PRODUCT CARE ASSOCIATION
OF CANADA

May 1, 2018

productcare

MANITOBA HOUSEHOLD HAZARDOUS WASTE ANNUAL REPORT 2017

Reporting Period: January 1, 2017
to December 31, 2017

Submitted By:
Mannie Cheung,
Vice-President, Operations
Product Care Association of Canada
105 W. 3rd Ave
Vancouver, BC, V5Y 1E6

Table of Contents

1. Program Outline

The Manitoba Household Hazardous Waste Program ("Program") is operated and managed by Product Care Association of Canada ("PCA"). 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.

This annual report is prepared in accordance with the requirements outlined in the *Manitoba Household Hazardous Material and Prescribed Material Stewardship Regulation (16/2010R)* ("Regulation") enacted pursuant to the *Waste Reduction and Prevention (WRAP) Act*, and the commitments set out in the Manitoba Household Hazardous Waste Stewardship Program Plan approved by the Manitoba Minister of Conservation and Water Stewardship on October 6, 2011.

The members of the Program are the obligated "stewards" (manufacturers, distributors and retailers) pursuant to Regulation with regard to the following product categories:

- Paint
- Flammable liquid / Gasoline
- Corrosive
- Toxic
- Physically hazardous materials
- Pesticides
- Fluorescent lights

The Program's first phase launched on May 1, 2012 and included paint and fluorescent lights. The second phase launched on October 1, 2012 and included pesticides, flammable liquids / gasoline, corrosives, toxics and physically hazardous materials (Program Products). The Program enables consumers to drop off unwanted Program Products at collection sites and collection events across the Province at no charge.

The Program is funded by membership fees, known as Environmental Handling Fees (EHFs), remitted to PCA by its members based on the volume of sales of designated Program Products in or into the Province. In some cases, retailers recover this expense as a separate visible EHF to consumers. The EHF rates are set by PCA. Program revenues are applied to the operation of the program, including administration, communication and outreach, collection, transport and processing of collected Program Products, as well as the maintenance of a reserve fund.

PCA operates product stewardship programs for paint in seven other Canadian provinces: British Columbia, Saskatchewan, Ontario, Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland & Labrador. PCA also operates programs for household hazardous wastes in British Columbia, and Ontario; lamps in British Columbia, Quebec and PEI; and smoke and carbon monoxide alarms in British Columbia. See the PCA website at www.ReGeneration.ca for more information.

A new program plan was submitted to the Department of Sustainable Development (MB SD) (formerly Green Manitoba) in April 2016. Following consultations, a revised program plan was submitted in May 2017. The Program Plan is currently under review with MB SD. This annual report addresses the performance of the Program in relation to the 2012-2016 program plan ("Program Plan").

2. Educational Materials and Strategies

PCA used a number of methods to raise consumer awareness of the Program in 2017.

Consumer Awareness Survey
The second consumer awareness survey for Manitoba was completed in November 2017. The online survey of 1,000 adult Manitoban residents revealed that 51% of those who purchased paint are aware of a program in the province that recycles paint and 48% were aware of a recycling program for HHW products. These levels exceed previous awareness in 2015 by 13 percentage points and 5 percentage points respectively.

The next consumer awareness study is currently scheduled to be conducted in 2019.

Advertising (see Appendix A for examples)

- **Digital Campaign:** PCA ran a Manitoba targeted digital campaign, including Facebook posts, targeted digital display ads, and smart digital display (i.e. retargeting or re-serving ads to pre-qualified users who had engaged with ReGeneration's website at some previous point in time).
- **Radio:** Winnipeg's top hit music station, Energy 106 FM, aired sixteen weeks of advertising with 30-second commercials in March, April, September and October.
- **Radio:** Additional radio advertising on Jewel 100 aired sixteen weeks of advertising with 30-second commercials in late March, April, May, September and October.
- **Global TV:** A province-wide campaign with Global TV started in March, 2017 and ran for the remainder of the calendar year. Spots were in the style of community Public Service Announcements. Local talent voiced 15-second spots educating viewers on paint and HHW recycling. Heavy rotation during prime time, high viewership programming.
- **Winnipeg Leisure Guide:** Fall and winter full page advertisements were placed with the Recreation Services Publication with a print run of more than 100,000 guides (in addition to a downloadable PDF) made available through all of the city's recreation centres.
- **Municipal Leader Magazine:** PCA promoted HHW collection sites via two full page advertisements in the fall and winter issues of the magazine to promote the Program.
- **Newspaper Advertising:** Full page advertisements highlighting summer HHW collection events ran in newspapers, such as the 'Interlake Spectator' and the 'Neepawa Banner', all of which referenced collection sites in their respective readership areas.
- **Manitoba Association of Regional Recyclers (MARR) Forum:** PCA sponsored the Forum, which included a program display in the Forum's main gathering space, acknowledgement of PCA sponsorship in Forum signage and registration package, and free registration for two PCA representatives to attend and promote the Program.

Point of Sale (PoS) and Point of Return (PoR) Materials (see Appendix B)
The Program distributed PoS and PoR materials free of charge to retailers and collection sites upon request. The following materials were available at no charge for reorder through our online order form:

- Rack cards
- Posters
- Depot signage

Program Website (see Appendix C for a visual of the depot finder)
PCA promoted the Program online through its consumer-facing website, ReGeneration.ca, including the following information:

- Depot finder

- Depot hours and operations
- Program product lists
- Other information (e.g., a description of the PaintReuse program).

An estimated 89,576 unique visitors utilized the website during the 2017 calendar year. The Manitoba program section received 4,734 page views, while the collection site finder page received 1,288 page views. Additionally, ReGeneration.ca is linked to Recycle Manitoba's website www.recyclemanitoba.ca and MB SD's website www.gov.mb.ca/sd/wastewise/index.html.

Government Partnerships
PCA continued to work with MB SD to promote the Program.

Toll-free Number
PCA continued to operate a toll-free number (1-888-772-9772) to answer consumer inquiries.

