



# **Product Care Association** Paint and Household Hazardous Waste **Annual Report to the Director** 2015

**Submitted to: Director, Extended Producer Responsibility Programs** 

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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 provides the information required pursuant Section 8(2) of the Regulation for the period January 1 to December 31, 2015.

Products within plan	<ul> <li>Architectural paints and coatings (household); paint aerosols (consumer, industrial and automotive)</li> <li>Domestic pesticides</li> <li>Flammable liquids and aerosols</li> <li>Gasoline</li> </ul>
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 2015	
Part 2, section 8(2)(a)	Public Education Materials and Strategies	<ul> <li>Consumer awareness survey revealed 62% of BC adults were aware of a program to recycle paint and HHW.</li> <li>New Program website (ReGeneration.ca) with collection site finder launched.</li> <li>New point of sale and point of return materials developed and replenished, free of charge, upon request.</li> <li>Advertised through Yellow Pages digital campaign.</li> <li>Print ads published in 2015 municipal waste and recycling calendars.</li> <li>Digital "Keep BC Green" contest with The Vancouver Sun.</li> <li>Ran TV campaign with Global TV.</li> <li>Advertised on Z95.3 FM, Fairchild Radio 96.1 FM, Spice Radio 1200 AM, TSN 1040, Vista Radio and ReGeneration sponsorship of 103.5 QM/FM's Nat &amp; Drew Beat the Bank.</li> </ul>	

Regulatory Provision	Program Area	Summary of Activities in 2015
		<ul> <li>ReGeneration participated in events (e.g. BC Home &amp; Garden Show).</li> <li>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.</li> </ul>
Part 2, section 8(2)(b)	Collection System and Facilities	<ul> <li>Added a net total of 4 collection sites in 2015, for a total of 216 collection sites as of December 31, 2015.</li> <li>Of the 216 collection sites, 115 were paint-only and 101 were paint plus collection sites.</li> <li>20 collection events took place in 2015.</li> </ul>
Part 2, section 8(2)(c)	Product Environmental Impact Reduction, Reusability and Recyclability	<ul> <li>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.</li> <li>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.</li> </ul>
Part 2, section 8(2)(d)	Pollution Prevention Hierarchy and Product / Component Management	<ul> <li>Paint (Latex/Alkyd):         <ul> <li>Reuse: 2.5% of all paint collected by PCA was reused through the Paint Exchange program.</li> <li>Recycling: 79% of latex paint was recycled back into paint and coating products or used as a raw material in the manufacturing of concrete products.</li> <li>Energy recovery: 100% of alkyd paint and 7% of latex paint, was sent to energy recovery as an alternative energy source in permitted incinerators.</li> <li>Landfill: 14% of latex paint was sent to a landfill.</li> </ul> </li> <li>Paint containers:         <ul> <li>Recycling: 100% of metal containers and 100% of #2 plastic containers were recycled.</li> <li>Energy recovery: 98% of #5 plastic (polypropylene) containers were used as an alternative energy source in permitted incinerators.</li> </ul> </li> <li>Paint aerosols and containers:</li> </ul>

Regulatory Provision	Program Area	Summary of Activities in 2015	
		<ul> <li>Energy Recovery: 100% of paint aerosol residuals were sent to energy recovery as an alternative energy source in permitted incinerators.</li> <li>Recycling: 100% of paint aerosol containers were recycled.</li> <li>Flammables liquids and containers:         <ul> <li>Energy recovery: 100% of flammable liquids were sent to energy recovery as an alternative energy source in permitted incinerators.</li> <li>Recycling: 100% of flammable liquid containers were recycled.</li> </ul> </li> <li>Pesticides and containers:         <ul> <li>Incineration: 100% of pesticide residuals were sent for incineration at licensed facilities.</li> <li>Recycling: 100% of pesticide containers were recycled.</li> </ul> </li> <li>Gasoline and containers:         <ul> <li>Energy recovery: 100% of gasoline liquids were sent for energy recovery as an alternative energy source in permitted incinerators.</li> <li>Recycling: 100% of gasoline containers were recycled.</li> </ul> </li> </ul>	
Part 2, section 8(2)(e)		Recovery rates:	
, , , , , , , , , , , , , , , , , , , ,	Product Sold and Collected and Recovery Rate	<ul> <li>Paint, 11.0%</li> <li>Paint aerosols, 3.9%</li> <li>Flammable liquids/gasoline, 4.5%</li> <li>Pesticides, 21.7%</li> </ul>	
Part 2, section 8(2)(e.1)		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 "2015 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	2015 Target	2015 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.  2015 Target: 115 paint	Target exceeded:  • 115 paint collection sites  • 101 paint plus collection sites	PCA continues to expand the network as needed.	
	collection sites and 60 paint plus collection sites for a total of 175 collection sites.			
Paint Exchange Collection Sites	Track and report the number of collection sites offering Paint Exchange.	142 collection sites (66% 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: 7.9%  Target not met for aerosol paint:  • Paint (aerosol) collection volume increase: 3.6%	Continue to increase accessibility and awareness of collection sites across the Province.	
Flammable Liquids and Pesticides Collected	4% annual increase of total collected volumes (container capacity volume) for	Targets exceeded for flammable liquids/gasoline:	Continue to increase accessibility and awareness of	

	Key Performance Targets and Outcomes				
Program Area	2015 Target	2015 Performance	Strategies for Improvement		
	the flammable liquids and pesticides product categories	<ul> <li>Flammable         Liquids/Gasoline         collection volume         increase: 9.6%         Target not met for         pesticides:         <ul> <li>Pesticide collection             volume increase:             1.4%</li> </ul> </li> </ul>	collection sites across the Province.		
Pesticides Collected	Maintain pesticides collection volumes (container capacity volume) at 2011 baseline (69,638 L).	Target exceeded:  • Pesticide collection volume was 93,917 litres exceeding the 2011 volume by 24,279 litres.	N/A		
Paint Reused	Increase volume of paint being managed through reuse to 2.5% of paint collected by 2016.	On track to meet 2016 target:  • 2.5% of paint collected was reused.	N/A		
Latex (water-based) Paint Recycling	Maintain rate of 100% recycling of latex paint.	Target not met:  • 79% of latex paint was recycled.  • 7% was sent for energy recovery.  • 14% 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:	N/A		

Key Performance Targets and Outcomes				
Program Area	2015 Target	2015 Performance	Strategies for Improvement	
	#2 plastic paint containers.	100% of metal and     #2 plastic paint     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 designated products. The Program's member list may be viewed here: <a href="http://www.regeneration.ca/resources/member-list/">http://www.regeneration.ca/resources/member-list/</a>.

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, 2015.

# 3. Public Education Materials and Strategies

#### **Public Education Materials and Strategies**

PCA implemented a communication program to educate consumers in accordance with regulatory requirements. The following sections provide a summary of the communication and education efforts for 2015. PCA's connects with consumers through the consumer-facing brand "ReGeneration".

#### **Consumer Program Awareness**

In November of 2015, PCA commissioned research firm Vision Critical to conduct an awareness study for the Program in BC, polling 1,000 residents on their knowledge and habits related to recycling paint and HHW products. The survey revealed that 62% of BC residents are currently aware of a program for the recycling of paint and HHW, down from 66% in 2013. However, 65% of residents cited "take it to a recycling depot" as the most likely course of action they would pursue if they had leftover Program product.

