



2015

Nova Scotia

Paint Stewardship Program

Annual Report

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Submitted by: **Product Care Association**

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1.0 About Product Care Association

Product Care Association of Canada (PCA) is a federally incorporated, not-for-profit product stewardship association formed in response to stewardship regulations and is governed by a multi-sector industry board of directors. PCA has managed paint and other household hazardous and special waste industry stewardship programs since 1994.

PCA's members are the "brand owners" (manufacturers, distributors and retailers) of "consumer paint products" as defined under the *Nova Scotia Solid Waste-Resource Management Regulations* N.S. Reg. 25/96 as amended up to O.I.C. 2007-102 (February 22, 2007), N.S. Reg. 61/2007 under section 102 of the *Environment Act* ("Regulation"). PCA, on behalf of its members, oversees the administration, collection, transportation and recycling of all collected post-consumer paints and aerosols and is also responsible for fostering consumer awareness of the Program.

1.1 Program Summary

PCA has been managing the Nova Scotia Paint Recycling Program ("Program") since 2012, PCA contracted with Ressource Recovery Fund Board Inc. (RRFB) to manage the collection and transportation system, as well as additional Program elements.

The Program includes all latex, oil and solvent-based paints and stains, but does not apply to specifically formulated industrial, and automotive coatings. The Program also includes all paint aerosols (industrial, commercial, automotive etc.), and marine paint (except those which are registered as a pesticide). For the purposes of this annual report, these are collectively referred to as "Program Products".

Environmental handling fees (EHFs) are applied to each- container of paint and aerosol covered under the regulation sold in or into the Province, providing funding to manage the Program. The Program allows residents of Nova Scotia to return leftover paint to the Enviro-Collection sites located throughout the Province and a number of municipal waste management facilities, free of charge.

1.2 Report Period

This report covers the 2015 calendar year (January 1 to December 31, 2015). All content has been prepared in accordance with section 18F(1) of the Regulation.

2.0 Brand Owner Sales Information

Program members reported the sale of 5,421,970 litres of Program product in Nova Scotia from January 1 to December 31, 2015.

3.0 Collection

The following section provides the total amount of waste paint collected in Nova Scotia, as well as the location of the collection sites

3.1 Total Amount of Waste Paint Collected

Table 1 below shows the total amount of waste paint collected by the Program for the reporting period as reported by RRFB.

Table 1: Total Amount of Waste Paint Collected (tubskids) in 2015

Item	Number of Tubskids ¹	Residual Paint Volume (L) ²	Number of Aerosol Tubskids ¹	Residual Aerosol Paint Volume (L) ³	Total Residual Paint Volume (L) ⁴
Volume Collected	2,912	472,035	47	3,126	477,512

- (1) Tubskid dimensions (42" x 34" x 48") with a nominal capacity of 108 one gallon containers. The actual number of paint containers per bin varies depending on the mix of paint container sizes, ranging from 250ml – 18.9L capacity.
- (2) Based on a rounded conversion rate of 162.1 L per collection bin derived from on the number of tubskids processed and the total residual volume of material generated.
- (3) Based on a conversion rate of 66.5 L per tubskid
- (4) Total volume collected contains 2351 litres of paint collected and reused through the paint exchange program.

Table 2 provides the Program's recovery rate in 2015 based on the volume of paint collected as a function of volume of paint sold.

Table 2: 2015 Paint Sales, Residual Recovery Volume and Recovery Rate

	Total
Sales (litres)	5,421,970
Residual Recovery Volume (litres)	477,512
Recovery Rate	8.8 %

3.2 Collection Sites

As of December 31, 2015, 93 collection sites were participating in the Program. Appendix 1 provides details on the collection sites.

3.3 Process of Internal Accountability

The Program provides collection site guidelines to all collection sites that set out the operational procedures and various requirements for the proper collection and handling of Program products. In addition, the Program provides emergency spill kits and procedures to the collection sites.

To ensure the environmental effectiveness of the Program, RRFB staff conduct regular inspections of collection sites to ensure the collection sites are fulfilling their role as a service provider and are adhering to all applicable Program guidelines and requirements.

