PRODUCT CARE ASSOCIATION
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productcare

BRITISH COLUMBIA
LAMPS AND LIGHTING EQUIPMENT STEWARDSHIP PROGRAM (LIGHTRECYCLE)
2017 ANNUAL REPORT

For submission to:
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1 Executive Summary

This annual report has been prepared by Product Care Association of Canada ("PCA") based on the requirements set in the BC Lamps and Lighting Equipment Stewardship Plan dated March 9, 2012 and approved by the BC Ministry of Environment on April 23, 2012 ("Program Plan"), and pursuant to the requirements of the Recycling Regulation B.C. Reg. 449/2004 ("Regulation").

From July 1, 2010 to July 1, 2012, PCA's British Columbia Lamps and Lighting Equipment Stewardship Program ("Program" or "LightRecycle") included residential-use fluorescent lamps only. On July 1, 2012, the Program expanded to include "all electronic or electrical lighting equipment, parts and bulbs" used in residential and non-residential applications, pursuant to the requirements of the Regulation. [1] This report covers the period of January 1 to December 31, 2017.

Lamps, lighting fixtures and ballasts used in residential and non-residential applications are covered under PCA's Program Plan. These products are broken down into thirteen Product Categories as listed in Table 1 below.

Table 1: Program Product Categories and Website

Product Categories	1. Fluorescent Tubes measuring ≤ 2 feet 2. Fluorescent Tubes measuring > 2 feet and ≤ 4 feet 3. Fluorescent Tubes measuring > 4 feet 4. Compact Fluorescent Lights (CFL)/ Screw-In Induction Lamps 5. Light Emitting Diodes (LED) 6. High Intensity Discharge (HID) and Other 7. Incandescent / Halogen 8. Miniature Bulb Package 9. Designated Small Fixtures / Decorative Light Strings 10. Fixture Category A 11. Fixture Category B 12. Large Outdoor Fixtures 13. Ballasts
Program Website	The BC LightRecycle website is www.lightrecycle.ca. The Product Care Association's website is productcare.org.

A complete list of products accepted and not accepted by the Program is available in the Program's Product Guide on the LightRecycle website: http://www.lightrecycle.ca/member-and-seller-support-centre/member-resources/.

The Program's regulatory reporting requirements and key performance targets for 2017 are summarized in Table 2 and Table 3 below.

[1] Recycling Regulation B.C. Reg. 449/2004 Part 4, Schedule 3, Section 2 (1) (e).

Table 2: Regulatory Reporting Requirements

Regulation Provision	Topic	Summary
Part 2, section 8(2)(a)	Public Education Materials and Strategies	• Paid advertising, media & partnerships • Community events & collateral • Point of sale and point of return materials • PCA and Program website • PCA toll-free number and RCBC Hotline & Recyclepedia
Part 2, section 8(2)(b)	Collection System and Facilities	The Program's collection system had 445 collection sites. Additional collection services included: • Courrier service and direct pickup service for PCB containing ballasts • Direct pickup service from Large Volume Generators of lamps and pre-crushed lamps • 9 collection events
Part 2, section 8(2)(c)	Product Environmental Impact Reduction, Reusability and Recyclability	Producers are working to reduce the environmental impact of lighting products through innovative product design and technology. Life-cycle management is also playing an important role in reducing the environmental impact of lighting products. The proliferation of LEDs (which do not contain mercury) has resulted in fewer mercury-containing products entering the market.
Part 2, section 8(2)(d)	Pollution Prevention Hierarchy and Product / Component Management	• Lamps were broken down into component parts and managed as follows: - Glass was sent to various concrete manufacturing companies for use in construction materials, concrete manufacturing or as an aggregate. - Metal was sent to various downstream metal sites for recovery and recycling. - Phosphor powder and mercury were stabilized, and sent to secure landfill. - Mercury was chemically treated and sent to secure landfill. • Residential-use fixtures were broken down into component parts for recovery / recycling. • Commercial fixtures and non-PCB ballasts were collected and managed through the existing market-driven scrap metal recycling system. • PCB ballasts were collected and managed as hazardous waste and sent for incineration at licensed/permitted facilities.

Regulation Provision	Topic	Summary
Part 2, section 8(2)(e)	Product Sold and Collected and Recovery Rate	• Program members reported selling 33,560,012 units of program product in 2017. • In 2017, the Program collected an estimated: - 6,990,298 units of lamps - 627 tonnes of fixtures from residential collection network - 20,327 kilograms of PCB ballasts - 12,544 kilograms of crushed lamps
Part 2, section 8(2)(e.1)		See Table 10 for estimated collection volumes by regional district.
Part 2, section 8(2)(f)	Summary of Revenues and Expenses	• The Program is funded by fees remitted by members on the sale of new program products sold in or into British Columbia. • An independent financial audit for the reporting period is appended to the report (see Appendix C).

Table 3: 2017 Key Performance Targets

2017 Key Performance Targets			
Regulation, Part 2 section 8(2)(g)			
2017 Priority Stewardship Plan Targets		**2017 Performance**	**Strategies for Improvement**
Capture Rate: Fluorescent Tubes	Target: 40-75%	94%	N/A
Capture Rate: CFLs	Target: 40-75%	115%	N/A
HID, UV, Neon lamps (Units)	119,576	227,725	N/A
Residential Fixtures (MT)[2]	189-220	627	N/A
Consumer Awareness	55% (by end of 2017)	55% as of end of 2017	N/A
2017 Accessibility Targets			
Residential Lamps	95%	99.65% (as of Dec 31st 2016)	N/A
Residential Fixtures	95%	98.07% (as of Dec 31st 2016)	N/A
Commercial Lamps	95%	99.29% (as of Dec 31st 2016)	N/A
Commercial Fixtures and Non- PCB Ballasts	95%	95.89% (as of Dec 31st 2016)	N/A

[2] The residential fixtures target was converted and rounded from kgs to metric tonnes to match the data available from Program processors

2 Program Outline

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.

In 2017, the Program operated in accordance with PCA's Program Plan pursuant to the requirements of the Regulation.

Between January 1, 2017, and Dec 31, 2017, the Program captured end-of-life lamps and lighting equipment products from all sectors (residential, institutional, commercial and industrial) and diverted them from landfill.

3 Public Education Materials and Strategies

In 2017, PCA undertook public education efforts to inform British Columbians about the Program. The following list outlines the Program's public education materials and tactics for 2017:

- Paid advertising and partnerships
- Community events
- Point of sale and point of return marketing materials
- Company and program website
- PCA toll-free number and RCBC hotline and Recyclepedia

Details of the initiatives undertaken by the Program in 2017 are provided below. See Appendix A for select examples of Program materials and advertising.

Paid Advertising and Partnerships

- A province-wide campaign with Global TV ran from February to August 2017. This campaign included heavy rotations of 30-second traditional commercial spots that aired on prime time during high viewership news programming. Starting in September 2017, community PSAs involving local talent-voiced 15-second "infomercial" style spots educating viewers about recycling lights.
- As part of the Holiday A-Z campaign in the *Westender*, the program ran a "R is for recycling your lights" print ad, which reached Vancouver neighbourhoods such as Gastown, Mount Pleasant, and Kitsilano.
- The program ran a lightbulb and Christmas string light recycling campaign in December 2017. This included branded postcard-sized Canada Post mailouts to nearly 19,000 homes in 16 of British Columbia's lowest collection volume areas. A complementary Facebook campaign targeted these areas, including two ad sets: one for general lightbulb recycling, and a second for Christmas string light recycling. These ads reached over 100,000 individuals and resulted in over 5,100 click throughs to the Program website.