#### Website

ReGeneration.ca includes 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 109,859 unique visitors utilized ReGeneration.ca during the 2015 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 2015, PCA redesigned and 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 2015 municipal waste and recycling calendars. In April 2015, ReGeneration, representing PaintRecycle, AlarmRecycle and LightRecycle, ran a 30-day digital contest with The

Vancouver Sun. The "Keep BC Green" Contest included a feature contest homepage on Vancouversun.com, an e-blast sent to the Vancouver Sun database (35,000 subscribers), social media shares to 90,000+ Twitter followers, and eight, quarter-page full color ads in the Vancouver Sun, with an added value of a complimentary quarter page ad in Westcoast Homes & Design.

#### **TV Campaign**

A six-month, Province-wide campaign with Global TV began to air on June 29, 2015 and ended on December 18, 2015. Community PSAs involving local talent voiced 15-second "infomercial" style spots educated viewers on paint and HHW recycling. Heavy rotation of 30-second traditional commercial spots aired on prime time during high viewership programming.

#### **Radio Campaign**

PCA ran several multi-lingual radio campaigns in 2015 to raise Program awareness and to promote the collection site finder.

- A 12 month campaign included brand sell tags, 30-second spots, digital take-overs, and sponsorship of a retro radio show, custom developed for ReGeneration aired in English on Z95.3 FM.
- A 4-week radio campaign of 30-second spots aired in Mandarin and Cantonese on Fairchild Radio 96.1 FM.
- An 8-week campaign of 30-second spots aired on Spice Radio 1200 AM in Hindi, Punjabi and English.
- PaintRecycle advertised on TSN 1040 Radio in June during the 2015 FIFA Women's World Cup, one of the most listened-to sporting broadcasts of the year. 30-second PaintRecycle radio ads were heard on both stations prior to the game, during the game, and as part of a post-game wrapup. PaintRecycle was also featured on the TSN 1040 Radio website via digital ads.
- AlarmRecycle advertised on Vista Radio's network of stations (Vancouver Island, BC North and BC South networks) to promote the Program for six weeks starting, September 7, 2015. 30-second radio ads were aired on 15 stations across BC, including in the following cities: Port Hardy, Courtenay, Powell River, Campbell River, Nanaimo, Duncan, Smithers, Vanderhoof, Prince George, 100 Mile House, Quesnel, Williams Lake, Nelson, Castlegar, and Grand Forks.
- ReGeneration sponsored 103.5 QM/FM's Nat & Drew Beat the Bank. Four times per day, listeners
  were invited to call the contest line for the chance to open QM/FM's virtual 'vault'. The
  sponsorship included a name mention in all produced promos and live liners, a name mention in
  the Daily Contest Plays, and a hot-link to regeneration.ca in QM/FM Listener Club E-newsletters
  and Beat the Bank Contest Web Listening on qmfm.com.

#### **Events**

ReGeneration pursued an aggressive program of event marketing. The Program was promoted through high-profile, high-traffic Vancouver events. ReGeneration was the official sponsor of Vancouver Pride Parade and attended events that included the BC Home & Garden Show, Party for the Planet, Vancouver Landfill Open House, Regional Recycling Richmond Environment Week, Car Free Days and the Provincial Exhibition in Armstrong BC. Knowledgeable ambassadors interacted with thousands of event-goers during the summer festival season and raised awareness about paint and HHW recycling.

Newly branded event materials were created to support this direct engagement program, and included signage and audience engagement tools like games and giveaways. A 10x20 foot ReGeneration billboard

was placed, for a period of one year starting January 2015, at one of our contracted collection sites in Fort James, BC.

ReGeneration sponsored the Vancouver Home & Design Show (October 22-25, 2015) by providing 8,000 reusable bags that were given to event goers, providing exposure to more than 39,000 consumers in attendance.

#### **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 Product Care programs and represented the ReGeneration consumer-facing brand at notable community events and festivals.

# 4. Collection Systems Information

As of December 31, 2015, PCA contracted with 216 permanent collection sites in British Columbia to provide convenient locations for consumers to drop off unwanted Program products, an increase from 212 collection sites in the prior year. Of the 216 locations, 115 were paint collection sites that only collected leftover paint products, including paint aerosols, and 101 were "paint plus" collection sites that collected paint products, as well as flammable liquids, pesticides and gasoline.

Table 1 provides a comparison of 2014 and 2015 collection site numbers and Table 2 lists the specific changes in the collection system in 2015. Table 3 lists the collection sites by Regional District. A complete list of collection sites as of December 31, 2015 is provided in Appendix A.

Table 1: Paint and Paint Plus Collection Sites, 2014 and 2015

Collection Site Type	2014	2015
Paint	119	115
Paint Plus	93	101
Total Permanent	212	216

**Table 2: Collection Site Changes in 2015** 

Collection Site Name	Location	Change from 2014
Regional Recycling Nanaimo (Old Victoria Road)	Nanaimo	New paint plus collection site
70 Mile House Eco-Depot	70 Mile House	New paint plus collection site
Blue River Eco-Depot	Blue River	New paint plus collection site
Thorsen Creek Recycling Depot	Bella Coola	New paint plus collection site
Prespatou Transfer Station	Prespatou	New paint plus collection site
East Hastings Bottle Depot	Burnaby	New paint plus collection site

Collection Site Name	Location	Change from 2014
Jenill Bottle Depot	Surrey	New paint plus collection site
Houston Bottle Depot	Houston	New paint plus collection site
Enderby Return-It Recycling Depot	Enderby	New paint collection site
Interior Freight and Bottle Depot	Vernon	Changed from paint to paint
		plus
Courtenay Return-It Depot	Courtenay	Changed from paint plus to
		paint
The Bargain Bin	Castlegar	CLOSED paint depot
RONA Home Centre Mission	Mission	CLOSED paint depot
RONA - GA Hardware Ltd.	Port Coquitlam	CLOSED paint depot
Super Save Bottle Depot	Clearwater	CLOSED paint depot
RONA – Salmon Arm	Salmon Arm	CLOSED paint depot

**Table 3: Summary of Collection Sites by Regional District in 2015** 

Regional District	Number of Collection Sites
Alberni-Clayoquot	3
Bulkley-Nechako	8
Capital	13
Cariboo	6
Central Coast	3
Central Kootenay	4
Central Okanagan	3
Columbia-Shuswap	5
Comox Valley	3
Cowichan Valley	7
East Kootenay	6
Fraser Fort-George	5
Fraser Valley	12
Kitimat-Stikine	4
Kootenay Boundary	6
Metro Vancouver	52
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	9
Strathcona	4
Sunshine Coast	4
Thompson-Nicola	19
Total	216

Product Care also supplements the collection system with a number of one day events, often in collaboration with a municipality or regional district. Product Care participated in 20 collection events in 2015. A list of collection events can be found in Table 4.

**Table 4: Collection Events in 2015** 

Date	Event Location
May 2, 2015	Sicamous
May 2, 2015	Merritt
May 3, 2015	Ashcroft
May 3, 2015	Galiano Island
May 8, 2015	Delta
May 12, 2015	Mission
May 23, 2015	Golden
May 23, 2015	Kitimat
May 23, 2015	New Hazelton
May 24, 2015	Terrace
June 5, 2015	Kamloops
July 4, 11, 18, 24-25 &	Sunshine Coast
August 1, 2015	
August 18, 2015	Mayne Island
September 12, 2015	Castlegar
September 13, 2015	Silverton
September 13, 2015	Creston
September 26, 2015	Golden
September 26, 2015	Nakusp
October 3, 2015	Chilliwack
October 17-18, 2015	Langley

# 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 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 or managing them in some way, when they are considered harmful for the environment, either from a human health or ecological perspective.

