,100	2002	40
LI018	Well, Overburden Monitoring Well # 16,	\$ 1,596	\$ 7,100	2002	40
LI017	Well, Overburden Monitoring Well # 15,	\$ 1,568	\$ 7,100	2001	40
LI016	Well, Overburden Monitoring Well # 14,	\$ 1,568	\$ 7,100	2001	40
LI015	Well, Overburden Monitoring Well # 13,	\$ 1,213	\$ 7,100	1993	40
LI014	Well, Overburden Monitoring Well # 12,	\$ 1,213	\$ 7,100	1993	40
LI013	Well, Overburden Monitoring Well # 10,	\$ 1,213	\$ 7,100	1993	40
LI012	Well, Overburden Monitoring Well # 9, 12620	\$ 1,205	\$ 7,100	1992	40
LI011	Well, Overburden Monitoring Well # 7, 12620	\$ 1,205	\$ 7,100	1992	40

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TABLE E-2: WASTE DISPOSAL ASSETS

Asset ID	Asset Description	Asset Historical Cost	2020 Asset Value	Asset In-Service Year	Asset Life Expectancy (Years)
LI010	Well, Overburden Monitoring Well # 5, 12620	\$ 1,212	\$ 7,100	1991	40
LI009	Well, Overburden Monitoring Well # 4, 12620	\$ 1,212	\$ 7,100	1991	40
LI008	Well, Overburden Monitoring Well # 1, 12620	\$ 1,212	\$ 7,100	1991	40
EQ412	Security Cameras	\$ 1,421	\$ 1,508	2018	5
Subtotal		\$ 961,390	\$ 1,445,846		
SOUTH DUNDAS					
	4021 County Rd 8/Church Rd - Building	\$ 4,317	\$ 9,309	1994	50
	Purchase of Used 2014 Compactor	\$ 193,000	\$ 193,000	2020	10
	3 Roll Offs	\$ 49,000	\$ 49,000	2020	10
	Land Acquisition 62.89 Acres	\$ 723,235	\$ 723,235	2021	
	<i>Williamsburg (Existing Wells)</i>		\$ -		
	97-2s	\$ 3,598	\$ 7,100	1997	40
	97-2d	\$ 3,598	\$ 7,100	1997	40
	97-1s	\$ 3,598	\$ 7,100	1997	40
	97-1d	\$ 3,598	\$ 7,100	1997	40
	97-3d	\$ 3,598	\$ 7,100	1997	40
	97-3s	\$ 3,598	\$ 7,100	1997	40
	97-4d	\$ 3,598	\$ 7,100	1997	40
	97-4s	\$ 3,598	\$ 7,100	1997	40
	99-1d	\$ 3,817	\$ 7,100	1999	40
	99-1BR	\$ 3,817	\$ 7,100	1999	40
	99-1s	\$ 3,817	\$ 7,100	1999	40
	99-2s	\$ 3,817	\$ 7,100	1999	40
	99-2d	\$ 3,817	\$ 7,100	1999	40
	99-2BR	\$ 3,817	\$ 7,100	1999	40
	99-3s	\$ 3,817	\$ 7,100	1999	40
	99-3d	\$ 3,817	\$ 7,100	1999	40
	99-3BR	\$ 3,817	\$ 7,100	1999	40
	4a	\$ 4,424	\$ 7,100	2004	40
	4b	\$ 4,424	\$ 7,100	2004	40
	4c	\$ 4,424	\$ 7,100	2004	40
	4d	\$ 4,424	\$ 7,100	2004	40
	5a	\$ 4,557	\$ 7,100	2005	40
	5b	\$ 4,557	\$ 7,100	2005	40
	12-1s	\$ 5,605	\$ 7,100	2012	40
	12-1d	\$ 5,605	\$ 7,100	2012	40
	12-1BR	\$ 5,605	\$ 7,100	2012	40
	14-3s	\$ 5,946	\$ 7,100	2014	40
	14-3d	\$ 5,946	\$ 7,100	2014	40
	14-3BR	\$ 5,946	\$ 7,100	2014	40
	14-1s	\$ 5,946	\$ 7,100	2014	40
	14-1d	\$ 5,946	\$ 7,100	2014	40
	14-1BR	\$ 5,946	\$ 7,100	2014	40
	14-2s	\$ 5,946	\$ 7,100	2014	40
	14-2d	\$ 5,946	\$ 7,100	2014	40
	14-2BR	\$ 5,946	\$ 7,100	2014	40
	17-1s	\$ 6,498	\$ 7,100	2017	40
	17-2d	\$ 6,498	\$ 7,100	2017	40

TABLE E-2: WASTE DISPOSAL ASSETS

Asset ID	Asset Description	Asset Historical Cost	2020 Asset Value	Asset In-Service Year	Asset Life Expectancy (Years)
	17-1BRS	\$ 6,498	\$ 7,100	2017	40
	17-1BRD	\$ 6,498	\$ 7,100	2017	40
	<i>Matilda (Existing Wells)</i>		\$ -		
	91-1	\$ 3,013	\$ 7,100	1991	40
	91-2	\$ 3,013	\$ 7,100	1991	40
	91-3	\$ 3,013	\$ 7,100	1991	40
	93-4	\$ 3,196	\$ 7,100	1993	40
	93-5	\$ 3,196	\$ 7,100	1993	40
	93-6	\$ 3,196	\$ 7,100	1993	40
	93-7	\$ 3,196	\$ 7,100	1993	40
	98-10	\$ 3,705	\$ 7,100	1998	40
	98-11d	\$ 3,705	\$ 7,100	1998	40
	98-11s	\$ 3,705	\$ 7,100	1998	40
	98-12d	\$ 3,705	\$ 7,100	1998	40
	98-12s	\$ 3,705	\$ 7,100	1998	40
	00-01d	\$ 3,931	\$ 7,100	2000	40
	00-01s	\$ 3,931	\$ 7,100	2000	40
	00-02	\$ 3,931	\$ 7,100	2000	40
	00-03d	\$ 3,931	\$ 7,100	2000	40
	00-03s	\$ 3,931	\$ 7,100	2000	40
	00-04	\$ 3,931	\$ 7,100	2000	40
	07-03d	\$ 4,835	\$ 7,100	2007	40
	07-03s	\$ 4,835	\$ 7,100	2007	40
	07-04	\$ 4,835	\$ 7,100	2007	40
	07-05	\$ 4,835	\$ 7,100	2007	40
	20-01d	\$ 7,100	\$ 7,100	2020	40
	20-01s	\$ 7,100	\$ 7,100	2020	40
	20-02s	\$ 7,100	\$ 7,100	2020	40
	20-02d	\$ 7,100	\$ 7,100	2020	40
	20-03d	\$ 7,100	\$ 7,100	2020	40
	20-03br	\$ 7,100	\$ 7,100	2020	40
	20-03s	\$ 7,100	\$ 7,100	2020	40
	20-04s	\$ 7,100	\$ 7,100	2020	40
	20-05s	\$ 7,100	\$ 7,100	2020	40
Subtotal		\$ 1,302,990	\$ 1,471,544		
NORTH GLENGARRY					
	Land Improvements	\$ 90,473	\$ 114,609	2012	40
	Buildings	\$ 1,417,025	\$ 4,230,141	1983	48
	Vehicles	\$ 60,000	\$ 80,635	2010	10
	Equipment	\$ 67,817	\$ 214,779	1981	40
	Leachate Solution	\$ 200,000	\$ 200,000	2030	
	<i>Glen Robertson Wells</i>		\$ -		
	A1	\$ 3,763	\$ 7,000	1999	40
	A2	\$ 3,763	\$ 7,000	1999	40
	B1	\$ 3,763	\$ 7,000	1999	40
	B2	\$ 3,763	\$ 7,000	1999	40
	C1	\$ 3,763	\$ 7,000	1999	40
	C2	\$ 3,763	\$ 7,000	1999	40
	D2	\$ 3,763	\$ 7,000	1999	40

United Counties of SDG
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APPENDIX E: ASSET INVENTORY