Partnerships
- **Association of Manitoba Municipalities (AMM) Annual Trade Show, Brandon, April 12:** PCA set up a booth and provided information to trade show attendees. The target audience at this event included municipal officials, public works and administrative staff who are PCA's primary municipal partners. The event offered an opportunity to make new contacts and network with existing ones.
- **MARR Annual Trade Show, October 18-19:** The Manitoba Field Coordinator attended the show with a display area, and presented on HHW. PCA was a Forum Sponsor. Multiple contacts were made that presented opportunities for establishing new collection sites in 2018.

Other Stakeholders
- PCA worked continually to keep Manitoba's Program members up-to-date with relevant Program information, such as product clarifications through email and website notifications.
- PCA was also involved in several initiatives in 2017 to ensure that other stakeholders were aware of the status of the Program, including:
  - In person or teleconference meetings with 35 municipal representatives to discuss the Program.
  - Participation in a multi-party committee chaired by Indigenous Services Canada (ISC) working with remote First Nations communities to facilitate management of stewardship materials. PCA staff attended a workshop in January that included approximately 40 First Nation Communities.

PCA worked closely with other stewardship agencies on a number of initiatives.

3. Collection System

PCA does not directly own or manage any collection sites, but rather contracts with existing collection sites. Due to the hazardous nature of some Program Products and limited existing infrastructure, establishing permanent collection sites presents a significant challenge relative to other stewarded products. Typically, collection sites are co-located at facilities with collections for other stewardship programs, such as local government recycling centres (waste disposal ground or waste transfer stations), non-profit societies and private businesses.

As of December 31, 2017, the Program had contracted with 42 permanent, year round municipal and private collection sites and 50 return to retail collection sites. As not all collection sites accept the same products, Table 1 provides a breakdown of the different types of collection sites and the number of each in operation. See Appendix D for a detailed list of all collection sites as of December 31, 2017.

Table 1: List of Participating Retail and Private / Municipal Collection Sites in Manitoba

Type of Collection Site	Retail	Private / Municipal	Total
Paint only	12	3	**15**
Lights only	13	0	**13**
Both Paint and Lights	25	17	**42**
Full HHW (All Program Products)	0	22	**22**
Total	**50**	**42**	**92**

Collection sites were typically open during regular business hours. In addition, the collection site at Miller Environmental's Winnipeg facility offered weekend collection hours on select Saturdays each month.

PCA also contracted with Miller Environmental to operate a number of one day household hazardous waste collection events to supplement the collection network. Table 2 provides a list of the 17 collection events held in 2017.

PCA continues to work on expanding the overall collection system.

Table 2: Household Hazardous Waste Collection Events in 2017

Date	Event Location
April 29	Killarney
May 13	East St. Paul
May 20	Virden
June 17	Carberry
June 20	Brokenhead
July 8	Russell
July 15	Springfield
July 22	Fisher
July 22	Rockwood
September 19	Ethelbert
September 20	The Pas
September 22	Snow Lake
September 23	Thompson

Date	Event Location
September 25	Dauphin
September 27	Inwood WTS
October 16	RM of Tache
October 7	Oakbank

In addition, PCA worked with a number of municipalities to provide one-time direct pickup and product management services from waste disposal grounds / landfills and parks to remove stockpiles of Program Product. Table 3 provides a list of locations.

Table 3: Direct Pickup Service Locations in 2017

Date	Direct Pickup Locations
July 17 / August 28	RM of Alexander – Traverse Bay
August 16	RM of West Interlake – Ashern[1]
August 18	RM of Armstrong – Meleb[1]
August 18	RM of Armstrong – Chatfield[1]
September 7	RM of Grahamdale – Moosehorn[1]
September 7	RM of Grahamdale – Mulvihill[1]
September 8	RM of Alexander – St. Georges
September 11	RM of Grahamdale – Faulkner[1]
September 11	RM of Grahamdale – Pinamuta[1]
September 27	RM of Armstrong – Inwood[1]
September 29	Whiteshell Provincial Park – Jessica Lake
September 29	Whiteshell Provincial Park – Nutimik Lake
October 6	Peguis First Nation[1]

Pinawa and St Laurent locations became full service sites in 2017 after completing direct pickup services in 2016. RM of Woodlands also became a paint collection site in 2017 (see **Appendix D**).

PCA worked closely with other stewardship agencies on a number of initiatives including the establishment of a “one stop shop” collection site in Thompson with EPRA and MARRC, and removing stockpiled material from Peguis First Nation (MARRC and PCA).

[1] Locations participated in a stockpiles pilot project.

4. Management of Collected Materials

The objective of the Program is to minimize the improper disposal of hazardous materials, including paint and fluorescent lights, by providing an effective HHW collection program and ensuring that the collected materials and containers are either recycled or disposed of in an environmentally responsible manner. PCA strives to manage collected products in accordance with the "pollution prevention hierarchy" as described in detail below. Product management and the application of the pollution prevention hierarchy varies by product.

4.1. Management in Accordance with the Pollution Prevention Hierarchy

The Program continued to encourage consumers to buy the right amount of a consumable product for their needs resulting in less waste and a reduction in the volume of product needlessly purchased. This was achieved through the "BUD" Rule, promoted through the Program website and promotional materials, which tells consumers to:

- Buy no more than you need.
- Use all that you buy.
- Dispose of leftovers safely.

Processing and recycling options in Manitoba varied by Program Product as outlined below. Where possible and economically feasible, PCA managed products according to the pollution prevention hierarchy. In certain instances, products may have been "downcycled" (i.e., managed through an available process that was lower on the pollution prevention hierarchy) at PCA's discretion.

The following section outlines the product management processes employed by the Program for each product category.

4.1.1. PaintReuse

PCA continues to pursue the PaintReuse program with suitable collection sites in Manitoba. The PaintReuse program offers consumers the ability to pick up better quality, reusable paint from collection sites at no charge. This is an efficient way to manage leftover paint as the product is used for its original purpose and does not require transportation and reprocessing. This option is limited to non-retail collection sites.

