

# 2024 Essex-Windsor Residential Waste Diversion Annual Report

Report Date: March 31, 2025



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# **Essex-Windsor Residential Waste Diversion**

Annual Report for January – December 2024

## 1 Introduction

The Annual Waste Diversion Report provides information on the waste diversion activities carried out by the Essex-Windsor Solid Waste Authority (EWSWA) during 2024 in compliance with Condition 5.2 of the Environmental Assessment Approval for the Essex-Windsor Regional Landfill.

### 1.1 Residential Waste Diversion Rate 2024

This report also provides the EWSWA the ability to track any changes in the amount of waste diverted through waste diversion initiatives from year to year.

In 2024, the seven County of Essex (County) municipalities and the City of Windsor (City) delivered 111,848 tonnes of residential waste to the Essex-Windsor Regional Landfill (Landfill) which increased from 2023 (109,926 tonnes). During the same time period, 50,140 tonnes of residential waste were diverted from the Landfill via the blue and red box recycling program, hazardous and special products program (HSP) (formerly the municipal hazardous or special waste program), composting, and other waste diversion programs. These waste diversion initiatives resulted in a 2024 residential diversion rate of 30.6%. The 2023 diversion rate was 32.4%.

On August 28, 2024, the EWSWA, responsible for administering the Blue Box Program on behalf of the City and the seven local communities in the County, namely Amherstburg, Essex, Kingsville, Lakeshore, LaSalle, Leamington, and Tecumseh (the County Municipalities), transitioned the program to Extended Producer Responsibility (EPR) in accordance with Ontario Regulation 391/21. This date has been defined throughout the document as **Transition**.

The EWSWA requested that Circular Materials (CM) provide the post-Transition data required to accurately report the 2024 diversion statistics. Correspondence received from CM staff on March 7, 2024, states the following: "We would like to clarify that data sharing is not a regulatory obligation. As such, Circular Materials and RLG do not have the infrastructure or resources in place to accommodate municipal data requests."

Therefore, for the diversion rate calculation below and for comparison purposes throughout this report, actual Blue Box Program data from January 1, 2024, to August 27, 2024, has been used. To complete the full-year analysis, in the absence of actual figures, data from August 28, 2023, to December 31, 2023, was also included.

2024 Residential Diversion Rate is calculated as follows: 50,140 Tonnes Diverted (see Table 20) 111,848 Tonnes of Residential Refuse Collected Curbside + 1,877 Residuals + 50,140 Diverted Tonnes	_ =	50,140 163,865	x	100	=	30.6%
2023 Residential Diversion Rate is calculated as follows: 54,110 Tonnes Diverted (see Table 20) 109,926 Tonnes of Residential Refuse Collected Curbside + 2,992 Residuals + 54,110 Diverted Tonnes	_ =	54,110 167,028	x	100	=	32.4%

### 2 Programs

### 2.1 Residential Recycling Blue Box Program

The tonnes of residential recyclable materials collected curbside pre-Transition in 2024 was 14,200 tonnes, using August 28 to December 31, 2023 tonnage figures as previously noted, the total for 2024 is estimated at 21,657 tonnes. These will be held constant until data becomes available. Due to population growth in the region as well as changes to the blue box program, this data should be representative of 2024 actuals. The overall tonnes of recyclables collected in 2023 were comparable at 21,623 tonnes.

A monthly summary and comparison of the tonnes collected curbside from the City and the County in 2023 and 2024 is shown in Table 1. The collection of recyclables in the County was carried out under contract in 2024 by the City of Windsor. The collection of recyclables in the City of Windsor in 2024 was carried out by Green For Life Environmental Inc. Both contracts ended with the start of Transition on August 28, 2024.

Prior to Transition, all materials were processed at the EWSWA owned Essex-Windsor Material Recovery Facility (MRF), located at E.C. Row and

Central Avenue in Windsor, where HGC Management Inc. via contract, segregated delivered materials into marketed goods. This contract also ceased with Transition. Since this time, the Fibre MRF has been decommissioned to prepare for the construction of a new Transfer Station for the Green Bin Program that launches in the fall of 2025.

In addition to the residential recyclables collected curbside, 1061 tonnes of recyclables were delivered to the EWSWA's Public Drop Off Depots in 2024, as compared to 538 tonnes in 2023, which is almost double what is typically dropped off and may be a result of Transition.

Month	2024 County of Essex* Tonnes	2024 City of Windsor Tonnes	2024 Combined Tonnes	2023 Comparable Tonnes
January	1,049	1,031	2,080	2,007
February	789	829	1,618	1,550
March	759	806	1,565	1,846
April	889	897	1,786	1,603
Мау	1,004	1,039	2,043	1,856
June	824	820	1,644	1,878
July	994	973	1,967	1,715
August	887	874	1,761	1,975
September**	876	892	1,767	1,767
October**	871	871	1,742	1,742
November**	883	902	1,785	1,785
December**	949	950	1,899	1,899
Total:	10,773	10,884	21,657	21,623

# Table 1: Residential recycling blue box collection tonnes by monthcomparison

\* The County of Essex includes the Town of Amherstburg, the Town of Essex, the Town of Kingsville, the Municipality of Lakeshore, the Town of LaSalle, the Municipality of Leamington, and the Town of Tecumseh.

\*\* 2023 actual data was used for the Post-Transition period.

### 2.2 Recycling Residual Disposal

Recycling Residual is the material that is left over after recyclable materials are processed at the MRF. The residuals typically consist of contaminated materials, non-recyclable materials, and packaging materials used to secure recyclables placed in the recycle box. A total of 1,877 tonnes of recycling residuals was disposed of as of August 27, 2024.

