Manitoba Household Hazardous Waste Annual Report

2018

Submitted by:

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Table of Contents

1. Program Outline

The Manitoba Household Hazardous Waste Program ("Program") is operated and managed by Product Care Association of Canada ("Product Care"). Product Care 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 (2012-2016) approved by the Manitoba Minister of Conservation and Water Stewardship on October 6, 2011 ("Program Plan"). A new program plan was submitted to the Department of Sustainable Development (MBSD) in April 2016, and was approved on July 1, 2018 following extensive consultations with stakeholders and MBSD. Consequently, this annual report addresses the performance of the Program in relation to the 2012-2016 Program Plan.

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 liquids / Gasoline
- Corrosives
- Toxics
- 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 Product Care 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 Product Care. 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.

Product Care 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. Product Care 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 Product Care website at www.ProductCare.org for more information.

2. Educational Materials and Strategies

In 2018, Product Care implemented a number of different methods to increase awareness of the Program in Manitoba, in accordance with regulatory requirements. The following sections provide details regarding the communication and public education for the Program in 2018.

Program Awareness

In November 2017, an online survey was conducted among 1,000 residents representative of Manitoba's adult population. The survey revealed that 51% of Manitobans are aware of a program in the province that recycles paint and 48% were aware of a recycling program for the remaining HHW products, including fluorescent lights. These levels exceed previous awareness levels in 2015 by 13 percentage points and 5 percentage points respectively. The Program Plan committed to conducting an awareness study every two years. The next consumer awareness survey will be conducted in 2019.

Website

ReGeneration.ca, Product Care's former consumer website (replaced by ProductCare.org in January 2019) included the following content for Manitoba's program:

- Recycling locator (a searchable map displaying locations of the recycling locations (collection sites) – see Appendix A)
- Hours of operations and contact information for collection sites
- List of accepted and not-accepted products
- Consumer videos showing the product management approach for Program Products
- Other information (e.g., a description of the PaintReuse program, frequently asked questions, etc.)
- A fillable form for collection sites and retailers to order educational materials like rack cards and floor decals

Additionally, LightRecycle.ca, Product Care's former consumer website for lights (replaced by ProductCare.org in January 2019) included the following content for Manitoba's light recycling program:

- Recycling locator (a searchable map displaying locations of the collection sites)
- Hours of operations and contact information for collection sites
- List of accepted and not-accepted lamp products

An estimated 165,662 unique visitors accessed *ReGeneration.ca* during the 2018 calendar year. The Manitoba section (including sub-sections for accepted products, EHF information, and PaintReuse) received 7,522 total page views. Additionally, 72,115 unique visitors accessed *LightRecycle.ca*, with the Manitoba section receiving 5,498 total page views.

There were a total of 4,677 searches for Manitoba collection sites using the ReGeneration recycling locator, and 919 searches using the LightRecycle recycling locator. ReGeneration.ca was linked to Recycle Manitoba's website, www.recyclemanitoba.ca.

Program Hotline

Product Care continued to operate a toll-free, bilingual "hotline" where consumers obtained information about the Program.

Print Advertising

- A print advertisement and article were featured in *CPCA Insight* Trade Publication. The full page inside cover advertisement focused on paint for Product Care paint programs, with 7,000 copies distributed to industry members.
- An article was featured in the *Interlake Spectator,* a community newspaper and online news source for residents of the Interlake Region. The article focused on the 2017 HHW clean-up pilot project in First Nation communities and received over 12,000 impressions.
- Spring and fall full page advertisements were placed in the Winnipeg Leisure Guide, a recreation services publication that is made available through all of the

city's recreation centres and available online as a downloadable PDF. Over 100,000 copies of each guide were printed in 2018.
- Fall and winter full page advertisements were placed in *Municipal Leader*, which was available in print and online, promoting the Program's recycling services to municipalities.

See Appendix B for examples of print advertising activities.

Events and Sponsorships

- Product Care sponsored the "Manitoba Association of Regional Recyclers" ("MARR") Forum on April 19th. The sponsorship included a presentation to 200 delegates about the Program, a display in the Forum's main gathering space, an acknowledgement of sponsorship in the Forum signage and registration package.
- "Take Pride Winnipeg", held on April 4, hosted a Manitoba Eco Fashion Festival, a province-wide contest, which encouraged students to create striking works of wearable art from everyday materials that would normally meet its end-of-life fate. The fashion festival inspired and ignited passion in students while educating them about the importance of recycling and reusing waste. Product Care hosted a booth to promote the Program and educated 1,200 schoolchildren about the importance of recycling.
- Product Care sponsored the "MARR" Annual General Meeting Forum on November 7th and 8th, which included a breakout session presentation featuring the Program and a trade show booth with more than 900 delegates in attendance.
- Product Care hosted a booth and promoted the Program at the "Association of Manitoba Municipalities" ("AMM") Trade Show November 27th and 28th, with more than 800 delegates in attendance.

Earned Media

A number of press releases and articles detailing summer collection events were published free of charge online and in printed newspapers. The publications included the *Kilarney Guide*, *Selkirk Journal*, *Dauphin Herald*, the Rural Municipality of Brokenhead website, and the Town of Virden community website. Collectively, these placements resulted in more than 11,000 impressions. See Appendix B for examples.

Digital Advertising and Activities

All digital campaigns listed below reached the entire province.

1. **Google Search Advertising Campaign**: March to December, 2018
   a. A search advertising campaign served ads to provincial residents based on an extensive list of keyword searches relevant to the programs. The ads generated 4,942 impressions and 949 clicks.
2. **YouTube Video Advertising Campaign:** August to October, 2018
   a. A Manitoba-specific campaign served ReGeneration's branded explainer videos as YouTube pre-roll ads. The ads were targeted to provincial residents who had expressed an interest in relevant topics such as Home & Garden. The ads generated 126,660 impressions and were viewed 44,919 times, a view rate of 35.46%.
3. **Google Display Advertising Campaign:** June to December, 2018
   a. A Manitoba-specific display advertising campaign served ads to provincial residents based on increasingly refined targeting.
   b. Two iterations of the ads were run, the first receiving 4,799,538 impressions and 5,167 clicks , and the second receiving 1,786,121 impressions and 1,963 clicks .
   c. Ads were specifically targeted to internet users who performed online searches related to purchasing Program Products, usage, and disposal in Manitoba. Secondary targeting focused on individuals searching for home improvement and DIY-related terms, in order to reach a wider, but still relevant, population.
4. **Facebook Advertising Campaign:** A Manitoba-specific campaign promoted the Program, targeting Manitoba residents on an ongoing basis. Audience targeting was broad to allow data collection and analysis on a range of audiences to inform digital targeting strategy going forward.
5. **Gated Facebook Content Strategy:** Manitoba-specific content, available only to Manitoba residents, focused on recycling, special waste and the recycling community in general. Product Care's Facebook page was connected with Recycle Manitoba.
6. **Targeted blog posts:** More than 30 blog posts were targeted at recycling relevant audience members including, but not limited to homeowners, female head of households, and environmentally-inclined individuals in Manitoba. Topics included "Do it yourself" ("DIY"), renovation tips, and sustainability best practices.

