PRODUCT CARE ASSOCIATION OF CANADA

June 30, 2017



BRITISH COLUMBIA PAINT AND HOUSEHOLD HAZARDOUS WASTE STEWARDSHIP PROGRAM

For submission to: Director, Extended Producer Responsibility Programs PO Box 9341, STN PROV GOVT Victoria, BC V8W 9M1

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Product Care Association Paint and Household Hazardous Waste Annual Report to the Director 2016

Submitted to: Director, Extended Producer Responsibility Programs PO Box 9341, STN PROV GOVT Victoria, BC V8W 9M1

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1. Executive Summary

The BC Paint and Household Hazardous Waste (HHW) Program ("Program") has been in operation since 1994 under the operation and management of Product Care Association of Canada ("PCA"). The Program operates pursuant to the requirements of the *British Columbia Recycling Regulation* (BC Reg 449/2004 as amended) ("Regulation") under the Province's *Environmental Management Act*, as well as the British Columbia Paint and Household Hazardous Waste (HHW) Product Stewardship Plan ("Program Plan") submitted to the Ministry of Environment covering January 1, 2012 to December 31, 2016. This annual report reports on program information required pursuant Section 8(2) of the Regulation for the period January 1 to December 31, 2016.

Products within plan	 Architectural paints and coatings (household); paint aerosols (consumer, industrial and automotive) Domestic pesticides Domestic flammable liquids and aerosols Gasoline 	
Program website	http://www.regeneration.ca/programs/paint/british-columbia/	

The Program's performance information required pursuant to s.8(2) of the Regulation is provided below.

Regulatory Provision	Program Area	Summary of Activities in 2016
Part 2, section 8(2)(a)	Public Education Materials and Strategies	 Consumer awareness survey (2015) revealed 62% of BC adults were aware of a program to recycle paint and HHW. ReGeneration.ca provided consumers with bilingual content about the Program, with a collection site finder, collection site hours and operations, and accepted product lists. Point of sale and point of return materials were available for reorder, free of charge, upon request. Advertised through Yellow Pages digital campaign. Print ads published in 2016 municipal waste and recycling calendars. Digital "Keep BC Green" contest with The Vancouver Sun. Ran TV campaign with Global TV. Advertised on Z95.3 FM, Fairchild Radio 96.1 FM, Spice Radio 1200 AM, TSN 1040.

Regulatory Provision	Program Area	Summary of Activities in 2016
		 ReGeneration participated in events (e.g. BC Home & Garden Show), and was the official sponsor of Party for the Planet. Collaboration through RCBC's Hotline and Recyclepedia, the SABC Recycling Handbook and the BC Recycles Ambassadors to harmonize consumer-facing information about paint and HHW collection sites.
Part 2, section 8(2)(b)	Collection System and Facilities	 Added a net total of 3 collection sites in 2016, for a total of 219 collection sites as of December 31, 2016. Of the 218 collection sites, 115 were paint-only and 104 were paint plus collection sites. 18 collection events took place in 2016.
Part 2, section 8(2)(c)	Product Environmental Impact Reduction, Reusability and Recyclability	 There has been a steady shift in the marketplace from oil-based (alkyd) paints to water-based (latex) paints. This trend is expected to continue as the consumer preference for latex paint increases and technical specifications improve. Federal regulations relating to volatile organic compounds and the composition of surface coatings are hastening the process of reducing the environmental impact of paint products.
Part 2, section 8(2)(d)	Pollution Prevention Hierarchy and Product / Component Management	 Paint (Latex/Alkyd): Reuse: 2.8% of all paint collected by PCA was reused through the Paint Exchange program. Recycling: 81% of latex paint was recycled back into paint and coating products or used as a raw material in the manufacturing of concrete products. Energy recovery: 100% of alkyd paint and 2% of latex paint, was sent to energy recovery as an alternative energy source in permitted incinerators. Landfill: 17% of latex paint was sent to a landfill. Paint containers: Recycling: 100% of metal containers and 100% of #2 plastic containers were recycled. Energy recovery: 100% of #5 plastic (polypropylene) containers were used as an alternative energy source in permitted incinerators.

Regulatory Provision	Program Area	Summary of Activities in 2016	
		 Energy Recovery: 100% of paint aerosol residuals were sent to energy recovery as an alternative energy source in permitted incinerators. Recycling: 100% of paint aerosol containers were recycled. Flammables liquids and containers: Energy recovery: 100% of flammable liquids were sent to energy recovery as an alternative energy source in permitted incinerators. Recycling: 100% of flammable liquid containers were recycled. Pesticides and containers: Incineration: 100% of pesticide residuals were sent for incineration at licensed facilities. Recycling: 100% of pesticide containers were recycled. Gasoline and containers: Energy recovery: 100% of gasoline liquids were sent for energy recovery as an alternative energy source in permitted incinerators. Recycling: 100% of pesticide containers were recycled. 	
Part 2, section 8(2)(e) Part 2, section 8(2)(e.1)	Product Sold and Collected and Recovery Rate	 <u>Recovery rates:</u> Paint, 11.25% Paint aerosols, 4.23% Flammable liquids/gasoline, 5.53% Pesticides, 23.72% See Section 7 for the collection volumes breakdown by regional district. 	
Part 2, section 8(2)(f)	Summary of Deposits, Refunds, Revenues and Expenses	See Appendix C for the audited financial statements for the reporting year.	
Part 2 section 8(2)(g)	Summary of Program Targetss and Performance	See summary of Program targets and performance in chart "2016 Key Performance Targets and Performance" below and in section 8 of this report ("Program Performance").	

The Program Plan sets out a number of key performance targets for the Program. The following chart summarizes the targets, performance in 2015 and PCA's strategies for improvement going forward.

Key Performance Targets and Outcomes

Key Performance Targets and Outcomes				
Program Area	2016 Target	2016 Performance	Strategies for Improvement	
Collection System				
Collection Sites	An annual minimum increase of one new paint plus collection site, using the number of collection sites in 2011 as the baseline for this target.	 Target exceeded: 115 paint collection sites 104 paint plus collection sites 	PCA continues to expand the network as needed.	
	2016 Target: 115 paint collection sites and 61 paint plus collection sites for a total of 176collection sites.			
Paint Exchange Collection Sites	Track and report the number of collection sites offering Paint Exchange.	148 collection sites (68% of all collection sites) offered the Paint Exchange program	Continue to encourage collection sites to offer the Paint Exchange program	
Management of Collected N	/ laterials			
Paint Collected	4% annual increase of total collected volumes (container capacity volume) for the paint product categories.	 Target exceeded for paint: Paint (non-aerosol) collection volume increase: 4.3% Target exceeded for aerosol paint: Paint (aerosol) collection volume increase: 7.3% 	N/A	
Flammable Liquids and Pesticides Collected	4% annual increase of total collected volumes (container capacity volume) for	Targets exceeded for flammable liquids/gasoline:	N/A	

Key Performance Targets and Outcomes				
Program Area	2016 Target	2016 Performance	Strategies for Improvement	
	the flammable liquids and pesticides product categories	 Flammable Liquids/Gasoline collection volume increase: 12.6% Target exceeded for pesticides: Pesticide collection volume increase: 7.1% 		
Pesticides Collected	Maintain pesticides collection volumes (container capacity volume) at 2011 baseline (69,638 L).	 Target exceeded: Pesticide collection volume was 100,613 litres exceeding the 2011 volume by 30,975 litres. 	N/A	
Paint Reused	Increase volume of paint being managed through reuse to 2.5% of paint collected by 2016.	 Target exceeded: 2.81% of paint collected was reused. 	N/A	
Latex (water-based) Paint Recycling	Maintain rate of 100% recycling of latex paint.	 Target not met: 81% of latex paint was recycled. 2% was sent for energy recovery. 17% was sent to a landfill. 	Continue to seek alternative recycling options.	
Alkyd (oil-based) Paint Recycling	Continue to look for options for the recycling of alkyd paint.	Product Care continues to search for recycling options for alkyd paint. Currently no recycling options have been identified.	Continue to seek options for recycling.	
Metal and #2 Plastic Container Recycling	Maintain rate of 100% recycling of metal and	Target met: • 100% of metal and #2 plastic paint	N/A	

Key Performance Targets and Outcomes				
Program Area	2016 Target	2016 Performance	Strategies for Improvement	
	#2 plastic paint containers.	containers were recycled.		
Plastic and Metal Gasoline Container Recycling	Maintain rate of 100% of plastic and metal gasoline containers being recycled.	 Target met: 100% of plastic and metal gasoline containers were recycled. 	N/A	

2. Program Overview

The BC Paint and Household Hazardous Waste (HHW) Program ("Program") has been in operation since 1994 under the operation and management of 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.

Producers of designated products are required to meet the obligations set out in BC's *Recycling Regulation* (BC Reg 449/2004 as amended) ("Regulation") under the Province's *Environmental Management Act*. The Program is funded by membership fees, known as environmental handling fees ("EHF"), remitted to PCA by its members based on the volume of sales of products included in the program plan ("Program Products"). The Program's member list may be viewed here: http://www.productcare.org/member-support/british-columbia/.

The Program operates under the requirements of the Regulation and the Program Plan submitted to the Ministry of Environment covering January 1, 2012 through December 31, 2016. This annual report provides the information required pursuant Section 8(2) of the Regulation covering the period of January 1 to December 31, 2016.

3. Public Education Materials and Strategies

Public Education Materials and Strategies

The following sections provide a summary of the communication and education efforts for 2016. PCA connects with consumers through the consumer-facing brand "ReGeneration".

Website

ReGeneration.ca provided consumers with the following bilingual content for the Program in BC:

- Collection site finder (a map displaying locations of the collection sites)
- Collection site hours and operations
- Accepted product lists
- Other information (such as a Frequently Asked Questions about the Program).

An estimated 90,074 unique visitors utilized ReGeneration.ca during the 2016 calendar year. The Program page received 24,044 visitors and an additional 10,863 visitors to the collection site finder.

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

In 2016, PCA distributed PoS and PoR materials as requested by retailers and collection sites. The following materials were available for reorder, free of charge, through our online order form (see Appendix B for examples):

- 5x8 Rack Cards
- 4x3 Outdoor Collection Site signage
- Retail Shelf Talkers
- Retail Floor Decal

Program Phone Line

PCA operated a toll-free telephone number (1-888-772-9772) by which consumers were able to obtain information about the Program.

Yellow Pages Advertising

PCA continued a targeted digital campaign via YP Group, including syndicated Facebook posts, targeted digital display ads and smart digital display (re-serving impressions to pre-qualified audience). Digital ads were specifically generated to Internet users who performed online searches related to the purchase, use and disposal of paint and HHW products in British Columbia.

Additionally, PCA's Facebook advertising campaign pursued a "gated" strategy, which is to say, content viewable by residents of British Columbia was relevant to that audience specifically, and was not necessarily seen by audiences in other provinces.

Print and Digital Advertising

Print ads were published in 2016 municipal waste and recycling calendars.

TV Campaign

A Province-wide campaign with Global TV ran for the entirety of 2016. Heavy rotation of 15 second traditional commercial spots aired on prime time during high viewership programming for the first half of the year. Starting in mid-July, community PSAs involving local talent voiced 15-second "infomercial" style spots educated viewers on paint and HHW recycling.

Radio Campaign

PCA ran several English and multi-lingual radio campaigns in 2016 to raise Program awareness and to promote the collection site finder.

