

**REPORT NO. 74** of the  
**ENVIRONMENT & TRANSPORTATION STANDING COMMITTEE**  
of its meeting held August 29, 2012

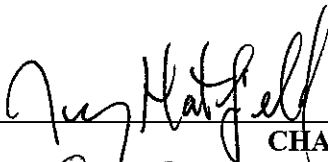
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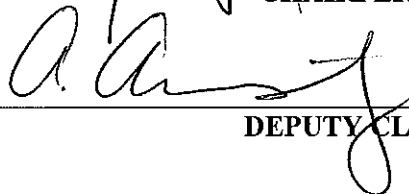
**Present:**                    **Councillor Hatfield, Chair**  
                                  **Councillor Halberstadt**  
                                  **Councillor Payne**  
                                  **Councillor Sleiman**  
                                  **Councillor Valentinis**

That the following recommendations of the Environment and Transportation Standing Committee **BE APPROVED:**

Moved by Councillor Sleiman, seconded by Councillor Valentinis,  
**THAT** the 2011 Annual Report – Essex Windsor Waste Diversion 2011, Essex-Windsor Solid Waste Authority **BE RECEIVED** for information.  
Carried.

Clerk's Note: The Annual Report of the Essex-Windsor Solid Waste Authority entitled "Essex-Windsor Waste Diversion 2011" is attached as background information.

  
\_\_\_\_\_  
CHAIRPERSON

  
\_\_\_\_\_  
DEPUTY CLERK

<b>NOTIFICATION:</b>				
Name	Address	Email Address	Telephone	FAX



# ANNUAL REPORT

ESSEX-WINDSOR

WASTE

DIVERSION

2011



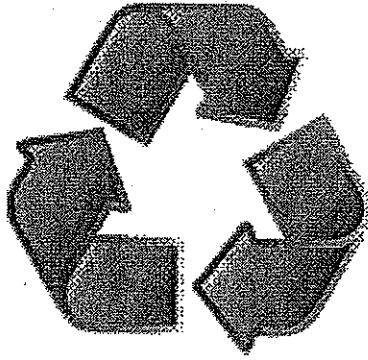
ESSEX-WINDSOR SOLID WASTE AUTHORITY

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MARCH 2012



The Essex-Windsor Solid Waste Authority

2011  
Annual  
Waste Diversion  
Report

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# INTRODUCTION

The Annual Waste Diversion Report provides information on the waste diversion activities carried out by the Essex-Windsor Solid Waste Authority during 2011 in compliance with Condition 5.2 of the Environmental Assessment Approval for the Essex-Windsor Regional Landfill.

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## 1. 2011 RESIDENTIAL WASTE DIVERSION RATE

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This report also provides the Authority with the ability to track any changes in the percentage of waste diverted through its waste diversion initiatives from year to year.

In 2011, the seven County of Essex municipalities and the City of Windsor delivered 97,931 tonnes of residential waste to the Regional Landfill. During the same time period, 52,994 tonnes of residential waste were diverted from the landfill via the local municipal hazardous or special waste, composting, and recycling programs. This resulted in a residential diversion rate of 35.1%. This rate is lower compared to the 36.8% diversion rate achieved during 2010.

The 2011 residential diversion rate is calculated using the following formula:

$$\frac{52,994 \text{ Tonnes Diverted (see Table 12, page 18)}}{97,931 \text{ Tonnes of Residential Refuse collected curbside} + 52,994 \text{ Tonnes Diverted}} = \frac{52,994}{150,925} \times 100 = 35.1\% \text{ Diversion Rate}$$

The 2010 residential diversion rate calculation is as follows:

$$\frac{55,177 \text{ Tonnes Diverted (see Table 12, page 18)}}{94,590 \text{ Tonnes of Residential Refuse collected curbside} + 55,177 \text{ Tonnes Diverted}} = \frac{55,177}{149,767} \times 100 = 36.8\% \text{ Diversion Rate}$$