All posts linked back to Product Care program pages, with a call-to-action to find a collection site or interact with the brand on social media. Collectively, these posts received 62,141 views.

See Appendix B for examples of all digital advertising activities.

Point of Sale (PoS) and Point of Return (PoR) Materials

In 2018, Product Care distributed both PoS and PoR materials as requested by retailers and collection sites. The following materials were available for order through the online form:

- Rack cards
- Posters
- Floor decals

Signage for collection sites was also made available throughout the year, free of charge, for participating collection sites. See Appendix B for examples.

Government Partnerships
Product Care continued to work with MBSD to promote the Program, such as Product Care being listed on the WasteWise website.

Toll-free Number
Product Care continued to operate a toll-free number (1-877-592-2972) to answer consumer inquiries.

Partnerships

- Meetings with RM councils
- SWAT Forum – Feb 12 to 14 in Thompson Manitoba
- MARR Forum – AGM April 19

Other Stakeholders

- Product Care worked continually to keep Program members up-to-date with relevant Program information, such as product clarifications through email and website notifications.

Product Care worked closely with other stewardship agencies on a number of initiatives such as service to remote and Fist Nations communities and setting up a collection site in Churchill.

3. Collection System

Product Care 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, 2018, the Program had contracted with 58 permanent, year round municipal and private collection sites and 47 return to retail collection sites, totalling 105, 13 more than 2017. Product Care continues to work on expanding the overall collection system.

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 C for a detailed list of all collection sites as of December 31, 2018.

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

Type of Collection Site	Retail	Private / Municipal	Total
Paint only	11	5	**16**
Lights only	10	0	**10**
Both Paint and Lights	26	29	**55**
Full HHW (All Program Products)	0	24	**24**
Total	**47**	**58**	**105**

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, from January to October.

Product Care also contracted with Miller Environmental to operate a number of one-day household hazardous waste (HHW) collection events to supplement the collection network. Table 2 provides a list of the 18 collection events held in 2018.

Table 2: Household Hazardous Waste Collection Events in 2018

Date	Event Location
April 28	Killarney
May 12	East St. Paul
May 26	Virden
June 6	Melita
June 9	Brokenhead
June 12	Brenda-Waskada
June 16	Carberry
July 7	Russell
July 14	Springfield
July 21	Fisher
August 18	Oakland-Wawanesa
September 15	Taché
September 17	Dauphin
September 18	Ethelbert
September 19	The Pas
September 21	Snow Lake
October 6	Springfield
October 13	Altona

In addition, Product Care 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 serviced.

Table 3: Direct Pickup Service Locations in 2018

Date	Direct Pickup Locations
July 23 / November 7	South Whiteshell Transfer Station
August 29	Coca Cola Falls
October 11	Onanole Waste Management Site
December 4	Swan River

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. Product Care 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 by promoting the "BUD" Rule through the Program website and promotional materials, which tells consumers to:

- **B**uy no more than you need.
- **U**se all that you buy.
- **D**ispose of leftovers safely.

Processing and recycling options in Manitoba varied by Program Product as outlined below. Where possible and economically feasible, Product Care managed products according to the pollution prevention hierarchy.

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

4.1.1. Paint

Leftover paint is managed by the Program in a number of ways.

Product Care continued 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. PaintReuse is available at select collection sites only. Leftover paint that was not utilized for PaintReuse was managed in a number of ways.

Liquid Paint
Water-based paint was sent to a recycling facility to be recycled into paint and coating products. Unrecyclable water-based paint was solidified and sent to landfill. Regulatory limits on Volatile Organic Compounds (VOC) and limited demand for solvent-based paints did not make recycling a viable option for this product category. Solvent-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.

4.1.2. Flammable Liquids

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 were blended and sent for energy recovery. Flammable aerosols were evacuated and the flammable liquid treated in the same manner as paint aerosols.

4.1.3. Corrosives

Neither Reuse nor recycling are currently options for corrosive materials. 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.

4.1.4. 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.

4.1.5. Physically Hazardous Material (Fuel Cylinders)

Fuel from fuel cylinders was either recovered and reused in fuel cylinders, or sent for energy recovery.

4.1.6. 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.

4.1.7. Paint and HHW Containers

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

4.1.8. 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.

4.1.9. 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 estimated liquid volume, measured in litres, of liquid Program Products recovered by the Program.[1] Table 4 shows the estimated residual recovery volume of paint, flammable, toxic and corrosive Program Products collected in 2018. Table 5 shows the number of units of pressurized Program Products collected. Table 6 shows the units of fluorescent lights collected in the same year.

Table 4: Residual Recovery Volume of Paint, Flammable Liquids, Toxics and Corrosive Products Collected in 2018 (Litres)

Product Category	Total (litres)
Paint (non-aerosol)	468,746
Flammable Liquids (incl. Gasoline)[2]	88,458
Toxics (incl. Pesticides)[2]	29,463
Corrosives[2]	27,967
Total	**614,634**

Table 5: Number of Pressurized Program Products Collected in 2018 (Units)

Product Category[3]	Total (units)
Paint Aerosol	81,025
Other Aerosol[4]	39,200
Physically Hazardous	13,020
Total	**133,245**

[1] 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 Product Care). 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.
[2] 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.
[3] Paint aerosol, other aerosols and physically hazardous material categories are based on average units per drum.
[4] "Other aerosol" includes flammable, corrosive and toxic aerosols.