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

The manufacturing of paint continues to shift from solvent-based paints to water-based paints due to a number of factors, including:

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

Waterborne paints now make-up more than 90 percent of paint products on the market.

Tools used by PCA that may have an impact on product life cycle and reduction of environmental impact include:

- Variable EHFs paid to the Program by brand owners which increase with the size of the container.
- Promotion to the consumer of the "B.U.D." rule, i.e. Buy what you need, Use what you buy and Dispose of the remainder responsibly.
- Educating the consumer on the proper storage of leftover paint.
- Operation of a paint exchange program whereby leftover paint is made available to the public free of charge
- Research development into alternative management options for collected materials.

#### **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 2015 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.<sup>1</sup>

#### 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 2015, 142 depots participated in the Paint Exchange program, representing 66% of all depots. Users of the program included individuals, community organizations, theatres and anti-graffiti programs. Many participants obtained information about the Paint Exchange program through the RCBC Materials Exchange program.<sup>2</sup> Based on monthly reports provided by collection sites, approximately 2.5% of the total volume of paint collected in 2015 was reused through the Paint Exchange program. 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.

#### Recycling

Product Care utilizes a number of options for latex (water-based) paint recycling, including:

- Reprocessing leftover paint into paint and coatings products.
- Raw material in the manufacturing of concrete products (blocks, barriers, etc.).

<sup>&</sup>lt;sup>1</sup> The information detailed in this section was verified based on processor questionnaires or site visits of the various processors. 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.

<sup>&</sup>lt;sup>2</sup> http://www.rcbc.ca/services/materials-exchange

<sup>&</sup>lt;sup>3</sup> Based on the estimate of paint containers being 75% full and compared against total recovery volumes.

According to shipment records<sup>4</sup>, approximately 79% of the latex paint sent to downstream processors by the Program in 2015 was recycled utilizing one of the two options listed above.

#### **Energy Recovery**

Some latex paint cannot be recycled. A portion of the unrecyclable latex paint is used as an additive in the process of producing biomass fuel for licensed facilities that utilize alternative fuel, such cement kilns or incinerators. According to shipment records, 7% of the latex paint sent to downstream processors was used as a fuel in 2015.

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 consolidation facility in 2015 went to hazardous waste management companies who then sent the paint to permitted/licensed facilities to be used for alternative energy recovery.

Product Care 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.

#### **Secure Landfill**

Due to increased volumes and limited capacity of the downstream processors, not all unrecyclable latex paint was sent for energy recovery. As a result, a portion of unrecyclable latex paint was landfilled. According to shipment records, 14% of the latex paint sent from the consolidation facility to downstream processors was diverted to a secure landfill in 2015.

#### 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 2015 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 2015 went to a hazardous waste management

<sup>&</sup>lt;sup>4</sup> Shipment records evidencing the management of program product may include Certificates of Disposal, bills of lading or processor invoices. Shipment records evidencing the management of metal and plastic containers may include bills of lading, scale tickets or processor invoices.

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 2015 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 2015 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**

In 2015, the Program continued to meet program targets with respect to recycling plastic containers. 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 2015. 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 recycled approximately 2% of plastic (polypropylene #5) one US gallon size paint cans and managed the remaining 98% through energy recovery due to the limited market demand for recycled polypropylene #5.

Table 5: Program Product End Fate (Excluding Paint Exchange) 2015

Component	Recycling	Energy Recovery	Incineration	Landfill
Latex paint	79%	7%		14%
Alkyd paint		100%		
Flammable Liquids		100%		
Pesticides			100%	
Gasoline		100%		
Metal Containers	100%			
#2 Plastic Containers	100%			
#5 Plastic Containers	2%	98%		

# 7. Product Sold and Collected and Recovery Rate

#### **Product Collected**

Table 6 shows the tubskids (or tubskid equivalents) collected in BC, broken down by regional district.

Table 6: Tubskids<sup>5</sup> (or tubskid equivalents) Collected by Regional District (2015)

					Other
Regional District	Paint	Aerosols	Solvents	Pesticides	Aerosols
Alberni-Clayoquot	114	21	2	1	0
Bulkley-Nechako	116	18	0	0	1
Capital	2,862	98	107	41	37
Cariboo	202	28	2	1	0
Central Coast	13	1	0	0	0
Central Kootenay	298	14	5	1	0
Central Okanagan	994	45	27	6	7
Columbia-Shuswap	265	25	6	1	0
Comox	433	19	9	0	0
Cowichan Valley	710	79	45	26	15
East Kootenay	336	16	7	4	30
Fraser-Fort George	305	12	18	3	0
Fraser Valley	1,765	68	38	13	12
Kitimat Stikine	134	7	0	0	0
Kootenay Boundary	194	13	7	7	1
Metro Vancouver	13,633	440	404	81	59
Mt. Waddington	66	39	1	0	0
Nanaimo	1,278	103	48	19	12
North Okanagan	450	26	6	1	1
Northern Rockies	19	1	1	0	0
Okanagan-Similkameen	473	24	9	2	1
Peace River	288	18	2	1	1
Powell River	81	16	5	1	0
Skeena-Queen Charlotte	59	7	5	0	0
Squamish-Lillooet	333	20	8	0	1
Strathcona	203	127	11	1	2
Sunshine Coast	277	80	16	6	2
Thompson-Nicola	601	34	9	2	2
Total	26,502	1,399	798	217	185

<sup>&</sup>lt;sup>5</sup> 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.

Table 7 provides an overview of 2015 recovery volume for each product category. Table 8 contains information on the container capacity volume. 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 an over-pack container (tubskid or drum) that are 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)

Residual recovery volume (litres)	Paint (non-aerosol) <sup>6</sup>	Paint (Aerosol) <sup>7</sup>	Flammable Liquids/Gasoline <sup>8</sup>	Pesticides <sup>9</sup>
2015	3,187,396	43,977	130,457	24,910
2014	2,943,339	38,413	112,478	21,679

Table 8: Approximate Total Collected Volumes (container capacity volume) for Paint, Paint Aerosols, Flammable Liquids and Pesticides (2014 v. 2015)

Container capacity volume (litres) <sup>10</sup>	Paint (non-aerosol)	Paint Aerosol	Flammable Liquids/Gasoline <sup>11</sup>	Pesticides
2015	11,448,864	244,860	377,111	93,917
2014	10,611,994	236,285	344,010	92,578
2015 vs. 2014	7.9%	3.6%	9.6%	1.4%

#### **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 2015. The recovery rate is the amount of product collected 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

<sup>&</sup>lt;sup>6</sup> Paint residual recovery volume was calculated using a conversion factor of 120.27 litres per tubskid, based on the average volume generated per tubskid over the full year 2015 and adding the paint exchange volumes reported by collection sites which assumes that all containers collected are 75% full.

<sup>&</sup>lt;sup>7</sup> Paint aerosol residual recovery volume was calculated a conversion factor of using 31.43 litres per tubskid, based on the average volume generated per tubskid over the full year 2015.