TABLE E-2: WASTE DISPOSAL ASSETS

Asset ID	Asset Description	Asset Historical Cost	2020 Asset Value	Asset In-Service Year	Asset Life Expectancy (Years)
	E1	\$ 4,767	\$ 7,000	2007	40
	E2	\$ 4,767	\$ 7,000	2007	40
	F1	\$ 4,767	\$ 7,000	2007	40
	F2	\$ 4,767	\$ 7,000	2007	40
	P1-1	\$ 6,219	\$ 7,000	2016	40
	P1-1-16	\$ 6,219	\$ 7,000	2016	40
	P1-2	\$ 6,219	\$ 7,000	2016	40
	P1-2-16	\$ 6,219	\$ 7,000	2016	40
	P2	\$ 6,219	\$ 7,000	2016	40
	P3	\$ 6,219	\$ 7,000	2016	40
	P4	\$ 6,219	\$ 7,000	2016	40
	P5-1	\$ 6,219	\$ 7,000	2016	40
	P5-1-16	\$ 6,219	\$ 7,000	2016	40
	P5-2	\$ 6,219	\$ 7,000	2016	40
	P5-2-16	\$ 6,219	\$ 7,000	2016	40
	P6	\$ 6,219	\$ 7,000	2016	40
	G-S	\$ 6,219	\$ 7,000	2016	40
	G-D	\$ 6,219	\$ 7,000	2016	40
	H-S	\$ 6,219	\$ 7,000	2016	40
	H-D	\$ 6,219	\$ 7,000	2016	40
	<i>Alexandria Wells</i>		\$ -		
	MW-2	\$ 2,970	\$ 7,000	1991	40
	MW-6A	\$ 2,970	\$ 7,000	1991	40
	MW-6B	\$ 2,970	\$ 7,000	1991	40
	MW-7A	\$ 2,970	\$ 7,000	1991	40
	MW-7B	\$ 2,970	\$ 7,000	1991	40
	MW-8	\$ 3,343	\$ 7,000	1995	40
	MW-9	\$ 3,343	\$ 7,000	1995	40
	MW-10	\$ 3,343	\$ 7,000	1995	40
	MW-11	\$ 3,343	\$ 7,000	1995	40
	MW-12	\$ 3,343	\$ 7,000	1995	40
	MW-13	\$ 3,343	\$ 7,000	1995	40
	MW-14	\$ 3,343	\$ 7,000	1995	40
	MW-15A	\$ 3,547	\$ 7,000	1997	40
	MW-15B	\$ 3,547	\$ 7,000	1997	40
	MW-16	\$ 3,876	\$ 7,000	2000	40
	MW-17	\$ 3,876	\$ 7,000	2000	40
	MW-18	\$ 3,876	\$ 7,000	2000	40
	MW-19A	\$ 5,862	\$ 7,000	2014	40
	MW-19B	\$ 5,862	\$ 7,000	2014	40
	MW-20	\$ 5,862	\$ 7,000	2014	40
	MW-21	\$ 5,862	\$ 7,000	2014	40
	MW-22	\$ 5,862	\$ 7,000	2014	40
	MW-23D	\$ 5,862	\$ 7,000	2014	40
	MW-23S	\$ 5,862	\$ 7,000	2014	40
	MW-24D	\$ 5,862	\$ 7,000	2014	40
	MW-24S	\$ 5,862	\$ 7,000	2014	40
	MW-25	\$ 5,862	\$ 7,000	2014	40
Subtotal		\$ 2,095,832	\$ 5,218,163		

TABLE E-2: WASTE DISPOSAL ASSETS

Asset ID	Asset Description	Asset Historical Cost	2020 Asset Value	Asset In-Service Year	Asset Life Expectancy (Years)
SOUTH GLENGARRY					
	Compactor (Kitty)	\$ 300,000	\$ 300,000	2020	10
	<i>North Lancaster Monitoring Wells</i>		\$ -		
	96-1s;96-1d;96-3s;96-3d;96-2d	\$ 17,464	\$ 35,500	1996	40
	97-1s;97-4d;97-3d;97-2s	\$ 14,390	\$ 28,400	1997	40
	99-1sBR;99-3sBR;99-7s;99-7sBR;99-5sBR;99-00-1s;00-4s;00-1dBR;00-2s;00-2sBR;00-06-2s;06-2d;06-3dBR;06-4d;06-4dBR;06-1s;06-Beaverbrook Monitoring Wells	\$ 57,249	\$ 106,500	1999	40
		\$ 47,173	\$ 85,201	2000	40
		\$ 42,245	\$ 63,900	2006	40
			\$ -		
	3;11-I;11-II;14-A;14-II;14-III;15-I;15-II;15-III;16-8-I;8-IIIOLD;8-II;9-I;9-II;10-I;10-II	\$ 49,026	\$ 119,000	1990	40
		\$ 19,599	\$ 49,000	1989	40
	17-SBR;99-1SBR;99-1D;99-1S;99-2BR;99-19-I;19-II;21-I;21-II;22-II;23-I;23-II;24-I;24-12-3S;12-4S;12-4D;12-5S;12-5D;12-6S;12-08-1;	\$ 48,917	\$ 91,000	1999	40
		\$ 44,556	\$ 105,000	1991	40
		\$ 71,836	\$ 91,000	2012	40
		\$ 4,910	\$ 7,000	2008	40
Subtotal		\$ 717,366	\$ 1,081,499		
NORTH STORMONT					
	Finch GW Monitoring Well A7	\$ 2,925	\$ 7,100	1990	40
	Finch GW Monitoring Well A-10	\$ 2,925	\$ 7,100	1990	40
	Finch GW Monitoring Well A-12	\$ 5,773	\$ 7,100	2013	40
	Finch GW Monitoring Well A-14	\$ 3,013	\$ 7,100	1991	40
	Finch GW Monitoring Well A-16	\$ 3,013	\$ 7,100	1991	40
	Finch GW Monitoring Well 09-17	\$ 6,498	\$ 7,100	2017	40
	Finch GW Monitoring Well A-18s	\$ 6,692	\$ 7,100	2018	40
	Finch GW Monitoring Well A-19s	\$ 6,893	\$ 7,100	2019	40
	Finch GW Monitoring Well A-18d	\$ 6,692	\$ 7,100	2018	40
	Finch GW Monitoring Well A-19d	\$ 6,893	\$ 7,100	2019	40
	Finch GW Monitoring Well OB-1d	\$ 2,925	\$ 7,100	1990	40
	Finch GW Monitoring Well OB-2	\$ 2,925	\$ 7,100	1990	40
	Finch GW Monitoring Well OB-3	\$ 3,013	\$ 7,100	1991	40
	Finch GW Monitoring Well OB-4	\$ 3,013	\$ 7,100	1991	40
	Finch GW Monitoring Well BR-1	\$ 2,925	\$ 7,100	1990	40
	Finch GW Monitoring Well 17-1	\$ 6,498	\$ 7,100	2017	40
	Roxborough Lechate Monitor 95-2.0	\$ 3,391	\$ 7,100	1995	40
	Roxborough Lechate Monitor 17-3	\$ 6,498	\$ 7,100	2017	40
	Roxborough Monitoring Well 90-4.2	\$ 2,925	\$ 7,100	1990	40
	Roxborough Monitoring Well 90-5.2	\$ 2,925	\$ 7,100	1990	40
	Roxborough Monitoring Well 93-2.3	\$ 2,925	\$ 7,100	1990	40
	Roxborough Monitoring Well 90-1.1	\$ 2,925	\$ 7,100	1990	40
	Roxborough Monitoring Well 90-1.2	\$ 2,925	\$ 7,100	1990	40
	Roxborough Monitoring Well 93-1.0	\$ 3,196	\$ 7,100	1993	40
	Roxborough Monitoring Well 93-1.1	\$ 3,196	\$ 7,100	1993	40
	Roxborough Monitoring Well 93-1.2	\$ 3,196	\$ 7,100	1993	40
	Roxborough Monitoring Well 93-2.1	\$ 3,196	\$ 7,100	1993	40
	Roxborough Monitoring Well 93-2.2	\$ 3,196	\$ 7,100	1993	40
	Roxborough Monitoring Well 08-1s	\$ 4,980	\$ 7,100	2008	40
	Roxborough Monitoring Well 93-1.3	\$ 3,196	\$ 7,100	1993	40
	Roxborough Monitoring Well 90-4.1	\$ 2,925	\$ 7,100	1990	40
	Roxborough Monitoring Well 95-1.0	\$ 3,391	\$ 7,100	1995	40

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TABLE E-2: WASTE DISPOSAL ASSETS