The reasons for the drop in the diversion rate from 2010 to 2011 can be attributed to a combination of less diversion tonnes and higher residential refuse. This results in a 1.7 percentage point decrease in the diversion rate. The major factor relates to the amount of organic material (leaves, grass, tree trimmings and brush) delivered by residents to the Windsor Public Drop Off Depot. During 2010 residents delivered 6,679

tonnes of organic material while during 2011 they delivered 3,933 tonnes. This represents a difference of 2,746 tonnes of material that reduces the diversion quantity for 2011. Although this negatively impacts the waste diversion rate calculation the circumstance itself may not be perceived as negative. The fact that less residential organic material was received at the Windsor Depot means that residents were either not generating organic material that required disposal or if they were generating the material they managed it on their own property or may have unfortunately disposed of it with their regular refuse.

Another factor resulting in the lower 2011 diversion figure when compared to the 2010 figure relates to the quantity of refrigerators reported by ENWIN as part of their Refrigerator Roundup Program. For 2011, 300 units were reported compared to 1,100 units for 2010. The difference in units represents approximately 97 tonnes of diversion.

A third factor contributing to a lower diversion rate for 2011 compared to 2010 is the fact that 3,341 tonnes of additional refuse was generated by residents. During 2010, 94,590 tonnes was generated while 97,931 tonnes were generated during 2011.

The diversion rate figure needs to be qualified with some further analysis and explanation on some of the factors that shape the Essex-Windsor landscape. For example, Essex-Windsor (E-W) collects blue box materials every other week and most E-W municipalities collect garbage once per week. The recycling program is voluntary and the program has not been extended at this time to some recyclable materials which have had limited market opportunities in the past, such as plastic film, polystyrene, and mixed plastic. Most E-W municipalities have some form of curbside collection of yard waste but there are no food waste collection programs. There is also no user pay or pay as you throw programs in place and few municipalities have bag limits or bag limits that provides a serious disincentive against disposal.

Also worth noting is that Essex-Windsor has only one primary daily newspaper and its size, and potentially its circulation, has both decreased in recent years. Also all of the new materials that have been added to the recycling program in recent years such as



HDPE, polycoat, and tetra-pak are all lightweight but very voluminous. It is also clear that manufacturers and retailers have decreased the amount of packaging and weight of packaging materials in the stores in recent years.

All of these factors have an impact on waste diversion rates.

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## 2. PROGRAMS

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### 2.1 RESIDENTIAL RECYCLING PROGRAM

The tonnage of residential recyclable materials collected curbside during 2011 totaled 28,287 tonnes. The overall tonnage of recyclables collected in 2011 was 4% higher compared to the 27,287 tonnes collected in 2010.

A monthly summary and comparison of the tonnage collected curbside from the City and the County in 2010 and 2011 is shown in Table 1. Collection of recyclables in the County was carried out under contract in 2011 by Windsor Disposal Services. Collection of recyclables in Windsor was carried out by Turtle Island Recycling Corporation.

All materials were processed at the Essex-Windsor Recycling Centres, located at E.C. Row and Central Avenue in Windsor by Windsor Disposal Services.

In addition to the residential recyclables collected curbside, 1,341 tonnes of recyclables were delivered to the Authority's Public Drop Off Depots in 2011. This is down 29% compared to the 1,901 tonnes in 2010.

TABLE 1: RESIDENTIAL RECYCLING COLLECTION TONNAGES

	COUNTY OF ESSEX	CITY OF WINDSOR	2011 TOTAL	2010 TOTAL
JANUARY	1,129.60	1,041.87	2,171.47	2,161.66
FEBRUARY	951.38	917.89	1,869.27	1,868.22
MARCH	1,183.90	1,221.92	2,405.82	2,236.30
APRIL	1,151.01	1,126.02	2,277.03	2,334.23
MAY	1,242.46	1,210.25	2,452.71	2,279.14
JUNE	1,243.93	1,198.32	2,442.25	2,365.16
JULY	1,129.50	1,068.70	2,198.20	2,206.96
AUGUST	1,255.68	1,170.03	2,425.71	2,090.63
SEPTEMBER	1,302.80	1,318.02	2,620.82	2,497.94
OCTOBER	1,123.91	1,071.12	2,195.03	2,220.86
NOVEMBER	1,241.24	1,252.00	2,493.24	2,410.56
DECEMBER	1,340.58	1,395.25	2,735.83	2,615.73
<b>Subtotals</b>	<b>14,295.99</b>	<b>13,991.39</b>	<b>28,287.38</b>	<b>27,287.39</b>