<sup>&</sup>lt;sup>8</sup> Flammable Liquids/Gasoline residual recovery volume was calculated using a conversion factor of 163.48 litres per tubskid, based on the average volume generated per tubskid over the full year 2015. This does not includes volume from flammable or pesticide aerosols.

<sup>&</sup>lt;sup>9</sup> Pesticide residual recovery volume was calculated using a conversion factor of 114.58 litres per tubskid, based on the average volume generated per tubskid over the full year 2015.

<sup>&</sup>lt;sup>10</sup> 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.

<sup>&</sup>lt;sup>11</sup> Includes both non-aerosol and aerosol flammables and pesticides.

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

2015	Paint (non- aerosol) <sup>12</sup>	Paint (aerosol) <sup>13</sup>	Flammable Liquids/Gasoline <sup>14</sup>	Pesticides <sup>15</sup>
Sales (litres) <sup>16</sup>	28,927,513	1,132,940	2,915,524	114,866
Residual Recovery Volume (litres)	3,187,396	43,977	130,457	24,910
2015 Recovery Rate	11.0%	3.9%	4.5%	21.7%

# 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. On November 1, 2015, EHFs for most product categories within the Program changed. Table 10 lists the EHFs in 2015 before and after November 1. 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 (2015)** 

#### **Paint Category**

and category				
Container Size	EHF prior to November 1, 2015	New EHFs as of November 1, 2015		
100 ml to 250 ml	\$0.20	\$0.20		
251 ml to 1 litre	\$0.25	\$0.35		
1.01 litres to 5 litres	\$0.60	\$0.85		

<sup>&</sup>lt;sup>12</sup> Paint residual recovery volume was calculated using a conversion factor of 120.27 litres per tubskid, based on the average volume generated per tubskid over the full year 2015 and adding the paint exchange volumes reported by collection sites, which assumes that all containers collected are 75% full.

<sup>&</sup>lt;sup>13</sup> Paint aerosol residual recovery volume was calculated using a conversion factor of 31.43 litres per tubskid, based on the average volume generated per tubskid over the full year 2015.

<sup>&</sup>lt;sup>14</sup> Flammable Liquids/Gasoline residual recovery volume was calculated using a conversion factor of 163.48 litres per tubskid, based on the average volume generated per tubskid over the full year 2015.

<sup>&</sup>lt;sup>15</sup> Pesticide residual recovery volume was calculated using a conversion factor of 114.58 litres per tubskid, based on the average volume generated per tubskid over the full year 2015.

<sup>&</sup>lt;sup>16</sup> Volumes reported as "Sales (litres)" are estimated by converting units reported to Product Care by its members and applying the typical residual container volume for each EHF category.

5.01 litres to 23 litres	\$1.50	\$2.15
Aerosol Paint (any size)	\$0.25	\$0.25

#### **Pesticide Category**

Container Size	EHF prior to November	New Rates as of
	1, 2015	November 1, 2015
Less than 10 ml or grams	\$0.01	\$0.01
0.01 to 0.89 litres or kg	\$0.60	\$0.65
0.9 to 1.79 litres or kg	\$1.20	\$1.30
1.8 to 10 litres or kg	\$2.40	\$2.60

### **Flammable Liquids Category**

Container Size	EHF prior to November	New Rates as of
	1, 2015	November 1, 2015
Less than 750 ml	\$0.05	\$0.10
751 ml to 1 litre	\$0.10	\$0.15
1.01 litres to 2 litres	\$0.20	\$0.35
2.01 litres to 4 litres	\$0.40	\$0.60
4.01 litres to 10 litres	\$1.00	\$1.50
Aerosol Flammable Liquids		
1 to 75 ml or grams	\$0.01	\$0.01
76 to 200 ml or grams	\$0.05	\$0.10
Over 201 ml or grams	\$0.10	\$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 2015 and strategies for performance improvement going forward.

**Table 11: Key Performance Targets and Outcomes** 

Key Performance Targets and Outcomes					
Program Area	2015 Target	2015 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	2015 Target	2015 Performance	Strategies for Improvement		
	site, using the number of collection sites in 2011 as the baseline for this target.  2015 Target: 115 paint collection sites and 60 paint plus collection sites for a total of 175 collection sites.	101 paint plus collection sites	needed.		
Paint Exchange Collection Sites	Track and report the number of collection sites offering paint exchange.	142 collection sites (66% 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: 7.9%  Target not met for aerosol paint:  • Paint (aerosol) collection volume increase: 3.6%	Continue to increase accessibility and awareness of collection sites across the Province.		
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: 9.6%  Target not met for pesticides:	Continue to increase accessibility and awareness of collection sites across the Province.		

Key Performance Targets and Outcomes				
Program Area	2015 Target	2015 Performance	Strategies for Improvement	
		Pesticide collection volume increase: 1.4%		
Pesticides Collected	Maintain pesticides collection volumes (container capacity volume) at 2011 baseline (69,638 L).	Target exceeded:  • Pesticide collection volume was 93,917 litres, exceeding the 2011 volume by 24,279 litres.	N/A	
Paint Reused	Increase volume of paint being managed through reuse to 2.5% of paint collected by 2016	On track to meet 2016 target:  • 2.5% of paint collected was reused.	N/A	
Latex (water-based) Paint Recycling	Maintain rate of 100% recycling of latex paint.	Target not met:  • 79% of latex paint was recycled.  • 7% was sent for energy recovery.  • 14% 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	2015 Target	2015 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, 2015 (by Regional District)

Collection Site Name	Regional District	City	Paint	Paint
Collection Site Name	Regional District	City	Exchange	Plus
Sun Coast Eco Depot	Alberni-Clayoquot	Port Alberni		Yes
The Bottle Depot	Alberni-Clayoquot	Port Alberni	Yes	Yes
Ucluelet Bottle Depot	Alberni-Clayoquot	Ucluelet	Yes	
Area 'D' Transfer Station	Bulkley-Nechako	Fraser Lake	Yes	
Burns Lake Transfer Station	Bulkley-Nechako	Burns Lake	Yes	
Fort St. James Transfer Station	Bulkley-Nechako	Fort St. James	Yes	
Houston Bottle Depot	Bulkley-Nechako	Houston	Yes	Yes
Knockholt Sub-Regional Landfill	Bulkley-Nechako	Houston	Yes	
Nechako Valley School Bottle Depot	Bulkley-Nechako	Vanderhoof	Yes	
Ouellette Bros. Building Supplies	Bulkley-Nechako	Fort St. James		Yes
Smithers/Telkwa Transfer Station	Bulkley-Nechako	Smithers	Yes	Yes
A&P Disposal	Capital	Sooke	Yes	Yes
Alpine Disposal & Recycling	Capital	Victoria		Yes
Bay Street Castle	Capital	Victoria		
Ellice Recycle Ltd.	Capital	Victoria		Yes
Gabriola Island Recycling Depot	Capital	Gabriola Island	Yes	Yes
Galiano Island Recycling	Capital	Galiano Island	Yes	
Hartland Recycling Depot	Capital	Saanich	Yes	Yes
Island Return-It Recycling Centre	Capital	Sidney	Yes	
Mayne Island Recycling Society	Capital	Mayne Island		
Oak Bay Recycling Depot	Capital	Oak Bay		
Pender Island Recycling Society	Capital	Pender Island	Yes	
RONA Home & Garden (Langford)	Capital	Victoria		
Salt Spring Island Decycling	Canital	Salt Spring		Yes
Salt Spring Island Recycling	Capital	Island		res
Central Cariboo Disposal Services	Cariboo	Williams Lake	Yes	Yes
Gold Trail Recycling	Cariboo	100 Mile House	Yes	Yes
Quesnel Landfill Site	Cariboo	Quesnel		
RONA - Interlakes Building Supplies	Cariboo	Lone Butte		
RONA Home Centre (Quesnel)	Cariboo	Quesnel		
RONA Home Centre (Williams Lake)	Cariboo	Williams Lake		
Bella Coola Recycling Depot	Central Coast	Bella Coola	Yes	
Heiltsuk Environmental Bella Bella	Central Coast	Bella Bella	Yes	Yes
Eco-Depot	Central Coast	Delia Delia	163	163
Thorsen Creek Recycling Depot	Central Coast	Bella Coola	Yes	Yes
Columbia Bottle Recycling	Central Kootenay	Creston	Yes	
Kaslo Building Supplies	Central Kootenay	Kaslo		Yes