### **3** Tonnes Marketed

For the purposes of waste diversion calculations, tonnes marketed are used instead of the tonnes collected curbside. Due to Transition, actual marketed tonnes from January 1, 2024, to August 27, 2024 was used. To arrive at a full-year number for 2024, in the absence of actual figures, data from August 28, 2023, to December 31, 2023, was also included.

Fibre Material	2023 Tonnes	2024 Tonnes	% Change
Old newspaper (SRPN #56)	4,571	4,030	-11.8
Cardboard (OCC)	5,570	5,480	-1.6
Hardpack (OBB)	2,224	2,210	-0.6
Fine paper	8	0	-100.0
Mixed fibre (SRPN #54)	340	1,404	312.9
Totals:	12,713	13,124	3.3

Container Material	2023 Tonnes	2024 Tonnes	% Change
Clear glass	150	112	-25.3
Mixed glass	2,522	2,571	1.9
Steel cans	604	453	-25.0
Aluminum cans and foil	338	349	3.3
Polyethylene terephthalate (PET)	1,410	1,454	3.1
High-density polyethylene (HDPE)	369	366	-0.8
Polycoat/gable top	105	130	23.8
Mixed plastics	566	772	36.4
Mixed containers	99	-	-100.0
Totals:	6,163	6,207	0.7

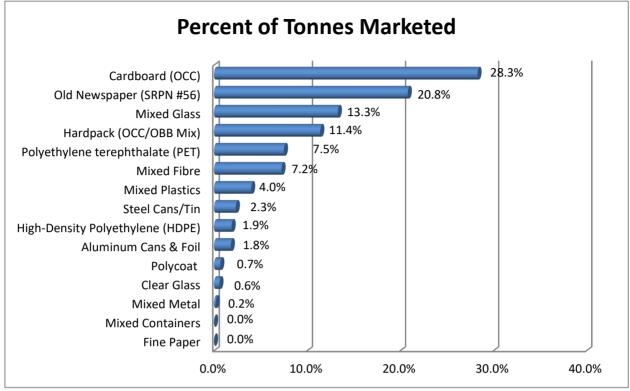
### Table 3: Marketed containers summary comparison: 2023 versus 2024

### **Table 4: Residential recyclables marketed comparison**

Tonnes Marketed	2023 Tonnes	2024 Tonnes
a) Total tonnes marketed	18,876	19,331
b) ICI Tonnes	(625)	(640)
Net marketed residential recyclables	18,25118,251	18,691

Notes: a) Total tonnes marketed less b) ICI delivered tonnes = Net marketed residential recyclables.





Due to rounding, the data in Figure 1 may not equal to 100%.

### In absence of actual marketed material data Post-Transition, the balance of Section 3 below only uses actual tonnes marketed by the EWSWA for the period January 1 to August 27, 2024 (Pre-Transition).

Pre-Transition, the tonnes that the EWSWA marketed by material type are shared below. The EWSWA marketed all materials processed through its MRFs and retained 100% of the revenue from the sale of materials. Revenue from the sale of material in 2024 (Pre-Transition) was approximately \$2,619,874 (see Table 5), representing a basket-of-goods revenue of approximately \$199/tonne compared to a basket-of-goods revenue of \$140/tonne in 2023. This is a result of strong market conditions for the majority of recyclable materials marketed in 2024. A brief discussion of market conditions and prices for each of the materials is included below.

### **3.1 Fibres**

Old Newspaper (SRPN #56) – For 2024, SRPN #56 prices ranged from a low of \$132 per tonne to a high of \$181 per tonne. The EWSWA average price for 2024 was \$157 per tonne. The EWSWA 2023 average price for SRPN #56 was \$93 per tonne.

Old Corrugated Cardboard (OCC) – The EWSWA price for old corrugated cardboard ranged from a low of \$145 per tonne to a high of \$198 per tonne in 2024. In 2024, the EWSWA average price per tonne was \$180 compared to \$107 in 2023.

Hardpack (OBB) (Example: cereal boxes, cardboard) – The EWSWA's prices for this cardboard/boxboard mix ranged from \$101 per tonne to \$164 per tonne in 2024. In 2024, the EWSWA average price was \$124 compared to \$48 per tonne in 2023.

Fine Paper – There were no loads of fine paper sold in 2024 vs one load of fine paper sold in 2023 with an average price of \$148 per tonne.

Mixed Fibre (SRPN #54) – The pricing for mixed fibre ranged from a low of \$29 per tonne to a high of \$37 per tonne in 2024. The average price for 2024 was \$34 per tonne compared to \$20 per tonne in 2023.

### **3.2 Containers**

Steel Cans – The 2024 average price was \$349 per tonne compared to \$360 per tonne in 2023. The market price per tonne in 2024 ranged from a low of \$275 to a high of \$420.

Aluminum Cans and Foil – The 2024 average price was \$2,316 per tonne compared to \$2,084 in 2023. Again, due to market fluctuations the price per tonne ranged from \$1,769 to \$2,625 per tonne. Aluminum foil was sold at an average price of \$867 during 2024, whereas in 2023, it sold at \$772 per tonne.

Glass – The 2024 average clear glass price of \$30 per tonne was the same in 2023. Clear glass is the only product that is not marketed FOB (Freight on Board). Mixed coloured glass was delivered to the Essex-Windsor Regional Landfill ("Landfill") for use as road base.

Polyethylene Terephthalate (PET) (Example: plastic water bottles) – The average price was \$465 per tonne in 2024 which is much higher than the 2023 average price of \$291 per tonne.

High-Density Polyethylene (HDPE) (Example: laundry soap bottles) – The average price was \$559 per tonne in 2024, compared to the 2023 average price of \$423 per tonne.