Table 6: Residential Fluorescent Lights Collected in 2018 (Units)

Product Category	Total (units)
Compact Fluorescent Lamps (CFLs)	43,671
Tubes	134,829
Total	**178,500**

4.3. Product Sales

The quantity of Program Products sold annually varies according to market conditions. Tables 7 through 9 show the quantities of Program Products sold in 2018. For table 7, volumes were calculated using typical container size volumes.

Table 7: Approximate Sales Volume of Paint, Flammable Liquids, Toxics and Corrosive Program Products in 2018 (Litres)[5]

Product Category	Litres Sold
Paint (non-aerosol)	6,279,325
Flammable Liquids[6,7]	1,100,766
Toxics	148,294
Corrosives	191,671
Pesticides	59,609
Total	**7,779,665**

Table 8: Sales Volume of Pressurized Program Products in 2018 (Units)

Product Category	Units Sold
Paint Aerosol	976,828
Physically Hazardous	193,097
Total	**1,169,925**

[5] Sales data is reported to Product Care in units. For the purpose of this report, sales units are converted to litres sold using coefficients based on the volume of the most common container size in each product category.

[6] Excludes gasoline sales.

[7] Includes aerosols.

Table 9: Sales of Residential Fluorescent Lights in 2018 (Units)

Product Category	Units Sold
Compact Fluorescent Lamps (CFLs)	108,126
Fluorescent Tubes	228,445
Total	**336,571**

4.4. Recovery Rate and Capture Rate

The Program Plan specifies the use of recovery rate as a performance measure for Program Products, except fluorescent lights, for which it stipulates a capture rate. 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 Program Products, excluding lights.

The Program is unable to provide available to collect data for 2017 and 2018, for lights, as the Program Plan only included available to collect data up to 2016. The 2018 Program Plan commits to increase total collection units of fluorescent lights by 20-28% by 2021 over 2015 volumes collected. Table 11 provides a comparison of total collection units of fluorescent lights for 2018 versus 2015.

Table 10: Volumes Collected, Volumes Sold and Recovery Rates – Program Products in 2018

2018	Paint	Paint Aerosol[8]	Flammable Liquids (incl. Gasoline)[9]	Toxics (incl. Pesticides)[9]	Corrosives[9]	Physically Hazardous[8]
Litres Collected	468,746	81,025	88,458	29,463	27,967	13,020
Litres Sold	6,279,325	976,828	664,192	178,735	179,438	193,097
Recovery Rate	7.5%	8.3%	13.3%	16.5%	15.6%	6.7%

Table 11: 2015 / 2018 Fluorescent Light Collection Volume Comparison

	CFLs	Fluorescent Tubes	Total Lights
Units Collected (2015)	28,815	67,774	**96,589**
Units Collected (2018)	43,671	134,829	**178,500**
Year / Year Comparison	51.5%	98.9%	**84.8%**

[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 paint and coatings sector continues to move forward on many fronts seeking improvements in product design for the environment. This section highlights developments in 2018, including innovations in product formulation, assessment and reassessment of chemicals of concern, use of alternative ingredients based on informed substitution, further reductions to VOC emissions, integration of sustainability reporting into business planning, exploring integration of life-cycle and sustainability metrics accounting principles, increasing alignment with international sustainability goals, investment in bio-based alternatives, and advances in the development of Product Category Rules and Environmental Product Declarations . All of these measures continue to produce products that are less harmful and more sustainable.

Canada's Chemicals Management Plan (CMP)

The paint and coatings industry is continually pursuing innovations in product formulations that strike a balance between sustainability, health, safety and product performance. An example of industry's sustainability initiatives includes involvement with the federal government's CMP. This comprehensive federal government initiative assesses chemicals in commerce for all industry sectors, including paint and coatings, and 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 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 CMP entered its third phase in 2018 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. Canadian Paint and Coatings Association (CPCA) is now concluding formal assessments of these 500-plus substances used in coatings formulations, which will conclude in 2020. Beyond 2020, the federal government will continue to identify new substances and issues to be reviewed related to chemicals in commerce including those used in the coatings industry. As part of the CMP, government and industry associations, including the CPCA, are engaged in formal discussions on how industry might consider 'informed substitution' for more sustainable ingredients to be used in paint product formulations. This will address the issue of removing any remaining 'chemicals of concern' from product formulations and replacing them with more environmentally friendly options.

VOC emissions reductions in the Paint and Coatings Industry

Compared with 2002 levels, the architectural paint and coatings sector has achieved 74 per cent reduction in overall VOC emissions due to lowering of the VOC content in waterborne products and 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 per cent reduction.

Over the past ten years VOC emissions have been reduced by an additional 20 per cent for a total of 94 per cent reduction, representing 41 kilotonnes. This is a total emissions reduction equivalent to approximately 380,000 average sized automobiles annually. This has been a major advancement in sustainability of paint.

The federal government under Environment and Climate Change Canada (ECCC) is now engaged in a new study looking at VOC emissions in coatings products beginning April, 2019. The study is proceeding with its broad national VOC Survey for all paint products sold in Canada, except for paint products not covered under Canada's VOC Concentration Limits for Architectural Coatings Regulations. The ECCC Products Division's goal is to identify possible amendments to regulations by looking at concentration limits in other jurisdictions while performing a cost-benefit analysis.

Sustainability reporting

Many companies now have sustainability goals and targets with regular sustainability reporting as an ongoing part of their business planning. This allows companies to integrate environmental challenges into their long-term product development strategy.

World Coatings Council: Circular economy efforts aligned with leftover paint

The World Coatings Council (formerly IPPIC) Industry Stewardship Committee will soon proceed with two projects. Firstly, to develop a consensus approach on including life-cycle and sustainability metrics accounting for aspects related to chemical management efforts. Initially this will be for biocides and preservatives, but it will also be used to prepare for additional challenges with key raw material suppliers as part of the overall approach. Secondly, it will seek to align key industry activities with the UN Sustainable Development Goals, and focus on examples that provide real, quantifiable support. It will look at how paint and coatings contributes to the UN's 17 Sustainable Development Goals.