			Paint	Paint
Collection Site Name	Regional District	City	Exchange	Plus
Nelson Leafs Recycling	Central Kootenay	Nelson	Yes	Yes
Silverton Building Supplies	Central Kootenay	Silverton		
Battery Doctors	Central Okanagan	Kelowna	Yes	Yes
Boucherie Self Storage & Bottle Depot	Central Okanagan	Westbank	Yes	Yes
RONA Home & Garden (Kelowna)	Central Okanagan	Kelowna		
Revelstoke Bottle Depot (B&D Bottlers Ltd.)	Columbia-Shuswap	Revelstoke	Yes	
Bill's Bottle Depot	Columbia-Shuswap	Salmon Arm	Yes	Yes
RONA - Glacier Building Supplies	Columbia-Shuswap	Revelstoke		
RONA - Shuswap Building Supplies	Columbia-Shuswap	Scotch Creek		
Scotch Creek Bottle Depot	Columbia-Shuswap	Scotch Creek	Yes	
Comox Return Centre	Comox Valley	Comox	Yes	
Comox Valley Waste Management Centre	Comox Valley	Cumberland	Yes	Yes
Courtenay Return-It Depot	Comox Valley	Courtenay	Yes	Yes
Bings Creek Solid Waste	Cowichan Valley	Duncan	Yes	Yes
Fisher Road Recycling	Cowichan Valley	Cobble Hill	Yes	Yes
Island Return-It Recycling Centre	Cowichan Valley	Duncan	Yes	Yes
Junction Bottle Depot Ltd.	Cowichan Valley	Ladysmith	Yes	
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		
Cranbrook Bottle Depot	East Kootenay	Cranbrook	Yes	Yes
Fernie Bottle Depot	East Kootenay	Fernie	Yes	
Invermere Fire Department	East Kootenay	Invermere	Yes	
New & Nearly New	East Kootenay	Kimberley	Yes	
RONA - Cranbrook Building Centre	East Kootenay	Cranbrook		
RONA - Northstar Hardware	East Kootenay	Invermere		
-Victory Building Centre	Fraser-Fort George	Mackenzie		
Nechako Bottle Depot	Fraser-Fort George	Prince George		Yes
PG Recycling & Return-It Centre	Fraser-Fort George	Prince George	Yes	
RONA - Capital Building Supplies	Fraser-Fort George	Prince George		
Valemount Recycling Centre	Fraser-Fort George	Valemount	Yes	
Abbotsford Bottle Depot	Fraser Valley	Abbotsford	- 55	Yes
Abbotsford Community Services	Fraser Valley	Abbotsford	Yes	Yes
Aldergrove Return-It	Fraser Valley	Aldergrove	Yes	Yes
Chilliwack Bottle Depot	Fraser Valley	Chilliwack		Yes
Mission Recycle Centre Ltd.	Fraser Valley	Mission	Yes	

Collection Site Name	Degional District	City	Paint	Paint
Collection Site Name	Regional District	City	Exchange	Plus
Mission Recycling Depot	Fraser Valley	Mission	Yes	Yes
R&T Bottle Depot	Fraser Valley	Abbotsford	Yes	
Regional Recycling - Abbotsford	Fraser Valley	Abbotsford	Yes	Yes
RONA Home Centre (Chilliwack)	Fraser Valley	Chilliwack		
RONA Home Centre (Clearbrook)	Fraser Valley	Abbotsford		
RONA Home Centre (Hope)	Fraser Valley	Норе		
Sardis Bottle Depot	Fraser Valley	Chilliwack	Yes	
District of Stewart	Kitimat-Stikine	Stewart	Yes	
Hazelton Bottle Depot	Kitimat-Stikine	New Hazelton	Yes	
Kitimat Recycling Depot (KUTE)	Kitimat-Stikine	Kitimat	Yes	
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
Norbert Salvage	Kootenay Boundary	Bridesville	Yes	
Trail Bottle Depot	Kootenay Boundary	Trail	Yes	
West Boundary Regional Landfill	Kootenay Boundary	Greenwood	Yes	Yes
Agassiz Bottle Depot	Metro Vancouver	Agassiz	Yes	Yes
Biggar Bottle Depot	Metro Vancouver	Port Coquitlam		Yes
Bridgeview Return-It	Metro Vancouver	Surrey	Yes	
Burnaby Eco Centre	Metro Vancouver	Burnaby		Yes
Coquitlam Return-It Depot	Metro Vancouver	Coquitlam	Yes	
Coquitlam Transfer Station	Metro Vancouver	Coquitlam	Yes	
East Hastings Bottle Depot	Metro Vancouver	Burnaby	Yes	Yes
East Van Bottle Depot	Metro Vancouver	Vancouver		Yes
Edmonds Return-It Depot	Metro Vancouver	Burnaby	Yes	Yes
Fleetwood Bottle Return Depot Ltd.	Metro Vancouver	Surrey		
Go Green Depot & Recycling	Metro Vancouver	Vancouver		
Jenill Bottle Depot	Metro Vancouver	Surrey	Yes	Yes
Joe's Bottle Depot	Metro Vancouver	Vancouver		
Kitchener Bottle Depot Ltd.	Metro Vancouver	Burnaby		
Ladner Bottle Depot	Metro Vancouver	Delta		
Langley Bottle Depot	Metro Vancouver	Langley	Yes	Yes
Lee's Bottle Depot	Metro Vancouver	Burnaby		
Lougheed Return-It Depot	Metro Vancouver	Coquitlam	Yes	
Lowe's - New Westminster	Metro Vancouver	New Westminster		
New Westminster Recycling	Metro Vancouver	New Westminster		