- A 6 month campaign custom developed for ReGeneration, including brand sell tags, 30-second spots, digital take-overs, and sponsorship of a retro radio show, aired in English on Z95.3 FM.
- A 4 month radio campaign of 30-second spots aired in Mandarin and Cantonese on Fairchild Radio 96.1 FM.
- An 11 month campaign of 30-second spots aired on Spice Radio 1200 AM in Hindi, Punjabi and English.
- PaintRecycle advertised on TSN 1040 Radio for the Men's Soccer Qualifier in March, as well as the Grey Cup Half-time report in November; one of the most listened-to sporting broadcasts of the year. 30-second PaintRecycle radio ads were heard prior to the games, during the games, and as part of a post-game wrap-up. PaintRecycle was also featured on the TSN 1040 Radio website via digital ads.

Events

ReGeneration pursued an aggressive program of event marketing attending 57 events promoting all programs throughout the year. The majority of the events were located in the high-profile, high-traffic metro Vancouver region. ReGeneration was the official sponsor of Party for the Planet and attended events that included the BC Home & Garden Show, Vancouver Pride Parade, Kelowna Canada Day, Regional Recycling Richmond Environment Week, Car Free Days and the Abbotsford Air Show. Knowledgeable ambassadors interacted with thousands of event-goers during the summer festival season and raised awareness about paint and HHW recycling.

Branded event materials supported this direct engagement program, and included signage and audience engagement tools like games and giveaways.

Partnerships

The Program collaborated with RCBC's Hotline and Recyclepedia, the SABC Recycling Handbook and the BC Recycles Ambassador tour, a public awareness and education campaign aimed at increasing overall recycling awareness and collection rates across the Province. Ambassadors conducted surveys with retailers and stakeholders to gain feedback on PCA programs and represented the ReGeneration consumer-facing brand at notable community events and festivals.

4. Collection Systems Information

As of December 31, 2016, PCA contracted with 219 permanent collection sites in British Columbia to provide convenient locations for consumers to drop off unwanted Program Products, an increase from 216 collection sites in the prior year. Of the 219 locations, 115 were paint collection sites that collected leftover paint products only, including paint aerosols, and 104 were "paint plus" collection sites that collected paint products, as well as flammable liquids, pesticides and gasoline. Of the 219 locations, 148 were part of the Paint Exchange program, providing paint to customers for free.

The Program's system included 219 contracted collection sites, with 3 Paint sites and 3 Paint Plus sites added in 2016 and 3 Paint sites removed, representing a net increase of 3 sites from 2015. Table 1 provides a comparison of 2015 and 2016 collection site numbers and Table 2 lists the specific changes in the

collection system in 2016. Table 3 lists the collection sites by Regional District. A complete list of collection sites as of December 31, 2016 is provided in Appendix A.

Collection Site Type	2015	2016
Paint	115	115
Paint Plus	101	104
Total Permanent	216	219

Table 1: Paint and Paint Plus Contracted Collection Sites, 2015 and 2016

Table 2: Collection Site Changes in 2016

Collection Site Name	Location	Change from 2015
Bulkley Valley Bottle Depot	Smithers	New paint plus collection site
Revelstoke Refuse Disposal	Revelstoke	New paint plus collection site
White Rock Return-It Depot	Surrey	New paint plus collection site
Guildford Bottle Depot	Surrey	New paint collection site
Hornby Island Waste Management	Hornby Island	New paint collection site
Centre		
Ironwood Bottle & Return-it Depot	Richmond	New paint collection site
Norbert Salvage	Bridesville	CLOSED paint depot
Lillooet Glass & Tire	Lillooet	CLOSED paint depot
Steveston Return-It Depot	Richmond	CLOSED paint depot

Regional District	Number of Collection Sites
Alberni-Clayoquot	3
Bulkley-Nechako	9
Capital	13
Cariboo	6
Central Coast	3
Central Kootenay	4
Central Okanagan	3
Columbia-Shuswap	5
Comox Valley	4
Cowichan Valley	7
East Kootenay	6
Fraser Fort-George	5
Fraser Valley	12
Kitimat-Stikine	4
Kootenay Boundary	5
Metro Vancouver	55
Mt. Waddington	6
Nanaimo	6
North Okanagan	6
Northern Rockies	1
Okanagan-Similkameen	9
Peace River	6
Powell River	2
Skeena-Queen Charlotte	4
Squamish-Lillooet	8
Strathcona	4
Sunshine Coast	4
Thompson-Nicola	19
Total	219

Table 3: Summary of Collection Sites by Regional District in 2016

PCA also supplements the collection system with a number of one day collection events, often carried out in collaboration with a municipality or regional district. PCA participated in 18 collection events in 2016. See Table 4 for a list of collection events.

Table 4: Collection Events in 2016				
Date	Event Location			
April 23, 2016	Cache Creek			
May 14, 2016	Delta			
May 14, 2016	Revelstoke			
May 14, 2016	Mission			
May 15, 2016	Golden			
May 28, 2016	Sparwood			
May 28, 2016	Radium			
May 29, 2016	Kimberley			
June 11, 2016	Kamloops			
July 27, 2016	LVEU – Vancouver			
September 10, 2016	Sicamous			
September 17, 2016	Creston			
September 18, 2016	Castlegar			
September 24, 2016	Golden			
September 24, 2016	Salmo			
October 1, 2016	Nakusp			
October 1, 2016	Chilliwack			
October 15-16, 2016	Langley			

Table 4: Collection Events in 2016

5. Product Environmental Impact Reduction, Reusability and Recyclability

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

Where toxicity in chemicals is considered potentially harmful to human health or the environment, a risk management approach is required to permit continued use of the substances contained in products like paint and coatings. This may result in regulations, pollution prevention plans, codes of practice or compliance agreements and ultimately reformulation or re-design of products for the marketplace, which reduces or eliminates negative impacts. In some cases this has led 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 Volatile Organic Compounds (VOC) in paints with most paints now with either 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 reducing emissions in all paint and coatings used in Canada, specifically:

- 93 per cent of the sales volume of all architectural coatings in Canada is now water-based, up from less than 50 percent ten years ago.
- In 2015, based on comprehensive and random testing conducted by Environment an Climate Change Canada (ECCC), 99+ per cent of the sales volume for architectural waterborne coatings in Canada, traditionally associated with high VOC content, were confirmed to be 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 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 projected a 28 per cent reduction.

Greenhouse Gas Emissions

The estimated greenhouse gas (GHG) impact of the recycling of paint products, flammable liquids and pesticides was calculated using a GHG emission inventory tool developed specifically for the Program by a third party based on nationally and internationally recognized reference protocols and standards. Based on the limited available information from downstream processors and the numerous assumptions that had to be made to determine the GHG impact, the final GHG emission numbers are accurate to only one significant digit. The GHG emissions for 2016 were estimated based on these calculations, to be 10,000 tonnes of equivalent carbon dioxide (CO2e). This value is based on 2 tonnes of CO2e generated per tonne of material managed.

6. Pollution Prevention Hierarchy and Product / Component Management

PCA endeavours to manage collected products in accordance with the "pollution prevention hierarchy". This section details the measures that PCA follows with respect to each product category based on information provided by downstream processors, where available.¹

¹ The information detailed in this section was verified based on processor questionnaires or site visits of the various processors and the review of final disposition as indicated on hazardous waste manifests an applicable. However, there is greater confidence in the end fate of hazardous wastes given the framework of regulatory requirements governing hazardous materials and commensurate oversight by various environmental departments and agencies.

Consolidation

Collected products are sent to a consolidation facility in the Lower Mainland. During consolidation, paint is separated into latex (water-based) and alkyd (oil-based) paint. Paint aerosols are separated into liquid paint, metal containers and propellant. Pesticides and flammable liquids are consolidated by product type and properties, and "other aerosols" (flammable and pesticide aerosols) are repackaged into larger containers.

Following these initial processes, consolidated or repackaged materials are sent to downstream processors for recycling, energy recovery, incineration or landfill. Detailed information on how collected materials are processed is provided below.

Paint

Leftover paint is the largest volume of the residual products managed by the Program. Leftover paint is managed in a number of ways:

Reuse

Reusable paint is given away at no charge through the Paint Exchange program to members of the public and non-profit organizations to be used for its originally intended purpose. In 2016, 148 depots participated in the Paint Exchange program, representing 68% of all depots. Users of the program included individuals, community organizations, theatres and anti-graffiti programs. Based on monthly reports provided by collection sites, approximately 2.81%² of the total volume of paint collected in 2016 was reused through the Paint Exchange program, up from 2.5% in 2015.

Recycling

PCA utilizes a number of options for latex (water-based) paint recycling. High grade recyclable waterbased paint is reprocessed into paint and coatings products. The lower grade recyclable paint (i.e., paint that is not suitable for paint to paint recycling) is used as a raw material in the manufacturing of concrete products (blocks, barriers, etc.).

According to shipment records³, approximately 81% of the latex paint sent to downstream processors by the Program in 2016 was recycled utilizing one of the two options listed above.

The total volume of paint collected is the sum of the total volume of paint reused through Paint Exchange plus the total volume of paint shipped from the consolidation facility to the downstream processors.

Energy Recovery

Alkyd (oil-based) paints are suitable for energy recovery by virtue of their high solvent content. According to shipment records, 100% of the oil-based paint shipped to downstream processors from the

² Based on the estimate of paint containers being 75% full and compared against total recovery volumes.

³ Shipment records evidencing the management of program product may include Certificates of Disposal, bills of lading or processor invoices and the review of final disposition as indicated on hazardous waste manifests as applicable. Shipment records evidencing the management of metal and plastic containers may include bills of lading, scale tickets or processor invoices.

consolidation facility in 2016 went to hazardous waste management companies who then sent the paint to permitted/licensed facilities to be used for alternative energy recovery.

PCA continues to search for recycling options for alkyd paint. This is generally more difficult due to hazardous waste and transportation regulations, which limit the movement of this kind of material. Regulations, such as the Federal VOC Regulations, require tighter limits on certain chemical constituents, which tend to be higher in older paints, making recycling of alkyd paints more difficult. In addition, the chemistry of alkyd paints makes it more difficult to recycle into paint and coating products, and the diminishing market for recycled alkyd products is significantly smaller than that for latex paint products.

Due to the colour or physical/chemical composition, some latex paint cannot be recycled. Latex paint has heat value but not as high as oil-based paints. A portion of the unrecyclable latex paint is sent to downstream processor who sends it to a licensed facility, to be used as alternative fuel (energy recovery). According to shipment records, 2% of the latex paint sent to downstream processors was used as an alternative fuel in 2016.

Secure Landfill

Due to increased volumes and limited capacity of the downstream processors for energy recovery, a portion of unrecyclable latex paint could not be sent for energy recovery. In addition, a portion of lower grade recyclable paint could not be accepted by the downstream concrete block manufacturer due to capacity limits. Consequently, according to shipment records, 17% of unrecyclable latex paint and lower grade recyclable paint was solidified and diverted to a secure landfill in 2016.

Flammable Liquids

As a result of the nature of flammable liquids, and the fact that many flammable liquids are sold as fuels, leftover flammables collected are treated as alternative fuels for energy recovery. According to shipment records, 100% of the flammable liquids shipped from the consolidation facility to downstream processors in 2016 went to a hazardous waste management company who then sent them to permitted/licensed facilities to be used for alternative energy recovery.