Environmental product declarations for architectural paint

The coatings industry is currently working on enhancing sustainability by establishing Product Category Rules (PCR). These PCRs will help form the basis for products to have Environmental Product Declarations (EPD), which would reflect the properties of various architectural paint products. The documents developed to date relate to the Life Cycle Analysis (LCA) for the specific architectural product category to produce clear environmental product declarations according to ISO 14025 standard. The PCR includes all life-cycle phases for both interior and exterior applications. The scope excludes adhesives and coatings solely for shop applications, original equipment manufacturing, or application to non-stationary structures, such as vehicles, airplanes, ships, boats, and railcars.

The goal of this PCR is to specify the guidelines for developing a Type III Environmental Product Declaration (EPD) in conformance with ISO 21930 and 14025. The goal of an LCA study conforming to this PCR shall be, at a minimum, to identify the potential environmental impacts of each life cycle phase of the product, or enable product improvement over the full life cycle of the product. It shall be presented in such a way to ensure its relevance to the public or for internal company use.

Governments of Canada and Quebec support growth of CelluForce

The federal government will invest a combined $6.4-million investment to support CelluForce Inc.'s innovative cellulose nanocrystal facility becoming the world's first full commercial demonstration-scale plant of its kind. This new material can be used in everything including paints and adhesives, and is produced from the cellulose in trees and made from wood that is abundant, renewable and biodegradable.

Worldwide sales of bio-based coating solvents currently account for just over 10 per cent share of the market (less than 13 per cent in the EU alone, or 630,000 tons/5 million tons). However, this niche is expected to gain significant traction in the near future, while permeating key applications such as architectural coatings and industrial equipment coatings.

Sustainability underlines contribution of coatings as an enabler for waste reduction

When coatings manufacturers source raw materials, they will have to join forces with their suppliers to sharply increase the share of bio-based materials and recycled content, learning to make better use of such materials. More importantly, brand owners want to offer customers technologies and solutions that enable them to reduce

emissions and material use, such as lower curing temperatures, low or zero solvents, and fewer layers. This helps customers reduce their overall environmental footprint, the ultimate goal of sustainability.

Above all, paint use is about better performance, durability and long-term protection of the underlying substrate – wood or metal – and products that reflect heat, reduce fuel use and friction, or create insulating capacity. It's about solutions being non-hazardous and thus enabling the underlying products such as furniture, transport or building materials to be reused and recycled. Coatings are indeed a true 'enabler' of environmental sustainability that prevents products from being turned into waste.

Fluorescent Lights

Producers of lighting products continue working to reduce their environmental impact through innovative product design and technology. New design and technology has addressed environmental concerns by reducing material use, increasing lamp life, increasing energy efficiency and increasing recycling rates. For example, efforts in this area have resulted in the development of smaller diameter fluorescent tubes now readily available in the marketplace and prevalent in new construction and renovations. These products can provide the same or more light with fewer material resources, such as a decrease in the amount of glass used in the products. The amount of mercury contained within fluorescent lights has also been decreasing with most lamps now containing less than 5mg of mercury, representing an 80% to 90% reduction.

Life cycle management is also playing an important role in reducing the environmental impact of lighting products. For example, producers are focusing their attention on increasing product energy efficiency. This has resulted in a substantial increase in the lifespan of fluorescent lights in the last decade, with some lamps now having a life of more than 30,000 hours, reducing the cumulative environmental impact associated with these products. The use of CFLs has also been reduced with CFLs being replaced by LEDs, which contain no mercury and have an even longer life of about 15,000-20,000 hours. Most CFLs, in comparison, only have an average life of 10,000 hours.

The advancement of LED lighting technology is having a significant impact on the lighting market as a whole. Manufacturers are focusing most of their efforts in this area and are no longer spending research energy on expanding the CFL product line. Acceptance of LED technologies is increasing as prices decrease. In fact, the acceptance and adaptation to LED technology has been much more rapid and

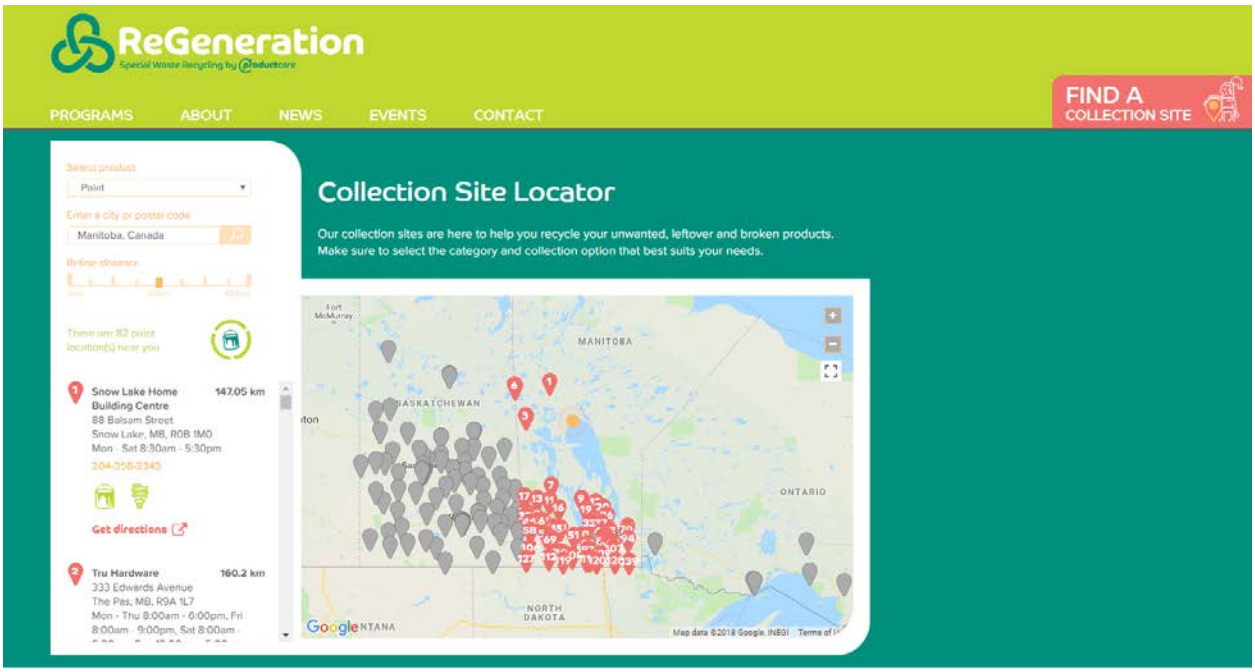
widespread than most industry experts would have forecasted some years ago. Due to the significantly longer lifespan of LED lights, there is a decrease in sales expected for other traditional lighting technologies, such as halogen, incandescent and fluorescent lights. The shift to more energy efficient and longer lasting lighting technology is clear. Most LED lamps are more than 50% more efficient than CFL lamps, reducing electricity use and reducing pollution from power generation. These changes all help to decrease the impact on the environment, with longer life lamps helping to reduce waste, reduction in mercury making lamps less hazardous and the reduction in the size of lamps helping to use less glass. New LED lamp designs have also been shrinking in size to minimize waste.