Collection Site Name	Regional District	City	Paint	Paint
		_	Exchange	Plus
Newton Bottle Depot	Metro Vancouver	Surrey	Yes	
North Shore Bottle Depot	Metro Vancouver	North	Yes	
		Vancouver		
North Van Bottle Depot	Metro Vancouver	North	Yes	Yes
		Vancouver		
North Van. Transfer Station	Metro Vancouver	North		Yes
2 100		Vancouver	.,	
Panorama Village Return-it	Metro Vancouver	Surrey	Yes	
Powell Street Return-it Bottle Depot	Metro Vancouver	Vancouver	Yes	
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		Yes
Ridge Meadows Recycling Society	Metro Vancouver	Maple Ridge	Yes	Yes
RONA - BH Allen Building Centre	Metro Vancouver	North		
NOTAL BUTAINED BUILDING CENTRE	Wietro varieouver	Vancouver		
RONA - Mack Foster (Richmond)	Metro Vancouver	Richmond		
RONA Home & Garden (Grandview)	Metro Vancouver	Vancouver		
RONA Home Centre (Austin)	Metro Vancouver	Coquitlam		
RONA Home Centre (Burnaby -	Metro Vancouver	Burnaby		
Edmonds)	Wetro varicouver	Burnaby		
RONA Home Centre (Coquitlam)	Metro Vancouver	Coquitlam		
RONA Home Centre (Fleetwood)	Metro Vancouver	Surrey		
RONA Home Centre (King George)	Metro Vancouver	Surrey		
RONA Home Centre (Kingsway)	Metro Vancouver	Vancouver		
RONA Home Centre (Maple Ridge)	Metro Vancouver	Maple Ridge		
RONA Home Centre (North	NActure Vances was	North		
Vancouver - Tilford)	Metro Vancouver	Vancouver		
RONA Home Centre (South Surrey)	Metro Vancouver	Surrey		
Scott Road Bottle Depot	Metro Vancouver	Surrey		Yes
Semiahmoo Bottle Depot	Metro Vancouver	Surrey		
South Van Bottle Depot	Metro Vancouver	Vancouver	Yes	Yes
Steveston Return-It Depot	Metro Vancouver	Richmond	Yes	
T 0 111 5 1	1.4.	Delta		
Tsawassen Bottle Depot	Metro Vancouver	(Tsawwassen)	Yes	
Vancouver West Bottle Depot	Metro Vancouver	Vancouver	Yes	
Walnut Grove Bottle Depot	Metro Vancouver	Langley	Yes	
Willowbrook Recycling Depot	Metro Vancouver	Langley		
Port Hardy Return-It Centre	Mt. Waddington	Port Hardy	Yes	Yes

Collection Site Name	Regional District	City	Paint Exchange	Paint Plus
RONA - RA Rosback (Alert Bay)	Mt. Waddington	Alert Bay		
RONA - RA Rosback(Port McNeill)	Mt. Waddington	Port McNeill		
Seven Mile Recycling Centre	Mt. Waddington	Port McNeill	Yes	Yes
Woss Recycling Depot	Mt. Waddington	Port McNeill	Yes	
Malcolm Island Recycling Centre	Mt. Waddington	Sointula	Yes	
Nanaimo Recycling Exchange Society	Nanaimo	Nanaimo	Yes	Yes
Parksville Bottle & Recycling Depot	Nanaimo	Parksville	Yes	Yes
Qualicum Bottle Depot	Nanaimo	Qualicum Beach	Yes	
Regional Recycling Nanaimo	Nanaimo	Nanaimo	Yes	Yes
Regional Recycling Nanaimo – Old Victoria Road	Nanaimo	Nanaimo	Yes	Yes
RONA Building Centre (Nanaimo)	Nanaimo	Nanaimo		
Armstrong Collision	North Okanagan	Armstrong	Yes	
Chasers Bottle Depot	North Okanagan	Vernon	Yes	Yes
Enderby Return-It Recycling Depot	North Okanagan	Enderby	Yes	
Interior Freight & Bottle Ltd.	North Okanagan	Vernon	Yes	Yes
KBM Autoworks	North Okanagan	Lumby	Yes	
RONA Home Centre (Vernon)	North Okanagan	Vernon		
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	
Osoyoos Bottle Depot	Okanagan- Similkameen	Osoyoos	Yes	
RONA Home Centre (Penticton)	Okanagan- Similkameen	Penticton		
Summerland Bottle Depot	Okanagan- Similkameen	Summerland	Yes	
Summerland Landfill	Okanagan- Similkameen	Summerland	Yes	Yes
T2 Market	Okanagan- Similkameen	Oliver	Yes	Yes
Town of Princeton	Okanagan- Similkameen	Princeton	Yes	
Chetwynd Recycling and Bottle Depot	Peace River	Chetwynd	Yes	Yes

			Paint	Paint
Collection Site Name	Regional District	City	Exchange	Plus
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 Building Centre (Fort St. John)	Peace River	Fort St. John		
Tumbler Ridge Transfer Station	Peace River	Tumbler Ridge	Yes	Yes
Augusta Recyclers Ltd.	Powell River	Powell River	Yes	Yes
RONA - Powell River Building Supply	Powell River	Powell River		
Islands Regional Landfill Depot	Skeena-Queen Charlotte	Port Clements	Yes	
Queen Charlotte City Donet	Skeena-Queen	Queen	Yes	
Queen Charlotte City Depot	Charlotte	Charlotte	165	
Regional Recycling Prince Rupert	Skeena-Queen Charlotte	Prince Rupert	Yes	Yes
RONA - Tyee Building Supplies	Skeena-Queen Charlotte	Prince Rupert		
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	
Lillooet Glass & Tire	Squamish-Lillooet	Lillooet	Yes	
Regional Recycling - Whistler	Squamish-Lillooet	Whistler	Yes	Yes
RONA Home Centre (Squamish)	Squamish-Lillooet	Squamish		
RONA Home Centre (Whistler)	Squamish-Lillooet	Whistler		
RONA Pemberton Valley Hardware	Squamish-Lillooet	Pemberton		
SLRD Lillooet Landfill	Squamish-Lillooet	Lillooet	Yes	Yes
Campbell River Waste Management Centre	Strathcona	Campbell River	Yes	Yes
Cortes Island Recycling	Strathcona	Cortes Island	Yes	Yes
Island Return-It Recycling Centre	Strathcona	Campbell River	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	
RONA Home Centre (Madeira Park)	Sunshine Coast	Madeira Park		
Sechelt Landfill	Sunshine Coast	Sechelt	Yes	Yes
70 Mile House Eco-Depot	Thompson-Nicola	70 Mile House	Yes	Yes
Barnhartvale Landfill	Thompson-Nicola	Kamloops		
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	
Heffley Creek Eco Depot	Thompson-Nicola	Heffley Creek	Yes	Yes
Home Hardware - Merritt	Thompson-Nicola	Merritt		Yes

Collection Site Name	Regional District	City	Paint Exchange	Paint Plus
Logan Lake Eco Depot	Thompson-Nicola	Logan Lake	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	
Mission Flats Landfill	Thompson-Nicola	Kamloops	Yes	Yes
Quality Glass Ltd.	Thompson-Nicola	Ashcroft	Yes	
RONA - North Valley Supply Ltd.	Thompson-Nicola	Clearwater		
RONA Home Centre (Kamloops)	Thompson-Nicola	Kamloops		
South Thompson Eco Depot	Thompson-Nicola	Pritchard	Yes	
Starlite Auto Wrecking & Repair	Thompson-Nicola	Sorrento	Yes	

#### **APPENDIX B. 2015 BC Paint and HHW Communications Materials**

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



#### **BC Paint Retail Floor Decal:**



#### **BC Paint Outdoor Collection Site Sigange:**



#### **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
- Already empty paint containers

#### **Paint Aerosols**

Aerosol paint of all types, including:

- Automotive
- Industrial







# Paint products not accepted

- Unidentifiable or unlabelled containers
- Brushes, rags and rollers
- 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 productsTraffic 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





#### **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

  Wood finishing oil
  Melamine, metal and anti-rust paint, stain and shellac
  Swimming pool paint
- Deck and floor coating
- (including elastomeric)

  Varnish and urethane (single-component)
- Concrete and masonry paint
- Undercoats and primers
   (e.g. metal way to (e.g. metal, wood etc.)
- Stucco paint
- Marine paint (unless registered under Pest Control Products Act)

- Melamine, metal and anti-rust
  paint, stain and shellac
  Swimming pool paint
  Stain blocking paint
  Stain blocking
  Methanol and methyl hydrate
  Mineral spirits
  Stain blocking
  Additives
  Methanol and methyl hydrate
  Methanol an 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.