4.1.2. Paint

Leftover paint represented the largest volume of residual products managed by the Program. Leftover paint that was not utilized for PaintReuse was managed in a number of ways.

Liquid Paint

Latex paint was sent to a recycling facility to be reprocessed into paint and coating products. Unrecyclable latex paint was solidified and sent to landfill. Regulatory limits on Volatile Organic Compounds (VOC) and limited demand for oil based paints did not make recycling a viable option for this product category. Oil based paint was consolidated and blended with other flammable liquids and sent for energy recovery at licensed facilities.

Aerosol Paints

The residual volumes recovered from paint aerosols were nominal compared to recovered liquid paint and represented a variety of product formulations that limited the options for recycling. Paint aerosol cans were punctured and the contents drained. The propellant was absorbed by activated carbon, the residual paint

blended with other flammable liquids destined for energy recovery and the steel containers recycled as scrap metal.

4.1.3. Flammable Liquids / Gasoline

Given the varied nature of flammable products, material mix / composition and limited volumes, it was not economically viable or feasible to recycle flammable liquids. Since many flammable products are sold as fuels, leftover flammable liquids and gasoline were blended and sent for energy recovery. Flammable aerosols were evacuated and the flammable liquid treated in the same manner as paint aerosols.

4.1.4. Corrosives

Reuse is not currently an option for corrosive material. Corrosives were neutralized, treated and stabilized with concrete for landfill. Corrosive aerosols were evacuated, the propellant absorbed by activated carbon, and the corrosive liquids neutralized.

4.1.5. Toxics

Due to the nature of toxic materials, there is no reuse or recycling option available. Toxic liquids were fuel blended and sent for energy recovery. Toxic solids were incinerated at high temperature in a government regulated and permitted incinerator.

4.1.6. Physically Hazardous Material (Fuel Cylinders)

Fuel from fuel cylinders was either sent for energy recovery or was recovered and used as fuel in cylinders.

4.1.7. Pesticides

Due to the nature of pesticides and aerosol pesticides, there was no reuse or recycling option available. All pesticides were incinerated at high temperature in a government regulated and permitted incinerator. Pesticide aerosols were evacuated, propellants absorbed by carbon, and residual pesticides sent for incineration.

4.1.8. Paint and HHW Containers

All metal and plastic paint containers were recycled as scrap metal or plastic commodity. All metal aerosol containers were recycled as metal. All plastic HHW containers were sent to landfill.

4.1.9. Fluorescent Lights

Fluorescent lights were collected and shipped to a processor where they were broken down into their component parts (i.e., mercury / phosphor powder, glass, ceramics, electronic circuits and metals) under a controlled environment. The metal end caps were sent to a scrap metal recycling facility. The glass, ceramics and electronic circuits were further processed and utilized as raw materials in various manufacturing processes. The mercury phosphor powder underwent further processing where it was chemically treated, stabilized, and sent to secure landfill.

4.1.10. Non Program Material

Non-program material that entered the collection system was segregated at the collection and processing stages. Depending on the material type, processing methods for non-program material included landfilling, physical / chemical treatment, energy recovery and incineration.

4.2. Volume Collected

Residual recovery volume represents the liquid volume, measured in litres, of Program Products recovered by the Program.[2] Table 4 shows the residual recovery volume of HHW products collected in 2017. Table 5 shows the residual recovery volume of pressurized HHW products collected in units. Table 6 shows the units of fluorescent lights collected in the same year.

Table 4: Residual Recovery Volume of HHW Products Collected in 2017 (Litres)

HHW Category	Total (litres)
Paint (non-aerosol)	322,060
Flammable Liquids (incl. Gasoline)[3]	29,358
Toxics (incl. Pesticides)[3]	8,988
Corrosives[3]	12,959
Total	**373,365**

Table 5: Residual Recovery Volume of Pressurized HHW Collected in 2017 (Units)

HHW Category[4]	Total (units)
Paint Aerosol	59,500
Other Aerosol[5]	26,425
Physically Hazardous	12,960
Total	**98,885**

Table 6: Fluorescent Lights Collected in 2017 (Units)

Fluorescent Light Category	Total (units)
Compact Fluorescent Lamps (CFLs)	36,769
Tubes	115,998
Total	**152,767**

[2] The residual recovery volume is calculated by taking the weight of materials provided by the processor and removing container weights (based on standard container weights determined by PCA). The weight of the material is multiplied by the average estimated density of the specific materials obtained from MSDS specifications. For example, 100 kg of flammable material is collected in 1 drum. 21 kg (tare weight) is removed netting 79 kg of flammable material. The 79 kg is multiplied by the material density (1 kg = 1 litre), which is estimated given the variability of the composition of the waste flammable liquids, yielding 79 litres collected.

[3] Aerosol portions of flammable liquids, toxic and corrosive products are comingled during processing and therefore those products have been subsumed under the "other aerosol" category in Table 5.

[4] Paint aerosol, other aerosols and physically hazardous material categories are based on average units per drum.

[5] "Other aerosol" includes flammable, corrosive and toxic aerosols.

4.3. Product Sales

The quantity of Program Products sold annually varies according to market conditions. Table 7 shows the litres of paint and HHW sold in 2017. Volumes were calculated using typical container size volumes. Table 8 provides the units of paint aerosols and physically hazardous sold. Table 9 shows the units of fluorescent lights sold in the same year.

Table 7: Sales Volume of Paint and HHW in 2017 (Litres)

HHW Category	Litres Sold
Paint (non-aerosol)	6,337,231
Flammable Liquids[6,7]	1,047,080
Toxics[7]	129,259
Corrosives[7]	198,886
Pesticides	45,870
Total	**7,758,326**

Table 8: Sales Volume of Paint and HHW in 2017 (Units)

HHW Category	Units Sold
Paint Aerosol	980,956
Physically Hazardous	182,061
Total	**1,163,017**

Table 9: Sales of Residential Fluorescent Lights in 2017 (Units)

Fluorescent Light Type	Units Sold
Compact Fluorescent Lamps (CFLs)	294,931
Fluorescent Tubes	383,750
Total	**678,681**

[6] Excludes gasoline sales.
[7] Includes aerosols.

