

Final Report

CIF 857

Municipality of West Elgin

West Elgin Blue Box Harmonization Initiative



MUNICIPALITY OF
West Elgin

Final Project Report, November 3 2015

Municipality of West Elgin

CIF Project number 857

Acknowledgement:

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Executive summary

This is the final report of an initiative implemented by the Municipality of West Elgin in the spring of 2015. This involved harmonizing the Municipality's Blue Box program with that of the City of London and other partner municipalities within the waste shed. The project work included the purchase and distribution of Blue Boxes for residents, in the villages of Rodney & West Lorne, and a comprehensive promotion & education (P&E) campaign for launching the new program. Financial and technical assistance was provided by the Continuous Improvement Fund (CIF) in completing the project.

A challenge in rolling out the new two stream program was that residents would need two separate Blue Boxes to separate Mixed Paper Fibres and Mixed Containers. Previously, the Village of Rodney used clear plastic bags and West Lorne had a single stream Blue Box program. To accommodate the change, the Municipality provided Rodney households with 1,100 Blue Boxes and 700 Blue Boxes in West Lorne. The new boxes were distributed by the West Lorne Kiwanis Club (a local service club) who delivered blue boxes as a fundraiser at a flat cost of \$ 2,000 and was completed over the course of three days.

To facilitate the launch of the new program, Staff implemented a comprehensive P&E campaign. Staff distributed notifications / newsletters to residents to create awareness for the new program and P&E materials promoting resident engagement as well. A benefit in working with the City of London and the other partnering municipalities, are the P&E materials that have been designed for use in any of the harmonized Blue Box programs. The City of London continues to assist the Municipality of West Elgin by providing specialized graphic art for advertisements, promotional displays, and lends the municipality educational materials and displays to be used at local events to encourage recycling.

In order to assess the impacts of the new Blue Boxes and the promotional and educational outreach, the Municipality has completed the following measuring & monitoring activities: Participation study, City of London Waste Audits and Tonnage statistics. The participation study completed in the villages indicates that over 95% of residents are participating in the blue box program. Further, the results demonstrate that 99% of households set-out with the new larger blue boxes purchased through this project. Waste diversion is expected to improve. The new Blue Boxes now capture 10 new recycling items that were not being collected previously. Preliminary estimates from 8 months of operations indicate the amount of material recycled through the blue box program is up 86% versus previous years an equivalent of 41 additional tonnes.

The Municipality of West Elgin is also closely monitoring financial activities surrounding our new waste management program. At this point, it is difficult to measure current financial activities compared to prior years because our waste management practices have changed, significant capital investments with CIF assistance are being made, and we do not yet have full year of financials to compare our program.

The Blue Box program will continually evolve. Tonnage statistics have been promising and promoting what can go in the blue box will be an ongoing municipal activity. Future plans could possibly include purchasing more blue boxes and expanding the boundaries of the current blue box program. By working with Stewardship Ontario and the CIF, the Municipality of West Elgin will continue our efforts to effectively divert waste in ways that are environmentally and economically sustainable for the community.

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1 BACKGROUND

In late 2014, Municipal Staff began re-organizing how solid waste is managed throughout the Municipality of West Elgin. Municipal Staff is currently implementing the reorganization of Solid Waste Management practices in a way that is cost-effective, environmentally sound and socially acceptable to meet the needs of the community.

Population	Permanent – 5,200
Households (single family)	2,968
Blue Box Tonnage (2014 Datacall)	163 MT
Municipal Grouping	Municipal group 7
Blue Box Program net cost (2014 Datacall)	\$ 85,741
Net cost per tonne	\$526 / MT
Annual P&E Budget	\$500

With a combined population of 5,200 in the villages and in the rural parts of the municipality, West Elgin has taken steps to unify garbage and recycling services in the Villages of Rodney (530 ratepayers) and West Lorne (670 ratepayers) which have remained unchanged since amalgamation in 1998.

Prior to the re-organization, both villages had different contractors providing waste collection services and varying scheduled waste collection pickups.