6. Financial Information

Product Care's independently audited financial statements for the Program's revenues and expenses can be found in Appendix D.

Appendix A – ReGeneration Manitoba Recycling Locator

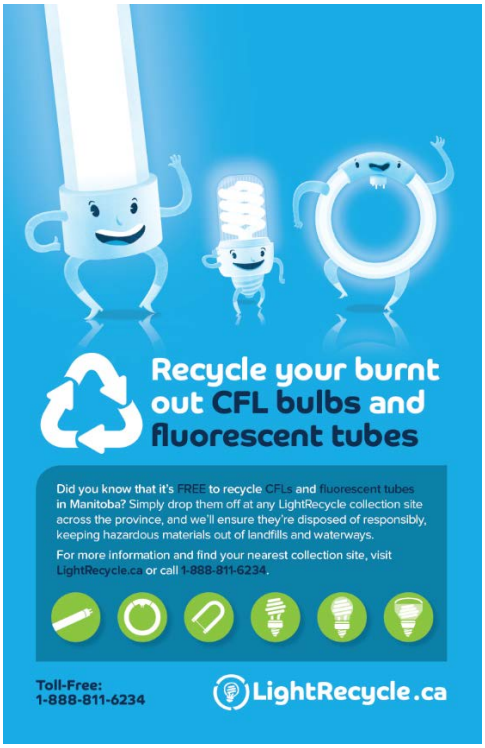
Below is a snapshot of the recycling locator tool found at ReGeneration.ca.