- In December 2017, the program sponsored a recycling contest with seven Regional Recycling depots in the Lower Mainland, Whistler and Vancouver Island. This included in-depot print and TV screen advertising, a digital campaign, and print newspaper ads. Consumers recycling lightbulbs, tubes, or fixtures were eligible to win one of eight VISA giftcards.
- The Program pursued a significant radio advertising campaign on Newcap Radio station Z95.3 FM. Thirty second commercials aired from March to June 2017 and again from September to December 2017. To complement this on-air campaign, the Program also advertised on the radio station's digital pre-roll video segments from January to April 2017 and again from May to August 2017.
- The Program aired 132 30-second spots on Fairchild Radio (Cantonese and Mandarin) from March to May 2017 and September to November 2017. In addition, over 500 30-second spots aired on Spice Radio (Hindi, Punjabi and English) from January to November 2017 in order to expand Program reach via multi-lingual programming.
- To cover rural areas of BC, the program ran 30-second commercials from April to August of 2017 via several Vista Radio stations. These spots aired in cities including Quesnel, Kelowna, Castlegar, Smithers and Vanderhoof.
- The Program ran light-specific advertisements via NewAd print advertising featured in "resto-bars" throughout the province, targeting homeowners in suburban areas. The campaign ran for 11 weeks from April to June 2017, and received over 148,000 impressions.
- The Program ran six print advertisements in industry trade publication Electrical Line Magazine every two months throughout 2017. Electrical Line Magazine is a bi-monthly electrical trade publication with a qualified national circulation in excess of 19,000 that reaches relevant industries (sawmills, pulp mills, mining, petroleum), building trades (industrial, commercial, and residential electrical contractors), consulting engineers, architects, and government bodies.
- The Program ran print ads through Business in Vancouver, an industry-specific publisher. A full page and 1/3 page ad ran in the 2017 *Property Managers Source Book*, which has a distribution of 10,000 copies. The second full page ad ran in an issue of the commercial building owner/manager magazine *Office Space*, which had a minimum estimated readership of 42,000.
- The Program was a corporate sponsor of national electrical trade organization, Electro-Federation Canada (EFC); this included advertisements in EFC's newsletters, branding on EFC collateral materials, and promotion at EFC events and conferences.
- The Program's digital marketing efforts included syndicated bilingual Facebook posts, targeted digital display ads, and smart digital display (ie. retargeting or re-serving ads to pre-qualified users who had engaged with the Program's website at some previous point in time). Digital ads were specifically targeted to internet users who performed online searches related to lighting product purchasing, use, and disposal. Additionally, the Facebook advertising campaign pursued a "gated" strategy, meaning content was targeted specifically at residents of British Columbia.
- The program ran a *Journal of Commerce* wall calendar ad for May/June 2017. This journal targets the Western Canada construction industry.
- The Program ran a full page ad in BC Electrical Association's (BCEA) Member Directory, with refreshed content in the fall.
- The Program was a prize sponsor of Science World's BC Green Games in 2017. The Program is a digital eco-storytelling contest for schools throughout British Columbia. As part of the

sponsorship, Science World's "On the Road" team visited schools across the province and reached over 31,000 students with Program messaging. During these visits, Science World staff handed out program brochures containing light recycling information and eco-friendly giveaways. In addition, the BC Green Games website listed the program as a sponsor with a description of its recycling programs.

Community Events & Collateral

The Program exhibited at BUILDEX Vancouver in February 2017. This two day-long trade show and conference attracted over 14,000 industry professionals from the construction, property management, interior design, renovation, and architecture industries.

In addition, the Program attended multiple events with the goal of educating people on the importance of waste diversion and recycling, including:

- BC Home & Garden Show: February 22 - 26
- Party for the Planet (City of Surrey): April 22
- Burnaby Environmental Festival: May 27
- Science World's Green Days: May 13
- Khatsahlano Street Party: July 8
- Vancouver Pride Festival: August 6
- Vancouver Mural Festival: August 12

Point of Sale and Point of Return Materials

- Program posters, rack cards, and signage for both retailer and collection site audiences were replenished upon request, free of charge. A dedicated online re-order form for these materials is available on the Program's website.

Dedicated Program Website

- The Program's website remained a popular resource for all individuals and groups interacting with the Program. The site continued to provide:
  - A geography-based collection site finder
  - Collection site hours of operations
  - Program accepted product lists, fully revamped to be visually-oriented and easier to navigate
  - Dedicated website sections for consumers, Program members and service partners
  - Information for the industrial, commercial and institutional market segment, including large volume generator product management options
  - Contact information for key Program staff
  - Program FAQs and annual reports

In 2017, there were 79,278 unique pageviews on the Program website.

PCA Toll-free Number and RCBC Resources

- PCA operated a toll-free number (1-888-772-9772) to respond to consumer inquiries.
- The Program continued to participate in the Recycling Council of British Columbia (RCBC) recycling hotline service (1 800 667 4321 or 604 RECYCLE). Consumers were able contact RCBC operators during business hours and obtain information about return options for Program Products.

Information about light recycling was also provided on the RCBC website and on the RCBC App. RCBC's phone hotline, website, and phone app, received a combined total of 6,037 inquiries in 2017.

4 Collection System

The BC LightRecycle Program provides a free and convenient collection system for all consumers of Program Products. PCA does not directly own or manage collection sites, but has contracts with them based on the services they provide (see Section 4.1 for descriptions of collection sites services). These sites include retailers, recycling organizations (both non-profit and for profit), local government recycling centers or transfer stations and other associations or businesses interested in participating in the Program.

The collection system accepts lamps, ballasts and fixtures from residential, institutional, commercial and industrial sectors. Contracted sites accept "Program Products" as outlined in Table 4 below. A complete list of products accepted and not accepted by the Program is available in the Program's Product Guide on the LightRecycle website: http://www.lightrecycle.ca/member-and-seller-support-centre/member-resources/.

Table 4: Summary of Program Products

Summary of Program Products
Whole Lamps: • Fluorescent, induction and UV tubes of all lengths and shapes • Compact fluorescent lights (CFL) and screw-in induction lamps • Light emitting diodes (LED) • High intensity discharge lamps (HID) of all types • Special purpose lamps • Incandescent lamps • Halogen lamps • Miniature lamps **Pre-Crushed Lamps**
Fixtures: • Small light fixtures and light strings • Residential light fixtures

Summary of Program Products
• Commercial light fixtures • Industrial light fixtures • Large outdoor fixtures
Ballasts • PCB Containing • Non-PCB Containing

4.1 Collection Sites

A collection site is a physical location where consumers can drop off Program Products. Collection sites can offer one or more collection services based on various factors. Services offered by collection sites are generally advertised to the public. In some cases, collection sites are not advertised where the location does not collect from the general public. LightRecycle enters into separate contracts with collection sites for each collection service offered and as a result, there is no one-to-one relationship between the number of sites and the number of services offered. The seven different collection services offered through the Program are listed in Table 5.

Table 5: LightRecycle Collection Service Types

Type of Service	Description
Advertised Residential Lamps	Collection sites accepting residential volumes of lamps (up to 16 units)
Advertised Residential Fixtures	Collection sites accepting residential volumes of fixtures
Advertised All Sectors Lamps (Commercial and Residential)	Collection sites accepting commercial volumes of lamps (up to one full skid spot)
Advertised Commercial Fixtures and Non-PCB Ballasts	Collection sites accepting commercial volumes of fixtures & Non-PCB Ballasts
Unadvertised Residential Fixtures	Collection sites accepting residential volumes of fixtures from specific sources only
Unadvertised Commercial Lamps	Collection sites accepting commercial volumes of lamps from specific sources only
Unadvertised Consolidators Lamps	Collection sites consolidating volumes of Program Products into larger quantities from specific sources only

The Program's collection system included 445 contracted collection sites, with 13 advertised sites added in 2017 and 9 advertised and 1 non-advertised sites removed, representing a net increase of 3 sites from 2016. See Table 3 for these changes. See Appendix B for a full list of collection sites by location.

Table 6: Collections Sites Added/Removed in 2017

Depot Name	Depot Location	Change from 2016
D&S Electric	Williams Lake	Opened
GRIPS - Garbage Recycling in Pender	Pender Island	Opened
Hagens Home Hardware	Mackenzie	Opened
Lowe's Abbotsford	Abbotsford	Opened
Lowe's Nanaimo	Nanaimo	Opened
Lowe's Prince George	Prince George	Opened
Lowe's Victoria	Victoria	Opened
Lowe's Queensborough	New Westminster	Opened
Rona - Tsawwassen	Tsawwassen	Opened
Rona - Fraser Valley	Mission	Opened
R3 Recycle-It Resource Recovery	Fort St John	Opened
Kensington Return It	Burnaby	Opened
West-Can Home Hardware	Burnaby	Opened
Aim Lighting Inc	Delta	Closed
Albertson's Home Centre	Parksville	Closed
Edmonds Recycling Ltd	Langley	Closed
Ernie's Used Auto Parts	Castlegar	Closed
Ladner Village Hardware	Ladner	Closed
Pender Island Home Hardware	Pender Island	Closed
Rona – Delta	Delta	Closed
R Home Supply Centre	Dawson Creek	Closed
Steveston Return-It Depot	Steveston	Closed
Unadvertised	Burnaby	Closed

Table 7 provides a list of contracted collection sites by Regional District.