4.4. Recovery Rate and Capture Rate

The Program Plan specifies the use of recovery rate as a performance measure for HHW products, and capture rate for fluorescent lights. Recovery rate represents the volume collected as a function of the volume sold in that year. In contrast, capture rate is the amount of product collected as a function of the amount of product available to collect in that year.

At the time of program plan development, minimal data was available for certain product categories, such as toxics, corrosives, physically hazardous materials and fluorescent lights, to assist with setting recovery rate or capture rate targets. It is also important to keep in mind that the recovery rate is affected by factors outside of the Program's control. Since the recovery rate uses the volume of products sold in a year as the denominator, fluctuations in the volume of products sold affect the recovery rate, which can easily change depending on economic conditions. In addition, Program Products can be stored for long periods of time and most are designed to be fully consumed.

Table 10 shows the volume collected, volume sold and recovery rate of HHW products, excluding lights.

The Program is unable to provide available to collect data for 2017 as the Program Plan only included available to collect data up to 2016. Table 11 provides a comparison of collection volumes of 2017 versus 2016.

Table 10: Volumes Collected, Volumes Sold and Recovery Rates - HHW Products in 2017

2017	Paint	Paint Aerosol[8]	Flammable Liquids (incl. Gasoline)[9]	Toxics (incl. Pesticides)[9]	Corrosives[9]	Physically Hazardous[8]
Litres Collected	322,060	59,500	29,358	8,988	12,959	12,960
Litres Sold	6,337,231	980,596	663,205	160,534	186,275	182,061
Recovery Rate	5.1%	6.1%	4.4%	5.6%	7.0%	7.1%

Table 11: 2016 / 2017 Collection Volume Comparison

2016	CFLs	Fluorescent Tubes	Total Lights
Units Collected	34,430	76,353	**110,783**
Units Available to be Collected	110,350	50,850	**161,200**
Capture Rate	31%	150%	**69%**
2017	**CFLs**	**Fluorescent Tubes**	**Total Lights**
Units Collected	36,769	115,998	**152,767**
Year / Year Comparison	6.8%	51.9%	**37.9%**

[8] Recovery rates for paint aerosols and physically hazardous materials were calculated as units recovered / units sold.
[9] Aerosols containing flammable, toxic, and corrosive liquids were not included in recovery rate calculations because these products were comingled during processing.

5. Environmental Impacts

The overall program objective is to reduce the environmental impact of obligated products through the application of the pollution prevention hierarchy. Stewardship programs have limited ability to influence product design. That said, industry is continuously seeking opportunities to improve on the quality and environmental performance of products. The following section provides a summary of the associated environmental impacts of Program Products.

Paint Chemical Management Plan
The paint and coatings industry is continually pursuing innovations in product formulations that strike a balance between sustainability, health and safety and product 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 government's Chemicals Management Plan, and 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 the risks in the ones that are deemed to be less harmful.

The Chemicals Management Plan entered its third phase and identified 1,550 substances being risk assessed for potential to cause harm to human health or the environment. Over five hundred of those chemicals are implicated in the paint and coatings industry. Over the next five years, the coatings industry will provide detailed information on all the substances used in order for the Government to make a determination as to whether or not they need a risk management regime or an outright ban. This will further enhance the sustainability of the products once the assessment is completed and action taken where needed.

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. In some cases this has led to less toxic and more environmentally friendly alternatives or substitutes for product formulations that still ensure product performance demands of the customer. We have seen these measures lead to important benefits such as the reduction of low-level emissions from VOC in paints with most paints now containing low or no VOC content.

VOC Emissions Reductions in the Paint and Coatings Industry
Almost all ground-level ozone and about two-thirds of particulate matter are formed in the atmosphere through the reactions of precursor substances, with VOCs being one of the most significant. Consequently, Canada's approach to reduce atmospheric levels of particulate matter and ozone is to reduce the precursor emissions, including VOCs. In 2009 the federal government implemented VOC Concentration Limits for Architectural Coatings Regulations for all architectural and automotive paint and coatings in 54 product categories. Since that time there has been tremendous success in the emissions reduced in all paint and coatings used in Canada as follows:

- 93% of the sales volume of all architectural coatings in Canada is now water-based, up from less than 50% ten years ago.
- In 2015, based on comprehensive and random testing conducted by Environment and Climate Change Canada (ECCC), over 99% of the sales volume for architectural waterborne coatings in

Canada, traditionally associated with high VOC content, are now fully compliant with the lower VOC limits required by the VOC Concentration Limits for Architectural Coatings Regulations.

- Compared with 2002 levels, the architectural paint and coatings sector has achieved 74% reduction in overall VOC emissions due to lowering of the VOC content in waterborne products by eliminating most of the solvent borne product lines completely. These industry efforts greatly exceeded the government's own expectations, which was projected to be a 28% reduction.

Industry Leadership

Many companies now have sustainability goals and targets. Those are put in place for environmental reasons, but they also make good business sense as efficient use of natural resources has been shown to reduce operating costs. As a result, many firms now have regular sustainability reporting as an ongoing part of their business planning, allowing them to integrate the addressing of environmental challenges into their long-term development strategy. Some of the ways in which paint and coatings companies address the alignment of sustainability with capital allocation decisions include:

- Setting and updating long-term greenhouse gas reduction targets and linking those with environmental compensation and sustainable product innovation.
- Using life cycle assessment to set business goals when expanding product offerings and risks management.
- Developing metrics to factor in the social and environmental impact of their suppliers along the supply chain to determine true business costs.
- Making investments in new environmental research and innovation.
- Ensuring R&Ds projects are aligned with the sustainability policy of the company.
- Some companies now have Chief Sustainability Officers, who are one of the decision makers for large internal capital budget requests, signing-off with the controller on capital budget requests to ensure sustainability is evaluated and included in decision making.