Gasoline

Due to the nature of gasoline, which is intended for use as a fuel, collected leftover gasoline is treated as alternative fuel for energy recovery. According to shipment records, 100% of the gasoline shipped from the consolidation facility to downstream processors in 2016 went to a hazardous waste management company who then sent the gasoline to permitted/licensed facilities to be used for alternative energy recovery.

Pesticides

Due to the nature of pesticides, there is no reuse or recycling option available for these products. According to shipment records, 100% of pesticide products shipped from the consolidation facility to downstream processors in 2016 went to a hazardous waste management company who then sent them to permitted/licensed facilities for incineration.

Containers

Metal Container Recycling

Based on shipment records from the consolidation facility, 100% of metal containers processed by the Program in 2016 from paint, flammable liquids, pesticides and gasoline were sent for metal recycling. Pesticide containers were triple rinsed before being sent for recycling.

Plastic Container Recycling

According to shipment records, 100% of 5 gallon size #2 HDPE plastic paint pails and gasoline containers shipped from the consolidation facility to downstream processors were recycled in 2016. Furthermore, plastic containers from pesticides and flammable liquids were sent for plastics recycling. Pesticide containers were triple rinsed before being sent for recycling.

Plastic Container Energy Recovery

The Program managed 100% of plastic (polypropylene #5) one US gallon size paint cans through energy recovery due to the limited market demand for recycled polypropylene #5.

Component	Recycling	Energy Recovery	Incineration	Landfill
Latex paint	81%	2%		17%
Alkyd paint		100%		
Flammable Liquids		100%		
Pesticides			100%	
Gasoline		100%		
Metal Containers	100%			
#2 Plastic Containers	100%			
#5 Plastic Containers		100%		

Table 5: Program Product End Fate (Excluding Paint Exchange) 2016

7. Product Sold and Collected and Recovery Rate

Product Collected

Program Products are collected in either tubskids or drums.⁴ Table 6 shows the tubskids (or tubskid equivalents) collected in BC, broken down by regional district.

Regional District	Paint	Paint	Solvents	Pesticides	Other
		Aerosols			Aerosols
Alberni Clayoquot	119.0	19.0	4.0	0.6	-
Bulkley Nechako	77.0	26.5	-	-	1.0
Capital Regional District	3,061.0	93.9	113.0	41.0	50.8
Cariboo	192.0	27.0	3.0	1.0	1.9
Central Coast	20.0	-	-	-	-
Central Kootenay	304.0	16.0	6.0	1.8	1.2
Central Okanagan	1,043.0	44.1	25.0	6.0	11.7
Columbia Shuswap	271.0	21.0	3.0	-	1.3
Comox Valley	486.0	21.1	20.0	3.0	4.8
Cowichan Valley	706.0	94.3	57.0	17.3	23.2
East Kootenay	345.0	19.0	6.0	2.0	26.3
Fraser Fort George	348.0	19.0	10.0	1.0	-
Fraser Valley	1,917.0	74.6	39.6	13.0	15.8
Kitimat Stikine	109.0	6.0	2.0	1.0	-
Kootenay Boundary	239.0	16.0	10.0	5.0	3.4
Metro Vancouver	14,002.0	445.6	413.0	107.1	97.1
Mt. Waddington	74.0	51.6	1.0	-	-
Nanaimo Regional District	1,316.0	114.3	53.0	11.0	15.1
North Okanagan	501.0	31.0	21.0	1.0	1.8
Northern Rockies	-	-	-	-	-
Okanagan Similkameen	552.0	21.3	7.0	5.0	2.2
Peace River	256.0	18.1	1.0	2.0	1.0
Powell River Regional District	84.0	15.3	5.0	-	0.3
Skeena-Queen Charlotte	71.0	17.0	4.0	-	-
Squamish Lillooet	348.0	25.5	15.0	1.0	2.7
Strathcona	212.0	121.2	20.0	5.0	4.0
Sunshine Coast	351.0	116.0	20.0	5.6	4.6
Thompson Nicola	648.0	27.7	11.0	2.5	9.0

 Table 6: Tubskids (or tubskid equivalents) Collected by Regional District (2016)

⁴ Tubskids are 4'x4'x3' plastic boxes used for the collection of paint, paint aerosols, flammable liquids and pesticides. Drums are converted into tubskids at a factor of 0.3 tubskids per drum. The total number of tubskids has been rounded to the nearest whole number. The total number of tubskids is based on tubskids picked up from collection sites as evidenced by bills of lading.

Regional District	Paint	Paint	Solvents	Pesticides	Other
		Aerosols			Aerosols
Totals	27,652.0	1,502.1	869.6	232.9	279.2

Table 7 provides the total 2016 residual recovery volumes (RRV) for each product category compared to 2015 RRV. Table 8 contains information on the container capacity volume (CCV). The container capacity volume, also known as "equivalent litres of containers" (ELC), is a measure of the maximum capacity of the containers that could fit within a tubskid or drum returned through the Program. These figures are extrapolated from the number of tubskids of Program Product managed by the Program as reported in Table 6.

Table 7: Approximate Total Collected Volumes (residual recovery volume) for Paint, Paint Aerosols, Flammable Liquids and Pesticides (2015 v. 2016)

Residual recovery volume (litres)	Paint (non-aerosol) ⁵	Paint (Aerosol) ⁶	Flammable Liquids/Gasoline ⁷	Pesticides ⁸
2016	3,348,025	48,000	152,460	27,768
2015	3,187,396	43,977	130,457	24,910

Table 8: Approximate Total Collected Volumes (container capacity volume) for Paint, Paint Aerosols,Flammable Liquids and Pesticides (2015 v. 2016)

Container capacity volume (litres) ⁹	Paint (non-aerosol)	Paint Aerosol	Flammable Liquids/Gasoline ¹⁰	Pesticides
2016	11,945,664	266,018	424,527	100,613
2015	11,448,864	244,860	377,111	93,917
Variance	4.3%	7.3%	12.6%	7.1%

Recovery Rate

Table 9 below shows the calculation of the recovery rate, based on the sales of paint sold in BC and the residual recovery volume of paint collected in 2016. The recovery rate is the amount of product collected

⁵ Paint residual recovery volume was calculated using a conversion factor of 117.66 litres per tubskid, based on the average volume generated per tubskid over the full year 2016 and adding the paint exchange volumes reported by collection sites which assumes that all containers collected are 75% full.

⁶ Paint aerosol residual recovery volume was calculated using a conversion factor of using 31.58 litres per tubskid, based on the average volume generated per tubskid over the full year 2016.

⁷ Flammable Liquids/Gasoline residual recovery volume was calculated using a conversion factor of 175.32 litres per tubskid, based on the average volume generated per tubskid over the full year 2016. This does not includes volume from flammable or pesticide aerosols.

⁸ Pesticide residual recovery volume was calculated using a conversion factor of 119.23 litres per tubskid, based on the average volume generated per tubskid over the full year 2016.

⁹ Container capacity volume was calculated by converting the total number of tubskids collected into equivalent litres of containers, using a conversion factor of 432 litres per tubskid, and 0.3 tubskids per drum for the paint (non-aerosol), flammable liquids/gasoline (non-aerosol) and pesticides categories. A conversion factor of 175 litres per tubskid was used for the paint aerosol and flammable liquids aerosol categories.
¹⁰ Includes both non-aerosol and aerosol flammables and pesticides.

divided by the amount of product sold. With regard to gasoline collection, members report the number of gasoline stations, not volumes of gasoline sold. Therefore sales volumes (in litres) for gasoline are not available and are excluded from the flammable liquids/gasoline category. Gasoline collected volumes are included in the flammable liquids residual recovery volumes, as gasoline and other flammable liquids are processed together, and therefore indistinguishable.

Table 9: Approximate Sales, Residual Recovery Volume and Recovery Rates of Paint, Paint Aerosols,
Flammable Liquids and Pesticides

2016	Paint (non- aerosol) ¹¹	Paint (aerosol) ¹²	Flammable Liquids/Gasoline ¹³	Pesticides ¹⁴
Sales (litres) ¹⁵	29,757,285	1,135,520	2,757,483	117,064
Residual Recovery Volume (litres)	3,348,025	48,000	152,460	27,768
2016 Recovery Rate	11.25%	4.23%	5.53%	23.72%

8. Revenues and Expenditures

Environmental Handling Fees

The Program is funded by membership fees, known as environmental handling fees (EHF), remitted to PCA by its members based on the volume of sales of designated products in or into BC. Table 10 lists the EHFs in 2016. A copy of of the independent financial audit of the Program's revenues and expenses can be found in Appendix C.

Table 10: Environmental Handling Fees (2016)

Paint Category		
Container Size	2016 EHFs	
100 ml to 250 ml	\$0.20	
251 ml to 1 litre	\$0.35	

¹¹ Paint residual recovery volume was calculated using a conversion factor of 117.66 litres per tubskid, based on the average volume generated per tubskid over the full year 2016 and adding the paint exchange volumes reported by collection sites, which assumes that all containers collected are 75% full.

¹² Paint aerosol residual recovery volume was calculated using a conversion factor of 31.58 litres per tubskid, based on the average volume generated per tubskid over the full year 2016.

¹³ Flammable Liquids/Gasoline residual recovery volume was calculated using a conversion factor of 175.32 litres per tubskid, based on the average volume generated per tubskid over the full year 2016.

¹⁴ Pesticide residual recovery volume was calculated using a conversion factor of 119.23 litres per tubskid, based on the average volume generated per tubskid over the full year 2016.

¹⁵ Volumes reported as "Sales (litres)" are estimated by converting units reported to PCA by its members and applying the typical residual container volume for each EHF category.

Container Size	2016 EHFs
1.01 litres to 5 litres	\$0.85
5.01 litres to 23 litres	\$2.15
Aerosol Paint (any size)	\$0.25

Pesticide Category

Container Size	2016 EHFs
Less than 10 ml or grams	\$0.01
0.01 to 0.89 litres or kg	\$0.65
0.9 to 1.79 litres or kg	\$1.30
1.8 to 10 litres or kg	\$2.60

Flammable Liquids Category

Container Size	2016 EHFs
Less than 750 ml	\$0.10
751 ml to 1 litre	\$0.15
1.01 litres to 2 litres	\$0.35
2.01 litres to 4 litres	\$0.60
4.01 litres to 10 litres	\$1.50
Aerosol Flammable Liquids	
1 to 75 ml or grams	\$0.01
76 to 200 ml or grams	\$0.10
Over 201 ml or grams	\$0.15

9. Performance Targets

Table 11 sets out the key performance targets under the Program Plan (submitted to the Ministry of Environment and covering January 1, 2012 to December 31, 2016), performance outcomes for 2016 and strategies for performance improvement going forward.