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

TABLE 2: TOTAL RECYCLING PROGRAM TONNAGE COMPARISON

	2011	2010
WINDSOR <sup>1</sup>	14,296	13,673
ESSEX COUNTY <sup>1</sup>	13,991	13,614
RESIDENTIALLY DELIVERED <sup>2</sup>	1,341	1,901
	29,628	29,188
LESS RESIDUALS	(2,581)	(2,632)
NET RESIDENTIAL RECYCLABLES	27,047	26,556
ICI DELIVERED <sup>3</sup>	338	425
<b>TOTAL RECYCLABLES</b>	<b>27,385</b>	<b>26,981</b>

<sup>1</sup> collected curbside; <sup>2</sup> delivered to Windsor & Kingsville depots; <sup>3</sup> delivered to Windsor & Kingsville depots

As noted in Table 2 the Recycling Centre also processed 338 tonnes of ICI recyclables in 2011 compared to 425 in 2010.

## 2.2 RECYCLING RESIDUAL DISPOSAL

Residuals are created from the processing of the recyclable materials collected and delivered to the Recycling Centre. The residuals consist of contaminated materials, non-recyclable materials, and packaging materials used to secure recyclables placed in the recycle box. A total of 2,581.02 tonnes of recycling residuals was disposed of in 2011 representing approximately 8.6% of the 29,966 tonnes of residential and ICI recyclables processed through the Recycling Centre.

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## 3. SALE OF MATERIALS

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The Essex-Windsor Solid Waste Authority markets all materials processed through the Recycling Centre, and retains 100% of the revenue from the sale of materials. Revenue from the sale of material in 2011 was approximately \$4,826,080, representing a basket-of-goods revenue of approximately \$183/tonne compared to a basket-of-goods revenue of \$143/tonne in 2010. A brief discussion on market conditions and prices for each of the materials follows.

### 3.1 FIBRES

#### OLD NEWSPAPER (ONP)

In 2011, ONP#8 prices ranged from high of \$159 to a low of \$97 / tonne. The average price for 2011 was \$138/ tonne compared to an average of \$96/tonne in 2010.

#### OLD CORRUGATED CARDBOARD (OCC)

The price for old corrugated cardboard ranged from a high of \$197/ tonne to a low of \$141/tonne in 2011. The average price per tonne was \$173 compared to \$148/tonne in 2010.

**OCC/OBB MIX (HARDPACK)**

Prices for cardboard/boxboard mix ranged from a high of \$154 to a low of \$105/tonne in 2011. The 2011 average price was \$141 compared to \$119/tonne in 2010.

**FINE PAPER**

Four loads of fine paper were sold in 2011 with an average price of \$251/tonne. This is a decrease compared to the \$258/tonne in 2010.

**3.2 CONTAINERS****STEEL CANS**

The pricing for steel cans ranged from a high of \$388/tonne to a low of \$322/tonne during 2011. The 2011 average price was \$350 / tonne compared to \$270 /tonne in 2010.

**ALUMINUM CANS**

In 2011, the average market price for aluminum was \$1,825/ tonne compared to \$1,594 in 2010. Pricing ranged from a high of \$1,994/tonne to a low of \$1,574/tonne during 2011.

**GLASS**

Glass is the only product that is not marketed FOB (Freight On Board) at the Essex-Windsor Recycling Centre. The average price for clear glass, marketed for new containers, in 2011 was \$26 / tonne, which is slightly lower than the 2010 average price of \$27/tonne. Mixed coloured glass was delivered to the Regional Landfill for use as road base.

**PET (POLYETHYLENE TEREPHTHALATE)**

PET prices ranged from a high of \$755/ tonne to a low of \$401/ tonne in 2011. The average price was \$670/ tonne in 2011 compared to the 2010 average of \$411/tonne.