Customer Preference

Many initiatives are also driven by customer preferences. Companies now focus attention on answering consumer preferences for products that reduce fuel use, limit real estate footprints, and improve water and wastewater management while ensuring customers get the same product performance. For example, paint and coatings companies develop products that help businesses and their customers to reduce their environmental footprint, while creating value. These product lines include architectural paints being now more durable, lasting longer and protecting valuable assets.

Fluorescent Lights

Fluorescent lighting technology has been very stable over the last few years. As previously reported, the lifespan of fluorescent lights has increased substantially in the last decade, reducing the environmental impact associated with these products. Energy Star™ qualified CFLs last between 6,000 and 15,000 hours, or 5 to 13 years, based on an average use of three hours a day.[10] The amount of mercury contained within fluorescent lights has also been decreasing e.g. the average four-foot lamp contains approximately 85% less mercury than the same lamp produced in 1985.[11]

More recently, there has been a market shift towards Light Emitting Diode (LED) technology, which has contributed to the environmental impact of the lighting market as a whole. Acceptance of LED technologies is increasing as prices decrease, and consumers (retail) are consequently making the switch from traditional CFL and fluorescent tubes to LEDs.

[10] U.S. Department of energy (2009). Energy Start® Qualified Light Bulbs 2009. http://www.energystar.gov/ia/products/downloads/CFL_PRG.pdf

[11] Fluorescent and other Mercury-Containing Lamps and the Environment, NEMA, 2005. https://www.nema.org/Policy/Environmental-Stewardship/Lamps/Documents/Lamp%20Brochure.pdf

The shift is more noticeable in the retail market as the “screw based” compact fluorescent has seen the greatest effect of LED replacement. The industrial / commercial market still has and will have for some time “pin based” CFL’s which are installed on a wide base throughout commercial and industrial environments. They are not being replaced as quickly, as replacements have not been economically readily available. In addition to this the extensive use of tubular fluorescent lamps in the industrial and commercial market will be in place for quite some time to come.

As a result of this shift in purchasing behaviour and the significantly longer lifespan of LEDs, sales of fluorescent lights have been decreasing since the start of the Program and are expected to continue to decrease in the future. This change will result in a positive environmental impact as fewer lights containing mercury will require disposal. These trends will only become visible as the market adapts to the new technology and will be monitored by the Program over time.

Products Containing Mercury-Federal Perspective

There are currently two initiatives at play on the federal scene worth noting as these will undoubtedly have some effect on provincial programs in the short to medium future. They are the National Strategy for Safe and Environmentally Sound Disposal of Lamps Containing Mercury, and the ECCC Consultation on Mercury Containing Products.

6. Financial Information

PCA's independently audited financial statements for the Program's revenues and expenses can be found in Appendix E.