Table 11: Key Performance Targets and Outcomes

Key Performance Targets and Outcomes					
Program Area	2016 Target	2016 Performance	Strategies for Improvement		
Collection System	Collection System				
Collection Sites	An annual minimum increase of one new paint plus collection	Target exceeded: • 115 paint collection sites	PCA continues to expand the network and fill collection as		

	Key Performance Targets and Outcomes					
Program Area	2016 Target	2016 Performance	Strategies for Improvement			
	site, using the number of collection sites in 2011 as the baseline for this target. 2016 Target: 115 paint collection sites and 61 paint plus collection sites for a total of 176 collection sites.	• 104 paint plus collection sites	needed.			
Paint Exchange Collection Sites	Track and report the number of collection sites offering paint exchange.	148 collection sites (68% of all collection sites) offered the Paint Exchange program	Continue to encourage collection sites to offer the Paint Exchange program			
Management of Collected M	aterials					
Paint Collected	4% annual increase of total collected volumes (container capacity volume) for the paint product categories.	 Target exceeded for paint: Paint (non-aerosol) collection volume increase: 4.3% Target exceeded for aerosol paint: Paint (aerosol) collection volume increase: 7.3% 	N/A			
Flammable Liquids and Pesticides Collected	4% annual increase of total collected volumes (container capacity volume) for the flammable liquids and pesticides product categories	Targets exceeded for flammable liquids/gasoline: • Flammable Liquids/Gasoline collection volume increase: 12.6% Target exceeded for pesticides:	N/A			

Key Performance Targets and Outcomes				
Program Area	2016 Target	2016 Performance	Strategies for Improvement	
		 Pesticide collection volume increase: 7.1% 		
Pesticides Collected	Maintain pesticides collection volumes (container capacity volume) at 2011 baseline (69,638 L).	Target exceeded: Pesticide collection volume was 100,613 litres, exceeding the 2011 volume by 30,975 litres.	N/A	
Paint Reused	Increase volume of paint being managed through reuse to 2.5% of paint collected by 2016	Target exceeded:2.81% of paint collected was reused.	N/A	
Latex (water-based) Paint Recycling	Maintain rate of 100% recycling of latex paint.	 Target not met: 81% of latex paint was recycled. 2% was sent for energy recovery. 17% was sent to a landfill. 	Continue to seek alternative recycling options	
Alkyd (oil-based) Paint Recycling	Continue to look for options for the recycling of alkyd paint.	PCA continues to search for recycling options for alkyd paint. Currently no recycling options have been identified	Continue to seek options for recycling	
Metal and #2 Plastic Container Recycling	Maintain rate of 100% recycling of metal and #2 plastic paint containers.	 Target met: 100% of metal and #2 plastic paint containers were recycled. 	N/A	

Key Performance Targets and Outcomes					
Program Area	2016 Target	2016 Performance	Strategies for Improvement		
Plastic and Metal Gasoline Container Recycling	Maintain rate of 100% of plastic and metal gasoline containers being recycled	 Target met: 100% of plastic and metal gasoline containers were recycled. 	N/A		

APPENDIX A. Collection Site List as of December 31, 2016 (by Regional District)

Collection Site Name	Regional District	City	Paint Exchange	Paint Plus
Sun Coast Eco Depot	Alberni Clayoquot	Port Alberni	Yes	Yes
Thompson Bottle Depot (was The Bottle Depot)	Alberni Clayoquot	Port Alberni	Yes	Yes
Ucluelet Bottle Depot	Alberni Clayoquot	Ucluelet	Yes	No
Area 'D' Transfer Station	Bulkley Nechako	Fraser Lake	Yes	No
Bulkley Valley Bottle Depot	Bulkley Nechako	Smithers	Yes	Yes
Burns Lake Transfer Station	Bulkley Nechako	Burns Lake	Yes	No
Fort St. James Transfer Station	Bulkley Nechako	Fort St. James	Yes	No
Houston Bottle Depot	Bulkley Nechako	Houston	Yes	Yes
Knockholt Sub-Regional Landfill	Bulkley Nechako	Houston	Yes	No
Nechako Valley School Bottle Depot	Bulkley Nechako	Vanderhoof	Yes	No
Ouellette Bros. Building Supplies	Bulkley Nechako	Fort St. James	No	Yes
Smithers/Telkwa Transfer Station	Bulkley Nechako	Smithers	Yes	Yes
A&P Disposal	Capital Regional District	Sooke	Yes	Yes
Alpine Disposal & Recycling	Capital Regional District	Langford	No	Yes
Bay Street Castle	Capital Regional District	Victoria	No	No
Ellice Recycle Ltd.	Capital Regional District	Victoria	No	Yes
Gabriola Island Recycling Depot	Capital Regional District	Gabriola Island	Yes	Yes
Galiano Island Recycling	Capital Regional District	Galiano Island	Yes	No
Hartland Recycling Depot	Capital Regional District	Saanich	Yes	Yes
Mayne Island Recycling Society	Capital Regional District	Mayne Island	No	No
Oak Bay Recycling Depot	Capital Regional District	Oak Bay	No	No
Pender Island Recycling Society	Capital Regional District	Pender Island	Yes	No
RONA Home & Garden (Langford)	Capital Regional District	Victoria	No	No
Saltspring Island Recycling	Capital Regional District	Saltspring Island	No	Yes

Sidney Bottle Depot (Island Return-It Recycling Centre)	Capital Regional District	Sidney	Yes	No
Central Cariboo Disposal Services	Cariboo	Williams Lake	Yes	Yes
Gold Trail Recycling	Cariboo	YesNoNo Mile House	Yes	Yes
Quesnel Landfill Site	Cariboo	Quesnel	No	No
RONA - Interlakes Building Supplies Ltd.	Cariboo	Lone Butte	No	No
RONA Home Centre (Quesnel)	Cariboo	Quesnel	No	No
RONA Home Centre (Willams Lake)	Cariboo	Williams Lake	No	No
Bella Coola Recycling Depot	Central Coast	Bella Coola	Yes	No
Heiltsuk Environmental Bella Bella Eco-Depot	Central Coast	Bella Bella	Yes	Yes
Thorsen Creek Recycling Depot	Central Coast	Bella Coola	Yes	Yes
Columbia Bottle Recycling	Central Kootenay	Creston	Yes	No
Kaslo Building Supplies	Central Kootenay	Kaslo	No	Yes
Nelson Leafs Recycling	Central Kootenay	Nelson	Yes	Yes
Silverton Building Supplies	Central Kootenay	Silverton	No	No
Battery Doctors	Central Okanagan	Kelowna	Yes	Yes
Boucherie Self Storage & Bottle Depot	Central Okanagan	Westbank	Yes	Yes
RONA Home & Garden (Kelowna)	Central Okanagan	Kelowna	No	No
B&D Bottlers Ltd dba Revelstoke Bottle Depot	Columbia Shuswap	Revelstoke	Yes	No
Bill's Bottle Depot	Columbia Shuswap	Salmon Arm	Yes	Yes
Revelstoke Refuse Disposal Facility	Columbia Shuswap	Revelstoke	Yes	Yes
RONA - Glacier Building Supplies	Columbia Shuswap	Revelstoke	No	No
RONA - Shuswap Building Supplies	Columbia Shuswap	Scotch Creek	No	No
Scotch Creek Bottle Depot	Columbia Shuswap	Scotch Creek	Yes	No
Comox Return Centre	Comox Valley	Comox	Yes	No
Comox Valley Waste Management Centre	Comox Valley	Cumberland	Yes	Yes
Courtenay Return-It Depot	Comox Valley	Courtenay	Yes	No
Hornby Island Waste Mgmt Centre	Comox Valley	Hornby Island	Yes	No
Bings Creek Recycling Depot	Cowichan Valley	Duncan	Yes	Yes
Cowichan Valley Bottle Depot dba Island Return-It Recycling Centre - Cowichan Valley Bottle Depot	Cowichan Valley	Duncan	Yes	Yes
Fisher Road Recycling	Cowichan Valley	Cobble Hill	Yes	Yes
Junction Bottle Depot Ltd.	Cowichan Valley	Ladysmith	Yes	No

Meade Creek Recycling Drop-Off Depot	Cowichan Valley	Lake Cowichan	Yes	Yes
Peerless Road Recycling	Cowichan Valley	Ladysmith	Yes	Yes
RONA Building Centre (Cobble Hill)	Cowichan Valley	Cobble Hill	No	No
Cranbrook Bottle Depot	East Kootenay	Cranbrook	Yes	Yes
Fernie Bottle Depot	East Kootenay	Fernie	Yes	No
Invermere Fire Department	East Kootenay	Invermere	Yes	No
New & Nearly New	East Kootenay	Kimberley	Yes	No
RONA - Cranbrook Building Centre	East Kootenay	Cranbrook	No	No
RONA - Northstar Hardware	East Kootenay	Invermere	No	No
Nechako Bottle Depot	Fraser Fort George	Prince George	No	Yes
PG Recycling & Return-It Centre	Fraser Fort George	Prince George	Yes	No
RONA - Capital Building Supplies	Fraser Fort George	Prince George	No	No
Valemount Recycling Centre	Fraser Fort George	Valemount	Yes	No
Victory Building Center - Mackenzie	Fraser Fort George	Mackenzie	No	No
Abbotsford Bottle Depot	Fraser Valley	Abbotsford	No	Yes
Abbotsford Mission Recycling Depot (Abbotsford Community Services)	Fraser Valley	Abbotsford	Yes	Yes
Aldergrove Return-It	Fraser Valley	Aldergrove	Yes	Yes
Chilliwack Bottle Depot	Fraser Valley	Chilliwack	No	Yes
Mission Recycle Center Ltd.	Fraser Valley	Mission	Yes	No
Mission Recycling Depot	Fraser Valley	Mission	Yes	Yes
R&T Bottle Depot	Fraser Valley	Abbotsford	Yes	No
Regional Recycling - Abbotsford	Fraser Valley	Abbotsford	Yes	Yes
RONA Home Centre (Chilliwack)	Fraser Valley	Chilliwack	No	No
RONA Home Centre (Clearbrook)	Fraser Valley	Abbotsford	No	No
RONA Home Centre (Hope)	Fraser Valley	Норе	No	No
Sardis Bottle Depot	Fraser Valley	Chilliwack	Yes	No
District of Stewart	Kitimat Stikine	Stewart	Yes	No
Hazelton Bottle Depot (was New Hazelton Bottle)	Kitimat Stikine	New Hazelton	Yes	No
Kitimat Recycling Depot (KUTE)	Kitimat Stikine	Kitimat	Yes	No
Lakelse Holdings Ltd.	Kitimat Stikine	Terrace	Yes	Yes
Beaverdell Landfill	Kootenay Boundary	Beaverdell	Yes	Yes
Grand Forks Regional Landfill	Kootenay Boundary	Grand Forks	Yes	Yes
McKelvey Creek Landfill	Kootenay Boundary	Trail	Yes	Yes
Trail Bottle Depot	Kootenay Boundary	Trail	Yes	No
West Boundary Regional Landfill	Kootenay Boundary	Greenwood	Yes	Yes
Agassiz Bottle Depot	Metro Vancouver	Agassiz	Yes	Yes
Biggar Bottle Depot	Metro Vancouver	Port Coquitlam	No	Yes
Bridgeview Return-It	Metro Vancouver	Surrey	Yes	No
Burnaby Recycling Depot	Metro Vancouver	Burnaby	No	Yes