The Village of West Lorne had weekly garbage pickup and bi-weekly recycling services through Progressive Waste Solutions (formerly BFI). Garbage was taken to Green Lane Landfill and the recycling was claimed by Progressive and taken to their recycling facility. The Village of Rodney had two separate waste collection contractors whereby garbage was picked up weekly and recycling was picked up once per month. Cans/Metals/Glass/Plastic was separated in clear plastic bags and was picked up on the last Saturday of each month. Newspapers, Cardboard, and Boxboard items were also separated in clear plastic bags and picked up on the third Tuesday of each month.

1.1 Project Description

Prior to April 2015, the Municipality of West Elgin entered into an agreement with the City of London to take all municipal collected recyclables to the City of London's Manning Road Material Recovery Facility (MRF) in London, Ontario. The Municipality of West Elgin agreed to adopt a Two-Stream recycling program whereby residents would separate Paper products and Containers.

The partnership with the MRF has provided five (5) major benefits to the West Elgin Community.

1. It has given West Elgin access to the skill and expertise of their Solid Waste Professionals.
2. West Elgin can make use of a network of partner communities that subscribe to the MRF.
3. West Elgin has access to advertising and promotional material for waste programs at no charge.
4. The MRF regularly does waste audits of what goes into our recycling bins and provide solutions for us to use.
5. They offer an expanding list of materials that can be recycled and diverted from our landfill. As of April 1, 2015, 10 new types of recyclable materials are now collected in our blue boxes at the curb and are diverted from our landfill.

In late 2014, the Municipality of West Elgin released a Request for Proposal for Curbside Waste Collections services for the villages of Rodney and West Lorne. The contract was awarded to Progressive Waste Solutions. Garbage is picked up weekly, and recycling is picked up bi-weekly. By having one provider that hauls all the garbage to our Landfill and the recycling the MRF, the Municipality has been able to effectively convey what types of waste are acceptable for curbside pick-up and can more accurately measure our waste diversion.

Table 1: West Elgin project financial summary

Request:	Budgeted Total	Actual Costs
22 Gallon Blue Bins		
70% PCR, Unit Cost & Freight	\$11,300.00	\$12,490.40
Distribution to Residents	\$3,000.00	\$2,000.00
Moving/Storing Recycling Bins	\$0.00	\$35.46
P & E Campaign Tactics		
Targeted P & E to Residents	\$5,730.00	\$700.35
Total	\$20,030.00	\$15,225.81

1.2 New Materials

Since partnering with the City of London Regional Material Recovery Facility in April of 2015, West Elgin has expanded the amount and types of materials that are collected curbside. What is accepted curbside is a reflection of the MRF can recycle. A minimum of ten new items are now being captured in blue boxes and diverted from our landfill. The items include;

1. Clear rigid packaging (paper gets separated from plastic),
2. Paper cups (example Tim Hortons) and their lids,
3. Ice Cream, yogurt, and frozen dessert containers,
4. Certain types of plastic containers, tubs, jugs & pots,
5. Paper Egg Cartons, paper boxes, and tubes,
6. Aluminum foils, plates and trays,
7. Plastic Clamshell Containers (Take out containers-no Styrofoam),
8. Empty Aerosol Cans and Paint Cans (lids removed),
9. Cardboard Spiral/Cans,
10. Cartons and drink boxes.

Our list of acceptable recyclables will continue to grow as the MRF is able to recycle more.

1.3 Promotion & Education (P&E)

The Municipality of West Elgin's most effective methods of communicating to residents are notification by mail and by purchasing space in the West Elgin Chronicle, the local newspaper. West Elgin also does publish all notifications and relevant promotional material on its website, however, online is not the media of choice preferred by many ratepayers. The population of West Elgin is more proportioned to that of a retirement community. Our communications strategy has been for the most part tailored to reflect more traditional mediums.

Our communications with our residents started by slipping a notice a third of the size of a 8½" x 11 letter size sheet of paper in with Water Bills and mailing them in February 2015. The majority of water customers receive curbside waste collection in both communities shown below.