Asset ID	Asset Description	Asset Historical Cost	2020 Asset Value	Asset In-Service Year	Asset Life Expectancy (Years)
	Roxborough Monitoring Well 95-2.0	\$ 3,391	\$ 7,100	1995	40
	Roxborough Monitoring Well 95-3.0	\$ 3,391	\$ 7,100	1995	40
	Roxborough Monitoring Well 95-4.0	\$ 3,391	\$ 7,100	1995	40
	Roxborough Monitoring Well P3	\$ 3,196	\$ 7,100	1993	40
	Roxborough Monitoring Well P4	\$ 3,196	\$ 7,100	1993	40
	Roxborough Monitoring Well 17-1	\$ 6,498	\$ 7,100	2017	40
	Roxborough Monitoring Well 17-2	\$ 6,498	\$ 7,100	2017	40
	Roxborough Monitoring Well 91-3.2	\$ 3,013	\$ 7,100	1991	40
	Roxborough Monitoring Well 91-2.1	\$ 3,013	\$ 7,100	1991	40
Subtotal		\$ 163,191	\$ 291,100		
SOUTH STORMONT					
3.0748	3 wells	\$ 6,927	\$ 21,300	1982	40
2.3566	6 wells	\$ 18,077	\$ 42,599	1991	40
2.2879	3 wells	\$ 9,310	\$ 21,300	1992	40
2.2213	6 wells	\$ 19,178	\$ 42,600	1993	40
1.8061	6 wells	\$ 23,587	\$ 42,600	2000	40
1.4685	12 wells	\$ 58,018	\$ 85,202	2007	40
1.1941	6 wells	\$ 35,675	\$ 42,598	2014	40
1.1255	10 wells	\$ 63,083	\$ 71,001	2016	40
Subtotal		\$ 233,856	\$ 369,200		
Total Assets		\$ 5,474,624	\$ 9,877,353		

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TABLE E-3: RECYCLING COLLECTION ASSETS

Asset ID	Asset Description	Asset Historical Cost	2020 Asset Value	Asset In-Service Year	Asset Life Expectancy (Years)
NORTH DUNDAS					
VH038	2020 International Truck #2, SN: TBD	\$ 159,000	\$ 159,000	2020	8
EQ351	Roll-off Bin	\$ 7,276	\$ 8,435	2015	15
EQ332	Roll-off Box	\$ 6,920	\$ 8,262	2014	15
EQ271	Roll-off Bins	\$ 11,194	\$ 14,605	2011	15
EQ242	Roll-off box for recycling	\$ 5,940	\$ 7,983	2010	15
EQ241	Roll-off box for recycling	\$ 5,940	\$ 7,983	2010	15
BD031	Recycling Unloading Area	\$ 6,035	\$ 10,275	2002	50
VH061	2009 Chevrolet Silverado, SN: 1GCEC14C89Z247539, Bill	\$ 18,735	\$ 25,934	2009	8
Subtotal		\$ 221,040	\$ 242,477		
SOUTH DUNDAS					
-	-	\$ -	\$ -	0	0
-	-	\$ -	\$ -	0	0
Subtotal		\$ -	\$ -		
NORTH GLENGARRY					
-	-	\$ -	\$ -	0	0
Subtotal		\$ -	\$ -		
SOUTH GLENGARRY					
-	-	\$ -	\$ -	0	0
Subtotal		\$ -	\$ -		
NORTH STORMONT					
-	Recycling truck replacement	\$ 168,000	\$ 168,000	2019	7
Subtotal		\$ 168,000	\$ 168,000		
SOUTH STORMONT					
14-06	Recycling truck	\$ 280,000	\$ 280,000	2026	0
Subtotal		\$ 280,000	\$ 280,000		
Total Assets		\$ 669,040	\$ 690,477		

NOTE: The South Stormont trucks are not included as capital items because the costs are included in the operating rate as part of the operating budget.

United Counties of SDG
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TABLE E4: RECYCLING PROCESSING & DIVERSION ASSETS

Asset ID	Asset Description	Asset Historical Cost	2020 Asset Value	Asset In-Service Year	Asset Life Expectancy (Years)
NORTH DUNDAS					
BD018	Hazardous Waste Facility	\$ 11,474	\$ 25,488	1993	50
Subtotal		\$ 11,474	\$ 25,488		
SOUTH DUNDAS					
-	-	\$ -	\$ -	0	0
Subtotal		\$ -	\$ -		
NORTH GLENGARRY					
-	Buildings	\$ 1,669,947	\$ 2,525,384	2006.007495	40.00000024
-	Vehicles	\$ 174,354	\$ 241,346	2009	10
-	Equipment	\$ 687,030	\$ 1,812,909	1987.17358	37.9692446
-	RARE Material	\$ 60,000	\$ 60,000	2022	0
Subtotal		\$ 2,591,331	\$ 4,639,640		
SOUTH GLENGARRY					
-	-	\$ -	\$ -	0	0
Subtotal		\$ -	\$ -		
NORTH STORMONT					
-	-	\$ -	\$ -	0	0
Subtotal		\$ -	\$ -		
SOUTH STORMONT					
-	-	\$ -	\$ -	0	0
Subtotal		\$ -	\$ -		
Total Assets		\$ 2,602,805	\$ 4,665,128		

Appendix F

Asset Inventory

Item	North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
Waste Collection Contracts						
Waste Collection Contract Terms	<ul style="list-style-type: none">OutsourcedGRS Sanitation Inc. to collect and deliver waste to GFL. Contract expires in 2021 and includes recycling collection	<ul style="list-style-type: none">Contract expires November 30 2020Will be extended by 1 year to consider outcome of this study	<ul style="list-style-type: none">NAContract terminated as of July 12th, 2020In-House as of July 13, 2020	<ul style="list-style-type: none">Co-collection with recycling Contract extended by 1 year to April 20, 2021New contract begins May 2021 (new contractor and expiry date?)	<ul style="list-style-type: none">Outsourced effective July 2020 (obtain contract for actual date) 2-year contract	<ul style="list-style-type: none">NAIn-House Since 2007 – better accountability of service and extra resources to cover other public works functions
Recycling Collection Contracts						
Recycling Collection Contract Terms	<ul style="list-style-type: none">OutsourcedGRS Sanitation Inc. to collect recycling and deliver to RARE. Contract expires in 2021 and includes waste collection	<ul style="list-style-type: none">Included under Waste Collection Contract	<ul style="list-style-type: none">NA - In-house	<ul style="list-style-type: none">Co-collection with garbage using 2 vehiclesExtended with garbage collection by 1 year to April 30, 2021Extension requires South Dundas to have a separate direct agreement with Cornwall regarding processing fees and revenues from recyclingContractor has right to negotiate additional fees if Town changes processing to another locationNew contract begins May 2021- submitting an in-house bid for recycling collection	<ul style="list-style-type: none">NA - In-house	<ul style="list-style-type: none">NA - In-house
Leaf & Yard Waste Collection						
L&Y Waste Collection Contract Terms	<ul style="list-style-type: none">Out sourced under waste collection contract	<ul style="list-style-type: none">Out sourced under waste collection contract	<ul style="list-style-type: none">NA – In-house	<ul style="list-style-type: none">NA – Drop off only	<ul style="list-style-type: none">NA – In-house	<ul style="list-style-type: none">NA – In-house