Coquitlam Return-It Depot	Metro Vancouver	Coquitlam	Yes	No
Coquitian Transfer Station (Wastech)	Metro Vancouver	Coquitlam	Yes	Yes
East Hastings Bottle Depot	Metro Vancouver	Burnaby	Yes	Yes
East Van Bottle Depot	Metro Vancouver	Vancouver	No	Yes
Edmonds Return-It Depot	Metro Vancouver	Burnaby	Yes	Yes
Fleetwood Bottle Return Depot Ltd.	Metro Vancouver	Surrey	No	No
Go Green Depot & Recycling	Metro Vancouver	Vancouver	No	No
Guildford Bottle Depot	Metro Vancouver	Surrey	Yes	No
Ironwood Bottle & Return-it Depot	Metro Vancouver	Richmond	Yes	No
Jenill Bottle Depot	Metro Vancouver	Surrey	Yes	Yes
Joe's Bottle Depot	Metro Vancouver	Vancouver	No	No
Kitchener Bottle Depot Ltd.	Metro Vancouver	Burnaby	Yes	No
Ladner Bottle Depot	Metro Vancouver	Delta	No	No
Langley Bottle Depot	Metro Vancouver	Langley	Yes	Yes
Lee's Bottle Depot	Metro Vancouver	Burnaby	No	No
Lougheed Return-It Depot	Metro Vancouver	Coquitlam	Yes	No
		New		
Lowe's - New Westminster	Metro Vancouver	Westminster	No	No
New Westminster Recycling	Metro Vancouver	New Westminster	No	No
Newton Bottle Depot	Metro Vancouver	Surrey	Yes	No
North Shore Bottle Depot	Metro Vancouver	North Vancouver	Yes	No
North Van Bottle Depot	Metro Vancouver	North Vancouver	Yes	Yes
North Van. Transfer Station	Metro Vancouver	North Vancouver	No	Yes
Panorama Village Return-it	Metro Vancouver	Surrey	Yes	No
Powell Street Return-it Bottle Depot	Metro Vancouver	Vancouver	Yes	No
Regional Recycling - Burnaby	Metro Vancouver	Burnaby	Yes	Yes
Regional Recycling - Cloverdale	Metro Vancouver	Surrey	Yes	Yes
Regional Recycling - Richmond	Metro Vancouver	Richmond	Yes	Yes
Regional Recycling - Vancouver	Metro Vancouver	Vancouver	Yes	Yes
Richmond Recycling Depot	Metro Vancouver	Richmond	No	Yes
Ridge Meadows Recycling Society	Metro Vancouver	Maple Ridge	Yes	Yes
RONA - BH Allen Building Centre	Metro Vancouver	North Vancouver	No	No
RONA - Mack Foster (Richmond)	Metro Vancouver	Richmond	No	No
RONA Home & Garden (Grandview)	Metro Vancouver	Vancouver	No	No
RONA Home Centre (Austin)	Metro Vancouver	Coquitlam	No	No
RONA Home Centre (Burnaby - Edmonds)	Metro Vancouver	Burnaby	No	No
RONA Home Centre (Coquitlam)	Metro Vancouver	Coquitlam	No	No
RONA Home Centre (Fleetwood)	Metro Vancouver	Surrey	No	No
RONA Home Centre (King George)	Metro Vancouver	Surrey	No	No
RONA Home Centre (Kingsway)	Metro Vancouver	Vancouver	No	No

RONA Home Centre (Maple Ridge)	Metro Vancouver	Maple Ridge	No	No
RONA Home Centre (North		Maple Mage	NO	
Vancouver)	Metro Vancouver	North Vancouver	No	No
RONA Home Centre (South Surrey)	Metro Vancouver	Surrey	No	No
Scott Road Bottle Depot	Metro Vancouver	Surrey	No	Yes
Semiahmoo Bottle Depot	Metro Vancouver	Surrey	No	No
South Van Bottle Depot	Metro Vancouver	Vancouver	Yes	Yes
Tsawassen Bottle Depot	Metro Vancouver	Delta (Tsawwassen)	Yes	No
Vancouver West bottle depot	Metro Vancouver	Vancouver	Yes	No
Walnut Grove Bottle Depot	Metro Vancouver	Langley	Yes	No
White Rock Return-It Depot	Metro Vancouver	Surrey	Yes	Yes
Willowbrook Recycling Depot	Metro Vancouver	Langley	No	No
Malcolm Island Recycling Centre	Mt. Waddington	Sointula	Yes	No
Port Hardy Return-it Centre	Mt. Waddington	Port Hardy	Yes	Yes
RONA - RA Rosback (Alert Bay)	Mt. Waddington	Alert Bay	No	No
RONA - RA Rosback(Port McNeill)	Mt. Waddington	Port McNeill	No	No
Seven Mile Recycling Centre	Mt. Waddington	Port McNeill	Yes	Yes
Woss Recycling Depot	Mt. Waddington		Yes	No
Nanaimo Recycling Exchange Society	Nanaimo Regional District	Nanaimo	Yes	Yes
Parksville Bottle & Recycling Depot	Nanaimo Regional District	Parksville	Yes	Yes
Qualicum Bottle Depot	Nanaimo Regional District	Qualicum Beach	Yes	No
Regional Recycling - Nanaimo	Nanaimo Regional District	Nanaimo	Yes	Yes
Regional Recycling - Nanaimo (Old Victoria Road)	Nanaimo Regional District	Nanaimo	Yes	Yes
RONA Building Centre (Nanaimo)	Nanaimo Regional District	Nanaimo	No	No
Armstrong Collision	North Okanagan	Armstrong	Yes	No
Chasers Bottle Depot	North Okanagan	Vernon	Yes	Yes
Enderby Return-It Recycling Depot	North Okanagan	Enderby	Yes	No
Interior Freight & Bottle Ltd.	North Okanagan	Vernon	Yes	Yes
KBM Autoworks	North Okanagan	Lumby	Yes	No
RONA Home Centre (Vernon)	North Okanagan	Vernon	No	No
Wide Sky Disposal	Northern Rockies	Fort Nelson	Yes	Yes
Campbell Mountain Landfill	Okanagan Similkameen	Penticton	Yes	Yes
J&C Bottle Depot	Okanagan Similkameen	Penticton	Yes	Yes
Oliver Sanitary Landfill	Okanagan Similkameen	Oliver	Yes	No

Osoyoos Bottle Depot	Okanagan Similkameen	Osoyoos	Yes	No
RONA Home Centre (Penticton)	Okanagan Similkameen	Penticton	No	No
Summerland Bottle Depot	Okanagan Similkameen	Summerland	Yes	No
Summerland Landfill	Okanagan Similkameen	Summerland	Yes	Yes
T-2 Market	Okanagan Similkameen	Oliver	Yes	Yes
Town of Princeton	Okanagan Similkameen	Princeton	Yes	No
Chetwynd Recycling & Bottle Depot	Peace River	Chetwynd	Yes	Yes
D.C. Recycling & Bottle Depot	Peace River	Dawson Creek	Yes	Yes
FSJ Bottle Drop	Peace River	Fort St. John	Yes	Yes
Prespatou Transfer Station	Peace River	Prespatou	Yes	Yes
RONA Bulding Centre (Fort St. John)	Peace River	Fort St. John	No	No
Tumbler Ridge Transfer Station	Peace River	Tumbler Ridge	Yes	Yes
Augusta Recyclers Ltd.	Powell River Regional District	Powell River	Yes	Yes
RONA - Powell River Building Supply	Powell River Regional District	Powell River	No	No
Islands Regional Landfill Depot	Skeena-Queen Charlotte	Port Clements	Yes	No
Queen Charlotte City Depot	Skeena-Queen Charlotte	Queen Charlotte City	Yes	No
Regional Recycling - Prince Rupert (SQCRD)	Skeena-Queen Charlotte	Prince Rupert	Yes	Yes
RONA - Tyee Building Supplies	Skeena-Queen Charlotte	Prince Rupert	No	No
Carney's Waste Systems - Pemberton	Squamish Lillooet	Pemberton	Yes	Yes
Carney's Waste Systems - Squamish	Squamish Lillooet	Squamish	Yes	Yes
Carney's Waste Systems - Whistler	Squamish Lillooet	Whistler	Yes	No
Regional Recycling - Whistler	Squamish Lillooet	Whistler	Yes	Yes
RONA Home Centre (Squamish)	Squamish Lillooet	Squamish	No	No
RONA Home Centre (Whistler)	Squamish Lillooet	Whistler	No	No
RONA Pemberton Valley Hardware	Squamish Lillooet	Pemberton	No	No
SLRD Lillooet Landfill	Squamish Lillooet	Lillooet	Yes	Yes
Campbell River Bottle Depot dba Island Return It Recycling Centre - Campbell River	Strathcona	Campbell River	Yes	Yes
Campbell River Waste Management Centre	Strathcona	Campbell River	Yes	Yes
Cortes Island Recycling	Strathcona	Cortes Island	Yes	Yes
Village of Gold River	Strathcona	Gold River	Yes	Yes
Gibsons Recycling Depot	Sunshine Coast	Gibsons	Yes	Yes

GRIPS Recycling	Sunshine Coast	Pender Harbour	Yes	No
RONA Home Centre (Madeira Park)	Sunshine Coast	Madeira Park	No	No
Sechelt Landfill	Sunshine Coast	Sechelt	Yes	Yes
7No Mile House Eco-Depot	Thompson Nicola	7No Mile House	Yes	Yes
Barnhartvale Landfill	Thompson Nicola	Kamloops	No	No
Blue River Eco-Depot	Thompson Nicola	Blue River	Yes	Yes
Clearwater Eco-Depot	Thompson Nicola	Clearwater	Yes	Yes
Clinton Eco-Depot	Thompson Nicola	Clinton	Yes	Yes
Heffley Creek Eco-Depot	Thompson Nicola	Heffley Creek	Yes	Yes
Home Hardware - Merritt	Thompson Nicola	Merritt	No	Yes
Logan Lake Eco-Depot	Thompson Nicola	Logan Lake	Yes	Yes
Lorne Street Bottle Depot	Thompson Nicola	Kamloops	Yes	Yes
Louis Creek Eco-Depot	Thompson Nicola	Louis Creek	Yes	Yes
Lower Nicola Eco-Depot	Thompson Nicola	Lower Nicola	Yes	Yes
Lytton Eco-Depot	Thompson Nicola	Lytton	Yes	Yes
Merritt Machine Works Ltd.	Thompson Nicola	Merritt	Yes	No
Mission Flats Landfill	Thompson Nicola	Kamloops	Yes	Yes
Quality Glass Ltd.	Thompson Nicola	Ashcroft	Yes	No
RONA - North Valley Supply Ltd.	Thompson Nicola	Clearwater	No	No
RONA Home Centre (Kamloops)	Thompson Nicola	Kamloops	No	No
South Thompson Eco-Depot	Thompson Nicola	Pritchard	Yes	Yes
Starlite Auto Wrecking & Repair	Thompson Nicola	Sorrento	Yes	No

APPENDIX B. 2016 BC Paint and HHW Communications Materials



BC Paint 5x8 Rack Card – Front (left) and Back (right):

BC Paint Accepted Products Brochure:



BC Paint & HHW Accepted Products Brochure:

FAQs

- How do I store my products for later use? Store in original, securely-sealed, labelled containers.
- Store in well-ventilated areas, away from heat and ignition sources.
- Keep out of reach of children and pets.
- Paint can be stored for reuse. Clean the rim for a good seal. Pour 3mm (1/8") of paint thinner on top of oll-based paint, or 3mm (1/8") of water on latex paint, or store with container upside down.
- Paint thinner can be stored for reuse. Allow solids to settle and pour off the class know solids to settle and pour off the class thinner into an appropriate container for reuse. Discard the leftover residual when completely dry.