Table 7: Contracted Collection Sites by Regional District

Regional District	# of Collection Sites
Alberni-Clayoquot	5
Bulkley-Nechako	10
Capital Regional District	44
Cariboo	11
Central Coast	3
Central Kootenay	10
Central Okanagan	16
Columbia Shushwap	6
Comox Valley	8
Cowichan Valley	13
East Kootenay	8
Fraser Valley	26

Regional District	# of Collection Sites
Fraser-Fort George	7
Kitimat Stikine	6
Kootenay Boundary	2
Metro Vancouver	149
Mt Waddington	9
Nanaimo Regional District	17
North Okanagan	12
Northern Rockies	1
Okanagan Similkameen	16
Peace River	10
Powell River	4
Skeena-Queen Charlotte	3
Sointula	0
Squamish Lillooet	11
Strathcona	9
Sunshine Coast	8
Thompson Nicola	21
Total	**445**

4.2 Large Volume Collections

In addition to collection sites, the Program provided free of charge, direct pick-up services for large volume generators (LVGs). LVGs are organizations/companies that generate large enough quantities of Program Product at their own site or at offsite locations that would overburden any one collection site.

The following Program Products are covered under this service for specified minimum quantities.:

- Whole lamps
- Drums of pre-crushed lamps

For under 5kgs of PCB ballasts, a courier service is available. For over 5kgs, a direct pickup service is available.

4.3 Collection Events

The Program also partners with local governments and not-for-profit organizations in holding collection events to provide temporary collection services for Program Products. Table 8 lists the dates and locations of the 9 collection events in 2017 that the Program participated in.

Table 8: 2017 Collection Events

Date	Location
28-April-17	Ashcroft/Cache Creek
6-May-17	Merritt
3-June-17	Golden
10-June-17	Kamloops
23-Sept-17	Golden
23-Sept-17	Creston
24-Sept-17	Castlegar
30-Sept-17	Silverton
1-Oct-17	Nakusp

5 Product Environmental Impact Reduction, Reusability and Recyclability

Lighting product producers continue working to reduce the environmental impact of lighting products through innovative product design and technology. For example, new design has resulted in the development of smaller diameter fluorescent tubes now readily available in the marketplace and prevalent in new construction and renovations. These products can provide the same or more light with fewer material resources. The amount of mercury contained within fluorescent lights has also been decreasing. Through innovative technology, manufacturers have decreased the amount of mercury in fluorescent lamps by over 80% since 1990.

Life cycle management is also playing an important role in reducing the environmental impact of lighting products. For example, producers are focusing their attention on increasing product energy efficiency. This has resulted in a substantial increase in the lifespan of fluorescent lights in the last decade, reducing the cumulative environmental impact associated with these products.

The advancement of LED lighting technology is also having a significant impact on the lighting market as a whole. Manufacturers are focusing most of their efforts in this area and no longer spending research energy on expanding the CFL product line. Acceptance of LED technologies is increasing as prices decrease. In fact, the acceptance and adaptation to LED technology has been much more rapid and widespread than most industry experts would have forecasted three years ago. Due to the significantly longer lifespan of LED lights, there is a decrease in sales expected for other traditional lighting technologies, such as halogen, incandescent and fluorescent lights. The shift to more energy efficient and longer lasting lighting technology is clear. This change will result in a positive environmental impact as fewer lights, including those that contain mercury, will require disposal. These trends will only become visible to the Program as the market transitions to the new technology and these new technologies start reaching end-of-life.

5.1 GHG Emissions

The estimated greenhouse gas (GHG) impact of the recycling of lighting products was calculated using a GHG emission inventory tool developed specifically for LightRecycle by a third party based on nationally and internationally-recognized reference protocols and standards. Furthermore, due to limited available information from downstream processors and the numerous assumptions that had to be made to determine the GHG impact, the final GHG emission numbers are accurate to only one significant digit. The GHG emissions for 2016 were estimated based on these calculations, to be 5000 tonnes of equivalent carbon dioxide (CO2e). This value is based on 4 tonnes of CO2e generated per tonne of material managed.

6 Pollution Prevention Hierarchy and Product / Component Management

The objective of the Program is to minimize the improper disposal of Program Product by providing an effective collection program and ensuring that the collected materials are either recycled or disposed of in an environmentally responsible manner. The Program strives to manage collected materials as high on the pollution prevention hierarchy[3] as possible, where economically feasible and viable. The application of the pollution prevention hierarchy and the management of each product varies by Program Product depending on options available and economic feasibility.

The Program maintains an established system for managing Program Products. After collection, Program Products are transported to the Program's primary processors. These processors include three for processing whole lamps, two for fixtures, one for crushed lamps and one for PCB containing ballasts. At the processors, Program Products are broken down into their respective component materials and either processed on site or sent to a downstream processor for further processing. Information about how material was managed by the Program's primary processors was based on information provided to PCA by the Program's primary processors.

Lamp processors are required to conform to the BC LightRecycle Lamp Processor Standard, which defines the minimum requirements to become an approved processor. The Standard sets out environmental, occupational health and safety, and material handling rules to ensure materials are handled appropriately.

Whole Lamps

Whole lamps were processed and broken down into various components under a controlled environment. As reported by the Program's processors, the component parts were recycled or disposed of as follows:

- Metal was sent to various downstream metal sites for recovery and recycling.
- Glass was sent to various concrete manufacturing companies for use in construction materials, concrete manufacturing or as an aggregate.

[3] The pollution prevention hierarchy is explained on pages 12 and 13 of the BC Recycling Regulation Guide available here: http://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/recycle/recycle_reg_guide2012.pdf

- Phosphor powder and mercury were stabilized, and sent to secure landfill.
- Mercury was chemically treated and sent to secure landfill.

Crushed Lamps

- Crushed lamps were sent to a processor and were managed using the same method for whole lamps.

Residential Fixtures

Residential fixtures contain materials similar to small appliances (e.g., metal, glass, plastics, etc.). As a result, the Program partnered with the Canadian Electrical Stewardship Association (CESA) stewardship program (ElectroRecycle) to collect residential fixtures along with small appliances and power tools at contracted collection sites that also serve as CESA depots. They were shipped to two independent processors where they were comingled with other electronics and broken down into their respective components.

Commercial Fixtures and Non-PCB Ballasts

Commercial fixtures and non-PCB ballasts were collected and managed outside the Program through the existing market-driven scrap metal recycling system. Given the value of the metal commodity, the Program assumes that the material is recycled, but some non-metal material would need to be disposed of. Since it is a market-driven system, the Program has no ability to verify or report on the volume and portion of the material recycled and or disposed of through this system.

PCB Ballasts

PCB ballasts were collected and managed as hazardous waste and incinerated at high temperature in a PCB licensed incinerator. PCBs are regulated from transportation to disposal by the BC Ministry of the Environment and equivalent agencies.

Table 9 provides a consolidated overview of the treatments and final disposition of materials derived from Program Products.

Table 9: Material Treatments

Material	Sub-Component	Treatment	Final Disposition
Lamps (all technologies)	Phosphor Powder	Chemical treatment, stabilization	Securely landfilled
	Mercury	Chemical treatment	Securely landfilled
	Metal	Physical treatment and smelting	Recycled – metal commodity
	Glass	Physical treatment	Recycled as aggregate in concrete or as granules in construction material manufacturing
Crushed Lamps	Metal and Glass	Same as whole lamps	Same as whole lamps

	Mercury and Phosphor Powder	Same as whole lamps	Same as whole lamps
Residential Fixtures [4]	Ferrous Steel	Managed through the (CESA) collection and recycling system (Sort/Separate/Grind/Shred/)	Recycled – Production, Processing, Non-processing
	Plastics		Recycled – Processing, Non-processing
	Aluminum		Recycled – Processing, Non-processing
	Wire and Cables and String lights		Recycled – Processing, Non-processing
	Copper		Recycled – Processing, Non-processing
	Glass		Recycled – Processing, Non-processing, Other final disposition
	Circuit Boards		Recycled – Refining, Processing
	Rechargeable and Non Rechargeable Batteries		Recycled–Non-processing
Commercial Fixtures and Non-PCB Ballasts	NA	Managed through the existing market driven scrap metal recycling system	
PCB Ballasts	NA	Hazardous Waste Management Company sent to PCB licensed incinerator.	Incineration

[4] Downstream Processes are based on the descriptions provided in the Downstream Flow documents detailing the end disposition of product managed, prepared by the Recycler Qualification Office (RQO) according to the EPSC Electronic Recycling Standard.