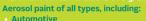
#### **PESTICIDES**

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



**PAINT AEROSOLS** 

- Automotive Craft
- Industrial







APPENDIX C. 2015 BC Paint and HHW Audited Financial Statements					

# PRODUCT CARE ASSOCIATION BC PAINT AND HOUSEHOLD HAZARDOUS WASTE PROGRAM

STATEMENT OF REVENUES AND EXPENSES

**31 DECEMBER 2015** 



# PRODUCT CARE ASSOCIATION BC PAINT AND HOUSEHOLD HAZARDOUS WASTE PROGRAM

Statement of Revenues and Expenses For the year ended 31 December 2015

# Contents

Independent Auditors' Report

Statement of Revenues and Expenses

4

Notes to the Statement of Revenues and Expenses

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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 2015 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 2015 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.

CHARTERED PROFESSIONAL ACCOUNTANTS

Kolfe, Berson LLP

Vancouver, Canada 4 April 2016



# PRODUCT CARE ASSOCIATION BC PAINT AND HOUSEHOLD HAZARDOUS WASTE PROGRAM

Statement of Revenues and Expenses For the year ended 31 December 2015

		2015
Revenues		
Liquid paint	\$	3,886,637
Aerosol paint		975,774
Solvents		401,763
Petroleum		142,808
Pesticides		126,301
Other		29,480
	-	5,562,763
Program expenses	-	
Collection		
Collection - depot payments		1,499,074
Transportation - inbound		955,198
		2,454,272
Processing facility		
Plant and management		1,185,735
Variable costs		504,676
Fixed rent, utilities and other administrative		242,523
	-	1,932,934
Third party disposal		
Third party disposal		1,767,254
Transportation - outbound		167,270
	· ·	1,934,524
Other expenses	N	
Communications		263,269
Insurance		1,922
Overhead allocation (Note 2(d))		466,066
Depreciation		114,341
	-	845,598
Total program expenses		7,167,328
Deficiency of revenues over expenses for the year	\$	(1,604,565)

Commitment (Note 3)

ROLFE, BENSON LLP

CHARTERED PROFESSIONAL ACCOUNTANTS

# PRODUCT CARE ASSOCIATION BC PAINT AND HOUSEHOLD HAZARDOUS WASTE PROGRAM

Notes to the Statement of Revenues and Expenses For the year ended 31 December 2015

## 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, 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

Eco-fees 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. Eco-fee 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

## (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 assets, liabilities, revenues and expenses and disclosure of contingencies at the date of the balance sheet. 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.



# PRODUCT CARE ASSOCIATION BC PAINT AND HOUSEHOLD HAZARDOUS WASTE PROGRAM

Notes to the Statement of Revenues and Expenses For the year ended 31 December 2015

# 3. Processing Commitment

At year end, the Association had unprocessed program materials on hand with an estimated cost to process, transport and recycle of \$104,567 which will be incurred in 2016.



# APPENDIX D. 2015 Third Party Assurance Statement for Non-Financial Information

# PRODUCT CARE ASSOCIATION OF CANADA

# INDEPENDENT REASONABLE ASSURANCE REPORT

**31 DECEMBER 2015** 



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 2015:

- 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. The suitability of the evaluation criteria is the responsibility of management. Furthermore management is responsible for preparation of suitable evaluation criteria in accordance with the Third Party Assurance Requirements for Non-Financial Information in Annual Reports – 2015 Reporting Year dated February 2016 ("Assurance requirements") as specified by the Director under section 8(2)(h) of the Recycling Regulation of the Province of British Columbia.





CHARTERED PROFESSIONAL ACCOUNTANTS

- 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 latex paint. The Association has identified that a key assurance process in verifying product management for this waste stream is to perform due diligence activities such as periodic processor inspections. During the 2015 fiscal year, these activities were performed for 2 of the 8 processors who received latex paint from the Association. As such, there is uncertainty surrounding the Selected Information contained in the Pollution Prevention Hierarchy section of Appendix 1 as well as the results of performance targets set for product management of latex paint.
- 2. 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. 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.
- 3. The Selected Information included in Section 7 specifically relating to Product Sold is based on self-reported member data. During the 2015 fiscal year, the Association performed internal member audits of 16 of the 163 members of the program and as such, the product sold data presented is subject to uncertainty.
- 4. 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.

## 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.

CHARTERED PROFESSIONAL ACCOUNTANTS

Kolfe, Berson LLP

Vancouver, Canada 28 June 2016





#### CHARTERED PROFESSIONAL ACCOUNTANTS

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 2015 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;



## Appendix 1

### **Evaluation Criteria**

### Collection facilities

Specific disclosures in the annual stewardship report for which evaluation criteria were developed	
Disclosure per Annual Report	Reference
Total number of collection facilities – 216	Section 4 Collection Systems Information - Table 1: Paint and Paint Plus Collection Sites, 2014 and 2015 on page 11; and:  Appendix A. Collection Site List as of December 31, 2015 (by Regional District) on pages 25 - 31
"As of December 31, 2015, Product Care contracted with 216 permanent collection sites in British Columbia to provide convenient locations for consumers to drop off unwanted program products, an increase from 212 collection sites in the prior year."	Section 4 Collection Systems Information - on page 11

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 2015.
- 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

Specific disclosures in the annual stewardship report for which 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 15, footnote 1 on page 15 and footnote 4 on page 16.
"The information detailed in this section was verified based on processor questionnaires or site visits of the various	



processors. 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. 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 - 2.5%

"Reusable paint is given away at no charge through the paint exchange program to members of the public and to nonprofit organizations to be used for its originally intended purpose."

"Based on monthly reports provided by collection sites, approximately 2.5% of the total volume of paint collected in 2015 was reused through the Paint Exchange program. 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."

"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 – 79%, Energy Recovery – 7% and Landfill – 14%

"Product Care utilizes a number of options for latex (water-based) paint recycling, including:

- Reprocessing leftover paint into paint and coatings products.
- Raw material in the manufacturing of concrete products (blocks, barriers, etc.). "

"According to shipment records, approximately 79% of the latex paint sent to downstream processors by the Program in 2015 was recycled utilizing one of the two options listed above."

"According to shipment records, 7% of the latex paint sent to downstream processors was used as a fuel in 2015."