Item	North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
Landfill Sites						
Municipal or Private Landfill Site Used for Disposal?	<ul style="list-style-type: none"> 1 active – accepts residential waste only delivered by residents to the site. Operated in-house Private landfill (GFL) used for curbside waste. Contract expires in 2021 	<ul style="list-style-type: none"> 2 Municipal Landfill Sites North Lancaster - 4580 2nd Line Road Beaver Brook Road Landfill site - 19281 Beaver Brook Road, east of Chapel Road 	<ul style="list-style-type: none"> 1 Municipal Landfill Site - Boyne Road landfill site Environmental Compliance Approval (ECA) No.A482101 issued December 4, 1989 1 closed landfill site (monitored annually) 	<ul style="list-style-type: none"> Municipal (Matilda) 10815 Seibert Road Iroquois, ON K0E 1K0 1 closed landfill site – Williamsburg 	<ul style="list-style-type: none"> Private (GFL) 	<ul style="list-style-type: none"> Both private and municipally owned (Trillium) landfill sites are used GFL – curbside Trillium – residents only
Landfill Operations Contract Terms	<ul style="list-style-type: none"> NA - In-house (for Municipal landfill site) 	<ul style="list-style-type: none"> NA - In-house 	<ul style="list-style-type: none"> Landfill operations by Township employees-2020 816K waste compactor 	<ul style="list-style-type: none"> NA - In-House 	<ul style="list-style-type: none"> NA (uses GFL) 	<ul style="list-style-type: none"> In-house (for Municipal landfill site)
Private Waste Disposal Contract Terms	<ul style="list-style-type: none"> Private landfill (GRS Sanitation Inc./GFL) used for curbside waste. Contract expires in 2021. Contract also includes curbside waste and recycling collection 	<ul style="list-style-type: none"> NA – In-house operations 	<ul style="list-style-type: none"> NA – In-house operations 	<ul style="list-style-type: none"> NA – In-house operations 	<ul style="list-style-type: none"> Private landfill (GFL) 20 year contract expires Nov 1, 2021 	<ul style="list-style-type: none"> Private landfill (GFL) used for curbside waste. 20 year contract that expires May 31,2023
Container Station Operations Contract Terms	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> NA - In-house 	<ul style="list-style-type: none"> NA - In-house 	<ul style="list-style-type: none"> New drop off container station will be operated in-house. Roads department will transport bins to face 	<ul style="list-style-type: none"> NA - In-house 	<ul style="list-style-type: none"> NA - (uses GFL)
Landfill Monitoring Contract Terms	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> In-house & Consultant Annual 	<ul style="list-style-type: none"> Outsourced(Golder) Annual 	<ul style="list-style-type: none"> Outsourced (WSP) Annual 	<ul style="list-style-type: none"> Outsourced for 2 closed sites (Morison Hershfield) Annual 	<ul style="list-style-type: none"> Outsourced (EVB) Annual
Recycling Processing Contracts						
Processing Facility (MRF) Used	<ul style="list-style-type: none"> Own Facility – RARE (opened in 1990) 265 Industrial Blvd. Alexandria, Ontario K0C 1A0 Also processes recyclables from other SDG municipalities and elsewhere 	<ul style="list-style-type: none"> City of Cornwall 2590 Cornwall Centre Road 	<ul style="list-style-type: none"> WMI in Brockville. Month to month contract Separate contract with another contractor to deliver recyclables to WMI's facility. Month to month. 	<ul style="list-style-type: none"> City of Cornwall 2590 Cornwall Centre Road An alternative to Cornwall included in new tender set to begin May 2021 	<ul style="list-style-type: none"> City of Cornwall 2590 Cornwall Centre Road 	<ul style="list-style-type: none"> City of Cornwall 2590 Cornwall Centre Road

Item	North Glengarry	South Glengarry	North Dundas	South Dundas	North Stormont	South Stormont
MRF Contract Terms	<ul style="list-style-type: none">• NA	<ul style="list-style-type: none">• Annual• Processing fee is \$301/tonne gross• Revenue based on share of tonnes processed	<ul style="list-style-type: none">• NA	<ul style="list-style-type: none">• Annual• Direct contract with Cornwall for recycling processing and revenues. Previously part of collection contractor’s contract.• Expires Dec 31 2020• Max 1000 tonnes per year can be processed• Processing fee is \$301/tonne gross• Revenue based on market price received and municipality’s share of tonnes processed	<ul style="list-style-type: none">• Annual• Processing fee is \$301/tonne gross• Revenue based on share of tonnes processed	<ul style="list-style-type: none">• Annual• Processing fee is \$301/tonne gross• Revenue based on share of tonnes processed
Household Hazardous Waste & E-Waste Collection Contracts						
Collection Contract Terms	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•	<ul style="list-style-type: none">• Agreement with City of Cornwall
Other Waste Diversion Contracts						
Scrap Metal	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•
Supply of Backyard Composters/ Blue Boxes	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•
Public Education/ Customer Service Contracts						
Public Education/ Customer Service Contracts	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•	<ul style="list-style-type: none">•

Appendix G

Gross Operating & Capital Cost Projections (2020-2044)

United Counties of SDG
Regional Waste Management – A Roadmap to Collaboration
APPENDIX G: GROSS OPERATING AND CAPITAL COSTS (2020-2044)

TABLE G1:GROSS OPERATING COSTS BY MUNICIPALITY	INFLATED											
Municipality / Collaboration Option	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
North Dundas												
WASTE COLLECTION OPERATING COSTS (INHOUSE)	259,887	271,459	276,888	282,274	287,768	293,375	295,371	301,219	307,218	313,338	319,580	325,947
WASTE COLLECTION OPERATING COSTS (CONTRACT)	187,289	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL OPERATING COSTS (OWN LANDFILL)	200,950	209,308	213,488	217,659	221,915	226,257	228,144	232,667	237,302	242,030	246,852	251,771
WASTE DISPOSAL OPERATING COSTS (CONTRACT LANDFILL)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	274,137	316,944	324,016	330,335	336,765	343,327	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION OPERATING COSTS	67,333	127,592	119,911	122,038	124,419	126,854	-	-	-	-	-	-
LANDFILL CLOSURE & POST CLOSURE CARE OPERATING COSTS	15,000	15,300	15,606	15,918	16,236	16,561	16,892	17,230	17,575	17,926	18,285	18,651
TOTAL	1,004,596	940,604	949,908	968,224	987,103	1,006,375	540,407	551,116	562,095	573,294	584,717	596,369
South Dundas												
WASTE COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE COLLECTION OPERATING COSTS (CONTRACT)	315,000	326,786	333,082	339,734	346,519	353,441	360,500	367,480	374,821	382,310	389,949	397,740
WASTE DISPOSAL OPERATING COSTS (OWN LANDFILL)	453,153	362,983	369,331	376,701	352,170	359,035	366,204	373,291	380,746	388,350	396,107	404,019
WASTE DISPOSAL OPERATING COSTS (CONTRACT LANDFILL)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (CONTRACT)	315,000	326,786	333,082	339,734	346,519	353,441	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION OPERATING COSTS	202,100	202,276	206,128	210,242	214,440	218,722	26,575	26,080	26,596	27,127	27,669	28,222
LANDFILL CLOSURE & POST CLOSURE CARE OPERATING COSTS	39,345	110,759	112,974	115,233	157,604	160,756	163,971	167,251	170,596	174,008	177,488	190,242
TOTAL	1,324,598	1,329,590	1,354,597	1,381,644	1,417,253	1,445,395	917,250	934,101	952,758	971,795	991,212	1,020,223
North Glengarry												
WASTE COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE COLLECTION OPERATING COSTS (CONTRACT)	256,000	261,621	266,853	272,189	277,632	283,184	288,846	294,622	300,513	306,523	312,652	318,904
WASTE DISPOSAL OPERATING COSTS (OWN LANDFILL)	234,105	239,160	243,943	248,821	253,797	258,872	264,049	269,329	274,715	280,209	285,812	291,528
WASTE DISPOSAL OPERATING COSTS (CONTRACT LANDFILL)	193,951	198,139	202,101	206,143	210,265	214,470	218,759	223,134	227,596	232,147	236,789	241,525
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (CONTRACT)	170,000	173,733	177,207	180,751	184,365	188,052	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION OPERATING COSTS	775,149	791,885	761,945	777,110	792,650	808,501	-	-	-	-	-	-
LANDFILL CLOSURE & POST CLOSURE CARE OPERATING COSTS	25,000	25,500	26,010	26,530	27,061	27,602	28,154	28,717	29,291	29,877	30,475	31,084
TOTAL	1,654,205	1,690,037	1,678,060	1,711,544	1,745,770	1,780,680	799,808	815,802	832,116	848,756	865,729	883,041
South Glengarry												
WASTE COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE COLLECTION OPERATING COSTS (CONTRACT)	490,000	502,565	512,616	522,853	533,294	543,944	554,806	565,886	577,187	588,714	600,472	612,464
WASTE DISPOSAL OPERATING COSTS (OWN LANDFILL)	280,800	272,821	278,184	283,736	289,399	295,176	188,451	191,551	195,370	199,269	203,247	207,303
WASTE DISPOSAL OPERATING COSTS (CONTRACT LANDFILL)	-	-	-	-	98,874	101,436	103,464	105,529	107,635	109,783	111,974	114,209
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (CONTRACT)	231,240	237,170	241,913	246,744	251,671	256,697	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION OPERATING COSTS	263,760	270,637	239,634	244,198	249,070	254,042	-	-	-	-	-	-
LANDFILL CLOSURE & POST CLOSURE CARE OPERATING COSTS	2,500	2,550	2,601	2,653	2,706	57,964	59,124	60,306	61,512	62,742	63,997	65,277
TOTAL	1,268,300	1,285,742	1,274,948	1,300,183	1,425,014	1,509,258	905,845	923,272	941,704	960,509	979,690	999,254
North Stormont												
WASTE COLLECTION OPERATING COSTS (INHOUSE)	52,200	-	-	-	-	-	-	-	-	-	-	-
WASTE COLLECTION OPERATING COSTS (CONTRACT)	87,500	178,883	182,703	186,355	190,080	193,879	197,755	201,605	205,635	209,746	213,939	218,216
WASTE DISPOSAL OPERATING COSTS (OWN LANDFILL)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL OPERATING COSTS (CONTRACT LANDFILL)	112,000	114,720	116,921	119,257	121,640	124,071	126,551	129,016	131,595	134,225	136,907	139,644
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	97,429	99,805	101,718	103,751	105,825	107,940	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION OPERATING COSTS	133,500	136,742	123,239	125,646	128,157	130,718	-	-	-	-	-	-
LANDFILL CLOSURE & POST CLOSURE CARE OPERATING COSTS	36,000	36,720	37,454	38,203	38,968	39,747	40,542	41,353	42,180	43,023	43,884	44,761
TOTAL	518,629	566,870	562,035	573,213	584,669	596,355	364,847	371,974	379,409	386,994	394,730	402,621
South Stormont												
WASTE COLLECTION OPERATING COSTS (INHOUSE)	363,500	399,809	408,098	416,208	424,476	432,909	441,511	450,286	459,236	468,365	477,677	487,175
WASTE COLLECTION OPERATING COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL OPERATING COSTS (OWN LANDFILL)	112,720	167,356	162,974	170,362	173,795	177,247	180,760	184,351	188,015	191,752	-	-
WASTE DISPOSAL OPERATING COSTS (CONTRACT LANDFILL)	167,000	172,386	175,834	179,326	182,887	186,520	190,216	193,995	197,850	201,783	208,624	212,786
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	191,500	207,417	211,681	215,887	220,176	224,550	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION OPERATING COSTS	256,000	264,257	257,057	262,011	267,212	272,520	15,524	12,812	13,032	13,291	17,090	17,468
LANDFILL CLOSURE & POST CLOSURE CARE OPERATING COSTS	33,108	33,770	34,445	35,134	35,837	36,553	37,284	38,030	38,791	39,567	138,826	141,602
TOTAL	1,123,828	1,244,994	1,250,089	1,278,927	1,304,382	1,330,299	865,295	879,474	896,924	914,757	842,217	859,031