7 Product Sold, Product Collected and Recovery Rate

7.1 Products Sold

In 2017, members of the BC LightRecycle Program reported 33,560,012 units sold of LightRecycle Program Products in BC. Table 10 shows the number of units reported sold by Product Category in 2017.

Table 10: Units Reported Sold by Product Category in 2017

Product Category	Units Reported Sold
1. Fluorescent Tubes measuring ≤ 2 feet	191,854
2. Fluorescent Tubes measuring > 2 feet and ≤ 4 feet	2,455,204
3. Fluorescent Tubes measuring > 4 feet	225,753
4. Compact Fluorescent Lights (CFL)/ Screw-In Induction Lamps	1,950,126
5. Light Emitting Diodes (LED)	9,564,996
6. High Intensity Discharge (HID) and Other	400,537
7. Incandescent / Halogen	8,162,871
8. Miniature Bulb Package	379,853
9. Designated Small Fixtures/Decorative Light Strings	5,475,665
10. Fixture Category A	4,177,291
11. Fixture Category B	144,092
12. Large Outdoor Fixtures	65,090
13. Ballasts/Transformers (not integrated into lamps or fixtures)	366,680
Total	33,560,012

7.2 Products Collected

In 2017, the BC LightRecycle Program collected approximately 6,990,298 units of lamps, 627 tonnes[5] of fixtures through residential collections, 20,327 kg of PCB ballasts[6] and 12,544 kg of crushed lamps. Table 11 provides a summary of the collection data. Collection quantities for the different Program Products are based on annual reports and/or estimated based on quantities processed by the Program's processors between January 1 and December 31, 2017, as reported by the Program's processors. The

[5] Due to the comingling of collections and processing and the complexity of the recycling system, it is not possible for the Program to be able to specifically identify the proportion of materials attributed to LightRecycle and the Program has limited ability to verify accuracy of the reported information to a precise degree of certainty.

[6] This weight includes the weight of the drum.

reported quantities may include Program Products received in the 2016 fiscal year but processed in the 2017 fiscal year and may exclude units collected in the 2017 fiscal year that were not processed as of December 31, 2017.

Table 11: Estimated Quantity of Products Collected in 2017

Program Product	Estimated Quantity Collected
Whole Lamps	6,990,298 units
Residential Fixtures	627 tonnes
PCB Containing Ballasts	20,327 kg
Crushed Lamps	12,544 kg

Table 12 presents a breakdown of the estimated number of units of each lamp Product Category collected by the Program in 2017. Targets for both HID and Other and Residential Fixtures in 2017 (119, 576 units and 189 - 220 metric tonnes respectively) were exceeded.

Table 12: Whole Lamp Units Collected by Product Category

Lamp Product Category	Units Collected
1. Fluorescent Tubes (All sizes and shapes) [7]	2,758,031
2. Compact Fluorescent Lights (CFL)/ Screw-In Induction Lamps	1,272,124
3. Light Emitting Diodes (LED)	88,236
4. High Intensity Discharge (HID) and Other [8]	227,725
5. Incandescent / Halogen [9]	2,644,182
Total Units Collected	6,990,298

Table 13 sets out the estimated number of lamp Program Product units collected by individual regional districts. The estimated quantities were calculated by multiplying an average of units per box type (see Table 14) by total boxes received by type as reported by the Program's processors. The average units per box type were based on a small samples size of the collected boxes in 2017.

[7] This number includes 0-2', 2-4', 4-8', and U and O shaped tubes.

[8] This number includes Sodium lamps, HPS lamps (High Pressure Sodium), Metal Halide lamps, Mercury Vapour lamps, Induction tubes, UVC lamps and tubes, and Neon and Poly-coated tubes. Neon and poly-coated tubes are reported from the processor in length of feet. The length is then divided by 4 and rounded to nearest whole number to obtain reported units.

[9] This number includes projector bulbs and miniature bulbs.

Table 13: Estimated Units of Lamps Collected by Regional District in 2017

Regional District	Estimated Lamp Units
Alberni Clayoquot	23,164
Bulkley Nechako	21,290
Capital Regional District	447,013
Cariboo	46,888
Central Coast	-
Central Kootenay	47,955
Central Okanagan	329,789
Columbia Shuswap	54,992
Comox Valley	113,424
Cowichan Valley	120,958
East Kootenay	61,898
Fraser Fort George	72,200
Fraser Valley	361,697
Kitimat Stikine	30,119
Kootenay Boundary	40,230
Metro Vancouver	4,727,242
Mt. Waddington	10,274
Nanaimo Regional District	197,644
North Okanagan	122,366
Northern Rockies	2,261
Okanagan Similkameen	89,479
Peace River	28,236
Powell River Regional District	26,776
Skeena-Queen Charlotte	11,613
Squamish Lillooet	56,004
Strathcona	45,368
Sunshine Coast	42,517
Thompson Nicola	122,299
Total	**7,253,698**

Table 14: Average Units per Box Type 2017[10]

Box Type	Average Units per box
Residential CFL and mixed bulbs	131
Residential four foot tubes	35
Residential eight foot tubes	15
Commercial CFL and mixed bulbs	410
Commercial four foot tubes-gaylord	678
Commercial large four foot tube box	25
Commercial four foot tubes-plywood	242
Commercial eight foot tubes	29

Due to the variability in the number of Program units actually collected within a box, the total number of units by regional district only represents a rough estimate of collected volumes and does not necessarily reflect the actual number of units collected by regional district.

Commercial fixtures and non-PCB ballasts were collected and managed outside the program through the existing market driven scrap metal recycling system.

Table 15 provides a summary of the targets and the Program's performance. All 2017 collection targets were exceeded by the Program.

Table 15: Collection Rate Targets and Performance

Collection Rate Targets	2017 Target	2017 Collections	Program's Performance
HID, UV, Neon lamps (Units)	119,576	227,725	N/A
Residential Fixtures (MT)[11]	189-220	627	N/A

7.3 Capture Rates

The Program Plan sets capture rate targets for fluorescent tubes and CFLs rather than recovery rates. The capture rate compares the quantity of products collected in a year to the quantity of products estimated to be "available for collection" in that year.

The methodology used to determine the units "available for collection" for fluorescent tubes and CFLs (as provided in Table 16) applied the best available data as of 2012 when the Program Plan was developed and is subject to change.

[10] Average units per box were based on 2017 sampling
[11] The residential fixtures target was converted and rounded from kgs to tonnes to match the data available from Program processors

Table 16: Capture Rates – Fluorescent Tubes and CFLs

Product	Units Available to Collect	Units Collected	Capture Rate Target	Actual Capture Rate
Fluorescent Tubes	2,925,358	2,758,031	40-75%	94%
CFLs	1,099,346	1,272,124	40-75%	115%

8 Summary of Expenditures and Fees

The Program is funded by members based on environmental handling fees (EHFs) applied to the sale of new program products in or into British Columbia. The fee may be passed on by the member to their customers, either as a visible fee or by incorporating the cost directly into the price of the product.

In 2017, all fees were used for Program purposes; directly funding the promotion, collection, transportation and recycling of collected products. Table 17 provides a list of the EHF rates charged per unit for Program product categories in 2017.