Polycoat and Gable Top (Example: milk cartons) – Polycoat was not sold in 2024, compared to 2023 it sold at an average price of \$0.42 per tonne.

Mixed Plastics (Example: tubs & lids, clamshells, trays, cups, plastic bottles, excludes polystyrene and plastic film bags) – The average price was \$70 per tonne in 2024 compared to the average price of \$41 per tonne in 2023.

Mixed Containers – In 2024, the EWSWA did not sell any residuals, compared to 2023 the average price was \$11 per tonne as this trial market was no longer available.

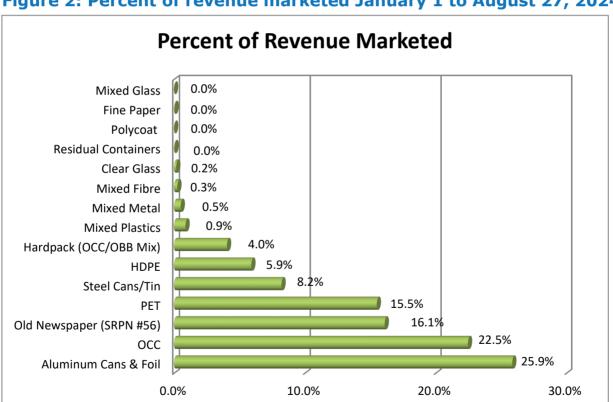
Recyclable Material	2023 Revenue	2024 Revenue*
Old newspaper (SRPN #56)	\$425,695	\$395,568
Cardboard (OCC)	\$594,017	\$657,542
Hardpack (OBB)	\$106,964	\$182,186
Clear glass	\$4,436	\$2,069
Mixed fibre (SRPN #54)	\$6,687	\$40,102
Steel cans	\$217,166	\$150,849
Fine paper	\$1,177	\$0
Aluminum cans and foil	\$683,497	\$540,766
Polyethylene terephthalate (PET)	\$409,718	\$456,715
High-density polyethylene (HDPE)	\$156,163	\$147,530
Mixed glass	\$0	\$0
Polycoat/gable top	\$45	\$0
Mixed metal	\$13,391	\$13,162
Mixed plastics	\$23,146	\$33,385
Residual Containers	\$1,075	\$0
Total Revenue	\$2,643,177	\$2,619,874

### Table 5: Revenue comparison: 2023 versus 2024

\* 2024 Revenue includes materials marketed Pre-Transition

Year	Revenue
2015	\$3,101,234
2016	\$3,414,055
2017	\$4,241,411
2018	\$3,204,744
2019	\$2,076,450
2020	\$2,180,781
2021	\$4,967,436
2022	\$4,681,016
2023	\$2,643,177
2024*	\$2,619,874

\* 2024 includes revenue from materials marketed Pre-Transition



#### Figure 2: Percent of revenue marketed January 1 to August 27, 2024

### 3.3 Markets

2024 was another strong year for marketing blue box materials. The 2024 revenue for almost three quarters of the year (due to Transition) is comparable to the twelve-month 2023 revenue number. This shift in markets may be a result of Extended Producer Responsibility where producers are using more recyclable materials in their product than what is available in the market (supply vs demand).

### 4 Other Residential Recycling Programs

### 4.1 White Goods

Since 1991, white goods, such as fridges, stoves, air conditioners, washers, dryers, freezers, dishwashers, etc. have been restricted from the Landfill. In 2024, the EWSWA's curbside White Goods collection program for all municipalities in Essex County except the Municipality of Lakeshore captured 1,320 units (approximately 119 tonnes). The Municipality of Lakeshore operates an independent program and reported a diversion figure of 24 tonnes of white goods in 2024.

The City operates a bulk collection program that includes the collection of white goods as well as other waste such as oversized items. White goods collected as part of the program are delivered to the Windsor Public Drop Off Depot for recycling, therefore the 149 tonnes of white goods delivered to Public Drop Off Depots in the table below includes the City tonnages. Table 8 details the white goods collection program for each municipality in the County of Essex by month during 2024.

White Goods Summary	2024 Tonnes
EWSWA Curbside Essex County Collection	119
Municipality of Lakeshore Program	24
Drop Off Depots	149
Total Tonnes Recycled and Diverted	292

### Table 7: Summary of white goods diversion for 2024

# Table 8: 2024 White goods collected through the EWSWA White Goods Program by month inmunicipalities across Essex County

Month	Amherstburg	Essex	Kingsville	LaSalle	Leamington	Tecumseh	Total for Month
January	11	12	13	12	10	11	69
February	12	16	21	12	11	11	83
March	29	12	26	23	17	7	114
April	26	15	11	20	16	10	98
Мау	26	13	34	20	14	17	124
June	38	16	27	30	18	13	142
July	30	10	15	28	14	13	110
August	26	21	18	34	19	25	143
September	27	21	18	35	8	7	116
October	24	9	11	18	8	18	88
November	29	15	18	36	17	19	134
December	24	20	14	20	11	10	99
Total Units	302	180	226	288	163	161	1,320

Notes: 1,320 units with an average weight of 90 kilograms per unit results in a diversion of approximately 118.8 tonnes.

### 4.2 Tires

As this program moved to full EPR on January 1, 2019, the historical RPRA Datacall calculations are used where approximately 3,001 tonnes of used tires were diverted across the Essex-Windsor area. While automotive tire recycling is now offered at many locations across Essex-Windsor, the EWSWA still collects used tires through the RPRA program. During 2024, approximately 165 tonnes of used tires were dropped off at the EWSWA sites, which are included in the 3,001 tonnes diverted in Essex-Windsor.