Appendix A – Advertising Materials

Print Advertising

Municipal Leader Winter and Fall Edition

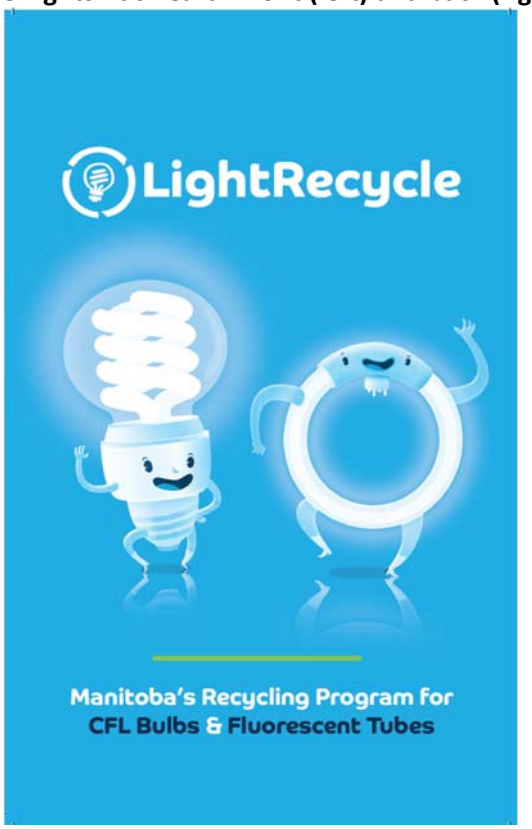
AMM Convention Advertisement

Collection Event Advertisement

Appendix B – Point of Sale and Point of Return Materials

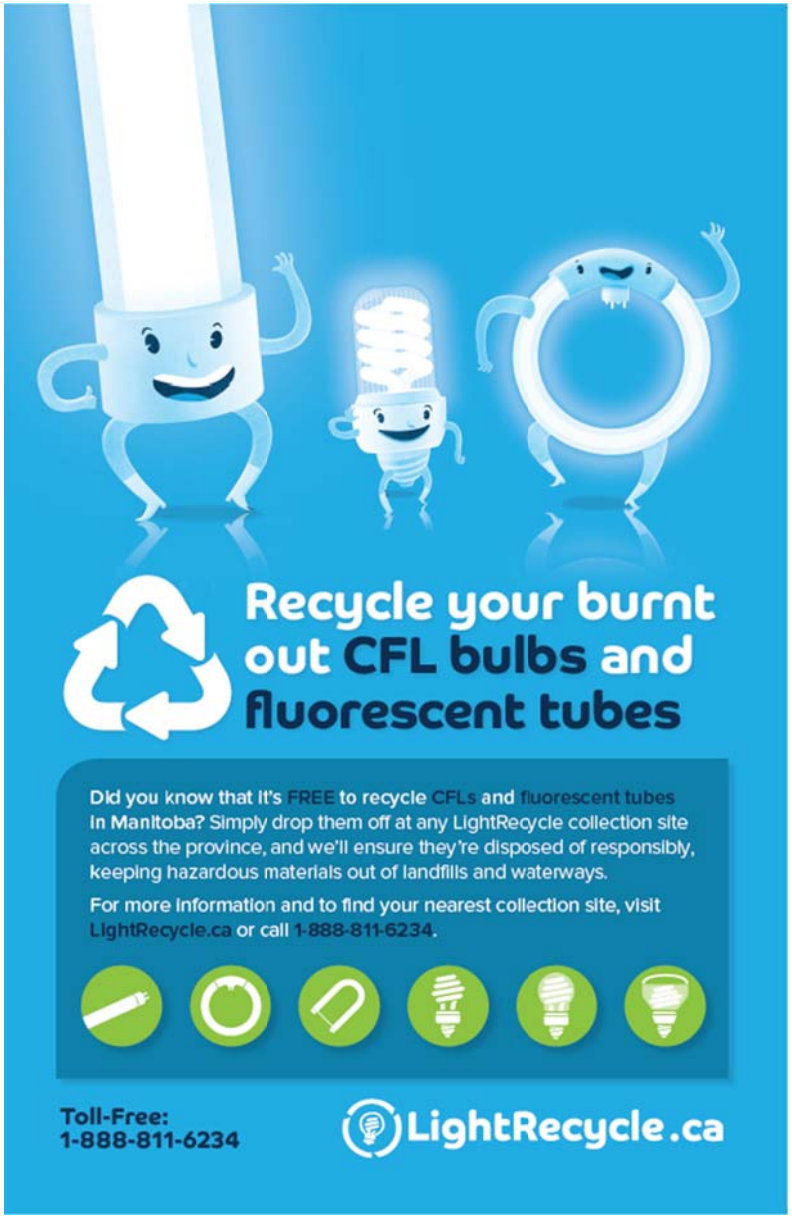
5 x 8 Paint Rack Card: Front (left) and back (right)

5 x 8 Lights Rack Card: Front (left) and back (right)



2 x 2 Lights Depot Sign

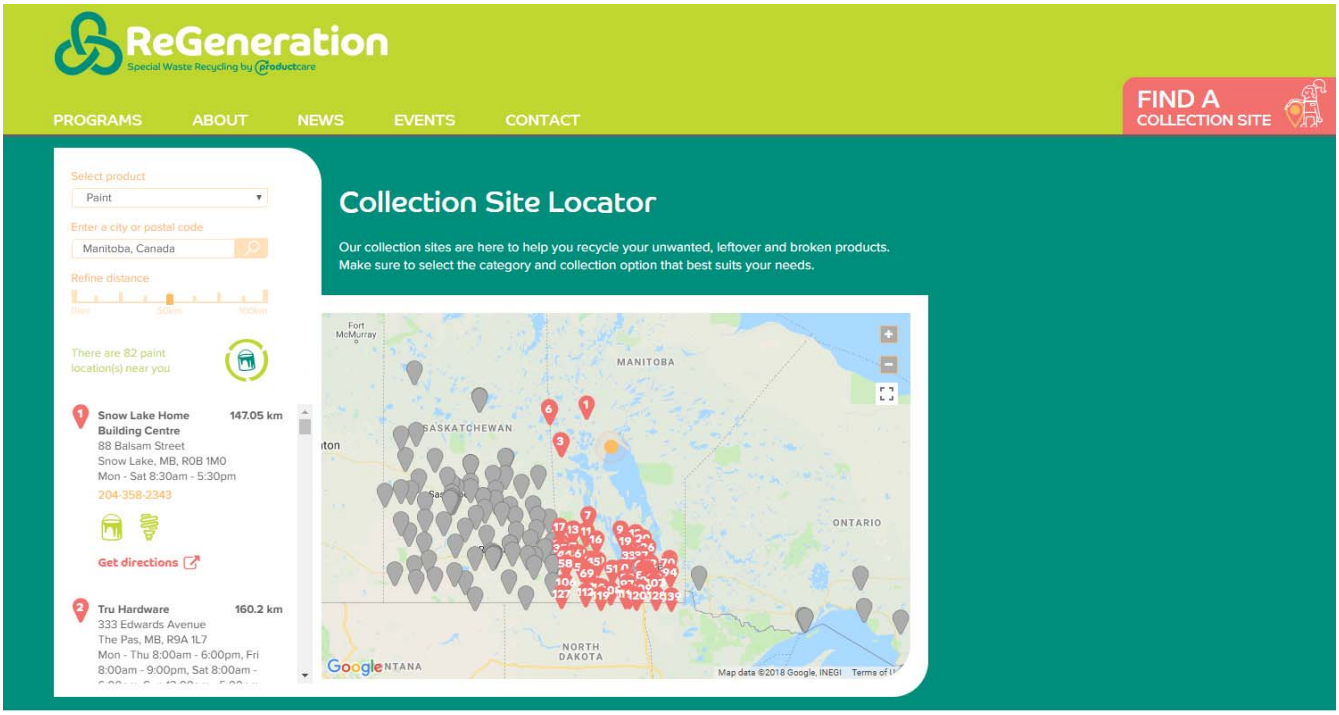
11 x 17 Lights Awareness Poster



11 x 17 Paint Awareness Poster

Appendix C – ReGeneration Manitoba Website

Map of the Manitoba collection sites, identifying locations to drop off Program Products.