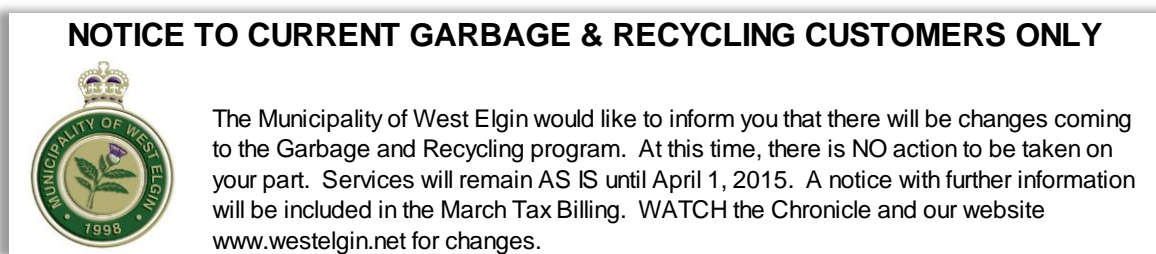


Figure 1: February mail-out with Water Bill

The small sheet of paper was meant to notify ratepayers that a change was coming but services were remaining the same until April 1, 2015. Until the notice, area residents were calling in the office constantly for updates and were already starting to adjust their recycling habits to that of neighbouring municipalities who were already members of the MRF. This was causing problems with the then current contractors and our residents. At this point in time the finite details of how the program was going to roll out were not finalized. It was important to us to acknowledge the concern and to convey that no changes will actually occur until April 1, 2015.

As the notification mentions, we included more detail in with the March Tax Billing (next page). This full page newsletter was sent out to all ratepayers, even those whom do not receive curbside waste collection, so that word of mouth would get to those whom do not open their tax bills until it's time to pay. The March newsletter was not well received and residents were confused by Week One and Week Two terminology. It was not clear that Week One and Week Two repeat themselves in perpetuity, especially in Rodney whereby the former collection schedule was dictated by how many weeks were in each month.



MUNICIPALITY OF **West Elgin**

Garbage & Recycling Newsletter March 2015

The Municipality of West Elgin is starting new garbage and recycling programs starting April 1, 2015. Progressive Waste Solutions (BFI Canada) will be collecting curbside garbage and recycling for **current customers** in the former villages of West Lorne and Rodney.

West Elgin will be running a Two Stream Recycling System; Fibres and Food, Beverage, and Liquid Containers.

The Fibres stream includes, Household Paper/Newspaper, Catalogues, Books, Telephone Books, Paper Egg Cartons and Boxboard, and flattened Cardboard Boxes.

The Food, Beverage and Liquid Containers stream includes Glass Bottles and Jars, Aluminum and Steel Cans, Paper Beverage Cartons, Aluminum Foil Containers and Foil, Plastic Bottles, Jugs and Tubs.

The following is the **NEW** schedule for pick-up:

RODNEY Week 1 -Wednesday -Garbage and Recycling Collection
 Week 2 -Wednesday -Garbage Collection

WEST LORNE Week 1 -Friday -Garbage and Recycling Collection
 Week 2 -Friday -Garbage Collection

For Rural Residents, please take all of your recyclables to the landfill. The Municipality of West Elgin will be transporting recyclables collected from the landfill to the Manning Drive Regional Material Recovery Facility outside of the City of London.

Please help us become a stronger and more sustainable community by recycling more! For further information, please watch our website www.westelgin.net and watch the Chronicle for further updates.

Figure 2: March mail-out notification

The colour coded calendar was included on the back side of the promotional “Please Sort It” flyer that was slipped into recycling boxes as they were distributed throughout Rodney and West Lorne. The Promotional Flyer image was provided to us by the MRF with images and instructions clearly demonstrating recyclable materials and garbage. The “Please Sort It” flyer is available on our website and is readily available to give out in the Municipal Office.