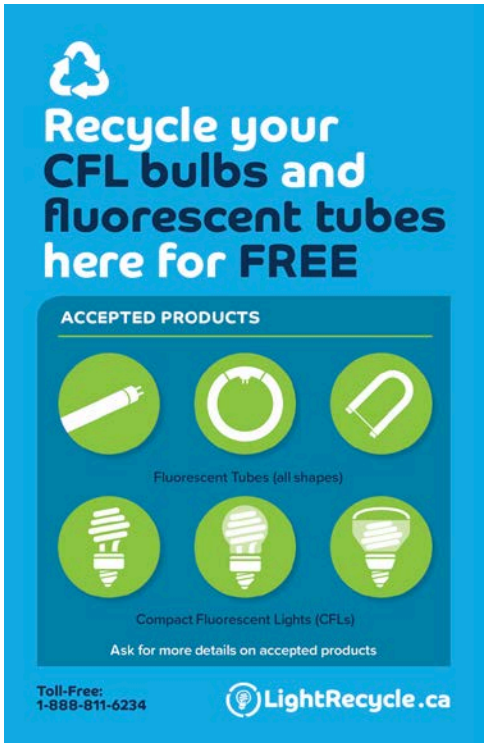


Appendix B – Advertising Materials

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

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

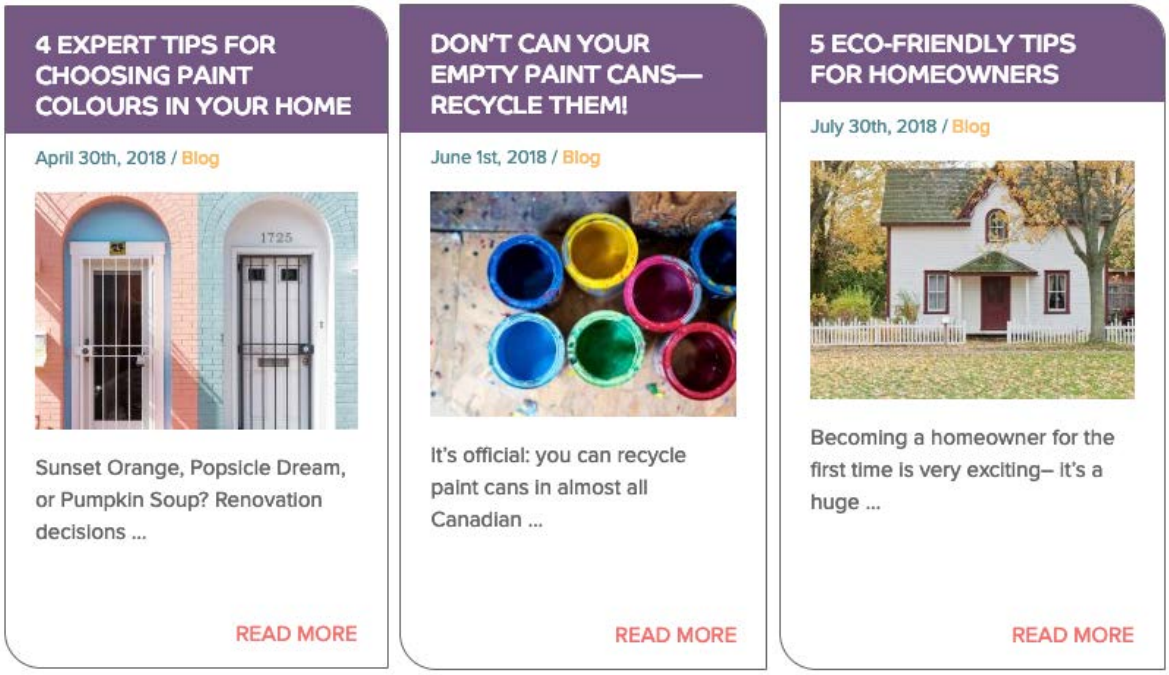


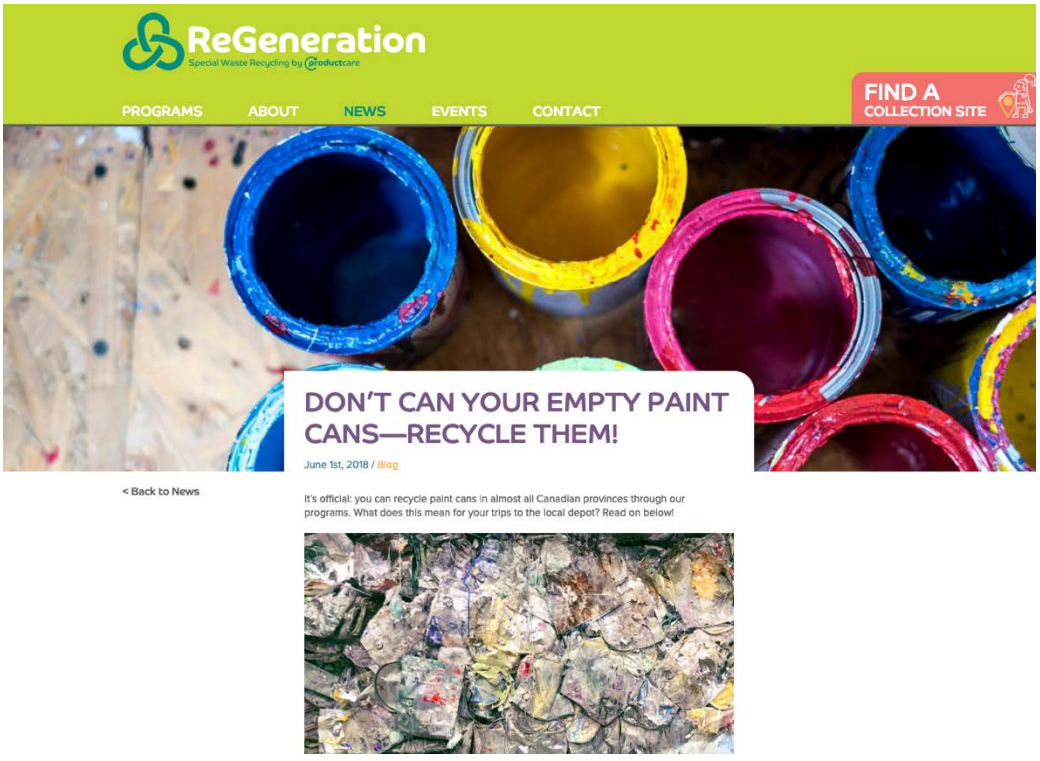


PoR/PoS Floor Decal

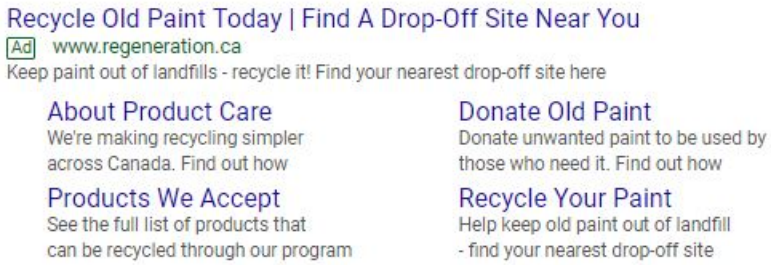
Recycling Location Signage

Website Blog posts

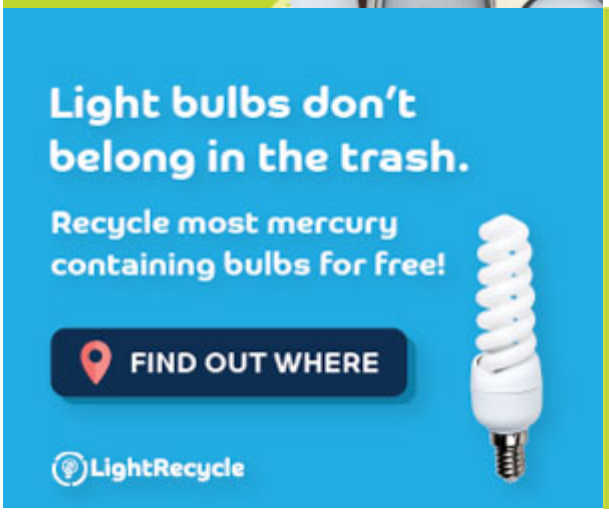




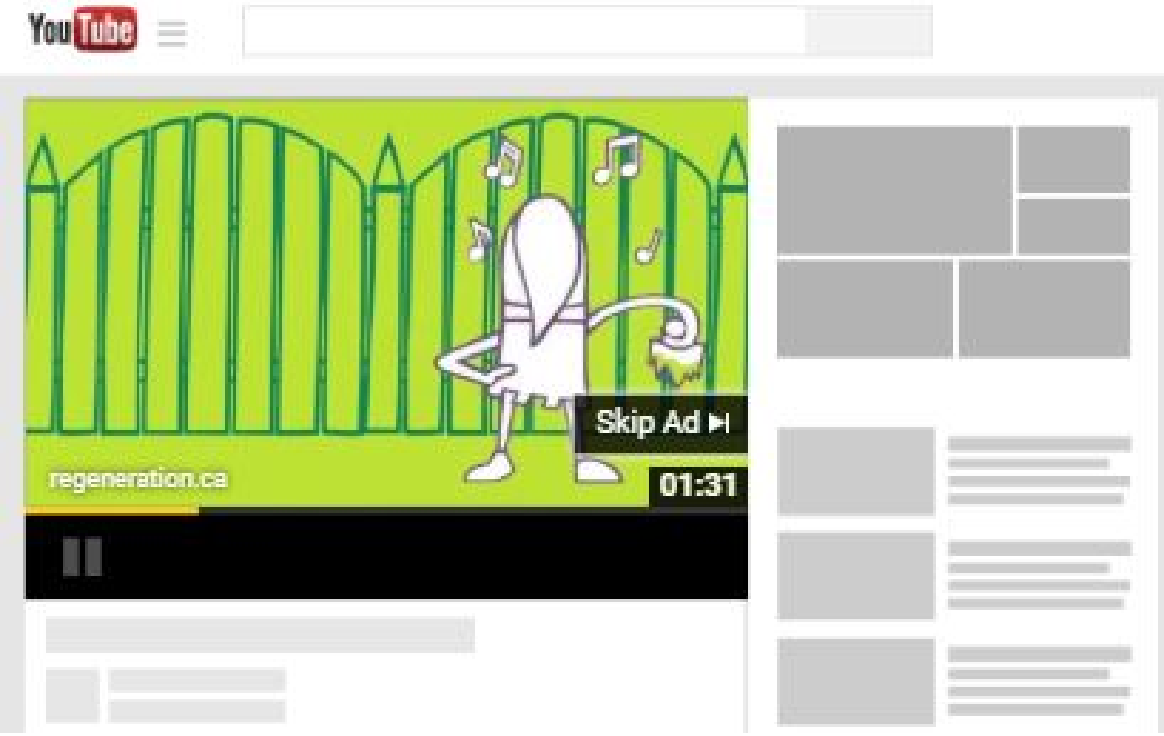
Google Search Ad



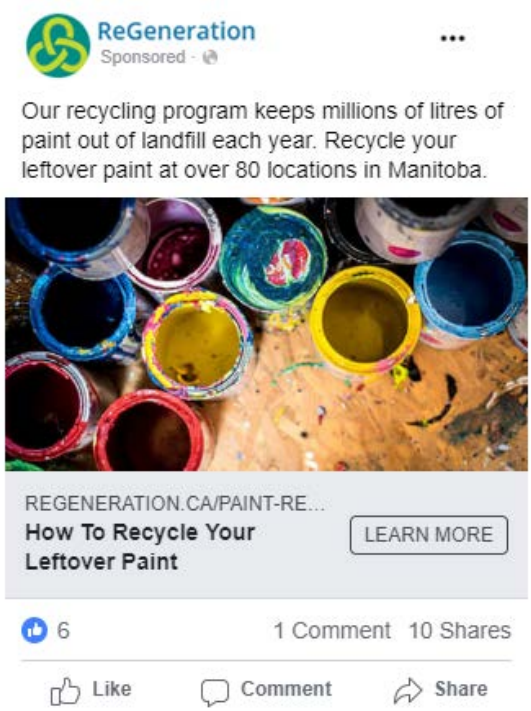
Google Display Ads

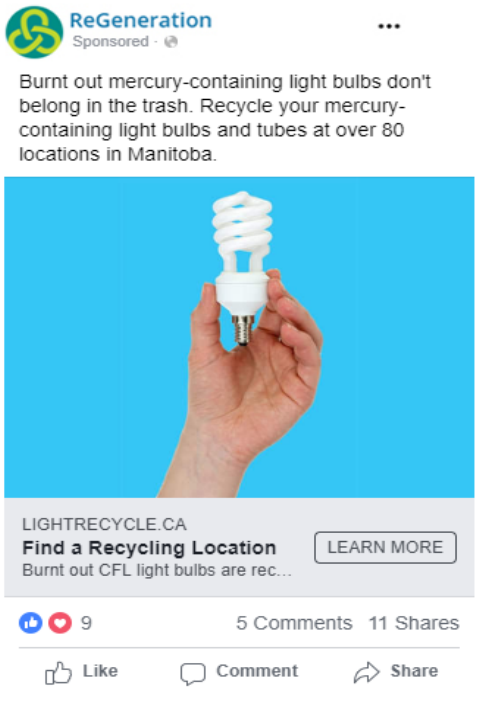


YouTube Video Ad



Sample Facebook Ad





Example targeted Facebook post

Winnipeg Leisure Guide Print Advertisements (Spring and Fall)

Municipal Leader Magazine (Spring and Fall)

CPCA Insight Print Advertisement

Earned Media – The Dauphin Herald

the Dauphin Herald

Tuesday, September 25, 2018
Vol. 123 No. 39
PM40008008
ISSN: 1913-5491
$1.25
includes PST and GST

Eliminating hazards

A Product Care staff member sorts through items dropped off at the annual Household Hazardous Waste Collection Day, Sept. 17. It was estimated just under 100 cars attended, dropping off paint, lighting products and other household hazardous waste, including flammable liquids, corrosives, toxics and more. Marci Tye, Product Care Association Manitoba program co-ordinator noted recycling awareness has increased over the past two years, and more Manitobans are participating in the proper disposal of hazardous items. She said the City of Dauphin is progressive in recycling, accepting paint, paint aerosols and fluorescent bulbs all year long at the OSS Recycling Centre located at 871 Whitmore Ave. E, weekdays, from 8 a.m. to 4 p.m. In addition, Dauphin Home Hardware at 421 Main Street N is a collection site for paint, paint aerosols and household fluorescent lights.