Are all products accepted at every collection location?

Some collection locations only accept specific products. Visit **ReGeneration.ca** to find the collection site nearest you and the products accepted at that

What happens to the collected products? Returned or leftover products are transported to an approved facility for processing, treatment, recycling, and proper disposal.

PaintReuse

Want FREE leftover paint for a small job or touch-up project?

Visit **ReGeneration.ca** to find your nearest collection site participating in the PaintReuse program.



Accepted Products

E O

Paint Products

- Maximum Container Size 25 Litres
- Interior and exterior: water-based (e.g. latex, acrylic) and oil-based (e.g. aikyd, enamel) consumer paint
 Deck and floor coating (including elastor
- eric) Varnish and urethane (single-component)
- Concrete and masonry paint
- Drywall paint
- Undercoats and primers (e.g. metal, wood, etc.)
- Stucco paint • Marine paint (unless registered under Pest
- Control Products Act) Wood finishing oli
- Melamine, metal and anti-rust paint, stain and shellac
- Swimming pool paint (single-component)
- Stain blocking paint
- Textured paint
- Block filler
- Wood, masonry, driveway sealer or water repellant (non-tar based or bitumen based
- Already empty paint container

Paint Aerosols

- Maximum container size is 660 grams or 24 ou All paint aerosols are accepted
- Consumer
- Industrial
- Automotive





About Us

Who is ReGeneration?

Who is Resenteration? A four core, we are a group of people committed to making the recycling of special waste easy for everyone. **Receneration** provides consumers with a no-charge collection network for a number of special waste products, including paint, household hazardous materials, lights and light futures, smoke alarms, and more

Our programs help protect the environment by diverting leftover and end-of-life products from landfills and waterways.

How is the program funded?

Similar to other recycling programs in B.C., this program is funded by an environmental handling fee applied to the sale of new products to cover the cost of collection, transportation, and recycling





ReGeneration c 1.888.772.9772 - Toll Free 604.732.9253 - Lower Mainland

Flammable Liquids Flammable liquids and aerosols must display the flammable symbol. ۲ Maximum container size for flammab liquids is **10 litres**; maximum size for aerosols is **660 grams** or **24 ounces**. Acetone **BBQ lighter fluid**

Camping fuel

- Fondue fuel
- Furniture stripper
- Kerosene
- Flammable degreasers, lubricants, and liquid adhesives
- Flammable fuel treatment and additives
- Methanol and methyl hydrate Mineral spirits
- Paint stripper and thinners Paint and varnish remover
- Turpentine and varsol
- Other flammable solvents

Pesticides

Consumer pesticides must have the poison symbol (skull and crossbones), the Pest Control Product (PCP) number and the word "domestic" on the label. . Maximum container size for liquid and solid pesticide 10 litres; maximum size for aerosols is 660 grams or 24 ounces

Liquid and solid pesticides

Aerosol containers

Gasoline

Gasoline will be accepted only in an approved ULC container. For safety reasons, the gasoline container cannot be returned to the consumer at drop off. Ĭ Maximum container size is 25 litres

 Leftover, stale, or old gasoline contaminated with oil or water

Got leftover household paint, flammable liquids, pesticides or gasoline?



Drop them off FOR FREE at a collection site near you!



Not Accepted

mmercial, industrial, or agricultural products rep*t industrial aerosols)* Identifiable, unknown, or unlabelled

products Leaking or improperly sealed products Non-aerosol automotive paint Non-aerosol craft paint Ouick drying or line marking paint Caulking compound Two-part or component paint containing catalyst or activator Brundse zone and rollers

cataryst of activator Brushes, rags, and rollers Roof patch or repair tars and grease Non-flammable glue and adhesive Diesel, propane, or butane fuels Insect repellants, disinfectants, and pet products

Cosmetic products Fertilizer

Thing to Know

We don't accept empty containers, other than empty paint cans or aerosols Products must be in their original container with label intact

Container must be tightly sealed Gasoline must be returned in an approved ULC gasoline container Do not mix different types of products together

BC Paint Retail Floor Decal:



BC Paint Outdoor Collection Site Signage:



Accepted Paints

All containers must be properly sealed, labelled, and in original container. Full, partially full, and empty containers are accepted.

- Interior and exterior: water-based (e.g. latex, acrylic) and oil-based (e.g. alkyd, enamel) consumer paint
- Deck and floor coating (including elastomeric)
- Varnish and urethane (single-component) Concrete and masonry paint
- Drywall paint
- Undercoats and primers (e.g. metal, wood etc.)
- Stucco paint
- Marine paint (unless registered under Pest Control Products Act)
- Wood finishing oil
- Melamine, metal and anti-rust paint, stain and shellac
- Swimming pool paint (single-component)
- Stain blocking paint
- Textured paint
- Block filler
- Wood, masonry, driveway sealer or water repellant (non-tar based or bitumen based
- Already empty paint containers

Paint Aerosols

Aerosol paint of all types, including:

- Automotive
- Craft
- Industrial

ReGeneration.ca



- **Paint products** not accepted
- Unidentifiable or unlabelled containers
- Brushes, rags and rollers
- Paint in glass containers
- Improperly sealed paint containers
- Paint containers with poor integrity (e.g. badly rusted or leaking cans)
- Bulging containers
- Industrial paints & finishes (e.g. baked-on, heat resistant etc.)
- Paints or wood preservatives that are registered as a pesticide under the Pest Control Products Act (has a PC.P. Registration number on label) Craft paint (non-aerosol)
- Automotive paint (non-aerosol)
- Two-part or component paints containing catalyst or activator
- Roof patch or repair
- Tar or tar/bitumen-based products
 Traffic or line marking paint
- Quick drying paint
- Resins
- Paint thinner, mineral spirits or solvents
- Deck cleaners
- Colorants and Tints
- Caulking compound, epoxies, glues or adhesives
- Other household chemicals

Product Care

BC Paint & HHW Outdoor Collection Site Signage:



PAINT PRODUCTS

- Interior and exterior: water-based (e.g. latex, acrylic) and oil-based (e.g. alkyd, enamel) consumer paint
 Swimming pool paint
- Deck and floor coating
- (including elastomeric) Varnish and urethane
- Concrete and masonry paint
- Undercoats and primers
 (e.g. metel west
- (e.g. metal, wood etc.)
- Stucco paint
- Marine paint (unless registered
- under Pest Control Products Act)

PAINT AEROSOLS

Aerosol paint of all types, including:

- Automotive
- Craft
- Industrial



or bitumen based)

Already empty paint containers



FLAMMABLE LIQUIDS

Maximum container size for flammable liquids is **10 litres**; maximum size for aerosols is **660 grams** or **24 ounces**.

PESTICIDES

Maximum container size for liquid and solid pesticides is **10 litres**; maximum size for aerosols is **660 grams** or **24 ounces** Consumer pesticides must have the poison symbol (skull and crossbones), the Pest Control Product (PCP) number, and the word "Domestic" on the label.

- Liquid and solid pesticides
- Aerosol containers

GASOLINE

• Leftover, stale, or old gasoline contaminated with oil or water

Product Care

- Melamine, metal and anti-rust paint, stain and shellac
 Acetone
 Flammable symbol.

 Swimming pool paint
 BBQ lighter fluid
 additives

 (single-component)
 Camping fuel
 Methanol and methyl hydrate

 Stain blocking paint
 Fondue fuel
 Mineral spirits

 Textured paint
 Furniture stripper
 Paint stripper and thinners

 Block filler
 Kerosene
 Paint and varnish remover

 Wood, masonry, driveway sealer or water repellant (non-tar based)
 Flammable degreasers, or blubricants, and liquid adhesives
 Other flammable solvents

APPENDIX C. 2016 BC Paint and HHW Audited Financial Statements

PRODUCT CARE ASSOCIATION BC PAINT AND HOUSEHOLD HAZARDOUS WASTE PROGRAM

STATEMENT OF REVENUES AND EXPENSES

31 DECEMBER 2016



PRODUCT CARE ASSOCIATION BC PAINT AND HOUSEHOLD HAZARDOUS WASTE PROGRAM Statement of Revenues and Expenses For the year ended 31 December 2016

Contents

Independent Auditors' Report	
Statement of Revenues and Expenses	4
Notes to the Statement of Revenues and Expenses	5 - 6





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: BC Ministry of Environment,

As required the British Columbia Environmental Management Act, Recycling Regulation 8(2)(f)(ii), we have audited the Statement of Revenues and Expenses of the BC Paint and Household Hazardous Waste Program (the "Statement") as reported by Product Care Association for the year ended 31 December 2016 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 BC Paint and Household Hazardous Waste Program as reported by Product Care Association for the year ended 31 December 2016 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's management and the BC Ministry of Environment. As a result, the report may not be suitable for another purpose. Our report is intended solely for Product Care Association's management and the BC Ministry of Environment and should not be distributed to other parties.

Holfe, Benson LLP

CHARTERED PROFESSIONAL ACCOUNTANTS

Vancouver, Canada 10 April 2017



PRODUCT CARE ASSOCIATION BC PAINT AND HOUSEHOLD HAZARDOUS WASTE PROGRAM

Statement of Revenues and Expenses

For the year ended 31 December 2016

	2016
Revenues	\$ 7,126,841
Program expenses	
Processing	3,978,396
Collection	1,566,203
Transportation	1,085,822
Adminstration (Note 2(b) & (d))	866,845
Communications	262,714
	7,759,980
Deficiency of revenues over expenses for the year	\$ (633,139)

Commitment (Note 3)

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



PRODUCT CARE ASSOCIATION BC PAINT AND HOUSEHOLD HAZARDOUS WASTE PROGRAM Notes to the Statement of Revenues and Expenses For the year ended 31 December 2016

1. Basis of Presentation

The Statement of Revenues and Expenses (the "Statement") only includes the revenues and expenses related to the BC Paint and Household Hazardous Waste Program (the "Program"), a segment of the operations of Product Care Association (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 ("EHF") are received from members of the BC Paint and Household Hazardous Waste Program. 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. EHF revenues are recognized as individual members report and remit them as required by applicable provincial environmental legislation.

(b) Capital Assets

Capital assets are recorded at cost. The Association provides for amortization using the straightline method at rates designed to amortize the cost of the capital assets over their estimated useful lives. The annual amortization rates are as follows:

Depot equipment 3 and 5 years

Included in administration expense is \$121,715 of amortization expense.

(c) Use of Estimates

The preparation of financial statements in accordance with Canadian accounting standards for notfor-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 significant estimates include revenue accruals, expense accruals, depreciation, overhead allocation and processing commitment. 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 this Program. The allocation of general and administrative expenses to this 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 \$488,946 of overhead expense allocated to the Program.



PRODUCT CARE ASSOCIATION BC PAINT AND HOUSEHOLD HAZARDOUS WASTE PROGRAM Notes to the Statement of Revenues and Expenses For the year ended 31 December 2016

3. Processing Commitment

At year end, the Association had unprocessed program materials on hand related to the Program with an estimated cost to process, transport and recycle of \$4,088 which will be incurred in 2017.



APPENDIX D. 2016 Third Party Assurance Statement for Non-Financial Information

PRODUCT CARE ASSOCIATION OF CANADA

.