**HDPE (HIGH-DENSITY POLYETHYLENE)**

HDPE prices ranged from a high of \$705/ tonne to a low of \$456/ tonne in 2011. The average price was \$585/ tonne in 2011 compared to the 2010 average of \$491 / tonne.

**POLYCOAT**

Three loads of polycoat were shipped out in 2011 at an average price of \$105/ tonne compared to the average price of \$80 /tonne in 2010.

**TUBS AND LIDS**

Tubs and Lids (mixed plastic) prices ranged from a high of \$110/tonne to a low of \$30/tonne in 2011. The average price was \$58/tonne in 2011 compared to the average price of \$81 /tonne in 2010.

Due to the amount of un-captured plastic recyclable material during the sorting process in the Recycling Centre as well as the development of multiple markets for the end product, the tubs and lids bunker at the MRF was altered to include mixed plastics. This included all bottles, clamshells, trays, and cups that were not being captured in either the PET or HDPE bunkers. This resulted in a substantial increase in the plastic capture. Plans are to roll out a new mixed plastic program in 2012 pending Authority approval.

TABLE 3: MARKETED MATERIALS SUMMARY FOR 2010-2011

Material	2011	% change	2010
<b>FIBRE</b>			
ONP#8	16,077	3.4%	15,551
OCC	2,667	-16.3%	3,187
OCC/OBB Mix	2,476	15.6%	2,142
Fine Paper	82	24.2%	66
Fibre Subtotal:	21,302		20,946
<b>CONTAINERS</b>			
Clear Glass	324	10.6%	293
Mixed Glass	1,745	11.9%	1,560
Steel Cans	947	2.3%	926
Aluminum Cans	306	-10.5%	342
PET	879	0.8%	872
HDPE	445	-9.6%	492
Polycoat	60	1.7%	59
Tubs & Lids	382	570.2%	57
Containers Subtotal:	5,088		4,601
<b>TOTAL TONNES SOLD</b>	<b>26,390</b>	<b>3.3%</b>	<b>25,547</b>

FIGURE 1: PERCENT OF 2011 TONNAGE MARKETED

[Not exactly 100% due to rounding]

TABLE 4: REVENUE COMPARISON

Material	2011 Revenue	2010 Revenue
ONP#8	\$2,218,281	\$1,491,212
OCC	\$462,623	\$471,755
BOXBOARD	\$347,956	\$255,333
CLEAR GLASS	\$8,446	\$7,823
STEEL CANS	\$331,721	\$250,237
FINE PAPER	\$20,475	\$17,127
ALUMINUM CANS	\$558,877	\$544,482
PET	\$588,931	\$357,891
HDPE	\$260,402	\$241,421
POLYCOAT	\$6,337	\$4,712
TUBS & LIDS	\$22,031	\$4,672
<b>Totals</b>	<b>\$4,826,080</b>	<b>\$3,646,665</b>

FIGURE 2: PERCENT OF REVENUE FOR 2011 MARKETED RECYCLABLES

(Not exactly 100% due to rounding)

## 4. OTHER RESIDENTIAL RECYCLING PROGRAMS

### 4.1 WHITE GOODS

White goods, such as fridges, stoves, air conditioners, washers, dryers, freezers dishwashers, etc. were restricted from landfill disposal in 1991. The white goods curbside collection from the County municipalities captured 2,102 white goods (approximately 186 tonnes) in 2011.

The City of Windsor did not operate a white goods collection program during 2011 although ENWIN did operate the Refrigerator Round-up program. Throughout 2011 the Refrigerator Round-up program resulted in collection of 300 white goods which is approximately 26.56 tonnes. This compares to the 2010 figure of 1,100 units and 97.38 tonnes.

There were also 133.10 tonnes (167.55 tonnes in 2010) of white goods delivered to the Public Drop Off Depots. Table 5 details the white goods collection program for each of the municipalities in the County of Essex by month during 2011.