Table 17: EHF Rate Schedule

Product Category	Fee Category	EHF in 2016
Lamps	1. Fluorescent/Induction/UV Tubes measuring ≤ 2 feet	$0.20
	2. Fluorescent/Induction/UV Tubes measuring > 2 feet and ≤ 4 feet	$0.40
	3. Fluorescent/Induction/UV Tubes measuring > 4 feet	$0.80
	4. Compact Fluorescent Lights (CFL)/ Screw-In Induction Lamps	$0.15
	5. Light Emitting Diodes (LED)	$0.15
	6. High Intensity Discharge (HID) and Other	$1.10
	7. Incandescent / Halogen	$0.05
	8. Miniature Bulb Package	$0.10
Fixtures	9. Designated Small Fixtures / Decorative Light Strings	$0.15
	10. Fixture Category A	$0.15
	11. Fixture Category B	$0.15
	12. Large Outdoor Fixtures	$0.15
Ballasts	13. Ballasts	$0.15

9 Plan Performance

2017 Key Performance Targets			
Regulation, Part 2 section 8(2)(g)			
2017 Priority Stewardship Plan Targets		**2017 Performance**	**Strategies for Improvement**
Capture Rate: Fluorescent Tubes	Target: 40-75%	94%	N/A
Capture Rate: CFLs	Target: 40-75%	115%	N/A
HID, UV, Neon lamps (Units)	119,576	227,725	N/A
Residential Fixtures (metric tonnes)[12]	189-220	627	N/A
Consumer Awareness	55% (by end of 2017)	55% as of end of 2017	N/A
2017 Accessibility Targets			
Residential Lamps	95%	99.65% (as of Dec 31st 2016)	N/A
Residential Fixtures	95%	98.07% (as of Dec 31st 2016)	N/A
Commercial Lamps	95%	99.29% (as of Dec 31st 2016)	N/A
Commercial Fixtures and Non- PCB Ballasts	95%	95.89% (as of Dec 31st 2016)	N/A

[12] The residential fixtures target was converted and rounded from kgs to metric tonnes to match the data available from Program processors

Appendix A - Advertising and Communication Materials

Canada Post mailout + two Facebook advertisements, December 2017

In-depot and newspaper advertisments for Regional Recycling sponsorship, December 2017

BCEA print ad, October 2017

NewAd, April to June 2017

Appendix B - List of Contracted Collection Sites as of December 31st 2017

	Depot Name	City	Regional District
1.	7 Mile Landfill and Recycling Center	Port McNeil	Mt. Waddington
2.	Abbotsford Bottle Depot	Abbotsford	Fraser Valley
3.	Abbotsford Community Services Recycling	Abbotsford	Fraser Valley
4.	Abbotsford Transfer Station	Abbotsford	Fraser Valley
5.	ABC Recycling - Burnaby	Burnaby	Metro Vancouver
6.	ABC Recycling - Campbell River	Campbell River	Strathcona
7.	ABC Recycling - Fort St. John	Fort St. John	Peace River
8.	ABC Recycling - Kelowna	Kelowna	Central Okanagan
9.	ABC Recycling - Prince George	Prince George	Fraser Fort George
10.	ABC Recycling - Surrey	Surrey	Metro Vancouver
11.	ABC Recycling - Terrace	Terrace	Kitimat Stikine
12.	Action Steel Sales	Penticton	Okanagan Similkameen
13.	Agassiz Bottle Depot	Agassiz	Fraser Valley
14.	Aldergrove Bottle Depot	Aldergrove	Metro Vancouver
15.	Allied Salvage & Metals	Richmond	Metro Vancouver
16.	Allied Scrap Metal Squamish	Squamish	Squamish Lillooet
17.	Alpine Disposal & Recycling	Victoria	Capital Regional District
18.	Applecross Home Hardware	Nanaimo	Nanaimo Regional District
19.	Armstrong Bottle Depot	Armstrong	North Okanagan
20.	Asset Investment Recovery	Victoria	Capital Regional District
21.	Augusta Recyclers	Powell River	Powell River Regional District
22.	Bay Street Castle	Victoria	Capital Regional District
23.	Bella Bella Eco-Depot	Bella Bella	Central Coast
24.	Bella Coola Recycling Depot	Hagensborg	Central Coast
25.	Bill's Bottle Depot	Salmon Arm	Columbia Shuswap
26.	Bings Creek Solid Waste	Duncan	Cowichan Valley
27.	Blight's Home Hardware	Vancouver	Metro Vancouver
28.	Border Town Recycling Group	Stewart	Kitimat Stikine
29.	Bottle Depot - Glanford	Saanich	Capital Regional District
30.	Bottle Depot - Queens	Victoria	Capital Regional District
31.	Boucherie Bottle Depot & Self Storage	West Kelowna	Central Okanagan
32.	Brentwood Auto & Metal Retailers	Saanichton	Capital Regional District
33.	Bridgeview Return-It Bottle Depot	Surrey	Metro Vancouver
34.	Bulkley Valley Bottle Depot	Smithers	Bulkley Nechako
35.	Burgess Plumbing Heating & Electrical	Williams Lake	Cariboo
36.	Burns Lake Home Hardware	Burns Lake	Bulkley Nechako
37.	Burns Lake Recycling Return-it Depot	Burns Lake	Bulkley Nechako
38.	Burnside Home Hardware	Victoria	Capital Regional District
39.	Campbell Mountain Sanitary Landfill	Penticton	Okanagan Similkameen
40.	Campbell River Waste Management Centre	Campbell River	Strathcona

	Depot Name	City	Regional District
41.	Canadian Tire #351 Penticton	Penticton	Okanagan Similkameen
42.	Canadian Tire #355 Kamloops	Kamloops	Thompson Nicola
43.	Canadian Tire #362 Nanaimo	Nanaimo	Nanaimo Regional District
44.	Canadian Tire #368 Victoria	Victoria	Capital Regional District
45.	Canadian Tire #389 Vancouver Cambie	Vancouver	Metro Vancouver
46.	Canadian Tire #433 Chilliwack	Chilliwack	Fraser Valley
47.	Canadian Tire #434 Abbotsford	Abbotsford	Fraser Valley
48.	Canadian Tire #437 Campbell River	Campbell River	Strathcona
49.	Canadian Tire #438 Williams Lake	Williams Lake	Cariboo
50.	Canadian Tire #443 Surrey	Surrey	Metro Vancouver
51.	Canadian Tire #480 Powell River	Powell River	Powell River Regional District
52.	Canadian Tire #487 Quesnel	Quesnel	Cariboo
53.	Canadian Tire #488 Port Alberni	Port Alberni	Alberni Clayoquot
54.	Canadian Tire #489 Surrey	Surrey	Metro Vancouver
55.	Canadian Tire #601 North Vancouver	North Vancouver	Metro Vancouver
56.	Canadian Tire #603 Burnaby	Burnaby	Metro Vancouver
57.	Canadian Tire #604 Vancouver	Vancouver	Metro Vancouver
58.	Canadian Tire #608 Coquitlam	Coquitlam	Metro Vancouver
59.	Canadian Tire #609 Port Coquitlam	Port Coquitlam	Metro Vancouver
60.	Canadian Tire #610 Richmond	Richmond	Metro Vancouver
61.	Canadian Tire #636 Sechelt	Sechelt	Sunshine Coast
62.	Canadian Tire #678 Surrey	Surrey	Metro Vancouver
63.	Capital Salvage	Vancouver	Metro Vancouver
64.	Carney's Waste Systems	Squamish	Squamish Lillooet
65.	Ccon Steel	Abbotsford	Fraser Valley
66.	Central Builders' Supply Prince George	Prince George	Fraser Fort George
67.	Central Hardware	Enderby	North Okanagan
68.	Central Saanich Home Hardware	Saanichton	Capital Regional District
69.	Century Home Hardware	100 Mile House	Cariboo
70.	Chase Home Hardware Building Centre	Chase	Thompson Nicola
71.	Chasers Bottle Depot	Vernon	North Okanagan
72.	Chetwynd Home Hardware	Chetwynd	Peace River
73.	Chetwynd Recycling & Bottle Depot	Chetwynd	Peace River
74.	Chilliwack Bottle Depot	Chilliwack	Fraser Valley
75.	Clearwater Eco Depot	Clearwater	Thompson Nicola
76.	CM Recycling	Quesnel	Cariboo
77.	Collingwood Bottle Exchange	Burnaby	Metro Vancouver
78.	Columbia Bottle Depot - Dease	Kelowna	Central Okanagan
79.	Columbia Bottle Depot - Kirschner	Kelowna	Central Okanagan
80.	Columbia Bottle Depot - St. Paul	Kelowna	Central Okanagan
81.	Columbia Recycle	Kimberly	East Kootenay