Figure 3: “Please sort it!” flyer provided by City of London

1.4 Method of Distribution

West Elgin had evaluated different options when considering the delivery of blue boxes. West Elgin reached out to other member municipalities of the City of London Material Recovery Facility to see what they did and sought their recommendations.

West Elgin decided to deliver the blue boxes directly to resident's properties. After pricing out our current curbside garbage and recycling contractor, we decided to pursue a different approach by asking community groups if they would like to deliver the blue boxes as a fundraiser and to submit to us a price that they would deliver the blue boxes for. The West Lorne Kiwanis Club submitted the winning bid to deliver the blue boxes for \$2,000.00. There were two other bids submitted. The recycling bins were then delivered from the Municipal Office to the villages of West Lorne and Rodney by Kiwanis Club volunteer members over the course of three days.

The method of delivery as an overall went well; however, the municipal office was more involved in the organization of the distribution than was anticipated.

One of the issues Staff ran into as a result of this method of delivery were that once blue boxes made it to the curb, a few residential property owners and renters were taking more than their allotted amount of blue boxes. As a result, we received a series of phone calls from ratepayers mentioning that they did not receive what they were expecting and had to supply replacement blue bins.

If Staff were to re-evaluate the method of distribution, Staff would choose to again go with a service club for the method of distribution. Service Club members have a local knowledge of their communities and the money that the Municipality paid for the service went right back into the local community. The only thing that could have been done differently was to have a meeting with all of the volunteers ahead of time to clearly explain what is expected before they started delivering the blue boxes.



Figure 4: Curbside set-out of for recycling and garbage collection, September 30 2015

2 RESULTS

2.1 Project tracking – Measuring & Monitoring

In tracking the impact of harmonizing the Municipality's blue box program, staff completed a curbside participation study and comparison of diversion pre vs post implementation.

2.1.1 Participation study

Staff completed a curbside participation study of 100 households in both the villages of Rodney and West Elgin (200 households total). The study was completed in Rodney on September 30 & October 14 and in West Lorne on October 2 & 16 the results of which are presented in Table 2. Staff included a tally of 'large' and 'small' blue boxes set out. The 'large' blue boxes were the new 22.5 gallon blue boxes purchased for rate payers through this project work, while the 'small' blue boxes were those previously used in the programs or containers rate payers had secured from previous living arrangements. This distinction is important as it allowed staff to verify that the containers purchased were in fact in use.

Table 2: Residential Curbside Set-outs

Blue Box participation study	Percent of residents setting out	
	Village of Rodney	Village of West Lorne
2 Large, 2 Small	1	0
2 Large, 1 Small	5	1
2 Large	87	1
1 Large, 2 Small	0	90
1 Large, 1 Small	1	7
1 Large	0	0
Plastic Bags	2	0
None	4	1
Percent participation	96%	99%
Percent using <u>two streams</u> for sort*	98%	100%
Percent using two 'large' boxes*	97%	2%
Percent using one 'large' box*	1%	98%
Percent using 'large' blue box(es)*	98%	100%

Note: * indicates percent of 'participants' identified in study

The results of the participation study are very encouraging. Not only does the Municipality appear to have a greater than 95% participation rate in the blue box program, which is excellent, but the new large boxes are being set-out and used for blue box recycling. As expected, the most common set-outs for the Village of Rodney (93%) have two of the new blue boxes (two were distributed to each household in this community). For the village of West Elgin, 97% of households set-out 1 of the new large blue boxes as expected based on the distribution. Additionally, each of the participating households set out 2 blue boxes for collection, which infers that the two stream sorting message has been received in these households.



Figure 5: Curbside set-out of for recycling and garbage collection, October 14 2015

2.1.2 Blue box tonnes diverted

In comparing the amount of material diverted through the blue box program between the new harmonized program and previous programs, the monthly tonnes of material collected are presented in Table 3. It should be noted by the reader, that the amount of material collected previously was not based on weigh scale measurements, as are the measurements for the new harmonized program, but rather on estimates provided by the collection contractor. Thus, the data are presented as a general comparison of pre vs post measures, with the veracity of the pre data being relatively unknown. Further, in order to approximate the amount of material collected monthly under the previous program, Staff calculated this value using the annual tonnes reported to the datacall for the curbside programs, divided by 12 months, and further allocated this amount between the Villages by the relative number of households serviced.