United Counties of SDG
Regional Waste Management – A Roadmap to Collaboration
APPENDIX G: GROSS OPERATING AND CAPITAL COSTS (2020-2044)

TABLE G1:GROSS OPERATING COSTS BY MUNICIPALITY													
Municipality / Collaboration Option	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
North Dundas													
WASTE COLLECTION OPERATING COSTS (INHOUSE)	332,442	339,066	345,822	352,714	359,743	366,913	374,226	381,685	389,293	397,054	404,969	413,043	421,278
WASTE COLLECTION OPERATING COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL OPERATING COSTS (OWN LANDFILL)	256,787	261,904	267,122	272,446	277,875	283,414	289,063	294,824	300,701	306,696	312,810	319,047	325,408
WASTE DISPOSAL OPERATING COSTS (CONTRACT LANDFILL)	-	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION OPERATING COSTS	-	-	-	-	-	-	-	-	-	-	-	-	-
LANDFILL CLOSURE & POST CLOSURE CARE OPERATING COSTS	19,024	19,404	19,792	20,188	20,592	21,004	21,424	21,852	22,289	22,735	23,190	23,653	24,127
TOTAL	608,252	620,373	632,737	645,347	658,210	671,330	684,712	698,362	712,284	726,485	740,969	755,743	770,813
South Dundas													
WASTE COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-	-
WASTE COLLECTION OPERATING COSTS (CONTRACT)	404,763	412,855	421,110	429,531	438,120	446,882	455,820	464,936	474,235	483,720	493,394	503,262	513,327
WASTE DISPOSAL OPERATING COSTS (OWN LANDFILL)	411,160	419,378	427,762	436,314	445,036	453,935	463,012	461,486	470,692	480,104	489,705	499,497	509,485
WASTE DISPOSAL OPERATING COSTS (CONTRACT LANDFILL)	-	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION OPERATING COSTS	28,720	29,294	29,880	30,477	31,087	31,708	32,342	32,989	33,649	34,322	35,008	35,708	36,422
LANDFILL CLOSURE & POST CLOSURE CARE OPERATING COSTS	194,047	197,928	201,887	205,924	114,989	117,288	119,634	132,812	135,468	138,177	140,941	143,760	146,635
TOTAL	1,038,691	1,059,455	1,080,639	1,102,246	1,029,231	1,049,814	1,070,809	1,092,223	1,114,044	1,136,323	1,159,047	1,182,226	1,205,869
North Glengarry													
WASTE COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-	-
WASTE COLLECTION OPERATING COSTS (CONTRACT)	325,281	331,785	338,420	345,187	352,090	359,130	366,311	373,636	381,108	388,729	396,502	404,430	412,518
WASTE DISPOSAL OPERATING COSTS (OWN LANDFILL)	297,358	303,304	309,370	315,556	321,867	328,311	334,877	341,574	348,404	355,371	362,478	369,727	377,120
WASTE DISPOSAL OPERATING COSTS (CONTRACT LANDFILL)	246,355	251,281	256,306	261,432	266,660	271,999	277,438	282,986	288,645	294,418	300,305	306,311	312,436
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION OPERATING COSTS	-	-	-	-	-	-	-	-	-	-	-	-	-
LANDFILL CLOSURE & POST CLOSURE CARE OPERATING COSTS	31,706	32,340	32,987	33,647	34,320	35,006	35,706	36,420	37,149	37,892	38,649	39,422	40,211
TOTAL	900,699	918,711	937,082	955,822	974,935	994,447	1,014,333	1,034,617	1,055,306	1,076,409	1,097,935	1,119,890	1,142,285
South Glengarry													
WASTE COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-	-
WASTE COLLECTION OPERATING COSTS (CONTRACT)	624,696	637,173	649,899	662,879	676,119	689,623	703,398	717,447	731,778	746,394	761,303	776,510	792,021
WASTE DISPOSAL OPERATING COSTS (OWN LANDFILL)	211,441	215,660	219,965	25,166	24,573	25,058	25,558	26,068	26,588	27,119	27,660	28,212	28,776
WASTE DISPOSAL OPERATING COSTS (CONTRACT LANDFILL)	116,489	118,813	300,677	307,673	313,819	320,083	326,472	332,989	339,636	346,416	353,331	360,385	367,579
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION OPERATING COSTS	-	-	-	-	-	-	-	-	-	-	-	-	-
LANDFILL CLOSURE & POST CLOSURE CARE OPERATING COSTS	66,583	132,595	135,247	137,952	140,711	143,525	146,395	149,323	152,310	155,356	158,463	161,632	164,865
TOTAL	1,019,208	1,104,241	1,305,787	1,133,670	1,155,222	1,178,289	1,201,823	1,225,827	1,250,311	1,275,285	1,300,758	1,326,740	1,353,241
North Stormont													
WASTE COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-	-
WASTE COLLECTION OPERATING COSTS (CONTRACT)	222,229	226,672	231,205	235,829	240,545	245,356	250,263	255,269	260,374	265,581	270,893	276,311	281,837
WASTE DISPOSAL OPERATING COSTS (OWN LANDFILL)	-	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL OPERATING COSTS (CONTRACT LANDFILL)	142,219	145,063	147,964	150,922	153,940	157,018	160,158	163,361	166,628	169,960	173,359	176,826	180,362
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION OPERATING COSTS	-	-	-	-	-	-	-	-	-	-	-	-	-
LANDFILL CLOSURE & POST CLOSURE CARE OPERATING COSTS	45,657	46,570	47,501	48,451	49,420	50,409	51,417	52,445	53,494	54,564	55,655	56,768	57,904
TOTAL	410,105	418,305	426,670	435,203	443,906	452,783	461,839	471,075	480,496	490,106	499,907	509,905	520,103
South Stormont													
WASTE COLLECTION OPERATING COSTS (INHOUSE)	496,864	506,746	516,826	527,107	537,594	548,291	559,202	570,331	581,683	593,261	605,071	617,118	629,405
WASTE COLLECTION OPERATING COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL OPERATING COSTS (OWN LANDFILL)	-	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL OPERATING COSTS (CONTRACT LANDFILL)	217,017	221,333	225,736	230,226	234,783	239,455	244,220	249,081	254,038	259,095	264,253	269,515	274,881
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION OPERATING COSTS	17,815	18,170	18,531	18,900	19,274	19,657	20,049	20,448	20,855	21,270	21,693	22,125	22,566
LANDFILL CLOSURE & POST CLOSURE CARE OPERATING COSTS	144,434	147,323	150,269	153,275	156,340	159,467	162,657	165,910	169,228	172,612	176,065	179,586	183,178
TOTAL	876,131	893,572	911,362	929,508	947,992	966,870	986,127	1,005,769	1,025,804	1,046,239	1,067,083	1,088,344	1,110,030