	Depot Name	City	Regional District
82.	Comox Valley Auto + Metal Recyclers	Courtenay	Comox Valley
83.	Comox Valley Waste Management Centre	Cumberland	Comox Valley
84.	Cook St. Castle Building Centre	Coquitlam	Metro Vancouver
85.	Coquitlam Return-It Depot	Coquitlam	Metro Vancouver
86.	Cormorant Island recycling Facility	Alert Bay	Mt. Waddington
87.	Cortes Island Waste Management Centre	Cortes Island	Strathcona
88.	Courtenay Return-It Depot	Courtenay	Comox Valley
89.	Cranbrook Bottle Depot	Cranbrook	East Kootenay
90.	D.C. Campbell Recycling Dawson Creek	Dawson Creek	Peace River
91.	D&S Electric	Williams Lake	Cariboo
92.	Davis Trading & Supply	Vancouver	Metro Vancouver
93.	Davie Village Home Hardware	Vancouver	Metro Vancouver
94.	District of Oak Bay	Oak Bay	Capital Regional District
95.	District of Tumbler Ridge	Tumbler Ridge	Peace River
96.	DL's Recycling Centre	Saanichton	Capital Regional District
97.	Do Your Part Recycling	Terrace	Kitimat Stikine
98.	Dolly's Home Hardware	Qualicum Beach	Nanaimo Regional District
99.	Duncan Home Hardware Building Centre	Duncan	Cowichan Valley
100.	Dunlop's Home Hardware Building Centre	Port Hardy	Mt. Waddington
101.	East Hastings Bottle Depot	Vancouver	Metro Vancouver
102.	Eco-Depot Recycling Centre	Fort St. John	Peace River
103.	Edmonds Return-It Depot	Burnaby	Metro Vancouver
104.	Enderby Return-it Recycling Depot	Enderby	North Okanagan
105.	Fernie Bottle Depot	Fernie	East Kootenay
106.	Fernie Home Building Center	Fernie	East Kootenay
107.	Fisher Road Recycling	Cobble Hill	Cowichan Valley
108.	Fleetwood Bottle Return Depot	Surrey	Metro Vancouver
109.	Fraser Lake Bottle Depot	Fraser Lake	Bulkley Nechako
110.	Fraser Valley Metal Exchange	Maple Ridge	Metro Vancouver
111.	Fraser Valley Return-It	Langley	Metro Vancouver
112.	Gabriola Island Recycling	Gabriola Island	Nanaimo Regional District
113.	Galiano Island Recycling Resources	Galiano Island	Capital Regional District
114.	Galiano Trading	Galiano Island	Capital Regional District
115.	Gandy's Home Hardware	Vancouver	Metro Vancouver
116.	General Grant's North Shore Bottle Depot	Kamloops	Thompson Nicola
117.	General Grant's Sahali	Kamloops	Thompson Nicola
118.	Gibsons Building Supplies	Gibsons	Sunshine Coast
119.	Gibsons Recycling Depot	Gibsons	Sunshine Coast
120.	Go Green Bottle Depot	Vancouver	Metro Vancouver
121.	Gold Trail Recycling	100 mile House	Cariboo
122.	Grand Forks Bottle Depot	Grand Forks	Kootenay Boundary

	Depot Name	City	Regional District
123.	Grand Forks Home Hardware	Grand Forks	Kootenay Boundary
124.	GRIPS - Garbage Recycling in Pender	Pender Island	Capital Regional District
125.	Guildford Bottle Depot	Surrey	Metro Vancouver
126.	Hagens Home Hardware	Mackenzie	Fraser-Fort George
127.	Haney Bottle Depot	Maple Ridge	Metro Vancouver
128.	Haney Builders Supplies	Maple Ridge	Metro Vancouver
129.	Happy Stan's Recycling	Port Coquitlam	Metro Vancouver
130.	Hartland Landfill Recycling Depot	Victoria	Capital Regional District
131.	Hazelton Bottle Depot	New Hazelton	Kitimat Stikine
132.	Hewer Home Hardware	Vancouver	Metro Vancouver
133.	High Point Electric	Surrey	Metro Vancouver
134.	Highway 4 Auto Salvage	Coombs	Bulkley Nechako
135.	Hipperson Home Hardware	Nelson	Central Kootenay
136.	Home Building Centre - Salmon Arm	Salmon Arm	Columbia Shuswap
137.	Home Building Centre - Vernon	Vernon	North Okanagan
138.	Home Hardware - Cranbrook	Cranbrook	East Kootenay
139.	Home Hardware - Penticton	Penticton	Okanagan Similkameen
140.	Home Hardware - Princeton	Princeton	Okanagan Similkameen
141.	Home Hardware - Revelstoke	Revelstoke	Columbia Shuswap
142.	Home Hardware - Sidney	Sidney	Capital Regional District
143.	Home Hardware - Williams Lake	Williams Lake	Cariboo
144.	Home Hardware - Courtenay	Courtenay	Comox Valley
145.	Home Hardware Building Centre - Merritt	Merritt	Thompson Nicola
146.	Hope Bottle Depot	Hope	Fraser Valley
147.	Hornby Island Waste Management Centre	Hornby Island	Comox Valley
148.	Houston Bottle Depot	Houston	Bulkley Nechako
149.	Interior Freight and Bottle Depot	Vernon	North Okanagan
150.	Invermere Home Hardware	Invermere	East Kootenay
151.	Ironwood Bottle Depot	Richmond	Metro Vancouver
152.	Island Return It - Campbell River	Campbell River	Strathcona
153.	Island Return It - Duncan	Duncan	Cowichan Valley
154.	Island Return It - Esquimalt	Esquimalt	Capital Regional District
155.	Island Return It - Sidney	Sidney	Capital Regional District
156.	Island Return It - South Cowichan	Cobble Hill	Cowichan Valley
157.	Island Solid Waste Management - Port Clements	Port Clements	Skeena-Queen Charlotte
158.	Island Solid Waste Management - Queen Charlotte	Queen Charlotte	Skeena-Queen Charlotte
159.	J&C Bottle Depot	Penticton	Okanagan Similkameen
160.	Junction Bottle Depot	Ladysmith	Cowichan Valley
161.	Kamloops Home Hardware	Kamloops	Thompson Nicola
162.	Kaslo Building Supplies	Kaslo	Central Kootenay
163.	Kensington Return It	Burnaby	Metro Vancouver

	Depot Name	City	Regional District
164.	Keremeos Sanitary Landfill	Keremeos	Okanagan Similkameen
165.	Kerrisdale Lumber	Vancouver	Metro Vancouver
166.	Kitchener Bottle Depot	Burnaby	Metro Vancouver
167.	Knox Mountain Metals	Kelowna	Central Okanagan
168.	KUTE Kitimat Recycling Depot	Kitimat	Kitimat Stikine
169.	Ladner Bottle Depot	Delta	Metro Vancouver
170.	Lake Cowichan Home Hardware	Lake Cowichan	Cowichan Valley
171.	Langley Bottle Depot	Langley	Metro Vancouver
172.	Lee's Bottle Depot	Burnaby	Metro Vancouver
173.	Lillooet Landfill	Lillooet	Squamish Lillooet
174.	Logan Lake Bottle Depot	Logan Lake	Thompson Nicola
175.	London Drugs #02	Vancouver	Metro Vancouver
176.	London Drugs #03	New Westminster	Metro Vancouver
177.	London Drugs #04	Vancouver	Metro Vancouver
178.	London Drugs #05	North Vancouver	Metro Vancouver
179.	London Drugs #06	Burnaby	Metro Vancouver
180.	London Drugs #07	Vancouver	Metro Vancouver
181.	London Drugs #08	Surrey	Metro Vancouver
182.	London Drugs #09	Surrey	Metro Vancouver
183.	London Drugs #10	Vancouver	Metro Vancouver
184.	London Drugs #11	Richmond	Metro Vancouver
185.	London Drugs #12	Kelowna	Central Okanagan
186.	London Drugs #14	Victoria	Capital Regional District
187.	London Drugs #15	Coquitlam	Metro Vancouver
188.	London Drugs #16	Abbotsford	Fraser Valley
189.	London Drugs #17	Delta	Metro Vancouver
190.	London Drugs #18	Langley	Metro Vancouver
191.	London Drugs #19	Vancouver	Metro Vancouver
192.	London Drugs #25	Burnaby	Metro Vancouver
193.	London Drugs #28	Vancouver	Metro Vancouver
194.	London Drugs #29	Victoria	Capital Regional District
195.	London Drugs #35	Kamloops	Thompson Nicola
196.	London Drugs #36	Nanaimo	Nanaimo Regional District
197.	London Drugs #37	Delta	Metro Vancouver
198.	London Drugs #39	Vernon	North Okanagan
199.	London Drugs #41	Chilliwack	Fraser Valley
200.	London Drugs #42	White Rock	Metro Vancouver
201.	London Drugs #44	West Vancouver	Metro Vancouver
202.	London Drugs #46	Victoria	Capital Regional District
203.	London Drugs #47	Maple Ridge	Metro Vancouver
204.	London Drugs #50	Vancouver	Metro Vancouver