4.0 Processing

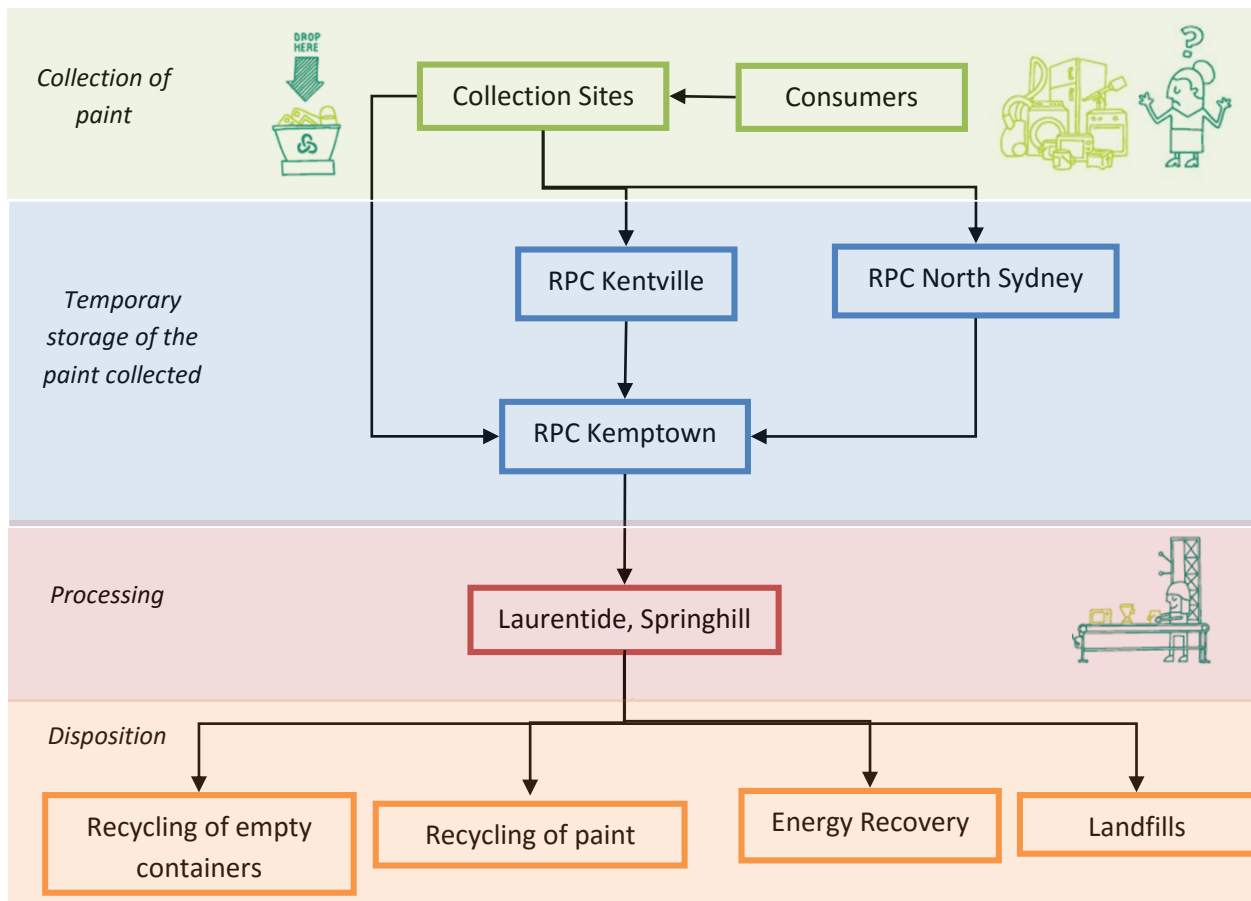
This section of the report sets out:

- a) The total amount of waste paint processed or in storage;
- b) The percentage of waste paint collected that was reused, recycled, disposed of in an engineered landfill, recovered for energy, contained, or otherwise treated or disposed of;
- c) A description of the types of processes utilized to process waste paint;

- d) A description of the efforts to redesign paint products to improve reusability and recyclability; and
- e) The location of processing or containment facilities for waste paint.

All paint collected through the Program is transported by RRFB from collection sites to one of the three Regional Processing Centres (RPC). The contracted RPCs in Kentville and North Sydney ship the paint to the RPC in Kemptown. Accumulated full truck loads are then transported from Kemptown to Laurentide Re-source’s processing facility in Springhill. All products are then unloaded and removed from the storage tubs, inspected, sorted, and processed as shown in Figure 1.

Figure 1: Chain of custody of paint from collection sites to disposition method



4.1 Location of RPC and Processing Facilities

The following is a list of facilities contracted by the Program to handle and process Program product.