United Counties of SDG
Regional Waste Management – A Roadmap to Collaboration
APPENDIX G: GROSS OPERATING AND CAPITAL COSTS (2020-2044)

TABLE G2: GROSS CAPITAL COSTS BY MUNICIPALITY	INFLATED											
Municipality	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
North Dundas												
WASTE COLLECTION ASSETS/ PROJECTS	159,000	-	-	-	-	-	-	195,550	142,385	-	-	-
WASTE DISPOSAL ASSETS/ PROJECTS	267,000	799,345	1,202,009	28,966	390,248	59,047	29,851	530,873	33,579	32,619	33,598	64,090
RECYCLING COLLECTION ASSETS/ PROJECTS	164,000	-	-	-	-	48,573	-	-	-	-	-	-
OTHER WASTE DIVERSION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-
CLOSURE & POST CLOSURE CARE ASSETS REPLACEMENT & OTHER PROJECTS	87,000	-	164,065	721,200	-	-	-	-	-	453,777	-	-
TOTAL	677,000	799,345	1,366,074	750,166	390,248	107,620	29,851	726,423	175,964	486,396	33,598	64,090
South Dundas												
WASTE COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL ASSETS/ PROJECTS	242,000	744,932	-	546,364	-	-	-	-	-	-	325,228	-
RECYCLING COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-
OTHER WASTE DIVERSION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-
CLOSURE & POST CLOSURE CARE ASSETS REPLACEMENT & OTHER PROJECTS	63,900	-	-	-	1,350,611	82,308	-	-	-	-	-	1,690,565
TOTAL	305,900	744,932	-	546,364	1,350,611	82,308	-	-	-	-	325,228	1,690,565
North Glengarry												
WASTE COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL ASSETS/ PROJECTS	218,306	328,176	26,523	27,318	28,138	28,982	29,851	30,747	31,669	32,619	410,748	5,890,110
RECYCLING COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-
OTHER WASTE DIVERSION ASSETS/ PROJECTS	25,582	-	222,789	-	-	-	-	-	-	-	-	-
CLOSURE & POST CLOSURE CARE ASSETS REPLACEMENT & OTHER PROJECTS	47,700	49,131	442,554	52,123	53,687	55,297	56,956	58,665	60,425	62,238	64,105	114,476
TOTAL	291,588	377,307	691,866	79,441	81,824	84,279	86,808	89,412	92,094	94,857	474,853	6,004,586
South Glengarry												
WASTE COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL ASSETS/ PROJECTS	300,000	-	-	-	-	-	-	-	-	63,934	563,101	145,345
RECYCLING COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-
OTHER WASTE DIVERSION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-
CLOSURE & POST CLOSURE CARE ASSETS REPLACEMENT & OTHER PROJECTS	-	-	-	-	-	463,710	-	-	-	25,573	65,887	61,676
TOTAL	300,000	-	-	-	-	463,710	-	-	-	89,507	628,988	207,021
North Stormont												
WASTE COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-
OTHER WASTE DIVERSION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-
CLOSURE & POST CLOSURE CARE ASSETS REPLACEMENT & OTHER PROJECTS	-	-	-	-	-	-	-	-	-	-	104,960	58,968
TOTAL	-	-	-	-	-	-	-	-	-	-	104,960	58,968
South Stormont												
WASTE COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL ASSETS/ PROJECTS	-	520,150	21,218	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-
OTHER WASTE DIVERSION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-
CLOSURE & POST CLOSURE CARE ASSETS REPLACEMENT & OTHER PROJECTS	30,000	-	-	-	-	-	-	-	-	-	252,421	58,967
TOTAL	30,000	520,150	21,218	-	-	-	-	-	-	-	252,421	58,967

United Counties of SDG
Regional Waste Management – A Roadmap to Collaboration
APPENDIX G: GROSS OPERATING AND CAPITAL COSTS (2020-2044)

TABLE G2: GROSS CAPITAL COSTS BY MUNICIPALITY

Municipality	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
North Dundas													
WASTE COLLECTION ASSETS/ PROJECTS	-	-	240,502	-	-	-	-	-	-	295,787	-	221,831	-
WASTE DISPOSAL ASSETS/ PROJECTS	57,176	761,306	37,815	38,949	40,118	42,812	45,128	962,712	45,153	121,169	185,675	681,092	50,820
RECYCLING COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER WASTE DIVERSION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
CLOSURE & POST CLOSURE CARE ASSETS REPLACEMENT & OTHER PROJECTS	-	-	-	541,833	-	-	-	-	-	646,977	-	-	-
TOTAL	57,176	761,306	278,317	580,783	40,118	42,812	45,128	962,712	45,153	1,063,933	185,675	902,923	50,820
South Dundas													
WASTE COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	437,079	-	-	-	18,924
RECYCLING COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER WASTE DIVERSION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
CLOSURE & POST CLOSURE CARE ASSETS REPLACEMENT & OTHER PROJECTS	101,229	41,706	-	-	-	93,882	60,436	2,216,256	76,940	-	-	-	57,731
TOTAL	101,229	41,706	-	-	-	93,882	60,436	2,216,256	514,019	-	-	-	76,655
North Glengarry													
WASTE COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL ASSETS/ PROJECTS	35,644	36,713	37,815	38,949	40,118	41,321	42,561	129,759	190,789	46,507	47,903	49,340	50,820
RECYCLING COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER WASTE DIVERSION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
CLOSURE & POST CLOSURE CARE ASSETS REPLACEMENT & OTHER PROJECTS	68,009	70,049	72,151	150,655	76,544	101,981	81,206	83,642	124,080	88,736	91,398	94,140	96,964
TOTAL	103,653	106,762	109,965	189,605	116,662	143,302	123,767	213,402	314,868	135,243	139,301	143,480	147,784
South Glengarry													
WASTE COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	541,833	-	-	-	-
RECYCLING COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER WASTE DIVERSION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
CLOSURE & POST CLOSURE CARE ASSETS REPLACEMENT & OTHER PROJECTS	-	1,174,827	-	-	28,024	23,784	-	186,162	85,201	-	-	-	-
TOTAL	-	1,174,827	-	-	28,024	23,784	-	186,162	627,034	-	-	-	-
North Stormont													
WASTE COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER WASTE DIVERSION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
CLOSURE & POST CLOSURE CARE ASSETS REPLACEMENT & OTHER PROJECTS	-	83,413	-	55,308	-	-	-	-	-	-	-	-	-
TOTAL	-	83,413	-	55,308	-	-	-	-	-	-	-	-	-
South Stormont													
WASTE COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER WASTE DIVERSION ASSETS/ PROJECTS	-	-	-	-	-	-	-	-	-	-	-	-	-
CLOSURE & POST CLOSURE CARE ASSETS REPLACEMENT & OTHER PROJECTS	30,369	62,559	-	-	-	-	-	-	76,941	-	-	-	-
TOTAL	30,369	62,559	-	-	-	-	-	-	76,941	-	-	-	-

APPENDIX G: GROSS OPERATING AND CAPITAL COSTS (2020-2044)