- M.A. Nyquist/Herald

Appendix C – 2018 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		Binscarth Nuisance Grounds	Binscarth
Y	Y		Birtle Waste Disposal Grounds (RM of Prairie View)	Birtle
Y	Y		Bloodvein Community Landfill	Bloodvein
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		Bristal Hauling Inc.	Niverville
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			Coca Cola Falls Waste Disposal Grounds	Lac Du Bonnet
Y	Y		Countryside Home Building Center	Fisher Branch
Y	Y		Dauphin Home Hardware	Dauphin
Y			E.G. Penner Building Centres Inc.	Steinbach
Y	Y		Earl Grey Waste Disposal Grounds	St. Andrews
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		Gilbert Plains Regional WDS	Gilbert Plains
Y	Y	Y	Gimli (RM) (Gimli Industrial Park)	Gimli
Y			Grandview Waste Disposal Ground	Grandview
Y	Y		Heritage Co-op Home Centre	Minnedosa

Paint	Lights	Full HHW	Collection Sites	City
Y	Y		Holland Waste Disposal Grounds	Holland
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	Y		Lowe's #3285 South Winnipeg	Winnipeg
Y	Y		Lowe's #3718 Winnipeg East	Winnipeg
Y	Y		Meleb Waste Disposal Grounds	Meleb
Y			Mid Canada Environmental Services Ltd.	Grande Pointe
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	Y	Y	MWM Environmental	Morden
Y	Y		Neepawa-Gladstone Co-op	Neepawa
Y	Y	Y	North Norfolk - Normac Landfill	MacGregor
Y	Y		Onanole Waste Management Site	Onanole
Y	Y		OSS Parkland Waste	Dauphin
Y	Y	Y	Pacific 4R Depot	Winnipeg
Y	Y	Y	Panet Road 4R Depot	Winnipeg
Y	Y		Peguis Landfill	Peguis
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	Y	Portage & District Recycling Inc (PDRI)	Portage la Prairie
Y	Y		Prairie Lakes (RM)	Belmont
	Y		Princess Auto – Portage Ave	Winnipeg
Y	Y	Y	Responsible Electronics Recycling	Selkirk