	Depot Name	City	Regional District
205.	London Drugs #51	Prince George	Fraser Fort George
206.	London Drugs #52	Richmond	Metro Vancouver
207.	London Drugs #53	Vancouver	Metro Vancouver
208.	London Drugs #54	Victoria	Capital Regional District
209.	London Drugs #55	Mission	Fraser Valley
210.	London Drugs #56	Burnaby	Metro Vancouver
211.	London Drugs #61	Gibsons	Sunshine Coast
212.	London Drugs #67	Courtenay	Comox Valley
213.	London Drugs #70	Penticton	Okanagan Similkameen
214.	London Drugs #71	Burnaby	Metro Vancouver
215.	London Drugs #72	Nanaimo	Nanaimo Regional District
216.	London Drugs #73	Campbell River	Strathcona
217.	London Drugs #74	Vancouver	Metro Vancouver
218.	London Drugs #75	Surrey	Metro Vancouver
219.	London Drugs #76	Westbank	Central Okanagan
220.	London Drugs #77	Duncan	Cowichan Valley
221.	London Drugs #78	Vancouver	Metro Vancouver
222.	London Drugs #80	Squamish	Squamish Lillooet
223.	London Drugs #81	Surrey	Metro Vancouver
224.	London Drugs #82	Vancouver	Metro Vancouver
225.	London Drugs #85	Abbotsford	Fraser Valley
226.	Lone Butte Supply	100 Mile House	Cariboo
227.	Lorne Street Bottle Depot	Kamloops	Thompson Nicola
228.	Lougheed Return-It Depot	Coquitlam	Metro Vancouver
229.	Louis Creek Eco-Depot	Louis Creek	Thompson Nicola
230.	Lowe’s Abbotsford	Abbotsford	Fraser Valley
231.	Lowe’s Nanaimo	Nanaimo	Nanaimo
232.	Lowe's Prince George	Prince George	Peace River
233.	Lowe's Queensborough	New Westminster	Metro Vancouver
234.	Lowe’s Victoria	Victoria	Capital
235.	Lower Nicola Eco-Depot	Merritt	Thompson Nicola
236.	Macleods True Value Hardware	Fort St. James	Bulkley Nechako
237.	Mac's Traders	Langley	Metro Vancouver
238.	Maple Ridge Bottle Depot	Maple Ridge	Metro Vancouver
239.	Maple Ridge Lighting	Maple Ridge	Metro Vancouver
240.	Mayne Island Building Center	Mayne Island	Capital Regional District
241.	Meade Creek Recycling Drop-off Depot	Lake Cowichan	Cowichan Valley
242.	Merritt Return-It Depot	Merritt	Thompson Nicola
243.	Metrotown Bottle Return It Center	Burnaby	Metro Vancouver
244.	Mission Flats Landfill	Kamloops	Thompson Nicola
245.	Mission Recycling	Mission	Fraser Valley

	Depot Name	City	Regional District
246.	Mission Recycling Centre & Bottle Depot	Mission	Fraser Valley
247.	Mouatt's Home Hardware	Salt Spring Island	Capital Regional District
248.	MountainHigh Lighting	Castlegar	Central Kootenay
249.	Nak'azdli Recycling Depot	Fort St. James	Bulkley Nechako
250.	Nanaimo Recycling Exchange Society	Nanaimo	Nanaimo Regional District
251.	Nelson Home Hardware Building Centre	Nelson	Central Kootenay
252.	Nelson Leafs Recycling Centre	Nelson	Central Kootenay
253.	New & Nearly New	Kimberly	East Kootenay
254.	New Life Furniture and Recycling	Creston	Central Kootenay
255.	New Westminster Recycle Depot	New Westminster	Metro Vancouver
256.	Newton Bottle Depot	Surrey	Metro Vancouver
257.	North Shore Bottle Depot	North Vancouver	Metro Vancouver
258.	North Vancouver Bottle & Return-It Depot	North Vancouver	Metro Vancouver
259.	North Vancouver Transfer Station	North Vancouver	Metro Vancouver
260.	Oak Bay Home Hardware	Victoria	Capital Regional District
261.	OK Bottle Depot	Richmond	Metro Vancouver
262.	Okanagan Falls Landfill	Okanagan Falls	Okanagan Similkameen
263.	Oliver Sanitary Landfill	Oliver	Okanagan Similkameen
264.	Osoyoos Bottle Depot	Osoyoos	Okanagan Similkameen
265.	Osoyoos Home Hardware	Osoyoos	Okanagan Similkameen
266.	Panorama Village Return-It Depot	Surrey	Metro Vancouver
267.	Parksville Bottle & Recycling Depot	Parksville	Nanaimo Regional District
268.	Parksville Home Building Centre	Parksville	Nanaimo Regional District
269.	Parksville Home Hardware	Parksville	Nanaimo Regional District
270.	Parsons Scrap Metals	Surrey	Metro Vancouver
271.	Pearson's Home Hardware	North Vancouver	Metro Vancouver
272.	Peerless Road Recycling	Ladysmith	Cowichan Valley
273.	Pemberton Recycling Centre	Pemberton	Squamish Lillooet
274.	Pender Island Recycling Society	Pender Island	Capital Regional District
275.	PG Recycling	Prince George	Fraser Fort George
276.	Pitt Meadows Bottle & Return-It Depot	Pitt Meadows	Metro Vancouver
277.	Planet Earth Recycling	Westbank	Central Okanagan
278.	Port McNeil Recycling Depot	Port McNeil	Mt. Waddington
279.	Port Moody One-Stop Market & Bottle Depot	Port Moody	Metro Vancouver
280.	Powell Street Return-it Bottle Depot	Vancouver	Metro Vancouver
281.	Powerhouse Recycled Auto & Truck Parts	Cumberland	Comox Valley
282.	Puds Auto Wrecking & Towing	Osoyoos	Okanagan Similkameen
283.	Quality Glass	Ashcroft	Thompson Nicola
284.	Queensborough Landing Return-It	New Westminster	Metro Vancouver
285.	R&T Bottle Depot	Abbotsford	Fraser Valley
286.	Refuse Resource Recovery	Victoria	Capital Regional District