### 4.3 Scrap Metal

There are 40-yard roll off bins located at the Windsor Public Drop-off Depot for the collection of ferrous and non-ferrous scrap metal material. Metal materials are dropped off here from PDO visitors and other programs across the site where they may have been improperly disposed of to ensure it is diverted from the landfill. The metals are sold through a competitive bid process to local scrap dealers. In 2024, approximately 384 tonnes of metals were collected and recycled.

### 4.4 Electronics Recycling

Under contract with the EWSWA, Quantum Lifecycle Partners Inc. supplies sea containers for the collection of electronics at the EWSWA's Public Dropoff Depots. The EWSWA staff place electronic items that are received from the public in these containers. In 2024, approximately 242 tonnes of computers, televisions, audio visual equipment, and various electronic items were collected through the Electrical and Electronic Equipment (EEE) program.

### 4.5 Deposit/Return Program

Pre-Transition, the EWSWA had a capture program at the Material Recovery Facility (MRF) for deposit/return containers (i.e. aluminum beer cans; glass, wine, and spirit bottles) that were collected through the blue box collection program. During 2024, approximately 21 tonnes of deposit/return containers were received at the MRF. As this program has moved to the full Extended Producer Responsibility (EPR) model, the historical RPRA Datacall calculations are used where approximately 2,329 diversion tonnes were diverted in the region for this program, where this calculation is based upon the Essex-Windsor population as determined by Statistics Canada census data that is available.

### 4.6 WE ReCYCLE Bike Program

The EWSWA recognizes the importance of providing waste diversion programs that are convenient and safe for the public to access. In 2021, the EWSWA Board approved a bike reuse program, that supports bikes collected at the EWSWA sites to be refurbished and recycled back into the Essex-Windsor area through a community partnership program. In 2024, a total of 1,118 bikes were dropped off at the EWSWA sites, where 961 of those bikes were repaired/reused and the remaining 157 bikes were placed in the scrap metal bin for recycling as they did not meet We ReCYCLE Bike criteria.

 Table 9: Bikes recycled through the WE ReCYCLE program in 2024

Total # of Bikes Dropped Off	Total # of Bikes Repaired/Reused	Total # of Bikes Recycled as Metal	
1,118	961	157	

As the average bike weighs 10 kg, it is estimated that a total of 11,180 kgs or 11.18 tonnes of bikes were dropped off at the EWSWA Depots, 9,610 kgs or 9.61 tonnes of those bikes were repaired/reused, and 1,570 kgs or 1.57 tonnes of unrepairable bikes were recycled as metal through the WE ReCYCLE Program in 2024.

### 4.7 Election Signs

The EWSWA attempts to divert materials where feasible. It has been successful in offering a drop off program at the sites for election signs after an election. 2024 was not an election year in the region, therefore, no election signs were collected.

### 4.8 Wood Pallet Pilot Program

The Wood Pallet Pilot Program began in the fall of 2023. The EWSWA was successful in securing a local company to pick up pallets for recycling from the Windsor Public Drop Off Depot. This program continued in 2024, diverting 34 tonnes of pallets from unnecessary landfill.

### 4.9 Shingles/Road Base Diversion

In 2024, the EWSWA diverted loads of road base materials that were delivered to the Windsor Public Drop Off Depot, as these are valuable resources (e.g., stone, concrete, dirt, shingles). Because of this initiative, approximately 359 tonnes of these materials were diverted from the Landfill and rather used for road base purposes on site.

### 4.10 Textile Recycling with Diabetes Canada

In 2024, the EWSWA collaborated with Diabetes Canada to successfully divert approximately 3 tonnes of textiles from the Landfill by having a textiles recycling collection bin at the Windsor Public Drop Off Depot. Every 6,500 pounds of textiles collected helps to send one diabetic child to a Diabetes Canada D-Camp.

Other Recyclable Programs	2023 Tonnes	2024 Tonnes	% Change
White goods (all sites)	276	292	5.8%
Used tires	3,001	3,001	0.0%
Scrap & mixed metal	396	384	-3.0%
Electronics	251	242	-3.6%
Deposit/return & stewardship	2,329	2,329	0.0%
Bicycles	7	10	42.9%
Election Signs	0	0	0.0%
Pallets	7	34	385.7%
Shingles/Road Base	65	359	452.3%
Textiles	3	3	0.0%
Plastic Flower Pots	NA	3.34	100.0%
EWSWA Program Plastic Containers (Blue/Red Box, Composters, etc.)	NA	0.31	100.0%
Total Other Recyclables	6,335	6,658	5.1%

### Table 10: Other recyclables comparison: 2023 versus 2024

Notes: RPRA Datacall calculation is based on population for used tires and Deposit/return & stewardship programs in the Essex-Windsor area as reported by the Statistics Canada census.

### 4.11 Plastic Flower Pots & Container Recycling

At the Windsor Public Drop Off Depot, residents are able to drop off plastic flower pots which are then recycled and baled on site with the mixed plastics material. This initiative prevents these materials from ending up in the Landfill. These diversion numbers are accounted for in the Marketed Recyclable Goods section prior to Transition. During post-Transition 3.34 tonnes of plastic pots were diverted.

### 4.12 EWSWA Merchandise Recycling

At the Windsor Public Drop Off Depot, residents can drop off at no cost old merchandise of the EWSWA for recycling such as carts, boxes, green cones, etc. that are worn/used/broken beyond repair. These are typically sent to a local recycler when enough material is received and markets are available. Pre-Transition, program tonnage was included in the EWSWA residential blue box program, therefore post-Transition the EWSWA diverted .31 tonnes.

### **5** Residential Organics

### 5.1 Yard Waste

Grass, leaves, tree trimmings, and brush are restricted from disposal at the Essex-Windsor Regional Landfill. As a result, all local municipalities have established separate collection systems for yard waste, including special collections in January for Christmas trees. Furthermore, individual residents and grounds maintenance contractors also brought yard waste to each of the three Depots operated by the EWSWA in 2024.