Appendix D – 2017 Collection Sites

Paint	Lights	Full HHW	Collection Sites	City
Y	Y		Argyle RM	Baldur
Y	Y		Ashern Home Hardware	Ashern
Y	Y	Y	B.A.R. Waste Authority Co-op Inc	Arborg
Y	Y		Birtle Waste Disposal Grounds (RM of Prairie View)	Birtle
	Y		Border View Lumber Inc.	Cartwright
Y	Y		Boundary Co-op Ltd	Boissevain
Y	Y	Y	Brady 4R Depot	Winnipeg
Y	Y	Y	Brandon Eastview Landfill	Brandon
Y	Y		Brandon Home Hardware Building Centre	Brandon
Y	Y		Carman Co-op	Carman
Y	Y		Carman Transfer Station	Carman
Y	Y	Y	Cartwright Roblin Waste Transfer Station	Cartwright
Y	Y	Y	CEWDG – Eriksdale	Eriksdale
Y			Cloverdale Paint (Winnipeg)	Winnipeg
Y	Y		Countryside Home Building Center	Fisher Branch
Y	Y		Dauphin Home Hardware	Dauphin
Y			E.G. Penner Building Centres Inc.	Steinbach
Y	Y		Edward Landfill	Pierson
Y	Y		Elm Creek Co-op Ltd	Elm Creek
Y	Y	Y	Evergreen Environmental Tech	Minnedosa
Y			Flin Flon Home Hardware Building Centre	Flin Flon
Y	Y	Y	Flin Flon Landfill	Flin Flon
Y	Y		Flin Flon Recycling Centre	Flin Flon
Y	Y	Y	Gimli (RM) (Gimli Industrial Park)	Gimli
Y			Grandview Waste Disposal Ground	Grandview
Y	Y		Heritage Co-op Home Centre	Minnedosa
Y			Janzen's Paint & Decorating Ltd	Brandon
Y			Janzen's Paint & Decorating Ltd	Steinbach
Y			Janzen's Paint & Decorating Ltd	Winkler
	Y		Killarney Home Hardware	Killarney
Y	Y	Y	Lac du Bonnet Transfer Station	Lac Du Bonnet
	Y		London Drugs #66	Winnipeg
Y	Y	Y	Louise Integrated Waste Management	Pilot Mound
Y			Mid Canada Environmental Services Ltd.	Grande Pointe
Y	Y	Y	Miller Environmental	Winnipeg
Y	Y		Miniota Waste Disposal Grounds (RM of Prairie View)	Miniota
Y	Y		Minnedosa Home Hardware	Minnedosa
Y	Y		Molgat Shopping Centre	Laurier
Y	Y		Morris Home Hardware	Morris
	Y		MR Lampshops	Winnipeg
Y	Y	Y	MWM Environmental	Morden

Paint	Lights	Full HHW	Collection Sites	City
Y	Y		Neepawa-Gladstone Co-op	Neepawa
Y	Y	Y	North Norfolk - Normac Landfill	MacGregor
Y	Y		OSS Parkland Waste	Dauphin
Y	Y	Y	Pacific 4R Depot	Winnipeg
Y	Y		Pembina Valley Containers	Morden
Y	Y	Y	Pinawa LGD	Pinawa
	Y		Pine Falls Home Hardware	Pine Falls
Y			Piney (RM) (Public Works Yard)	Vassar
Y	Y		Portage & District Recycling Inc (PDRI)	Portage la Prairie
Y	Y		Prairie Lakes (RM)	Belmont
	Y		Princess Auto – Panet Road	Winnipeg
	Y		Princess Auto – Portage Ave	Winnipeg
Y	Y	Y	Responsible Electronics Recycling (RER) Ltd	Selkirk
Y	Y		Reston Landfill & Recycling (RM of Pipestone)	Reston
Y	Y		Rivers Home Hardware	Rivers
	Y		Robinson Lighting	Winnipeg
Y	Y		Roblin / Shell River Waste Disposal	Roblin
Y	Y	Y	Rockwood RM (Teulon Waste Disposal Site)	Teulon
Y	Y	Y	Rockwood RM (Winfield Road Transfer Station)	Stonewall
	Y		RONA Bldg Centre Portage la Prairie #1375	Portage La Prairie
Y			RONA Building Centre – Brandon #2235	Brandon
Y	Y		RONA Building Centre – Gimli #620	Gimli
Y	Y		RONA REVY – Winkler #64670	Winkler
Y	Y		RONA REVY – Kenaston Boulevard #64870	Winnipeg
Y	Y		RONA REVY – Panet Street #64880	Winnipeg
Y	Y		RONA REVY – Sargent Avenue #64890	Winnipeg
Y	Y		Rossburn Home Hardware	Rossburn
Y	Y		Rosser Transfer Station	Rosser
	Y		Russell Home Hardware	Russell
	Y		Selkirk Home Hardware	Selkirk
Y	Y		Shoal Lake Recycling Center	Shoal Lake
Y	Y		Snow Lake Home Building Centre	Snow Lake
Y	Y		St. Laurent Home Hardware Building Centre	St. Laurent
Y	Y	Y	St. Laurent Waste Transfer Station	St. Laurent
Y	Y		Ste Anne Builders Supply	Ste. Anne
Y	Y	Y	Steinbach Landfill (City Of)	Steinbach
Y	Y		Strathclair Landfill	Strathclair
Y	Y		Stuartburn RM (Vita Transfer Station)	Vita
Y	Y		Sun Valley Co-op Ltd.	Altona
	Y		Super-lite Lighting Ltd.	Winnipeg
Y	Y		The Pas & Area Recycling Centre	The Pas
	Y		Total Lighting Sales	Winnipeg

Paint	Lights	Full HHW	Collection Sites	City
Y	Y		Tru Hardware	The Pas
Y			Twin Valley Co-op	Russell
Y	Y	Y	Whitemouth-Reynolds Waste Management Facility	Whitemouth
Y			Windsor Plywood – Brandon	Brandon
Y			Windsor Plywood – Century Street	Winnipeg
Y			Windsor Plywood – Main Street	West St. Paul
Y	Y	Y	Winkler Public Works Yard	Winkler
Y	Y		Winnipegosis Hardware	Winnipegosis
Y			Wm Dyck & Sons (1993)	Niverville