Camdon Recycling 345 Gulf Crescent North Sydney, NS B2A 4V2	Containment Facility (RRFB RPC)
Scotia Recycling 110 Donald E. Hiltz Connector Road Kentville, NS, B4N 0C8	Containment Facility (RRFB RPC)
RRFB Kemptown Facility 119 Mingo Road Kemptown, NS B6L 2K4	Containment Facility (RRFB RPC)
Laurentide Resources Atlantic Inc. 100 Main Street Springhill, NS B0M 1X0	Processing Facility
Société Laurentide Inc. 345 Bulstrode Street Victoriaville, QC G6T 1P7	Processing Facility

4.2 Waste Paint Processed

During the reporting period, Laurentide Re-source processed (i.e., opened, sorted and bulked into shipping containers) 2,887 tubskids, including additional tubskids that were in their inventory from 2014. Table 3 shows the volume of waste paint shipped to Laurentide and the volume processed by collection container (tubskids and drums) and by residual volume (litres). Volumes collected and stored at RPCs, but not shipped to Laurentide in 2014, or shipped to Laurentide but not processed in 2014, were managed and accounted for in 2015.

Table 3: Total Amount Waste Paint Processed in 2015

Item	Number of Tubskids ¹	Residual Paint Volume (L) ²	Number of Aerosol Tubskids ¹	Residual Aerosol Paint Volume (L) ³	Total Residual Paint Volume (L)
Volume Shipped to Processor	2,833	459,229	27	1,796	461,025
Volume Processed	2,887	467,935	36	2,395	470,330

- (1) Tubskid dimensions (42" x 34" x 48") with a nominal capacity of 108 one gallon containers. The actual number of paint containers per bin varies depending on the mix of paint container sizes, ranging from 250ml – 18.9L capacity.
- (2) Based on rounded a conversion rate of 162.1 L per collection bin derived from on the number of tubskids processed and the total residual volume of material generated. Residual paint volume does not included paint handled through the Paint Exchange Program.
- (3) Based on a conversion rate of 66.5 L per tubskid derived from on the number of tubskids processed derived and the total residual volume of material generated.

Information on the number of paint containers processed in 2015 at Laurentide Re-resources and the percentage of non-Program materials collected is found in Table 4.

Table 4: Number of Paint Containers Processed at Laurentide Re-resources Atlantic Facility in 2015

	Total Containers (paint/non-Program)	Total Containers (Program paint)	Non-Program Containers	% of Non-Program Containers
Program Totals	374,605	357,548	17,057	4.6%

The amount of metal and plastic containers that were recycled in 2015 and their respective processors is found in Table 5.

Table 5: Metal and Plastic Containers Collected and Recycled in 2015

Container Type	Collected and Recycled (MT)	Processor	Management Process
Metal	99.4	Tri Province Recycling (Moncton, NB)	Mixed with other scrap metal and sold as a commodity that is eventually sent for smelting
Plastic pails (HDPE 2)	7.0	Laurentide Re-sources Atlantic	Combined and baled with other plastics and managed as a commodity for plastics recycling or sent for reuse
Plastic paint cans (polypropylene)	10.8	Laurentide Re-sources Atlantic	Processed and sold as a commodity for plastics recycling

4.3 Disposal Method Descriptions

The following sections describe each method the Program used to recycle or otherwise treat or dispose of waste paint.

Reuse (Paint Exchange Program)

Through the Paint Exchange Program, better quality paint returned to collections sites was made available for the public to take, free of charge, and use. Paint Exchange was offered at 2 collection sites in 2015. An estimated 2,351 litres of paint was given away at no charge through the Paint Exchange Program to consumers, a 33% decrease over last year (3,519 litres). Reuse volumes are estimated by assuming that each container is 75% full on average.

Recycling

At the Laurentide Re-sources facility in Springhill, NS, paint containers are removed from the collection bins, inspected, opened, sorted by type, colour and quality, and poured into shipping containers. The bulked paint of recyclable quality is then transferred to an affiliated processor, Peintures Recupérées du Québec (PRQ) in Victoriaville, QC. Table 6 provides the quantity of latex paint and alkyd paint that was generated from the tubskids processed at Laurentide and then shipped to PRQ. Due to a diminishing market for alkyd paint, it has become an increasing challenge to recycle. Consequently, limited amounts of alkyd paints continue to be recycled with the majority being sent for energy recovery.