Preliminary diversion/tonnage results suggest the amount of material collected through the curbside Blue box program is up an impressive 86% based on 8 months of weight data from the London MRF versus what has been reported historically. Staff note that some of this increase may be artifact due to the estimates used in the past in reporting to WDO and the calculations used to generate average monthly recycling tonnes for the pre-harmonization data in this report.

Table 3: Kilograms collected before & after delivery of Blue Boxes

	Apr	May	June	July	Aug	Sept	Oct	Nov	Total
2014 - Rodney	2,540	2,540	2,540	2,540	2,540	2,540	2,540	2,540	20,320
2014 – West Lorne	3,210	3,210	3,210	3,210	3,210	3,210	3,210	3,210	25,680
2014 total	5,750	5,750	5,750	5,750	5,750	5,750	5,750	5,750	46,000
2015 - Rodney	6,960	4,840	4,420	4,010	3,920	5,890	4,210	4,210	38,460
2015 – West Lorne	4,940	8,850	5,590	5,070	5,040	5,310	7,850	4,600	47,250
2015 total	11,900	13,690	10,010	9,080	8,960	11,200	12,060	8,810	85,710
%Diff	107%	138%	74%	58%	56%	95%	110%	53%	86%

2.1.3 Contamination

In partnering with the City of London, through this harmonization effort, the Municipality receives regular feedback from the MRF regarding contamination of blue box materials. The City provides a *Tipping Floor Load Spot Check Report* to staff which provides a visual estimate of contamination in incoming materials and photograph examples of the noted contamination. The City provided the first of these reports to Staff in October and Staff were pleased to hear that the overall quality of the loads were “very good” and the related contamination rates were assessed to be below 2%. However, the report did note that several bags of material and items that are not accepted at the MRF were observed in the incoming material, pictured below.



Figure 6: Examples of contaminants identified in visual audit

Having received this report, Staff immediately redistributed the *Sort it Out* flyer to residents in an effort to educate any confused residents as to what can be recycled through the Municipal curbside blue box program. City of London Staff also suggested distributing a version of “Oops stickers” to residents who continue to demonstrate confusion regarding what materials are recyclable in blue box and working with the curbside collection contractor to have these materials left in the blue box at the curb. Staff will certainly consider the suggestions from the City should the problem persist.

3 ANALYSIS AND CONCLUSIONS

In conclusion, the integration of the CIF Blue Boxes has been successful but West Elgin has room for improvements. Through effective promotion and education, West Elgin can continue to maximize its diversion efforts.

From driving around the municipality on recycling pickup day, it is very encouraging to see that the new Blue Boxes that were purchased with the assistance of the CIF are being used. Our recycling participation rate based on the streets sampled would be over 95%. It is only occasionally that staff may come across a house that has not set out recycling to be picked up and that can be due to vacations, missed collection days, or not having recycling to set out.

West Elgin in 2016 will be looking to the data that it is receiving to refine its Waste Management program and is currently looking at measures to further encourage recycling. Some initiatives that staff will be researching include;

1. Reducing the amount of garbage bags collected at the curb. This method will encourage recycling by forcing residents to evaluate what is considered recycling and what they throw away in the garbage.
2. The possibility of switching garbage bags from solid colours to clear bags. This method will allow staff to see what types of recycling are being thrown out and to create appropriate promotional materials addressing these issues.
3. Municipal Staff showing up at more local events with interactive Recycling Displays.
4. Potentially expanding the geographic boundaries areas of curbside Recycling Collection.
5. Encouraging recycling of non-traditional items and active participation in other programs such as the Ontario Tire Stewardship Program through Waste Diversion Ontario.
6. Evaluation of Recycling in public spaces and municipal facilities.
7. More effective methods of marketing “Reduce, Re-use, and Recycle” throughout the municipality.