Total Collection Sites

Paint Only	Lights Only	Paint & Lights	Full HHW	Total # of sites
15	13	42	22	92

Appendix E – Audited Financial Statement

PRODUCT CARE ASSOCIATION OF CANADA
MANITOBA HOUSEHOLD
HAZARDOUS WASTE PROGRAM

STATEMENT OF REVENUES AND EXPENSES

31 DECEMBER 2017

PRODUCT CARE ASSOCIATION OF CANADA
MANITOBA HOUSEHOLD HAZARDOUS WASTE PROGRAM
Statement of Revenues and Expenses
For the year ended 31 December 2017

Contents

ROLFE, BENSON LLP
CHARTERED PROFESSIONAL ACCOUNTANTS

1500 – 1090 West Georgia Street
Vancouver, B.C. V6E 3V7
Tel: 604-684-1101 Fax: 604-684-7937
E-mail: admin@rolfebenson.com

INDEPENDENT AUDITORS' REPORT

To: Minister of Conservation and Water Stewardship

As required by the Manitoba Waste Reduction and Prevention Act (C.C.S.M.c W40 (16(1))) we have audited the Statement of Revenues and Expenses of the Manitoba Household Hazardous Waste Program (the "Statement") as reported by Product Care Association of Canada for the year ended 31 December 2017 and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Statement

Management is responsible for the preparation of the Statement in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of the Statement that is free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the Statement based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Statement is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Statement. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the Statement, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the Statement in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the Statement.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

INDEPENDENT AUDITORS' REPORT - Continued

Opinion

In our opinion, the Statement presents fairly, in all material respects, the revenues and expenses of the Manitoba Household Hazardous Waste Program as reported by Product Care Association of Canada for the year ended 31 December 2017 in accordance with Canadian accounting standards for not-for-profit organizations.

Restriction on Distribution

This report is prepared on the direction of Product Care Association of Canada's management and The Minister of Conservation and Water Stewardship. As a result, the report may not be suitable for another purpose. Our report is intended solely for Product Care Association of Canada's management and The Minister of Conservation and Water Stewardship, and should not be distributed to other parties.

Rolfe, Benson LLP

CHARTERED PROFESSIONAL ACCOUNTANTS

Vancouver, Canada
5 April 2018

PRODUCT CARE ASSOCIATION OF CANADA
MANITOBA HOUSEHOLD HAZARDOUS WASTE PROGRAM
Statement of Revenues and Expenses
For the year ended 31 December 2017

		2017
Revenues	$	1,833,931
Program expenses		
Processing		593,164
Collection		327,937
Transportation		319,745
Administration (Note 3(b) & (d))		249,198
Communications		73,507
Regulatory		15,776
		1,579,327
Excess of revenues over expenses for the year	$	254,604

Change in Accounting Policy (Note 2)

Commitments (Note 4)

The accompanying notes are an integral part of this statement of revenues and expenses.

1. Basis of Presentation

The Statement of Revenues and Expenses (the "Statement") only includes the revenues and expenses related to the Manitoba Household Hazardous Waste Program (the "Program"), a segment of the operations of Product Care Association of Canada (the "Association").

2. Change in Accounting Policy

During the year, the Association changed its accounting policy for the recognition of revenue from Environmental Handling Fees (EHFs). In previous periods, the Association had recognized revenue from EHFs in the period that the related program materials were sold by the member. The Association has now decided to recognize revenue from EHFs at the end of the month following the reporting period that the program materials were sold by the member. Management believes that the new policy is preferable because it better reflects the requirements of the Association's membership agreements which defines the members' obligations under the various programs.

The Association has accounted for this change in accounting policy retroactively as a prior period restatement of opening accumulated surplus. As a result, accumulated surplus as at 1 January 2017 has decreased by $95,224 which represents revenues that were previously reported on the 2016 fiscal year and are now reported in 2017 under the new accounting policy. As the Program's Statement does not present accumulated surplus or comparative figures the adjustments impacting the previous year are not reflected in the Statement.

3. Summary of Significant Accounting Policies

The Statement is prepared in accordance with Canadian accounting standards for not-for-profit organizations. The significant policies are detailed as follows:

(a) Revenue Recognition

Environmental Handling Fees are received from members of the Association making sales of designated program materials within the province of Manitoba. The Association recognizes these fees as revenue when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured. Environmental Handling Fees revenues are recognized as individual members report and remit them as required by the Association's membership agreement which is at the end of the month following the reporting period that the designated program materials were sold by the member.

3. Summary of Significant Accounting Policies - continued

(b) Tangible Capital Assets

Tangible capital assets are recorded at cost. The Association provides for amortization using the straight-line method at rates designed to amortize the cost of the tangible capital assets over their estimated useful lives. The annual amortization rate is as follows:

Depot equipment	3 years

Included in administration expense is $46,425 of amortization expense.

(c) Use of Estimates

The preparation of financial statements in accordance with Canadian accounting standards for not-for-profit organizations requires management to make estimates and assumptions that affect the reported amounts of revenues and expenses and disclosure of contingencies included in the Statement. Accounts subject to estimates include revenue accruals, expense accruals, amortization, overhead allocation and processing commitments. Actual results could differ from those estimates.

(d) General and Administrative Expenses - Overhead Allocation

A portion of the total general and administrative expenses of the Association, net of expense recoveries, has been allocated to the Program. The allocation of general and administrative expenses to the Program is determined using the percentage of program specific operating expenses as compared to total operating expenses for all the Association's programs. Included in administration expense is $86,566 of overhead expense which has been allocated to the Program.

4. Commitments

During the 2017 fiscal year, the Association committed additional funds of up to $385,000 above the $800,000 committed in 2013 for a total commitment of $1,185,000, to be used for the development of collection facilities for the Manitoba Household Hazardous Waste Program. These funds are to be disbursed at the discretion of the Association based on an application process from qualifying organizations. The funds have been disbursed in the form of loans which may be forgiven providing certain performance conditions are met by the borrower.

Balance of funds disbursed as of 31 December 2016	$380,268
New disbursements to qualified organizations during the year	37,500
Loans forgiven during the year	(33,893)
Balance of funds disbursed as of 31 December 2017	$383,875