The Essex-Windsor residents can set out their yard waste in: paper bags, wheeled carts, garbage bins, and cardboard boxes to receive curbside collection. Yard waste will not be collected if placed in a plastic bag. Approximately 20,796 tonnes of yard waste was received in 2024. This represents a decrease of 19% compared to the 25,845 tonnes delivered in 2023, which may be a result of inclement weather storms that occurred in the region in 2023.

Material Type	Windsor Public Drop Off	Kingsville Transfer Station 2	Regional Landfill	Total
Municipal Delivered	10,439	1,876	4,435	16,750
Residential Delivered	801	904	144	1,849
Total Res. Organics	11,240	2,780	4,579	18,599
*ICI Organics and Pallets	1,214	706	277	2,197
Grand Total (Tonnes)	12,454	3,486	4,856	20,796

### Table 11: 2024 Yard waste summary for all EWSWA sites

Notes: \*ICI is Industrial, Commercial, and Institutional delivered material type. Due to rounding, the sum of tonnes for 2024 will not equal the total value.

### Table 12: Yard waste tonnes comparison: 2023 versus 2024

Material Type	2023 Tonnes	2024 Tonnes
Municipal Delivered	18,326	16,750
Residential Delivered	5,114	1,849
Total Res. Organics	23,440	18,599
*ICI Organics and Pallets	2,405	2,197
Grand Total (Tonnes)	25,845	20,796

\*ICI is Industrial, Commercial, and Institutional delivered material type.

### **5.2 Screened Compost Sales**

The EWSWA undertakes an in-depth process to turn the organics and yard waste it receives into saleable, quality compost. The composting process involves grinding yard waste and placing it in long rows called 'windrows'. The material is turned frequently and the temperature is maintained above 55 degrees Celsius in order to kill any pathogens or weed seeds. Once the compost has matured, it is tested, screened, and then sold for use in landscaping, as well as flower and vegetable gardens.

In 2024, compost was sold as bulk (delivered or pick-up), bag-your-own, and prepackaged items as listed below.

Compost Material	Quantity Sold Tonnes		
Delivered	1,330 cubic yards	665	
Bulk sales	23,256 cubic yards	11,628	
Bag-Your-Own	1,457 bags	80-83	
Prepackaged Garden Gold	14,078 bags	253-310	
	Total Tonnes	12,626 - 12,686	

### Table 13: Compost sales 2024 summary

Table 13 Notes: Pre-packaged bag weights are based on approximately 18 to 22 kg/bag; Bag-Your-Own is approximately 55-57 kg/bag; Bulk compost is approximately 500 kg/cubic yard. Compost weight is expressed in 'ranges' due to the differing moisture content & density. One cubic yard = one bucket from the EWSWA small loader in Windsor. Weights are approximate.

Under contract with the EWSWA, Frank Dupuis Landscaping and Trucking provided delivery services for the sale of 665 tonnes of bulk compost locally. In total, 11,628 tonnes of compost were sold through the bulk sale program to residents and businesses at the EWSWA Depots. Additionally, approximately 14,078 prepackaged bags of compost ("Garden Gold") were sold at the Depots. Many residents also bagged their own compost at one of the Depots. The combined total weight of compost sold in 2024 was approximately 12,626 – 12,686 tonnes. In 2024, compost sales totalled \$269,687.

### **5.3 Backyard Composting**

Backyard composters (BYC) with the brand names "The Earth Machine" and "The Green Cone" were sold to Essex-Windsor residents in 2024. Both units were sold through local Home Hardware stores year-round. In total, 26 Earth Machine and 11 Green Cones units were sold through the Home Hardware stores. The combined BYC distributed in 2024 was 37 units, bringing the total number of units sold since 1988 to 40,520 units.

Current research has indicated that approximately 100 kg/year/BYC is diverted as a result of the backyard composting program. This translates into 4,052 tonnes of organic waste diverted from the Landfill through this program. This does not consider homemade composters or composting done independent of the EWSWA's backyard composting program.

### 5.4 FoodCycler<sup>™</sup> Food Waste Diversion

In July 2023, the EWSWA partnered with Food Cycle Science (FCS), to launch a pilot program featuring the FoodCycler<sup>™</sup>. The FoodCycler<sup>™</sup> is a countertop unit that converts food waste into a sanitary soil amendment. Due to the initial pilot, 527 FoodCycler<sup>™</sup> units were sold in the Essex-Windsor community in 2023 and another 29 units in 2024. Per FCS (2024), approximately 350kg per year/per household of food waste is diverted when using a FoodCycler<sup>™</sup> unit. Therefore, approximately 194,600 kgs or 195 tonnes of food waste was diverted in Essex-Windsor from the Essex-Windsor Regional Landfill.

Residential Organic Programs	2022 Tonnes	2023 Tonnes	2024 Tonnes
BYC Program	4,025	4,048	4,052
Mulching Blades*	1,343	1,343	1,343
Yard Waste (Residential)	19,009	23,440	18,599
FoodCycler <sup>™</sup> Program	N/A	52	195
Total Residential Organics	24,377	28,883	24,189

# Table 14: Residential organic waste reduction comparison: 2022 –2024

Notes: \*The mulching blade program was no longer directly offered through the EWSWA after 2001. Even though mulching blades and mowers are used by residents in the area, they can't be measured for the purposes of this report; therefore, no increase in diversion is indicated.

## 6 Promotion and Education (P&E)

### 6.1 Community Outreach

The EWSWA staff traditionally organizes promotions and events to engage residents in waste diversion activities. Initiatives like the Pitch In With Essex County Library, Earth Day Event at Malden Park, Green Bin Select the Slogan, a digital campaign for Waste Reduction Week, Blue Box Transition, Non-Eligible Source (NES) Registration, as well as print information on various programs of the EWSWA are some of the many strategies used in 2024.