TABLE 5: 2011 ESSEX COUNTY WHITE GOODS COLLECTION (UNITS)

Service Area:	Essex	Lakeshore	Tecumseh	LaSalle	A'burg	Leam.	Kingsville	TOTAL
Jan	24	17	15	24	24	22	12	138
Feb	8	15	14	16	11	17	18	99
Mar	15	17	23	16	23	19	15	128
Apr	30	29	30	34	31	61	18	233
May	21	23	15	28	27	46	17	177
Jun	21	30	31	22	35	68	47	254
Jul	30	27	37	19	36	42	21	212
Aug	18	27	20	19	35	51	30	200
Sep	19	26	20	24	32	46	41	208
Oct	26	19	14	24	15	35	19	152
Nov	12	23	16	17	17	39	23	147
Dec	22	25	18	23	32	14	20	154
<b>TOTAL UNITS</b>	<b>246</b>	<b>278</b>	<b>253</b>	<b>266</b>	<b>318</b>	<b>460</b>	<b>281</b>	<b>2,102</b>
Windsor (Refrigerator Round-up Program):								300
<b>Total units for Essex-Windsor Area:</b>								<b>2,402</b>
Curbside Collection Tonnes:								213
Drop Off Depot Tonnes:								133
<b>TOTAL TONNES:</b>								<b>346</b>



#### 4.2 TIRES

Bins for passenger tire recycling are located at all Essex-Windsor disposal facilities. During 2011, a total of 109 tonnes were diverted from the EWSWA landfill and transfer stations. This represents a decrease of 27% when compared to the 2010 amount of 150 tonnes. The tires were managed through the Ontario Tire Stewardship program (OTS). The decline may be the result of the availability of more recycling locations due to the OTS program.

#### 4.3 SCRAP METAL

There are 40-yard roll off bins located at the Public Drop-off Depot for collection of ferrous and non-ferrous scrap metal material. The metals are sold through a competitive bid process to local scrap dealers. In 2011, 421 tonnes of metals were collected and recycled. This is up considerably from 2010 when 150 tonnes of metals were recycled.

#### 4.4 ELECTRONICS RECYCLING

Under contract to the Authority, Waste Management supplies a roll off bin for the collection of electronics at the Public Drop-off Depot. EWSWA staff place the electronic items from the public in the bin. In 2011, 595 tonnes of computers, televisions, audio visual equipment, and various electronic items were collected through the Waste Electrical and Electronics Equipment (WEEE) stewardship program. This is down 4% compared to the 623 tonnes collected in 2010.

TABLE 6: OTHER RECYCLABLES – HISTORICAL TONNAGE COMPARISON

Material	2011		2010
	Tonnes	% Change	Tonnes
White Goods (All Sites)	346	-34.6%	529
Tires	109	-27.3%	150
Scrap Metal	421	-22.0%	540
Electronics	595	-4.5%	623
<b>TOTAL TONNES</b>	<b>1,471</b>	<b>-20.1%</b>	<b>1,842</b>

#### 4.5 DEPOSIT/RETURN PROGRAM

In February 2007, the Provincial Government introduced a deposit/return program called "Bag it Back" for almost all wine, beer and spirit containers. Under the program containers with less than 630 ml return 10 cents per container and over 630 ml return 20 cents per container. Since these revenues are substantially higher than revenues currently derived from the sale of aluminum and glass to traditional markets, the Authority implemented a capture program at its Material Recovery Facility. Currently aluminum beer containers and glass wine and spirit bottles are captured through the program and returned to the local Beer Store for the revenue.

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### 5. RESIDENTIAL ORGANICS

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#### 5.1 YARD WASTE

Grass, leaves, tree trimmings and brush are restricted from disposal at the Essex-Windsor Regional Landfill Site. As a result many local municipalities have established separate collection systems for yard waste, including special collections in January for Christmas trees. In addition, individual residents and grounds maintenance contractors brought yard waste to one of the three compost pads operated by the Essex-Windsor Solid Waste Authority in 2011.