Section 6 Pollution Prevention Hierarchy and Product/Component Management - on page 15 and footnote 3 on page 15

Section 6 Pollution Prevention Hierarchy and Product/Component Management – Table 5: Program Product End Fate (Excluding Paint Exchange) 2015 on page 17

Section 6 Pollution Prevention Hierarchy and Product/Component Management - on page 15 and 16



"According to shipment records, 14% of the latex paint sent	
from the consolidation facility to downstream processors	
was diverted to a secure landfill in 2015."	
Material: Alkyd Paint (Excluding Paint Exchange)	Section 6 Pollution Prevention Hierarchy
End fate:	and Product/Component Management -
Energy recovery – 100%	Table 5: Program Product End Fate
	(Excluding Paint Exchange) 2015 on page
	17
"According to shipment records, 100% of the oil-based paint	
shipped to downstream processors from the consolidation	Section 6 Pollution Prevention Hierarchy
facility in 2015 went to hazardous waste management	and Product/Component Management - on
companies who then sent the paint to permitted/licensed	page 16
facilities to be used for alternative energy recovery."	
Material: Flammable Liquids	Section 6 Pollution Prevention Hierarchy
End Fate:	and Product/Component Management -
Energy recovery – 100%	Table 5: Program Product End Fate
Emergy recovery	(Excluding Paint Exchange) 2015 on page
,	17
"According to shipment records, 100% of the flammable	
liquids shipped from the consolidation facility to	Section 6 Pollution Prevention Hierarchy
downstream processors in 2015 went to a hazardous waste	and Product/Component Management - on
management company who then sent them to	page 16
permitted/licensed facilities to be used for alternative energy	pago 10
recovery."	
Material: Pesticides	Section 6 Pollution Prevention Hierarchy
End Fate:	and Product/Component Management –
Incineration – 100%	Table 5: Program Product End Fate
memeration – 10070	(Excluding Paint Exchange) 2015 on page
	17
"According to shipment records, 100% of pesticide products	**
shipped from the consolidation facility to downstream	Section 6 Pollution Prevention Hierarchy
processors in 2015 went to a hazardous waste management	and Product/Component Management - on
company who then sent them to permitted/licensed facilities	page 17
for incineration."	page 17
Material: Gasoline	Section 6 Pollution Prevention Hierarchy
End Fate:	and Product/Component Management –
Energy recovery – 100%	Table 5: Program Product End Fate
Ellergy recovery = 10070	(Excluding Paint Exchange) 2015 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 2015 went to a hazardous waste management	and Product/Component Management - on
company who then sent the gasoline to permitted/licensed	page 17
facilities to be used for alternative energy recovery."	Pube 17
Material: Metal Containers	Section 6 Pollution Prevention Hierarchy
End fate:	and Product/Component Management –
Recycling - 100%	Table 5: Program Product End Fate
Recycling - 10070	(Excluding Paint Exchange) 2015 on page
	17
"Based on shipment records from the consolidation facility,	



100% of metal containers processed by the Program in 2015   Sec	ection 6 Pollution Prevention Hierarchy
	nd Product/Component Management - on
	age 17
Material: #2 Plastic Containers Se	ection 6 Pollution Prevention Hierarchy
End fate: and	nd Product/Component Management -
Recycling - 100%	able 5: Program Product End Fate
(E:	Excluding Paint Exchange) 2015 on page
17	7
"According to shipment records, 100% of 5 gallon size #2	
	ection 6 Pollution Prevention Hierarchy
	nd Product/Component Management - on
	age 17
pesticides and flammable liquids were sent for plastics	
recycling."	
50 P. C. (2014) 1 (20	ection 6 Pollution Prevention Hierarchy
The state of the s	nd Product/Component Management –
	Table 5: Program Product End Fate
17	Excluding Paint Exchange) 2015 on page 7
"The Program recycled approximately 2% of plastic	
	Section 6 Pollution Prevention Hierarchy
managed the remaining 98% through energy recovery due to an	nd Product/Component Management - on
the limited market demand for recycled polypropylene #5." pa	page 17

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.
- 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 of the processors facility. Site inspection criteria have been developed to confirm the responses in the questionnaire provided by the primary processor. Site inspections were performed for 3 of the 12 processors used by the Program.



Product sold and collected and recovery rate

Specific disclosures in the annual stewardship repo	ort for which evaluation criteria were developed
Disclosure per Annual Report	Reference
Product Collected	Section 7 Product Sold and Collected and Recovery
Total Paint (non-aerosol) collected – 3,187,396 Litres	Rate – Table 7: Approximate Total Collected  Volumes (residual recovery volume) for Paint,  Paint Aerosols, Flammable Liquids and Pesticides
Total Paint (aerosol) collected – 43,977 Litres	(2015) on page 19
Total Flammable Liquids/Gasoline collected – 130,457 Litres	
Total Pesticides collected – 24,910 Litres	
"Paint residual recovery volume calculated using a conversion factor of 120.27 litres per tubskid, based on the average volume generated per tubskid over the full year 2015 and adding the paint exchange volumes reported by collection sites which assumes that all containers collected are 75% full."	Section 7 Product Sold and Collected and Recovery Rate – Footnotes 6 - 9 on page 19
"Paint aerosol residual recovery volume calculated using a conversion factor of 31.43 litres per tubskid, based on the average volume generated per tubskid over the full year 2015."	
"Flammable Liquids/Gasoline residual recovery volume calculated using a conversion factor of 163.48 litres per tubskid, based on the average volume generated per tubskid over the full year 2015. This does not include volume from flammable or pesticide aerosols."	
"Pesticide residual recovery volume calculated using a conversion factor of 114.58 litres per tubskid, based on the average volume generated per tubskid over the full year 2015."	
Product Sold	Section 7 Product Sold and Collected and Recovery
Total Paint (non-aerosol) sold –28,927,513 Litres	Rate - Table 9 – Approximate Sales, Residual
Total Paint (aerosol) sold – 1,132,940 Litres	Recovery Volume and Recovery Rates of Paint, Paint Aerosols, Flammable Liquids and Pesticides on page 20
Total Flammable Liquids/Gasoline sold – 2,915,524 Litres	
Total Pesticides sold – 114,866 Litres	
"With regard to gasoline collection, members report the number of gasoline stations, not volumes of gasoline sold. Therefore sales volumes (in litres)	Section 7 Product Sold and Collected and Recovery Rate – on page 20



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 Product Care by its	Rate – Footnote 16 on page 20
members and applying the typical residual	L.
container volume for each EHF category."	
Recovery Rate	Section 7 Product Sold and Collected and Recovery
Total recovery rate Paint (non-aerosol) – 11.0%	Rate - Table 9 – Approximate Sales, Residual
	Recovery Volume and Recovery Rates of Paint,
Total recovery rate Paint (aerosol) – 3.9%	Paint Aerosols, Flammable Liquids and Pesticides
	on page 20
Total recovery rate Flammable Liquids/Gasoline -	- 12
4.5%	
Total recovery rate Pesticides – 21.7%	

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 16 internal audits of its 163 members' sales data for the 2015 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 Systems	



Target: Collection Sites	Section 9 Performance Targets – Table
2015 Assertion –	11: Key Performance Targets and
Target exceeded: 115 paint depots and 101 paint plus depots	Outcomes – Target: Collection Sites
	on page 22
Management of Collected Materials	
Target: Paint Reused	Section 9 Performance Targets – Table
2015 Assertion –	11: Key Performance Targets and
On track to meet 2016 target:	Outcomes - Target: Paint Reused on
2.5% of paint collected was reused.	page 23
Target: Latex (water-based) Paint Recycling	Section 9 Performance Targets – Table
2015 Assertion –	11: Key Performance Targets and
Target not met:	Outcomes - Target: Latex (water-
79% of latex paint was recycled.	based) Paint Recycling on page 23
7% was sent for energy recovery.	2
14% was sent to a landfill.	
Target: Metal and #2 Plastic Container Recycling	Section 9 Performance Targets – Table
2015 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
2015 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 page
	24

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.