INDEPENDENT REASONABLE ASSURANCE REPORT

31 DECEMBER 2016



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

INDEPENDENT REASONABLE ASSURANCE REPORT

To the Directors of Product Care Association of Canada,

We have been engaged by Product Care Association of Canada (the "Association") to perform a reasonable assurance engagement in respect of the following information (the "Selected Information"), detailed in Appendix 1, and also included within the Association's Annual Report for the BC Paint and Household Hazardous Waste Program to the Ministry of Environment for the year ended 31 December 2016:

- Section 4 Collection System Information and Appendix A the location of collection facilities, and any changes in the number and location of collection facilities from the previous report in accordance with Section 8(2)(b) of BC Regulation 449/2004 (the "Recycling Regulation");
- Section 6 Pollution Prevention Hierarchy and Product/Component Management the description of how the recovered product was managed in accordance with the pollution prevention hierarchy under Section 8(2)(d) of the Recycling Regulation;
- Section 7 Product Sold and Collected and Recovery Rate the description of how total amounts of the producer's product sold and collected and the recovery rate has been calculated in accordance with Section 8(2)(e) of the Recycling Regulation; and
- Section 9 Performance Targets the description of performance for the year in relation to targets in the approved stewardship plan under Section 8(2)(b), (d) and (e) of the Recycling Regulation.

Our reasonable assurance engagement does not constitute a legal determination on the Association's compliance with Sections 8(2)(b), (d) and (e) of the Recycling Regulation.



Responsibilities

Preparation and fair presentation of the Selected Information in accordance with the evaluation criteria as listed in Appendix 1 is the responsibility of the Association's management. Management is also responsible for such internal control as management determines is necessary to enable the preparation of the Selected Information such that it is free from material misstatement. Furthermore management is responsible for preparation of suitable evaluation criteria in accordance with the Guide to Third Party Assurance Requirements for Non-Financial Information in Annual Reports – 2016 Reporting Year dated March 2017 as specified by the Director under section 8(2)(h) of the Recycling Regulation of the Province of British Columbia. The Ministry of Environment has granted the Association certain exemptions from these guidelines.

Our responsibility is to express an opinion on the Selected Information based on the procedures we have performed and the evidence we have obtained.

Evaluation Criteria

The evaluation criteria presented in Appendix 1 are an integral part of the Selected Information and address the relevance, completeness, reliability, neutrality and understandability of the Selected Information.

Scope of the Assurance Procedures

We carried out our reasonable assurance engagement in accordance with the International Standard on Assurance Engagements 3000 (ISAE 3000) published by the International Federation of Accountants. This Standard requires that we comply with independence requirements and plan and perform the engagement to obtain reasonable assurance about whether the Selected Information is free of material misstatement.

A reasonable assurance engagement includes examining, on a test basis, evidence supporting the amounts and disclosures within the Selected Information. The procedures selected depend on our judgement, including the assessment of the risks of material misstatement in the Selected Information due to omissions, misrepresentations and errors. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the Selected Information in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing a conclusion on the effectiveness of the entity's internal control. A reasonable assurance engagement also includes assessing the evaluation criteria used and significant estimates made by management, as well as evaluating the overall presentation of the Selected Information. The main elements of our work were:

- Gain an understanding of the data collection, monitoring and reporting processes through inquiries of management;
- Testing the processes, documents and records on a sample basis;
- Re-calculating quantitative data on a sample basis as it pertains to the Selected Information;
- Ensuring the Selected Information is presented consistently in the Annual Report.

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



Inherent Limitations

Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the Selected Information and the methods used for determining and calculating such information. Qualitative interpretations of relevance, materiality and the accuracy of data are subject to individual assumptions and judgments. Furthermore, the nature and methods used to determine such information, as well the evaluation criteria and the precision thereof, may change over time. It is important to read our report in the context of evaluation criteria.

Conclusion

In our opinion, the Selected Information within Product Care Association of Canada's Annual Report for the BC Paint and Household Hazardous Waste Program for the year ended 31 December 2016 presents fairly in accordance with the evaluation criteria listed in Appendix 1, in all material respects:

- the location of collection facilities, and any changes in the number and location of collection facilities from the previous report in accordance with Section 8(2)(b) of the Recycling Regulation;
- the description of how the recovered product was managed in accordance with the pollution prevention hierarchy under Section 8(2)(d) of the Recycling Regulation;
- the description of how total amounts of the producer's product sold and collected and, if applicable, the producer's recovery rate has been calculated in accordance with Section 8(2)(e) of the Recycling Regulation; and
- the description of performance for the year in relation to targets in the approved stewardship plan under Section 8(2)(b), (d) and (e) of the Recycling Regulation.

Emphasis of Matter

Without qualifying our opinion, the following should be noted regarding the information contained in the Annual Report:

- 1. The Selected Information in Section 6 Pollution Prevention Hierarchy and Product/Component Management includes information related to the disposition of hazardous waste. The product management of hazardous waste is a multi-step process and shipments are tracked on government manifests. Shipments to the primary processor do not indicate the final treatment of products as this takes place at a secondary processor. Materials are comingled at the primary processor before being shipped to a secondary processor. Sample hazardous waste manifests indicating the expected disposition of products for shipments from the primary to secondary processors were obtained from 1 of the 3 hazardous waste primary processors. The final disposition of products shipped to the 2 processors where hazardous waste manifests were not available is based on questionnaire responses from these processors. As such, there is uncertainty surrounding the Selected Information contained in the Pollution Prevention Hierarchy section of Appendix 1 as it pertains to hazardous waste.
- 2. The Selected Information included in Section 7 specifically relating to Product Sold is based on selfreported member data. During the 2016 fiscal year, the Association performed internal member audits of 22 of the 156 members of the program and as such, the product sold data presented is subject to uncertainty.
- 3. Performance targets relating to container capacity volume have been excluded from the Selected Information in Section 8 Performance Targets as container capacity volume is not included in Section 8(2)(b), (d) and (e) of the Recycling Regulation and therefore has not been included in our reasonable assurance engagement.





4. As noted in the Responsibilities section of the audit report, the Association is required to prepare suitable evaluation criteria in accordance with the Guide to Third Party Assurance Requirements for Non-Financial Information in Annual Reports – 2016 Reporting Year dated March 2017. For the 2016 reporting year, The Ministry of Environment has granted the Association an exemption from adopting the definition of reuse, recycling, material and energy recovery, landfill, final disposition and primary service provider as defined in SPE-890-15 - A Guideline for Accountable Management of End-of-life Materials.

Other Matter

Our report has been prepared solely for the purposes of management's stewardship under the Recycling Regulation and is not intended to be and should not be used for any other purpose. Our duties in relation to this report are owed solely to the Association, and accordingly, we do not accept any responsibility for loss occasioned to any other party acting or refraining from acting based on this report.

Alfe, Benson LLP

CHARTERED PROFESSIONAL ACCOUNTANTS

Vancouver, Canada 27 June 2017



Appendix 1

Evaluation Criteria

Collection facilities

Specific disclosures in the annual stewardship rep	ort for which evaluation criteria were developed
Disclosure per Annual Report	Reference
Total number of collection facilities – 219	Section 4 Collection Systems Information - Table 1: Paint and Paint Plus Contracted Collection Sites, 2015 and 2016 on page 11; and:
	Appendix A. Collection Site List as of December 31, 2016 (by Reginal District) on pages 25-31
"As of December 31, 2016, PCA contracted with 219 permanent collection sites in British Columbia to provide convenient locations for consumers to drop off unwanted Program Products, an increase from 216 collection sites in the prior year."	Section 4 Collection Systems Information - on page 10
"The Program's system included 219 contracted collection sites, with 3 Paint sites and 3 Paint Plus sites added in 2016 and 3 Paint sites removed, representing a net increase of 3 sites from 2015."	

The following evaluation criteria were applied to the assessment of the location of collection facilities, and any changes in the number and location of collection facilities from the previous report in accordance with Section 8(2)(b) of the Recycling Regulation:

- "Collection facilities" are depots that have a signed contract with the Association for the collection of program materials during the reporting period: 1 January 31 December 2016.
- The Association maintains a listing of all collection facilities for the program, including the location of the collection facility, the total of which agrees to the number of collection facilities as disclosed in the Annual Report.
- Collection facilities have a signed contract with the Association, a physical location that is available to collect program materials, and the staff of the facility has an adequate understanding of the program.
- One day collection events are excluded from the listing of collection facilities.
- The change in number of collection facilities is calculated by comparing the current number of collection facilities, a sum of all the collection facilities that have a signed contract within a given reporting year and those that closed within the same reporting year, to the number of collection facilities reported in the prior reporting year.



Pollution prevention hierarchy

Pollution prevention hierarchy Specific disclosures in the annual stewardship report for w	hich evaluation criteria were developed
Disclosure per Annual Report	Reference
"PCA endeavours to manage collected products in accordance with the "pollution prevention hierarchy". This section details the measures that PCA follows with respect to each product category based on information provided by downstream processors, where available."	Section 6 Pollution Prevention Hierarchy and Product/Component Management - on page 14, footnote 1 on page 14 and footnote 3 on page 15
"The information detailed in this section was verified based on processor questionnaires or site visits of the various processors and the review of final disposition as indicated on hazardous waste manifests as applicable. However, there is greater confidence in the end fate of hazardous wastes given the framework of regulatory requirements governing hazardous materials and commensurate oversight by various environmental departments and agencies."	
"Shipment records evidencing the management of program product may include Certificates of Disposal, bills of lading or processor invoices and the review of final disposition as indicated on hazardous waste manifests as applicable. Shipment records evidencing the management of metal and plastic containers may include bills of lading, scale tickets or processor invoices."	
Material: All Paint Excluding Aerosol (Paint Exchange) End fate: Reuse – 2.81%	Section 6 Pollution Prevention Hierarchy and Product/Component Management - on page 15 and footnote 2 on page 15
"Reusable paint is given away at no charge through the Paint Exchange program to members of the public and non-profit organizations to be used for its originally intended purpose."	
"Based on monthly reports provided by collection sites, approximately 2.81% of the total volume of paint collected in 2016 was reused through the Paint Exchange program, up from 2.5% in 2015."	
"Based on the estimate of paint containers being 75% full and compared against total recovery volumes."	
Material: Latex Paint (Excluding Paint Exchange) End fate: Recycling – 81%, Energy Recovery – 2% and Landfill – 17%	Section 6 Pollution Prevention Hierarchy and Product/Component Management – Table 5: Program Product End Fate (Excluding Paint Exchange) 2016 on page 17
"PCA utilizes a number of options for latex (water-based) paint recycling. High grade recyclable water-based paint is reprocessed into paint and coatings products. The lower grade recyclable paint (i.e., paint that is not suitable for paint to paint recycling) is used as a raw material in the	Section 6 Pollution Prevention Hierarchy and Product/Component Management - on pages 15 and 16