TABLE G3: GROSS CAPITAL & OPERATING COSTS	INFLATED											
Municipality / Collaboration Option	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
North Dundas												
WASTE COLLECTION COSTS (INHOUSE)	418,887	271,459	276,888	282,274	287,768	293,375	295,371	496,769	449,603	313,338	319,580	325,947
WASTE COLLECTION COSTS (CONTRACT)	187,289	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL COSTS (OWN LANDFILL)	467,950	1,008,654	1,415,497	246,625	612,162	285,304	257,995	763,540	270,881	274,649	280,450	315,861
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	438,137	316,944	324,016	330,335	336,765	391,901	-	-	-	-	-	-
RECYCLING COLLECTION COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	67,333	127,592	119,911	122,038	124,419	126,854	-	-	-	-	-	-
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	102,000	15,300	179,671	737,118	16,236	16,561	16,892	17,230	17,575	471,703	18,285	18,651
TOTAL	1,681,596	1,739,949	2,315,983	1,718,390	1,377,351	1,113,995	570,259	1,277,539	738,059	1,059,690	618,315	660,459
South Dundas												
WASTE COLLECTION COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE COLLECTION COSTS (CONTRACT)	315,000	326,786	333,082	339,734	346,519	353,441	360,500	367,480	374,821	382,310	389,949	397,740
WASTE DISPOSAL COSTS (OWN LANDFILL)	695,153	1,107,915	369,331	923,064	352,170	359,035	366,204	373,291	380,746	388,350	721,335	404,019
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION COSTS (CONTRACT)	315,000	326,786	333,082	339,734	346,519	353,441	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	202,100	202,276	206,128	210,242	214,440	218,722	26,575	26,080	26,596	27,127	27,669	28,222
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	103,245	110,759	112,974	115,233	1,508,215	243,065	163,971	167,251	170,596	174,008	177,488	1,880,807
TOTAL	1,630,498	2,074,522	1,354,597	1,928,008	2,767,864	1,527,704	917,250	934,101	952,758	971,795	1,316,440	2,710,788
North Glengarry												
WASTE COLLECTION COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE COLLECTION COSTS (CONTRACT)	256,000	261,621	266,853	272,189	277,632	283,184	288,846	294,622	300,513	306,523	312,652	318,904
WASTE DISPOSAL COSTS (OWN LANDFILL)	452,411	567,336	270,465	276,139	281,935	287,854	293,900	300,076	306,384	312,828	696,560	6,181,638
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	193,951	198,139	202,101	206,143	210,265	214,470	218,759	223,134	227,596	232,147	236,789	241,525
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION COSTS (CONTRACT)	170,000	173,733	177,207	180,751	184,365	188,052	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	800,731	791,885	984,734	777,110	792,650	808,501	-	-	-	-	-	-
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	72,700	74,631	468,564	78,653	80,748	82,899	85,110	87,382	89,716	92,115	94,580	145,560
TOTAL	1,945,793	2,067,344	2,369,926	1,790,985	1,827,594	1,864,960	886,616	905,214	924,210	943,613	1,340,581	6,887,627
South Glengarry												
WASTE COLLECTION COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE COLLECTION COSTS (CONTRACT)	490,000	502,565	512,616	522,853	533,294	543,944	554,806	565,886	577,187	588,714	600,472	612,464
WASTE DISPOSAL COSTS (OWN LANDFILL)	580,800	272,821	278,184	283,736	289,399	295,176	188,451	191,551	195,370	263,203	766,348	352,648
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	-	-	-	-	98,874	101,436	103,464	105,529	107,635	109,783	111,974	114,209
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION COSTS (CONTRACT)	231,240	237,170	241,913	246,744	251,671	256,697	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	263,760	270,637	239,634	244,198	249,070	254,042	-	-	-	-	-	-
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	2,500	2,550	2,601	2,653	2,706	521,674	59,124	60,306	61,512	88,315	129,885	126,954
TOTAL	1,568,300	1,285,742	1,274,948	1,300,183	1,425,014	1,972,968	905,845	923,272	941,704	1,050,016	1,608,678	1,206,275
North Stormont												
WASTE COLLECTION COSTS (INHOUSE)	52,200	-	-	-	-	-	-	-	-	-	-	-
WASTE COLLECTION COSTS (CONTRACT)	87,500	178,883	182,703	186,355	190,080	193,879	197,755	201,605	205,635	209,746	213,939	218,216
WASTE DISPOSAL COSTS (OWN LANDFILL)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	112,000	114,720	116,921	119,257	121,640	124,071	126,551	129,016	131,595	134,225	136,907	139,644
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	97,429	99,805	101,718	103,751	105,825	107,940	-	-	-	-	-	-
RECYCLING COLLECTION COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	133,500	136,742	123,239	125,646	128,157	130,718	-	-	-	-	-	-
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	36,000	36,720	37,454	38,203	38,968	39,747	40,542	41,353	42,180	43,023	148,844	103,730
TOTAL	518,629	566,870	562,035	573,213	584,669	596,355	364,847	371,974	379,409	386,994	499,690	461,590
South Stormont												
WASTE COLLECTION COSTS (INHOUSE)	363,500	399,809	408,098	416,208	424,476	432,909	441,511	450,286	459,236	468,365	477,677	487,175
WASTE COLLECTION COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL COSTS (OWN LANDFILL)	112,720	687,506	184,192	170,362	173,795	177,247	180,760	184,351	188,015	191,752	-	-
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	167,000	172,386	175,834	179,326	182,887	186,520	190,216	193,995	197,850	201,783	208,624	212,786
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	191,500	207,417	211,681	215,887	220,176	224,550	-	-	-	-	-	-
RECYCLING COLLECTION COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	256,000	264,257	257,057	262,011	267,212	272,520	15,524	12,812	13,032	13,291	17,090	17,468
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	63,108	33,770	34,445	35,134	35,837	36,553	37,284	38,030	38,791	39,567	391,247	200,570
TOTAL	1,153,828	1,765,144	1,271,307	1,278,927	1,304,382	1,330,299	865,295	879,474	896,924	914,757	1,094,638	917,999

United Counties of SDG
Regional Waste Management – A Roadmap to Collaboration
APPENDIX G: GROSS OPERATING AND CAPITAL COSTS (2020-2044)

TABLE G3: GROSS CAPITAL & OPERATING COSTS												
Municipality / Collaboration Option	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
North Dundas												
WASTE COLLECTION COSTS (INHOUSE)	332,442	339,066	586,324	352,714	359,743	366,913	374,226	381,685	389,293	692,841	404,969	634,874
WASTE COLLECTION COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL COSTS (OWN LANDFILL)	313,963	1,023,210	304,937	311,395	317,993	326,226	334,191	1,257,536	345,854	427,864	498,485	1,000,139
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	-	-	-	-	-	-	-	-	-	-	-	-
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	19,024	19,404	19,792	562,021	20,592	21,004	21,424	21,852	22,289	669,712	23,190	23,653
TOTAL	665,428	1,381,680	911,053	1,226,130	698,328	714,142	729,840	1,661,074	757,437	1,790,418	926,644	1,658,667
South Dundas												
WASTE COLLECTION COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE COLLECTION COSTS (CONTRACT)	404,763	412,855	421,110	429,531	438,120	446,882	455,820	464,936	474,235	483,720	493,394	503,262
WASTE DISPOSAL COSTS (OWN LANDFILL)	411,160	419,378	427,762	436,314	445,036	453,935	463,012	461,486	907,771	480,104	489,705	499,497
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	28,720	29,294	29,880	30,477	31,087	31,708	32,342	32,989	33,649	34,322	35,008	35,708
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	295,276	239,634	201,887	205,924	114,989	211,170	180,071	2,349,068	212,408	138,177	140,941	143,760
TOTAL	1,139,920	1,101,162	1,080,639	1,102,246	1,029,231	1,143,696	1,131,245	3,308,479	1,628,063	1,136,323	1,159,047	1,182,226
North Glengarry												
WASTE COLLECTION COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE COLLECTION COSTS (CONTRACT)	325,281	331,785	338,420	345,187	352,090	359,130	366,311	373,636	381,108	388,729	396,502	404,430
WASTE DISPOSAL COSTS (OWN LANDFILL)	333,002	340,018	347,184	354,505	361,984	369,633	377,438	471,333	539,193	401,879	410,381	419,066
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	246,355	251,281	256,306	261,432	266,660	271,999	277,438	282,986	288,645	294,418	300,305	306,311
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	-	-	-	-	-	-	-	-	-	-	-	-
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	99,715	102,389	105,137	184,302	110,864	136,987	116,912	120,063	161,229	126,628	130,048	133,563
TOTAL	1,004,352	1,025,473	1,047,048	1,145,426	1,091,598	1,137,748	1,138,100	1,248,018	1,370,175	1,211,653	1,237,235	1,263,370
South Glengarry												
WASTE COLLECTION COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE COLLECTION COSTS (CONTRACT)	624,696	637,173	649,899	662,879	676,119	689,623	703,398	717,447	731,778	746,394	761,303	776,510
WASTE DISPOSAL COSTS (OWN LANDFILL)	211,441	215,660	219,965	25,166	24,573	25,058	25,558	26,068	568,422	27,119	27,660	28,212
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	116,489	118,813	300,677	307,673	313,819	320,083	326,472	332,989	339,636	346,416	353,331	360,385
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	-	-	-	-	-	-	-	-	-	-	-	-
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	66,583	1,307,422	135,247	137,952	168,734	167,309	146,395	335,486	237,510	155,356	158,463	161,632
TOTAL	1,019,208	2,279,068	1,305,787	1,133,670	1,183,246	1,202,073	1,201,823	1,411,990	1,877,345	1,275,285	1,300,758	1,326,740
North Stormont												
WASTE COLLECTION COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE COLLECTION COSTS (CONTRACT)	222,229	226,672	231,205	235,829	240,545	245,356	250,263	255,269	260,374	265,581	270,893	276,311
WASTE DISPOSAL COSTS (OWN LANDFILL)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	142,219	145,063	147,964	150,922	153,940	157,018	160,158	163,361	166,628	169,960	173,359	176,826
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	-	-	-	-	-	-	-	-	-	-	-	-
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	45,657	129,983	47,501	103,759	49,420	50,409	51,417	52,445	53,494	54,564	55,655	56,768
TOTAL	410,105	501,718	426,670	490,510	443,906	452,783	461,839	471,075	480,496	490,106	499,907	509,905
South Stormont												
WASTE COLLECTION COSTS (INHOUSE)	496,864	506,746	516,826	527,107	537,594	548,291	559,202	570,331	581,683	593,261	605,071	617,118
WASTE COLLECTION COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL COSTS (OWN LANDFILL)	-	-	-	-	-	-	-	-	-	-	-	-
WASTE DISPOSAL COSTS (CONTRACT LANDFILL)	217,017	221,333	225,736	230,226	234,783	239,455	244,220	249,081	254,038	259,095	264,253	269,515
RECYCLING COLLECTION OPERATING COSTS (INHOUSE)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING COLLECTION COSTS (CONTRACT)	-	-	-	-	-	-	-	-	-	-	-	-
RECYCLING PROCESSING & OTHER WASTE DIVERSION COSTS	17,815	18,170	18,531	18,900	19,274	19,657	20,049	20,448	20,855	21,270	21,693	22,125
LANDFILL CLOSURE & POST CLOSURE CARE COSTS	174,803	209,882	150,269	153,275	156,340	159,467	162,657	165,910	246,169	172,612	176,065	179,586
TOTAL	906,500	956,131	911,362	929,508	947,992	966,870	986,127	1,005,769	1,102,744	1,046,239	1,067,083	1,088,344