The Essex-Windsor area accepts the use of paper bags, wheeled carts, garbage bins and cardboard boxes for the collection of yard waste. Plastic bags are not accepted. Approximately 23,874 tonnes of yard waste were received in 2011, down 8% compared to the 26,040 tonnes in 2010.

TABLE 7: YARD WASTE SUMMARY

Material Type	TONNES				
	Windsor Public Drop off	Kingsville Transfer Stn. No.2	Regional Landfill	TOTALS 2011	TOTALS 2010
Municipal Delivered	9,890	1,543	3,469	14,902	14,509
Residential Delivered	3,933	829	6	4,768	7,465
<b>TOTAL RES. ORGANICS</b>	<b>13,823</b>	<b>2,372</b>	<b>3,475</b>	<b>19,670</b>	<b>21,974</b>
I/C/I Delivered Organics	435	210	3,554	4,199	4,064
PALLETS	0	3	2	5	2
<b>Grand TOTAL</b>	<b>14,258</b>	<b>2,585</b>	<b>7,031</b>	<b>23,874</b>	<b>26,040</b>

## 5.2 SCREENED COMPOST SALES

The Authority takes the organics and yard waste it receives and turns this material into compost. Compost is nutrient rich organic material which is essential for plant growth. The composting process involves grinding up 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 sold for use in landscaping and for flower and vegetable gardens.

In 2011 compost was sold in bulk, delivered, bag your own, and prepackaged. The results are listed in Table 8.

TABLE 8: COMPOST SALES SUMMARY

Compost Material	2011 Quantity	2011 KGS
Delivered	727 cubic yards	427,476
Bulk Sales	14,344 cubic yards	8,434,272
Bag-Your-Own	654 bags	17,658
Pre-packaged	17,000 bags	306,000
<b>TOTAL in kilograms</b>		<b>9,185,406</b>
<b>Total Revenue</b>		<b>\$161,372</b>
Pre-packaged bag weights are based on approximately 18kg/bag, Bag Your Own is approximately 27kg/bag Bulk compost is approximately 588kg/cubic yard.		

Under contract to the Authority, Frank Dupuis Landscaping and Trucking provided delivery services for the sale of compost to landscapers and local residents. Also 14,344 cubic yards were sold to residents and businesses at EWSWA Depots. About 17,000 prepackaged bags of compost were sold at the Depots and the Truckload Sale. Many residents also bagged their own compost at one of the depots. Compost Sales totaled \$161,372 in 2011.

### 5.3 BACKYARD COMPOSTING

Backyard composters were sold to residents in 2011 through local Home Hardware stores. Backyard composters were also sold during two Truckload Sales held in the City of Windsor. Approximately 57 units were sold through the Home Hardware stores (40 units in 2010) and 133 units during the truckload and miscellaneous sales (144 in 2010) for a total of 190 units. This brings the total number of units sold since 1988 to 36,355. Current research has indicated that approximately 100 kg/year/composter is diverted as a result of the backyard composter program. This translates into 3,636 tonnes of organic waste. Based on 76% of the composters still being in use to date, potentially 2,763 tonnes / year are diverted from the landfill through this program. This does not take into account home made composters or composting done independent of the Authority's backyard composting program.

In October 2010, the Authority introduced "The Digester" to the Essex-Windsor area through the fall truckload sale. There were 270 Digesters sold in 2011 (55 in 2010), bringing the cumulative total to 325 Digesters distributed to date. Based on a diversion rate of 140 kg of waste per unit per year, a total amount of approximately 45,500 kg was diverted from the landfill during 2011 through this program. Based on continued use to date, using the 76% as determined for composters, potentially 35 tonnes were diverted in 2011.

TABLE 9: SUMMARY OF ORGANIC WASTE REDUCTION ACTIVITIES

PROGRAM	2011	2010	2009	2008	2007
The Digester	35	2	—	—	—
Backyard Composting	2,763	2,749	2,734	2,709	2,690
Mulching Blades *	1,343	1,343	1,343	1,343	1,343
Yard Waste (Residential)	19,670	21,974	15,992	19,799	16,425
<b>TOTAL RESIDENTIAL ORGANICS</b>	<b>23,811</b>	<b>26,068</b>	<b>20,069</b>	<b>23,851</b>	<b>20,458</b>
Yard Waste (ICI)	4,204	4,066	4,671	2,842	5,045
<b>Grand TOTAL (tonnes)</b>	<b>28,015</b>	<b>30,134</b>	<b>24,740</b>	<b>26,693</b>	<b>25,503</b>

\* Note: The mulching blade program was no longer offered through EWSWA after 2001, therefore no increase in diversion is indicated.