Table 6: Quantity and Type of Paint Shipped by Laurentide to PRQ in 2015

Type	Litres	Percentage
Latex paint	292,228	85.5%
Alkyd paint	49,707	14.5%
Total	341,935	100%

Energy Recovery

Not all oil-based paint collected is of suitable quality for recycling. In some cases the paint may be in the form of skins or sludge, the undesirable colour, contaminated or of the wrong chemistry for paint. In addition, regulations such as the Federal VOC Regulations require more stringent limits on certain chemical constituents, which tend to be found in higher concentrations in older paints, making it difficult to recycle solvent-based paint. The market for recycled solvent-based paint is significantly smaller than that for water-based products and demand continues to decline.

Due to the high solvent content of oil based paints, oil based paints are suitable for energy recovery. Through the process of fuel blending, some of the oil based paint collected by the Program that is not suitable for paint recycling is used as an alternative energy source in applications such as permitted incinerators. During the reporting period, 35,735 litres of alkyd paint and paint from paint aerosols were blended with other fuels and sent for energy recovery at licensed facilities.

Landfill

The sorting and bulking of the latex paint by Laurentide Re-sources generated 92,660 litres of non-recyclable latex sludge/solid which were solidified and disposed of at an engineered landfill.

Incineration

During the reporting period, no material went for incineration.

4.4 Percentage of Waste Paint by Disposal Method

Table 7: Waste Paint by Disposal Method

Method	Volume (litres)	Percentage
Reuse	2,351	0.5%
Recycle	341,935	72.3%
Energy Recovery	35,735	19.6%
Landfill	92,660	7.6%
Incineration	0	0%
Total	472,681	100%

4.5 Design for Environment

The paint and coating industry is continually pursuing innovations in product formulations that strike a balance between sustainability, health & safety and performance. This is done working in concert with key agencies such as Health Canada, Environment Canada and numerous standard-setting organizations. An example of industry’s sustainability initiatives includes involvement with the federal Chemicals Management Plan, assessing chemicals in commerce for all industry sectors including paint and coatings. This comprehensive federal government initiative evaluates risks associated with substances contained in products and intended uses or applications of the product. These risk assessments are done with a view to banning the highly toxic substances that are considered dangerous to human health and the environment or managing risks associated with ones that are deemed to be less harmful.

Where toxicity in chemicals is considered potentially harmful to human health or the environment, a risk management approach is required to permit continued use of the substances contained in products like paint and coatings. This may result in regulations, pollution prevention plans, codes of practice or compliance agreements and ultimately reformulation or re-design of products for the marketplace, which reduces or eliminates negative impacts. We have seen these measures lead to important benefits such as the reduction of emissions from Volatile Organic Compounds (VOC) in paints with most paints now having either low or no VOC content. Similarly, the manufacturing of paint continues to shift from solvent-based paints to water-based paints due to a number of factors, including:

- Consumer preference for more environmentally friendly products

- Advanced water-based coating technology providing similar product performance as solvent-based technology
- Regulatory influences such as Environment Canada's *Volatile Organic Compound (VOC) Concentration Limits for Architectural Coatings Regulations (P.C. 2009-1535)* which sets limits for VOC for a number of coatings including architectural coatings. These new regulations require coatings manufacturers to switch to low-VOC formulations.

Waterborne paints now make up more than 90 percent of paint products on the market. The Program utilizes the following tools to increase the amount of reuse of leftover water-based paint and minimize the environmental impact of residual paint where possible:

- Variable eco fees aligned with container size in some jurisdictions; and
- Operation of a paint exchange Program whereby leftover paint is made available for reuse to the public free of charge.

5.0 Communication and Education

In accordance with the Regulation, PCA implemented a communication and education Program to educate consumers. The following section provides details regarding the communication and education Program for 2015.

5.1 Website

PCA continued to operate its website, ReGeneration.ca, through which consumers were engaged in an accessible and intuitive forum, with the ultimate goal of increasing Program awareness and collection volumes. The site includes the following bilingual content:

- Collection site finder (a map displaying locations of the collection sites – see Appendix 2)
- Collection site hours and operations
- Information for trade painters (list of collection sites that can accept large volumes)
- Program product lists
- News and information
- Dedicated Service Partner and Program Member information sections
- Contact information for Program management

An estimated 147,000 unique visitors utilized the website during the 2015 calendar year. The collection site finder page specifically had an estimated 44,000 unique page views.

5.2 Purchased Media

Television- PCA ran a 26-week, province-wide television campaign on Global TV educating residents about paint recycling. The campaign was two-tiered, featuring a) Community PSAs: local talent voiced 15 second “info-mercial” style spots educating viewers on paint recycling and b) a heavy rotation of 30-second traditional commercial spots airing on prime time during high viewership Programming.