Appendix H

Annual Unit Cost Projections (2020- 2044)

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United Counties of SDG
Regional Waste Management – A Roadmap to Collaboration
APPENDIX H: 2020-2024 UNIT COST PROJECTIONS

TABLE H2: RECYCLING COLLECTION UNIT COSTS						
Municipality/ Collaboration Option	2020	2021	2022	2023	2024	2025
Recycling Collection In-House Cost per Capita						
North Dundas	36	26	26	26	26	29
South Dundas	-	-	-	-	-	-
North Glengarry	-	-	-	-	-	-
South Glengarry	-	-	-	-	-	-
North Stormont	13	14	14	14	14	14
South Stormont	14	14	15	15	15	15
Recycling Collection In-house Cost per Curbside Stop						
North Dundas	102	72	72	72	71	81
South Dundas	-	-	-	-	-	-
North Glengarry	-	-	-	-	-	-
South Glengarry	-	-	-	-	-	-
North Stormont	36	37	37	38	39	39
South Stormont	34	37	37	37	38	38
Recycling Collection Contract Cost per Capita						
North Dundas	-	-	-	-	-	-
South Dundas	28	28	29	29	30	30
North Glengarry	16	16	17	17	17	18
South Glengarry	17	17	17	17	18	18
North Stormont	-	-	-	-	-	-
South Stormont	-	-	-	-	-	-
Recycling Collection Contract Cost per Curbside Stop						
North Dundas	-	-	-	-	-	-
South Dundas	65	67	68	69	70	71
North Glengarry	47	48	48	49	50	51
South Glengarry	39	40	40	41	41	42
North Stormont	-	-	-	-	-	-
South Stormont	-	-	-	-	-	-

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APPENDIX H: 2020-2024 UNIT COST PROJECTIONS

TABLE H3: WASTE DISPOSAL UNIT COSTS													
Municipality/ Collaboration Option	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Waste Disposal (OWN LANDFILL) Cost per Tonne													
North Dundas	224	473	651	111	270	124	111	326	115	115	117	131	129
South Dundas	162	257	85	212	80	82	83	84	85	87	160	89	91
North Glengarry	411	515	245	250	255	260	265	270	275	280	624	5,525	297
South Glengarry	194	90	92	93	94	96	105	106	107	144	416	190	113
North Stormont	-	-	-	-	-	-	-	-	-	-	-	-	-
South Stormont	315	1,898	502	459	463	467	471	475	479	483	-	-	-
Waste Disposal (CONTRACT LANDFILL) Cost per Tonne													
North Dundas	-	-	-	-	-	-	-	-	-	-	-	-	-
South Dundas	-	-	-	-	-	-	-	-	-	-	-	-	-
North Glengarry	85	87	88	90	91	93	95	97	98	100	102	104	106
South Glengarry	-	-	-	-	-	-	79	80	82	83	84	85	86
North Stormont	67	69	70	71	72	73	74	76	77	78	80	81	82
South Stormont	59	60	60	61	61	62	62	63	63	64	58	59	59

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APPENDIX H: 2020-2024 UNIT COST PROJECTIONS

TABLE H3: WASTE DISPOSAL UNIT COSTS												
Municipality/ Collaboration Option	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
Waste Disposal (OWN LANDFILL) Cost per Tonne												
North Dundas	417	123	125	127	129	131	491	134	165	191	380	142
South Dundas	92	94	96	98	99	101	101	197	104	106	108	114
North Glengarry	303	309	315	321	327	334	416	475	354	361	368	375
South Glengarry	115	-	-	-	-	-	-	-	-	-	-	-
North Stormont	-	-	-	-	-	-	-	-	-	-	-	-
South Stormont	-	-	-	-	-	-	-	-	-	-	-	-
Waste Disposal (CONTRACT LANDFILL) Cost per Tonne												
North Dundas	-	-	-	-	-	-	-	-	-	-	-	-
South Dundas	-	-	-	-	-	-	-	-	-	-	-	-
North Glengarry	108	110	112	114	116	118	120	123	125	127	129	132
South Glengarry	88	93	94	96	97	98	100	101	103	104	106	107
North Stormont	84	85	87	89	90	92	94	96	97	99	101	103
South Stormont	60	60	61	61	62	63	63	64	65	65	66	67

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APPENDIX H: 2020-2024 UNIT COST PROJECTIONS

TABLE H4: WASTE DIVERSION UNIT COSTS												
Municipality	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Recycling Processing & Other Diversion Costs per Tonne												
North Dundas	111	205	189	188	188	188	-	-	-	-	-	-
South Dundas	381	379	385	390	396	402	49	47	48	49	50	50
North Glengarry	1,047	1,034	1,283	1,011	1,030	1,049	-	-	-	-	-	-
South Glengarry	374	381	335	340	345	349	-	-	-	-	-	-
North Stormont	334	340	306	311	316	321	-	-	-	-	-	-
South Stormont	320	326	314	316	319	321	18	15	15	15	19	19

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APPENDIX H: 2020-2024 UNIT COST PROJECTIONS

TABLE H4: WASTE DIVERSION UNIT COSTS													
Municipality	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
Recycling Processing & Other Diversion Costs per Tonne													
North Dundas	-	-	-	-	-	-	-	-	-	-	-	-	-
South Dundas	51	52	53	54	55	56	57	58	59	60	61	62	64
North Glengarry	-	-	-	-	-	-	-	-	-	-	-	-	-
South Glengarry	-	-	-	-	-	-	-	-	-	-	-	-	-
North Stormont	-	-	-	-	-	-	-	-	-	-	-	-	-
South Stormont	19	20	20	20	20	20	21	21	21	21	21	22	22

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Regional Waste Management – A Roadmap to Collaboration

APPENDIX H: 2020-2024 UNIT COST PROJECTIONS

TABLE H5: LANDFILL CLOSURE & POST CLOSURE CARE UNIT COSTS													
Municipality	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
Landfill Closure & Post Closure Care Costs per Tonne													
North Dundas	8	8	8	226	8	8	8	9	9	258	9	9	9
South Dundas	65	53	44	45	25	46	39	512	46	30	31	31	44
North Glengarry	29	30	30	53	32	39	34	34	46	36	37	38	39
South Glengarry	21	405	42	42	51	51	44	101	71	46	47	47	48
North Stormont	26	75	27	60	28	29	30	30	31	31	32	32	33
South Stormont	48	57	40	40	41	41	42	42	62	43	43	44	44