Paint	Lights	Full HHW	Collection Sites	City
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 – Sargent Avenue #64890	Winnipeg
Y	Y		Rossburn Home Hardware	Rossburn
Y	Y		Rosser Transfer Station	Rosser
Y	Y		Russell-Binscarth / Riding Mountain West Nuisance Grounds	Russell
	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			St. Georges Waste Disposal Ground	St. Georges
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		Swan River Waste Disposal Ground	Swan Valley
Y	Y		The Pas & Area Recycling Centre	The Pas

Paint	Lights	Full HHW	Collection Sites	City
Y	Y	Y	Thompson Waste Disposal Grounds	Thompson
	Y		Total Lighting Sales	Winnipeg
Y	Y		Traverse Bay WDG	Traverse Bay
Y	Y		Tru Hardware	The Pas
Y			Twin Valley Co-op	Russell
Y	Y	Y	Whitemouth-Reynolds Waste Management Facility	Whitemouth
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
Y	Y		Woodlands RM	Woodlands

Total Collection Sites

Paint Only	Lights Only	Paint & Lights	Full HHW	Total # of sites
16	10	55	24	105

Appendix D – Audited Financial Statement

PRODUCT CARE ASSOCIATION OF CANADA
MANITOBA HOUSEHOLD
HAZARDOUS WASTE PROGRAM

STATEMENT OF REVENUES AND EXPENSES

31 DECEMBER 2018

PRODUCT CARE ASSOCIATION OF CANADA
MANITOBA HOUSEHOLD HAZARDOUS WASTE PROGRAM
Statement of Revenues and Expenses
For the year ended 31 December 2018

Contents

ROLFE, BENSON LLP | CHARTERED PROFESSIONAL ACCOUNTANTS

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E-mail: admin@rolfebenson.com

INDEPENDENT AUDITORS' REPORT

To: Minister of Conservation and Water Stewardship

Report on the Audit of the Statement of Revenues and Expenses

Opinion

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 (the "Association") for the year ended 31 December 2018 and a summary of significant accounting policies and other explanatory information.

In our opinion, the Statement presents fairly, in all material respects, the revenues and expenses of the Manitoba Household Hazardous Waste Program for the year ended 31 December 2018 in accordance with Canadian accounting standards for not-for-profit organizations.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditors' Responsibilities section of our report. We are independent of the Association in accordance with the ethical requirements that are relevant to our audit of the Statement in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Matter - Restriction on Distribution and Use

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.

Responsibilities of Management and Those Charged with Governance for the Statement

Management is responsible for the preparation and fair presentation 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 Statement that is free from material misstatement, whether due to fraud or error.

INDEPENDENT AUDITORS' REPORT - Continued

In preparing the Statement, management is responsible for assessing the Association's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Association or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Association's financial reporting process.

Auditors' Responsibilities

Our objectives are to obtain reasonable assurance about whether the Statement as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this Statement.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the Statement, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit 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 Association's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

INDEPENDENT AUDITORS' REPORT - Continued

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Association's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the Statement or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Association to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the Statement, including the disclosures, and whether the Statement represents the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Rolfe, Benson LLP

CHARTERED PROFESSIONAL ACCOUNTANTS

Vancouver, Canada
4 April 2019

PRODUCT CARE ASSOCIATION OF CANADA
MANITOBA HOUSEHOLD HAZARDOUS WASTE PROGRAM
Statement of Revenues and Expenses
For the year ended 31 December 2018

	2018	2017
Revenues	**$ 1,611,349**	$ 1,833,931
Program expenses (recoveries)		
Processing	**708,132**	593,164
Collection	**443,715**	327,937
Transportation	**391,783**	319,745
Administration (Note 2(b) & (d))	**300,456**	249,198
Communications	**48,449**	73,507
Regulatory	**(15,507)**	15,776
	1,877,028	1,579,327
Excess (deficiency) of revenues over expenses for the year	**$ (265,679)**	$ 254,604

Commitments (Note 3)

Fund transfer - allocation of interim program costs (Note 4)

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

PRODUCT CARE ASSOCIATION OF CANADA
MANITOBA HOUSEHOLD HAZARDOUS WASTE PROGRAM
Notes to the Statement of Revenues and Expenses
For the year ended 31 December 2018

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. 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.

(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 $41,967 (2017 - $46,425) of amortization expense related to tangible capital assets.

(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.

2. Summary of Significant Accounting Policies - continued

(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 $116,783 (2017 - $86,566) of overhead expense which has been allocated to the Program.

3. Commitments

During the 2018 fiscal year, the Association committed additional funds of up to $150,000 above the $800,000 committed in 2013 and the $385,000 committed in 2017, for a total commitment of $1,335,000 (2017 - $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 2017	$402,035
New disbursements to qualified organizations during the year	94,920
Loans forgiven during the year	(53,085)
Balance of funds disbursed as of 31 December 2018	$443,870

4. Fund Transfer - Allocation of Interim Program Costs

During the 2015 and 2016 fiscal years at the request of the Ontario Ministry of Environment, expenses were incurred to operate an interim Light Recycling Program for a 12 month period in the Province of Ontario on behalf of the industry. These expenses were recorded as a general and administrative expenses of the Association pending the regulation of lighting products in Ontario. During the year, the Association's Board of Directors passed a resolution where these expenses would be allocated amongst the other Light Recycle Programs of the Association as the expected regulation to designate lighting products in Ontario has not occurred.

These costs are to be allocated over a five year period to each of the Association's Light Recycling Programs proportionally based on the 2017 operating expenses of these Programs. The total amount allocated to the Manitoba Household Hazardous Waste Program for the 5 year period is $27,385. This is to be allocated as a fund transfer decreasing the accumulated surplus (deficit) of the Program in each of the 2018 to 2022 fiscal years in equal amounts. During the year, $5,477 was recorded as a fund transfer, with $21,908 remaining to be transferred in future years.