PaintRecycle pursued additional advertising via Tim’s TV, the in-store network of television display screens in Tim Horton’s Restaurants. The campaign ran for four weeks beginning in July in 112 locations in Annapolis Valley, Cape Breton, Central Nova Scotia, Halifax, and South Shore.

Radio- PaintRecycle Program information was shared through radio advertising for two flights of four weeks and one flight of 8 weeks on Live 105 FM, Halifax (total 16 weeks in market). The campaign consisted of 30-second informational messaging, promotional taglines (driving to Program website) and online advertising on the radio station’s website.

PCA also continued an Atlantic Canada targeted digital campaign via YP Group, including syndicated Facebook posts, targeted digital display ads, and smart digital display (re-serving impressions to pre-qualified audiences). Digital ads were specifically targeted to internet users who performed online searches related to the purchase, use and disposal of paint products in Nova Scotia.

Additionally, our Facebook advertising campaign pursued a “gated” strategy, which is to say, relevant content was viewable by residents of Nova Scotia only and not seen by audiences in other provinces.

5.3 Point of Sale (PoS) and Point of Return (PoR) Material

PCA redesigned all existing POR and POS materials to reflect the latest Program product inclusions and Program branding updates. Updated materials included rack cards, posters, shelf talkers, decals, and interior signs. Redesign was completed in December 2015 and distribution began with a view to completion in Q1 of 2016. Education materials can be order free of charge on Regeneration.ca. See Appendix 3 for PoS and PoR examples.



6.0 Financial Information

Product Care Association's audited financial statements are attached in Appendix 4.

Appendix 1 – NS PaintRecycle Collection Sites as of December 31, 2015

Region	Collection site	City
Cape Breton	Admiral Recycling Ltd.	Port Hood
	Burke's Recycling Collection site Ltd	Louisbourg
	Cheticamp Recycling	Cheticamp
	Glace Bay Recycling Ltd.	Glace Bay
	Green Island Recycling	North Sydney
	Inverness Recycling	Inverness
	Isle Madame Bottle Exchange	Arichat
	Keltic Recycling Inc	Sydney River
	Municipality of C. of Victoria-Baddeck Landfill	Baddeck
	Neils Harbour New Haven Recycling Collection site	Neils Harbour
	New Waterford Recyclers	River Ryan, New Waterford
	North Sydney Recycling	North Sydney
	St. Peter's Bottle Exchange	St. Peter's
	Strait Bottle Exchange Ltd.	Port Hawkesbury
	Total Recycling Ltd.	Sydney
	Total Recycling Ltd. (Sub-Collection site)	Sydney
Triple B Recycling Collection site	Sydney	
Eastern	Beech Hill Waste Management Site (County of Antigonish)	Antigonish
	Bill Stewart Metal & Bottle Ltd.	New Glasgow
	John's Bottle & Recycling Collection site	Pictou
	MacMillian's Service Center Ltd	Lower South River
	Mason's Recycling Centre	Canso
	Mount William Waste Management Site (Pictou County SWM)	Mount William
	Municipality of the District of Guysborough	Guysborough
	St. Mary's Transfer Station	Sherbrooke
Halifax	3K Enviro Collection site (3006877 NS Ltd) (was Eastern Shore)	Sheet Harbour
	Beaver Redemption & Recycling	Halifax
	Bluenose Bottle Exchange	Dartmouth
	Bluewater Recycling Corp. (Bedford)	Bedford
	Bluewater Recycling Corp. (Goodwood)	Goodwood
	Burnside Recycling	Dartmouth
	Canadian Recycling Limited	Dartmouth
	Clifton Recycling Centre	Halifax
	E.T. Bottle Exchange	Dartmouth
	Faders Bottle Exchange Ltd.	Lower Sackville
	Friends Collection site (Lady Beth Enterprises Ltd)	Ingram Port