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## 6. PROMOTION AND EDUCATION

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### 6.1 SCHOOL AND COMMUNITY PRESENTATIONS

In 2011, Authority staff conducted 34 school presentations to over 7,020 students. The emphasis in 2011 was placed on Red Box/Blue Box Recycling.

### 6.2 SPECIAL COMMUNITY EVENTS

Authority staff organized displays and talked to area residents at various special events scheduled at the Horticultural Show, Earth Day Celebrations and the Truckload Sale. There were 43 special events serviced with recycling in 2011 throughout Essex County and the City of Windsor.

### 6.3 ON-GOING PUBLIC EDUCATION ACTIVITIES

The Authority maintains a Waste Reduction Hotline (1-800-563-3377), a Website ([www.ewswa.org](http://www.ewswa.org)) and a newsletter called "Enviro-Tips". In 2011, EWSWA maintained a presence in social media sites such as Facebook and Twitter.

The EWSWA website 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 about waste diversion activities. Residents have access to instructions, tenders, reports, calendars, acceptable recycle box materials, incentives etc. The website continues to draw a steady flow of visitors.

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## 7. MUNICIPAL HAZARDOUS OR SPECIAL WASTES (MHSW) PROGRAMS

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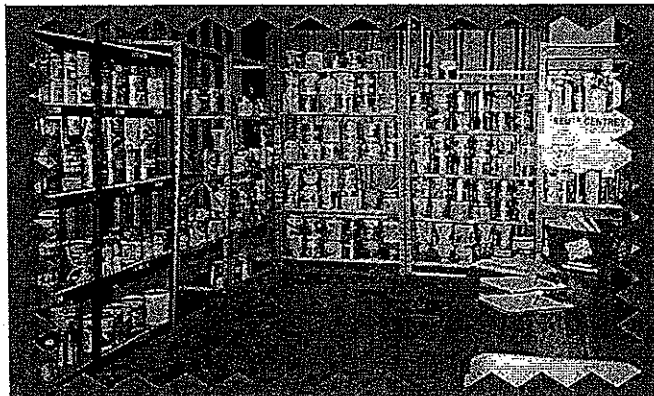
### 7.1 MHSW DEPOTS

The Essex-Windsor Solid Waste Authority opened its MHSW Depot in October of 1995. In addition to the Windsor facility, the Authority opened a second MHSW Depot at Transfer Station No. 2 in the Town of Kingsville in 1997. The Depots replaced the annual Household Chemical Waste Days held in those areas. Both facilities were operated year round in 2011. A total of 505,460 litres and 82,931 kg of MHSW materials were delivered to the sites. See Table 10 for details.

#### REUSE CENTRE

A Reuse Centre has been operated at the Windsor MHSW facility since its opening in 1995.

Paint is distributed in both 1-gallon and 5-gallon pails for reuse. According to the records, residents accessed the Reuse Centre and took 40,995 products or approximately 76,252 kg of paint and miscellaneous materials in 2011 compared to 33,275 products or 63,137 kg of reusable materials in 2010.



Demand for the Reuse Centre remains high, however quantities available depend largely on how good the products are that are delivered by households to the facility.