There were 41 special events serviced with blue box program recycling carts in 2024 to support waste diversion at local community events.

The EWSWA launched their new website on April 8<sup>th</sup> followed by a Submit A Slogan contest. The new Green Bin Slogan was revealed along with information regarding the new Green Bin Program. "Food Waste Is Too Good To Waste – Green Bin It!" was the winning slogan.

### **6.2 Special Community Events**

One notable event that the EWSWA serviced in 2024 was the annual Earth Day event, held on April 21, 2024, at Malden Park in Windsor. Approximately 1,500 people attended the event.

Some highlights of this event included environmental exhibits, food vendors, guest speakers, Sciensational Snakes, interactive games, and an on-site hydration station.

The EWSWA at the Earth Day event, educated residents on various programs/upcoming initiatives in the Essex-Windsor area, including interactive displays on: compost, food waste and organics, red/blue box recycling, and BYC/Green Cone Digestors. Specifically, the EWSWA focused on Blue Box Transition, NES Registration, Green Bin Program, and Recycle Coach App promotions.

In 2024 the YQG Green Expo took place on October 26, 2024, and featured: vendors, Career Zone speakers and Circular Materials attended the event along with the EWSWA and other event partners. Residents were encouraged to drop off items such as electronics, textiles, household items, and eyeglasses, using the Community Recycle Drive Thru & Drop Off, as well as prescription medications which were collected for safe disposal, by various local not-for-profit organizations. Habitat for Humanity Restore, Unifor 444, Diabetes Canada, and Soles4Souls, etc. were some of the organizations that supported this event. At this event, the EWSWA had several staff on-site to answer questions and provide program information to participants. Specifically, information on the Green Bin Program and zero waste strategies, as well as Transition were shared.

### **6.3 Waste Reduction Hotline**

The EWSWA maintains a Waste Reduction Hotline (1-800-563-3377), where staff of the EWSWA answer residential questions, or redirect the call to the appropriate staff or department.

### **6.4 Print Newsletter**

The EWSWA issues an annual newsletter called Enviro Tips which is delivered to each household and is available online. In August 2024, the newsletter was delivered to every household, apartment, farm, and business in Windsor/Essex County. Over 173,500 newsletters were delivered by Canada Post. The newsletter featured the Winning Slogan on the front page with EWSWA Board members, as well as information on the 2022/23 Waste Audit results, the Non-Eligible Source recycling program (NES) and Extended Producer Responsibility (EPR).

### 6.5 E-Newsletter

E-newsletters are also part of the program as they are low cost and another way to reach residents using Constant Contact, Inc., an online marketing company that allows the user to create effective e-mail marketing campaigns. In the past, the EWSWA has utilized Constant Contact to inform subscribers of events, sales, and various promotions of the EWSWA.

The EWSWA has a total of 6,394 subscribers. A total of 36 e-newsletters were published in 2024, which represents a substantial increase from 2023, as the EWSWA utilized Constant Contact to send out information regarding the Non-Eligible Source Program (NES). Information like registration updates, collection calendars, etc. were sent out on a regular basis.

In 2024: 33,727 emails were sent, 30,487 emails were delivered/received by the intended recipient, 63% average open rate, 13% click rate, and 3,240 bounced (did not make it to the intended recipient).

### 6.6 EWSWA Website

The EWSWA website (<u>www.ewswa.org</u>) is updated on a regular basis to provide detailed information and public education to residents. Topics covered range from waste management and reduction to details regarding waste diversion activities. Through the website, residents have access to instructions, tenders, reports, calendars, acceptable recycle box materials, incentives, etc. In April 2024, the EWSWA launched a new website using the newly updated Google Analytics (G4) to measure the metrics for the website. Prior to the launch of the new EWSWA website, the EWSWA actively sought feedback from local municipalities and residents by issuing a "Website Survey Tool" – known as Tree Jack. This survey logs user 'clicks' as they navigate through a draft website site map. The purpose was to identify the navigational patterns of the participants and whether any of the draft website framing needed to be reassessed or repositioned to a different place in the 'navigational' framework.

• Total Users (January - December): 74,521

Metrics below are tied to the new website (April through December only):

- Average Session Duration: 1 minute 31 seconds
- 52% of users accessed the website via mobile device, 23% of users accessed the website via desktop, 16% of users accessed the website via tablet and 9% of users accessed the website via a smart TV.

### 6.7 Recycle Coach App

Recycle Coach is an App that makes recycling and collection schedule information easy to find. The App is continuously developing new programs to combat complacency and get people re-engaged in diversion practices. It promotes best practice ideas on better waste management to improve outcomes such as increasing recycling, proper disposal and diversion of solid waste, etc. In September 2024, the EWSWA utilized the Recycle Coach App to push out notifications to residents about Transition. This was done to notify residents to call the new contractor and administrator, GFL and Circular Materials respectively, for residential recycling issues. In some cases, mobile phone users will 'unsubscribe' to an app if they receive push messages they deem 'unwanted or unnecessary'. This could account for the decrease in users after the August transition as shown below for 2024 (Table 15):

Metrics	2023	2024
Total Users	28,308	27,020
Total Interactions	3,405,260	3,907,846
Reminders	3,248,924	3,490,956
Notifications	37,566	283,047
Material Searches	19,507	21,219
Page Views	25,759	23,860
Calendar Views	73,684	88,764

### Table 15: Recycle Coach App Metrics Comparison for 2023-2024

### 6.8 Agorapulse

In 2022, the EWSWA began using Agorapulse to better manage and enhance the capability to schedule social media posts. Agorapulse is a full-featured social media management platform. Some of its features include a variety of methods to publish content, schedule posts, and report about social account usage. It allows Waste Diversion staff to stay organized, save time, generate reports, and easily manage social media accounts, from one convenient platform.