	Green Tree Recycling Collection site	Lower Sackville
	Greenleaf Recycling Limited	Porter's Lake
	Halifax Regional Municipality Solid Waste Resources Dept.	Lakeside
	John Ross & Sons Ltd. (Halifax)	Halifax
	Karen's Recycling Ltd.	Halifax
	Matt's Bottle Exchange	Eastern Passage
	Preston Recycling	East Preston
	Sackville Bottle Exchange	Lower Sackville
	Tanner's Transfer	Halifax
	The Recycle Market	Lake Charlotte
	Timberlea Bottle Exchange	Timberlea
	Youth L.I.V.E. Recycling	Halifax
	Northern	A & J Superette
Atlantic Industrial Services (for Municipality of the County of Colchester)		Debert
Cumberland Joint Services Management		Little Forks
Durant's Enviro Collection site		Parrsboro
East Hants Waste Management Centre		Georgefield
Elmsdale Recycling Ltd		Elmsdale
John Ross & Sons Ltd. (Truro)		Truro
Keep Garbage Beneficial		Pugwash
M&R Recycling		Springhill
Meehan's Recycling		Upper Rawdon
Moore Nickels & Dimes for You Recycling		Oxford
Nova 4 Enviro Ltd.		Amherst
Subway Bottle Exchange		Truro
Tatamagouche Recycling Collection site		Tatamagouche
T'N'T Recycling		Shubenacadie East
Two Capes Recycling (Advocate Country Store Inc.)	Advocate Harbour	
South Shore/West Hants	Adam's Bottle Exchange Limited	Gold River
	Clyde's Trucking & Recycling	Liverpool
	Cogmagun Landfill Site (Waste Management)	Cogmagun
	Corkum Recycling Limited	Lunenburg
	Harlow Construction Limited	Shelburne
	Municipality of Barrington	Barrington
	Municipality of Shelburne	Shelburne
	Municipality of the District of Chester - Kaizer Meadow Landfill	Sherwood
	Municipality of the District of Lunenburg	Whynotts Settlement
	Municipality of the Region of Queens	Milton
	O'Leary's Bottle Collection site	Windsor

	Ridge Road Recycling-Collection site Ltd	Barrington
	Victor & Douglas Oickle's Bottle Exchange	Bridgewater
	Wentzell's Bottle Recycling Ltd	New Germany
	Windsor Recycling Collection site	Windsor
Valley	Beehive Adult Service Center	Alyesford
	C.N. Orde & Sons (aka Lequille Enviro Collection site)	Annapolis Royal
	Greenwood Recycling Centre	Greenwood
	L.W. Layton Salvage	Canning
	New Minas Recycling	New Minas
	Valley Recycling	Greenwich
	Valley Waste - Eastern Waste Management Centre	Kentville
	Valley Waste - Western Waste Management Centre	Lawrencetown
Western	Comeau's Bottle Exchange	Meteghan Centre
	Digby Salvage & Disposal	Digby
	Municipality of Clare	Meteghan
	Paperchase Bottle Exchange Ltd.	Yarmouth
	Town of Yarmouth	Ohio
	Webber's Bottle Exchange	Digby

Appendix 2 – PCA’s Collection Site Map

Below is a snap shot of PCA’s collection site locator tool found on Regeneration.ca.

Select product
Paint

Enter a city or postal code
Nova Scotia, Canada

Refine distance
0km 50km 100km

There are 94 paint location(s) near you

- Timberlea Bottle Exchange** 2.81 km
 2352 St. Margaret's Bay Road
 Timberlea, NS, B3Y 1M6
 Mon - Fri 8:00am - 5:00pm
 Sat 8:00am - 4:00pm
 902-876-2500
- Bluewater Recycling Inc.** 5.68 km
 23 Bluewater Road
 Bedford, NS, B4B 1G8
 Mon - Sat 9:00am - 5:00pm



Collection Site Locator



Whether you are a consumer or a business, our collection sites are here to help you recycle your unwanted, leftover and broken products. Make sure to select the category and collection option that best suits your needs.


Appendix 3– Sample Facebook Post

ReGeneration
How do I store my leftover paint? #RecyclingFAQ

To properly store paint, clean the rim of the can to ensure a proper seal. Pour 1/8" of solvent on top of oil-based paint, or 1/8" of water on top of latex paint to seal the surface then secure the lid.

Like ·  82 · Comments ·  3 · Shares ·  51

 Professional Painted Finishes and 81 others like this.

ReGeneration
No matter the motive, there are plenty of great reasons to help the planet! What's yours?



Like ·  292 · Comments ·  9 · Shares ·  66

 Gwen Vaughan and 291 others like this.

Appendix 4 – PoS & PoR Materials

English Poster 11"x17"



French Poster 11"x17"



Shelf Talker 10"x2"



French Shelf Talker 10"x2"



English Retail Rack Card 5" x 8"

French Retail Rack Card 5" x 8"



English Depot Rack Card 5"x8"

French Depot Rack Card 5" x 8"





Appendix 5 – Financial Statements