manufacturing of concrete products (blocks, barriers, etc.)."	
"According to shipment records, approximately 81% of the latex paint sent to downstream processors by the Program in 2016 was recycled utilizing one of the two options listed above."	
"According to shipment records, 2% of the latex paint sent to downstream processors was used as a fuel in 2016."	
"According to shipment records, 17% of unrecyclable latex paint and lower grade recyclable paint was solidified and diverted to a secure landfill in 2016."	
Material: Alkyd Paint (Excluding Paint Exchange) End fate: Energy recovery – 100%	Section 6 Pollution Prevention Hierarchy and Product/Component Management – Table 5: Program Product End Fate (Excluding Paint Exchange) 2016 on page 17
"According to shipment records, 100% of the oil-based paint shipped to downstream processors from the consolidation facility in 2016 went to hazardous waste management companies who then sent the paint to permitted/licensed facilities to be used for alternative energy recovery."	Section 6 Pollution Prevention Hierarchy and Product/Component Management - on pages 15 and 16
Material: Flammable Liquids End Fate: Energy recovery – 100%	Section 6 Pollution Prevention Hierarchy and Product/Component Management – Table 5: Program Product End Fate (Excluding Paint Exchange) 2016 on page 17
"According to shipment records, 100% of the flammable liquids shipped from the consolidation facility to downstream processors in 2016 went to a hazardous waste management company who then sent them to permitted/licensed facilities to be used for alternative energy recovery."	Section 6 Pollution Prevention Hierarchy and Product/Component Management - on page 16
Material: Pesticides End Fate: Incineration – 100%	Section 6 Pollution Prevention Hierarchy and Product/Component Management – Table 5: Program Product End Fate (Excluding Paint Exchange) 2016 on page 17
"According to shipment records, 100% of pesticide products shipped from the consolidation facility to downstream processors in 2016 went to a hazardous waste management company who then sent them to permitted/licensed facilities for incineration."	Section 6 Pollution Prevention Hierarchy and Product/Component Management - on page 16
Material: Gasoline End Fate: Energy recovery – 100%	Section 6 Pollution Prevention Hierarchy and Product/Component Management – Table 5: Program Product End Fate (Excluding Paint Exchange) 2016 on page 17
"According to shipment records, 100% of the gasoline	



shipped from the consolidation facility to downstream	Section 6 Pollution Prevention Hierarchy
processors in 2016 went to a hazardous waste management	and Product/Component Management - on
company who then sent the gasoline to permitted/licensed	page 16
facilities to be used for alternative energy recovery."	
Material: Metal Containers	Section 6 Pollution Prevention Hierarchy
End fate:	and Product/Component Management –
Recycling - 100%	Table 5: Program Product End Fate
	(Excluding Paint Exchange) 2016 on page
	17
"Based on shipment records from the consolidation facility,	
100% of metal containers processed by the Program in 2016	Section 6 Pollution Prevention Hierarchy
from paint, flammable liquids, pesticides and gasoline were	and Product/Component Management - on
sent for metal recycling."	page 17
Material: #2 Plastic Containers	Section 6 Pollution Prevention Hierarchy
End fate:	and Product/Component Management –
Recycling - 100%	Table 5: Program Product End Fate
	(Excluding Paint Exchange) 2016 on page
	17
"According to shipment records, 100% of 5 gallon size #2	
HDPE plastic paint pails and gasoline containers shipped	Section 6 Pollution Prevention Hierarchy
from the consolidation facility to downstream processors	and Product/Component Management - on
were recycled in 2016. Furthermore, plastic containers from	page 17
pesticides and flammable liquids were sent for plastics	F-8
recycling."	
Material: #5 Plastic Containers	Section 6 Pollution Prevention Hierarchy
End Fate:	and Product/Component Management –
Energy recovery – 100%	Table 5: Program Product End Fate
	(Excluding Paint Exchange) 2016 on page
	17
"The Program managed 100% of plastic (polypropylene #5)	* 7
one US gallon size paint cans through energy recovery due to	Section 6 Pollution Prevention Hierarchy
the limited market demand for recycled polypropylene #5."	and Product/Component Management - on
the minicu market demand for recycled porypropyrone #5.	page 17
	Pu6v 1/

The following evaluation criteria were applied to the assessment of how the recovered product is managed in accordance with the pollution prevention hierarchy in accordance with Section 8(2)(d) of the Recycling Regulation:

- The Association maintains a listing of all products shipped to the primary processor which is supported by shipping documents or processor invoices.
- Shipments of non-hazardous waste are supported by shipping documents indicating the type and amount of product received.
- Shipments of hazardous waste flow through a multi-step processing environment. Shipments to the primary processor are supported by the applicable government manifest which does not include information on the expected disposition of product by the secondary processor. Shipments from the primary processor to the secondary processor are supported by the applicable government manifest which includes co-mingled materials from other sources and information on the expected disposition as completed by the consignee after receiving the shipment. Sample hazardous waste manifests indicating the expected disposition of products for shipments from the primary to secondary processors were obtained from 1 of the 3 hazardous waste primary processors. Information on



expected disposition from the other two processors is obtained through a processor questionnaire on product management.

- The processors provide information on product management in an annual questionnaire. Questionnaire responses were received from all of the processors used by the Program.
- The Association performs periodic site inspections for certain of the non-hazardous waste processors' facilities. Site inspection criteria have been developed to confirm the responses in the questionnaire provided by the primary processor. The initial site inspections for the non-hazardous waste processors were performed in 2015 and 2016 and subsequent site inspections will be performed on a rotating five year schedule.

Specific disclosures in the annual stewardship report for which evaluation criteria were developed	
Disclosure per Annual Report	Reference
Product Collected	Section 7 Product Sold and Collected and Recovery
Paint (non-aerosol) collected – 3,348,025 Litres	Rate – Table 7: Approximate Total Collected
	Volumes (residual recovery volume) for Paint,
Paint (aerosol) collected – 48,000 Litres	Paint Aerosols, Flammable Liquids and Pesticides
	(2015 v. 2016) on page 19
Flammable Liquids/Gasoline collected – 152,460	
Litres	
Pesticides collected – 27,768 Litres	
"Paint residual recovery volume was calculated	Section 7 Product Sold and Collected and Recovery
using a conversion factor of 117.66 litres per	Rate – Footnotes 5 - 8 on page 19
tubskid, based on the average volume generated per tubskid over the full year 2016 and adding the paint	
exchange volumes reported by collection sites	
which assumes that all containers collected are	
75% full."	
7570 Iuii.	
"Paint aerosol residual recovery volume was	
calculated using a conversion factor of 31.58 litres	
per tubskid, based on the average volume generated	
per tubskid over the full year 2016."	
"Flammable Liquids/Gasoline residual recovery	
volume was calculated using a conversion factor of	
175.32 litres per tubskid, based on the average	
volume generated per tubskid over the full year	
2016. This does not includes volume from	
flammable or pesticide aerosols."	
"Destinide maidual manufer valume was calculated	
"Pesticide residual recovery volume was calculated using a conversion factor of 119.23 litres per	
tubskid, based on the average volume generated per	
tubskid over the full year 2016."	
luoskiu over me ini year 2010.	

Product sold and collected and recovery rate



Product Sold	Section 7 Product Sold and Collected and Recovery
Paint (non-aerosol) sold -29,757,285 Litres	Rate - Table 9 – Approximate Sales, Residual
	Recovery Volume and Recovery Rates of Paint,
Paint (aerosol) sold – 1,135,520 Litres	Paint Aerosols, Flammable Liquids and Pesticides
	on page 20
Flammable Liquids/Gasoline sold – 2,757,483	
Litres	
Pesticides sold – 117,064 Litres	
"With regard to gasoline collection, members	Section 7 Product Sold and Collected and Recovery
report the number of gasoline stations, not volumes	Rate – on page 20
of gasoline sold. Therefore sales volumes (in litres)	
for gasoline are not available and are excluded	
from the flammable liquids/gasoline category."	
"Volumes reported as "Sales (litres)" are estimated	Section 7 Product Sold and Collected and Recovery
by converting units reported to PCA by its	Rate – Footnote 15 on page 20
members and applying the typical residual	
container volume for each EHF category."	
Recovery Rate	Section 7 Product Sold and Collected and Recovery
Recovery rate Paint (non-aerosol) – 11.25%	Rate - Table 9 – Approximate Sales, Residual
	Recovery Volume and Recovery Rates of Paint,
Recovery rate Paint (aerosol) – 4.23%	Paint Aerosols, Flammable Liquids and Pesticides
	on page 20
Recovery rate Flammable Liquids/Gasoline –	
5.53%	
Recovery rate Pesticides – 23.72%	

The following evaluation criteria were applied to the assessment of the description of how total amounts of the producer's product sold and collected and, if applicable, the producer's recovery rate has been calculated in accordance with Section 8(2)(e) of the Recycling Regulation:

Product Collected

- The Association maintains a listing of product collected by product category for the fiscal year which agrees to the amounts disclosed in the Annual Report.
- Each shipment of product collected is supported by documentation indicating the total units collected and the type of program materials collected which has been agreed upon by the shipper, receiver and carrier.
- The calculation of total litres of program materials collected is based on total units collected and converted to litres using the standard volume of containers used to collect the materials and the average litres of program materials collected from each container.

Product Sold

- The Association maintains a listing of product sold by product category for the fiscal year which agrees to the amounts disclosed in the Annual Report.
- The units of product sold per program category have been recalculated using the data included in the Association's audited financial statements.
- The calculation of total litres of program material sold is based on total units sold converted to litres based on the average volume of the most popular container sizes sold as provided by the Association's members.



• Units sold are determined based on self-reporting by each member of the Program. A key source of information in determining the accuracy of units sold and reported to the Program by members is the internal audit process carried out on sales data reported by individual members. The Association has performed 22 internal audits of its 156 members' sales data for the 2016 fiscal year.

Recovery Rate

• The calculation of the recovery rate has been performed accurately using the appropriate sources of information for product collected and product sold.

Performance targets		
Specific disclosures in the annual stewardship report for which evaluation criteria were developed		
Disclosure per Annual Report	Reference	
Collection System		
Target: Collection Sites	Section 9 Performance Targets – Table	
2016 Assertion –	11: Key Performance Targets and	
Target exceeded: 115 paint depots and 104 paint plus depots.	Outcomes – Target: Collection Sites	
	on pages 21 and 22	
Management of Collected Materials		
Target: Paint Reused	Section 9 Performance Targets – Table	
2016 Assertion –	11: Key Performance Targets and	
Target exceeded:	Outcomes – Target: Paint Reused on	
2.81% of paint collected was reused.	page 23	
Target: Latex (water-based) Paint Recycling	Section 9 Performance Targets – Table	
2016 Assertion –	11: Key Performance Targets and	
Target not met:	Outcomes – Target: Latex (water-	
81% of latex paint was recycled.	based) Paint Recycling on page 23	
2% was sent for energy recovery.		
17% was sent to a landfill.		
Target: Metal and #2 Plastic Container Recycling	Section 9 Performance Targets – Table	
2016 Assertion –	11: Key Performance Targets and	
Target met:	Outcomes – Target: Metal and #2	
100% of metal and #2 plastic paint containers were recycled.	Plastic Container Recycling on page	
	23	
Target: Plastic and Metal Gasoline Container Recycling	Section 9 Performance Targets – Table	
2016 Assertion –	11: Key Performance Targets and	
Target met:	Outcomes – Target: Plastic and Metal	
100% of plastic and metal gasoline containers were recycled.	Gasoline Container Recycling on	
· · · · · · · · · · · · · · · · · · ·	pages 24	

Performance targets

The following evaluation criteria were applied to the assessment of the description of performance for the year in relation to targets in the approved stewardship plan under Section 8(2)(b), (d) and (e) of the Recycling Regulation:

- All stewardship plan targets relating to Section 8(2)(b), (d) and (e) of the Recycling Regulation have been identified and reported on by management in the Annual Report.
- The description of progress against targets to date is supported by records of progress maintained by the Association.