### 6.9 Facebook

- Fans / Followers: 602
- Engagement: 2,308
- Impressions: 189,003

### Definitions

- Fans / Followers are the number of people who are following the EWSWA's Facebook page.
- Engagement is the number of fan interactions (reactions, comments, shares, clicks, and private messages) with the EWSWA Facebook page.
- Impressions are the number of times the EWSWA page has been viewed during the selected period (2024). This includes paid, organic, and viral impressions.

### Facebook Publishing:

- Posts Published: 242
- Posts Reach: 161,201
- Engaged Users: 6,821

### 6.10 X (Formerly Twitter)

The social platform formerly known as Twitter was purchased, rebranded, and relaunched as "X" in mid-July 2023. The X platform analytics are no longer included in Agorapulse. To receive metrics for X, the EWSWA would have to pay an additional fee. The EWSWA has not yet subscribed to this additional service. X is working on improvements to their analytics, but much of the data is currently missing.

• Followers: 1,018

### Definitions

• Followers are the number of people who are following the EWSWA on *X*.

### 6.11 Instagram

The EWSWA added Instagram to their social media accounts in 2021. The 2024 metrics are as follows:

- Followers: 263
- Engagement: 333
- Impressions: 21K
- Brand Awareness: 11
- Posts Published: 173
- Posts Reached: 6,643
- Posts Engagement: 212

### Definitions

- Followers are the number of people following the EWSWA on Instagram.
- Number of followers' interactions (likes, saves, comments, and direct messages) to the EWSWA Instagram profile.
- Impressions is the number of times the EWSWA profile's content has been viewed during the selected period.
- Brand Awareness is the number of mentions of the EWSWA profile and

listening searches containing your brand name.

### 6.12 Google – Public Drop Off Depot Statistics

The EWSWA strives to always ensure Google information is up-to-date as many people visit Google for topics including:

- Holiday Closures
- Hours of Operation
- Traffic Flow (heavy traffic / light traffic)
- Photos
- Reviews
- Accepted Materials

During a search, Google logs 'behavior' metrics, as well as the resulting 'action' from the search (a visit to the organization's website, request directions, call, etc.).

Some key Google statistics for the EWSWA's Public Drop Off Depot searches (statistical average is over 3 months):

- 4.3/5-star rating based on public reviews
- 5,308 EWSWA business profile interactions
- 34,852 people viewed the EWSWA profile (via mobile 76%, via desktop 13%, via Google maps 10% mobile, via Google maps desktop 1%)
- 15,416 searches (website, calls, photo views, direction requests)

Through Google Business Profile Manager, the EWSWA staff have the ability to post updates (holiday closures, change in hours, photos), as well as post messages and respond to reviews.

### 6.13 Radio and Social Media Campaigns

The EWSWA ran several radio and social media campaigns in 2024, all of which reached a significant number of individuals. Notable campaigns in 2024:

- Earth Day 2 spots in rotation (April)
- Green Bin Program Submit a Slogan (April)
- NES Registration (April/May)
- EPR No Set Out Time (August)

- EPR Contact GFL (August)
- Motor Oil (September)
- Waste Reduction Week YQG Green Expo, Electronics, Food Waste, Single Item Swap, EWSWA Drop Off Depots (October rotation)
- Green Halloween (Reduce, Reuse Focus) Costume, Compost, Pillow Case, Pumpkin Recycling (October rotation)
- 12 Days of Christmas Chemical Waste (December)
- Xmas Tree Recycling (December/January)

### 6.14 Gold Star Program

In 2016, the EWSWA launched a recycling incentive program aimed at increasing public awareness regarding the red and blue box recycling program. Residents were encouraged to apply for a new "Gold Recycling Box" through a program that evaluated their curbside recycling, provided feedback, and rewarded successful recyclers with a gold box. The program's ultimate objective was to decrease the amount of contamination being set out by residents and thereby decrease the amount of residual waste being landfilled. By the end of the program in 2023, 2,869 homes that had registered and had their recycling inspected were rewarded for excellent recycling habits with a Gold Box. This program ceased as a result of Transition, however, as the brand was well received the EWSWA has carried this brand to other waste diversion programs.

### 7 Hazardous and Special Products (HSP) Program

### 7.1 HSP Depots

The EWSWA opened the Windsor HSP Depot in October 1995. In addition to the Windsor facility, the EWSWA opened a second HSP Depot at Transfer Station No. 2 in the Town of Kingsville in 1997. A third depot was opened at the Essex-Windsor Regional Landfill in October 2013. These Depots replaced the annual Household Chemical Waste Days held in Essex-Windsor. A total of 517,463 litres and 96,151 kg of HSP materials were delivered to the sites in 2024 compared to 555,269 litres and 102,386 kg respectively in 2023. See Tables 16 and 17 for details.

### 7.2 Reuse Centre

A Reuse Centre has been operational at the Windsor HSP facility since 1995.

Paint is distributed in both 1-gallon and 5-gallon pails for reuse. According to<br/>records, 1,967 residents accessed the Reuse Centre in 2024 resulting in<br/>Essex-Windsor Solid Waste Authority25

31,474 products or approximately 49,308 kg of paint and miscellaneous materials being taken in 2024 compared to 35,260 products or 52,539 kg of reusable materials in 2023.