TABLE 10: MUNICIPAL HAZARDOUS OR SPECIAL WASTE SUMMARY – 2011

Material	MHSW Facilities (kg)	MHSW Facilities (Litres)	Reuse Ctr. (Litres)	Total
Adhesives/Flammable Organics	—	44,580	15,552	60,132
Aerosols	—	8,000	1,275	9,275
Antifreeze (Glycol)	—	6,055	—	6,055
Corrosive Liquid	—	4,100	1,405	5,505
Inorganic Acids	—	1,100	—	1,100
Paints (Alkyd)	—	64,710	6,301	71,011
Paints (Latex)	—	156,140	40,283	196,423
Pesticides	—	4,400	943	5,343
Petroleum Distillates	—	5,025	4,682	9,707
Recyclable Waste Oil *	—	211,350	—	211,350
Ballasts	1,113	—	—	1,113
Car Batteries	25,560	—	—	25,560
Dry Cell Batteries	13,356	—	—	13,356
Fire Extinguishers	800	—	—	800
Fluorescents	10,485	—	—	10,485
Inorganic Oxidizers	1,269	—	5,811	7,080
Mercury (HG items)	129	—	—	129
Non PCB Ballasts	833	—	—	833
Pharmaceuticals	859	—	—	859
Plastic Used Oil Containers	8,549	—	—	8,549
Propane Cylinders	3,400	—	—	3,400
Propane Tanks	15,390	—	—	15,390
Rechargeable Batteries	434	—	—	434
Waste Oil Filters	754	—	—	754
Column Totals:	82,931	505,460	76,252	664,643

\* Note: Oil quantity by month is listed separately in Table 11.

## 7.2 WASTE MOTOR OIL

Waste motor oil is collected curbside with the residential recycling program. As well, residents are able to deliver oil to the MHSW facilities. The quantity of waste motor oil collected during 2011 was 211,350 litres, down by 2% compared to the 215,284 litres collected in 2010. The quantity of oil collected by month is shown in Table 11.

TABLE 11: MOTOR OIL COLLECTED (LITRES)

MONTH	2011	2010	2009	2008	2007
JANUARY	8,778	9,065	6,300	13,237	15,137
FEBRUARY	6,930	6,695	9,005	2,273	7,164
MARCH	11,790	17,522	14,775	7,483	15,915
APRIL	19,716	25,540	18,275	25,229	20,588
MAY	28,675	22,287	12,820	21,676	26,593
JUNE	22,265	18,690	15,860	17,078	23,366
JULY	21,633	23,895	16,115	26,368	26,449
AUGUST	21,952	17,715	24,500	23,493	18,602
SEPTEMBER	17,122	21,130	23,980	20,425	18,273
OCTOBER	15,620	22,930	24,135	20,064	23,139
NOVEMBER	24,836	18,785	19,855	13,590	18,238
DECEMBER	12,033	11,030	14,260	11,324	10,910
<b>TOTAL litres</b>	<b>211,350</b>	<b>215,284</b>	<b>199,880</b>	<b>202,240</b>	<b>224,374</b>

## 8. OVERALL SUMMARY OF RESIDENTIAL DIVERSION QUANTITIES

TABLE 12: RESIDENTIAL WASTE DIVERSION ACTIVITY

Waste Diversion Program	2011	2010
Residential Recyclables less residual	27,047	26,556
MHSW Waste including Motor Oil	665	711
White Goods, Tires, Metal, and Electronics	1,471	1,842
Yard Waste, Composters, Digesters & Mulching Blades	23,811	26,068
<b>TOTAL TONNES:</b>	<b>52,994</b>	<b>55,177</b>



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## 9. INDUSTRIAL/COMMERCIAL/INSTITUTIONAL RECYCLING PROGRAM

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The City of Windsor provides recycling collection services to local businesses that have quantities of cardboard and fine paper available for recycling. In addition, bins are located at the Public Drop Off Depots for the receipt of cardboard, office paper, scrap metal, and mixed recyclables from local businesses.

TABLE 13: ICI RECYCLING PROGRAM SUMMARY

Material Type	2011	2010
Windsor ICI Recycling Collection	315	355
ICI – Cardboard	11	26
ICI – Office Paper	11	44
<b>Total tonnes</b>	<b>337</b>	<b>425</b>

*For further information please contact the  
Essex-Windsor Solid Waste Authority Hotline  
1-800-563-3377.*

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**Eli Maodus**  
General Manager

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**Cameron Wright**  
Waste Diversion Manager