Material	HSP from Facilities	Reuse Centre Quantities	Total
Adhesives/flammable liquids	88,228	10,846	99,074
Aerosols	7,132	1,135	8,267
Antifreeze (Glycol)	10,315	0	10,315
Corrosive liquid	4,809	978	5,787
Inorganic acids	1,066	0	1,066
Paints & Coatings	164,694	34,520	199,214
Pesticides	2,725	754	3,479
Waste oils (used motor oil, hydraulic oil, etc.)	176,434	0	176,434
Cooking oil	9,815	0	9,815
Total HSP Litres	469,230	48,233	517,463

### **Table 16: Hazardous and Special Products for 2024 in litres**

Material	HSP from Facilities	Reuse Centre Quantities	Total
Car batteries	24,345	0	24,345
Dry cell batteries	16,642	0	16,642
Fire extinguishers	3,385	0	3,385
Fluorescents/misc. lamps/ballasts	14,832	0	14,832
Inorganic oxidizers	2,717	1,075	3,792
Mercury (HG items)/lead	30	0	30
Pharmaceuticals	210	0	210
Plastic used oil containers	7,674	0	7,674
Propane cylinders	4,306	0	4,306
Propane tanks/misc. tanks	18,267	0	18,267
Corrosive solids (e.g. cement)	1,739	0	1,739
Waste oil filters	929	0	929
Total HSP Kilograms	95,076	1,075	96,151

### Table 17: Hazardous and Special Products for 2024 in kilograms

### **Table 18: HSP Diversion Comparison**

	2023 Tonnes	2024 Tonnes
HSP recycled or reused	658	614
HSP not recycled	(18)	(12)
Total HSP Diverted	640	602

Note: Examples of HSP materials not recycled include: inorganic acids, inorganic oxidizers, pharmaceuticals, corrosive liquids, and pesticides.

### 7.3 Waste Motor Oil

In 2024, waste motor oil was collected curbside alongside the residential recycling program until Transition (August 28, 2024). When the EWSWA administered the blue box program, it was able to offer a complementary waste oil pick-up, but since Transition, this service was longer viable. Inquiring residents are reminded that they can deliver waste oil to the EWSWA's HSP facilities throughout the year at no charge, as they would for all other HSP materials. The quantity of waste oil diverted during 2024 was

176,434 litres, compared to the 208,860 litres diverted in 2023. The quantity of oil diverted by month is shown in Table 19 with historical data over four years.

Month	2021 Litres	2022 Litres	2023 Litres	2024 Litres
January	7,950	9,150	13,875	9,750
February	4,300	4,175	6,700	9,425
March	23,625	14,875	11,375	12,450
April	20,700	12,675	20,294	23,808
Мау	14,625	18,500	19,197	19,189
June	21,950	24,973	26,750	20,379
July	17,000	18,665	20,025	26,136
August	19,250	17,750	17,309	16,858
September	18,775	19,083	17,485	5,756
October	14,850	17,838	21,350	15,789
November	15,925	17,072	17,250	12,647
December	14,425	8,732	17,250	4,247
Total:	193,375	183,488	208,860	176,434

### **Table 19: Litres Waste Oil collected**

Note: Due to contractor change in 2021, the data for 2021-2024 accounts for all types of oil collected, both hydraulic and motor. As of August 28, 2024, waste oil collection curbside ceased due to Transition. Instead residents can drop off these materials at an EWSWA Depot as they do for all other HSP materials.

### 7.4 Waste Cooking Oil

Used cooking oil is free for residents to drop off at the EWSWA HSP facilities at the City of Windsor Public Drop Off and the Kingsville Transfer Station #2. Sanimax collects the cooking oil which is then filtered and cleaned, and later marketed to be mixed with diesel fuel to create biodiesel. In 2024, the total amount of cooking oil collected at both sites totalled 9,815 litres or 9.8 tonnes. As of August 28, 2024, waste oil collection curbside ceased due to Transition. Instead, residents can drop off these at an EWSWA Depot as they do for all other HSP materials.

### 7.5 Refillable Propane Tanks

In 2023, the EWSWA began working with Tank Traders, a national propane tank exchange program that offers a free service for core collection of refillable propane tanks ranging from 5 lbs to 100 lbs. Tanks that are in good condition are collected and refurbished into their exchange program for reuse, and any tanks that do not pass the safety requirements are sent to a metal recycler, preventing them from landfill. In 2024, a total of 1,802 propane tanks were collected from the EWSWA's three sites by Tank Traders, allowing them to either be reused in their exchange program or recycled.

### 7.6 Call2Recycle Battery Recycling Program

Call2Recycle Inc. is a not-for-profit organization that provides a battery recycling program at no cost to consumers across Canada. Call2Recycle receives batteries from the EWSWA's three sites and recycles them, keeping them out of the Landfill and recovering the valuable materials that can be used to create new batteries and other products. As captured in Table 17, a total of 16,642 kgs or approximately 17 tonnes of batteries were collected from the EWSWA's three sites in 2024 and recycled/reused through Call2Recycle Inc.

### 8 **Overall Summary of Residential Diversion Quantities**

### 8.1 Residential Waste Diversion

Table 20 below summarizes the residential waste diversion activities detailed in this report.

Residential Waste Diversion Summary	2023 Tonnes	2024 Tonnes
Net Marketed Recyclables (Table 4)	18,251	18,691
Other Recyclable Programs (Table 10)	6,335	6,658
Yard Waste, BYC, Mulching Blades, & FoodCycler™ (Table 14)	28,883	24,189
HSP Waste (Table 18)	640	602
Total Residential Tonnes Diverted	54,110	50,140

### **Table 20: Residential Waste Diversion Summary**

Essex-Windsor Solid Waste Authority

Due to rounding, the Total Residential Tonnes Diverted does not equate to the sum of tables 4, 10, 14, and 18.

For further information, please contact the undersigned.

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