	Depot Name	City	Regional District
287.	Regional Recycling - Abbotsford	Abbotsford	Fraser Valley
288.	Regional Recycling - Burnaby	Burnaby	Metro Vancouver
289.	Regional Recycling - Cloverdale	Surrey	Metro Vancouver
290.	Regional Recycling - Hayes	Nanaimo	Nanaimo Regional District
291.	Regional Recycling – Old Victoria	Nanaimo	Nanaimo Regional District
292.	Regional Recycling - Prince Rupert	Prince Rupert	Skeena-Queen Charlotte
293.	Regional Recycling - Richmond	Richmond	Metro Vancouver
294.	Regional Recycling - Vancouver	Vancouver	Metro Vancouver
295.	Regional Recycling - Whistler	Whistler	Squamish Lillooet
296.	Revelstoke Bottle Depot	Revelstoke	Columbia Shuswap
297.	Richmond Recycling Depot	Richmond	Metro Vancouver
298.	Ridge Meadows Recycling Society	Maple Ridge	Metro Vancouver
299.	Rona Abbotsford #61220	Abbotsford	Fraser Valley
300.	Rona Alert Bay #1215	Alert Bay	Mt. Waddington
301.	Rona Burnaby #61270	Burnaby	Metro Vancouver
302.	Rona Chilliwack #61390	Chilliwack	Fraser Valley
303.	Rona Clearwater #06410	Clearwater	Thompson Nicola
304.	Rona Cobble Hill #61040	Cobble Hill	Cowichan Valley
305.	Rona Coquitlam #61260	Coquitlam	Metro Vancouver
306.	Rona Coquitlam #61290	Coquitlam	Metro Vancouver
307.	Rona Fraser Valley	Mission	Fraser Valley
308.	Rona Hope #61350	Hope	Fraser Valley
309.	Rona Kamloops #61310	Kamloops	Thompson Nicola
310.	Rona Kelowna #61700	Kelowna	Central Okanagan
311.	Rona Langley #61810	Langley	Metro Vancouver
312.	Rona Madeira Park #9551 & #61420	Madeira Park	Sunshine Coast
313.	Rona Maple Ridge #61190	Maple Ridge	Metro Vancouver
314.	Rona Nanaimo #61030	Nanaimo	Nanaimo Regional District
315.	Rona New Westminster #6158	New Westminster	Metro Vancouver
316.	Rona North Vancouver #61740	North Vancouver	Metro Vancouver
317.	Rona North Vancouver #8140	North Vancouver	Metro Vancouver
318.	Rona Pemberton Valley Hardware #08522	Pemberton	Squamish Lillooet
319.	Rona Penticton #61480	Penticton	Okanagan Similkameen
320.	Rona Port McNeil #1195	Port McNeil	Mt. Waddington
321.	Rona Powell River #2791	Powell River	Powell River Regional District
322.	Rona Quesnel #61320	Quesnel	Cariboo
323.	Rona Richmond #8040	Richmond	Metro Vancouver
324.	Rona Squamish #61450	Squamish	Squamish Lillooet
325.	Rona Surrey #61240	Surrey	Metro Vancouver
326.	Rona Surrey #61720	Surrey	Metro Vancouver
327.	Rona Surrey-Newton #61250	Surrey	Metro Vancouver

	Depot Name	City	Regional District
328.	Rona Tsawwassen	Tsawwassen	Metro Vancouver
329.	Rona Vancouver #61760	Vancouver	Metro Vancouver
330.	Rona Vanderhoof #11690	Vanderhoof	Bulkley Nechako
331.	Rona Vernon #61300	Vernon	North Okanagan
332.	Rona Victoria #61710	Victoria	Capital Regional District
333.	Rona Whistler #61460	Whistler	Squamish Lillooet
334.	Rona Williams Lake #61340	Williams Lake	Cariboo
335.	Ross Bay Home Hardware	Victoria	Capital Regional District
336.	Rypac Metal Recycling	Surrey	Metro Vancouver
337.	R3 Recycle-It Resource Recovery	Fort St John	Peace River
338.	Salish Soils	Sechelt	Sunshine Coast
339.	Salt Spring Island Recycling Depot	Salt Spring Island	Capital Regional District
340.	Salvation Army - Brentwood Thrift Store	Brentwood	Capital Regional District
341.	Salvation Army - E 12th Ave Thrift Store	Vancouver	Metro Vancouver
342.	Salvation Army - Hillside Thrift Store	Victoria	Capital Regional District
343.	Salvation Army - Langley Thrift Store	Langley	Metro Vancouver
344.	Salvation Army - Mill Bay Thrift Store	Mill Bay	Cowichan Valley
345.	Salvation Army - North Vancouver Thrift Store	North Vancouver	Metro Vancouver
346.	Salvation Army - Port Coquitlam Thrift Store	Port Coquitlam	Metro Vancouver
347.	Salvation Army - Prince George	Prince George	Fraser Fort George
348.	Salvation Army - Sooke Thrift Store	Sooke	Capital Regional District
349.	Salvation Army - View Royal Thrift Store	View Royal	Capital Regional District
350.	Sandy's Auto Parts	Langford	Capital Regional District
351.	Sapperton Return-It Depot	New Westminster	Metro Vancouver
352.	Sardis Bottle Depot	Chilliwack	Fraser Valley
353.	Schnitzer Steel Pacific - Campbell River	Duncan	Strathcona
354.	Schnitzer Steel Pacific - Cassidy	Cassidy	Nanaimo Regional District
355.	Schnitzer Steel Pacific - Duncan	Duncan	Cowichan Valley
356.	Schnitzer Steel Pacific - Victoria	Victoria	Capital Regional District
357.	Scotch Creek Bottle Depot	Scotch Creek	Columbia Shuswap
358.	Scotch Creek Home Building Center	Scotch Creek	Columbia Shuswap
359.	Scott Road Bottle Depot	Surrey	Metro Vancouver
360.	Scrap King Autowrecking & Towing	Salmo	Central Kootenay
361.	Sechelt P/U Recyclers	Sechelt	Sunshine Coast
362.	Semiahmoo Bottle Depot	Surrey	Metro Vancouver
363.	Shepherds Home Hardware	Armstrong	North Okanagan
364.	Simpson Home Hardware	West Vancouver	Metro Vancouver
365.	Skyway Distributors	Cranbrook	East Kootenay
366.	Smithers Home Hardware	Smithers	Bulkley Nechako
367.	Smithers Lumber Yard	Smithers	Bulkley Nechako
368.	Smokey Creek Salvage	South Slocan	Central Kootenay

	Depot Name	City	Regional District
369.	Sointula Recycling Depot	Sointula	Mt. Waddington
370.	Sooke Home Hardware	Sooke	Capital Regional District
371.	South Thompson Recycling	Pritchard	Thompson Nicola
372.	South Vancouver Bottle Depot	Vancouver	Metro Vancouver
373.	Southridge Building Supplies	Surrey	Metro Vancouver
374.	Summerland Landfill	Summerland	Central Okanagan
375.	Sun Coast Waste Eco Depot	Port Alberni	Alberni Clayoquot
376.	Sun Dial Lighting Vernon	Vernon	North Okanagan
377.	Sunset Coast Bottle Depot	Powell River	Powell River Regional District
378.	Surrey Central Return-It	Surrey	Metro Vancouver
379.	Surrey Transfer Station	Surrey	Metro Vancouver
380.	T-2 Market Oliver	Oliver	Okanagan Similkameen
381.	Terrace Bottle Depot	Terrace	Kitimat Stikine
382.	The Battery Doctors	Kelowna	Central Okanagan
383.	The Hut Bottle Depot	Princeton	Okanagan Similkameen
384.	The Lampost	Kamloops	Thompson Nicola
385.	The Re-Use-It Centre Whistler	Whistler	Squamish Lillooet
386.	Thorsen Creek Recycling Depot	Bella Coola	Central Coast
387.	Tofino Co-op Hardware	Tofino	Alberni Clayoquot
388.	Trail Bay Hardware #51784	Sechelt	Sunshine Coast
389.	Trail Bottle Depot	Trail	Kootenay Boundary
390.	Tri Port Recycling	Port Hardy	Mt. Waddington
391.	Tsawwassen Home Building Centre	Delta	Metro Vancouver
392.	Tsawwassen Return it Center - D&G	Delta	Metro Vancouver
393.	Ucluelet Bottle Depot	Ucluelet	Alberni Clayoquot
394.	Unadvertised	Chilliwack	Fraser Valley
395.	Unadvertised	Kelowna	Central Okanagan
396.	Unadvertised	Langford	Capital Regional District
397.	Unadvertised	Maple Ridge	Metro Vancouver
398.	Unadvertised	Nanaimo	Nanaimo Regional District
399.	Unadvertised	Saanich	Capital Regional District
400.	Unadvertised	Surrey	Metro Vancouver
401.	Unadvertised	Vancouver	Metro Vancouver
402.	Unadvertised	Victoria	Capital Regional District
403.	Unadvertised	Delta	Metro Vancouver
404.	Unadvertised	Victoria	Capital Regional District
405.	Unadvertised	North Vancouver	Metro Vancouver
406.	Unadvertised	Abbotsford	Fraser Valley
407.	Unadvertised	Kelowna	Central Okanagan
408.	Unadvertised	Burnaby	Metro Vancouver
409.	Unadvertised	Delta	Metro Vancouver

	Depot Name	City	Regional District
410.	Unadvertised	New Westminster	Metro Vancouver
411.	Unadvertised	Burnaby	Metro Vancouver
412.	Unadvertised	Coquitlam	Metro Vancouver
413.	Unadvertised	Surrey	Metro Vancouver
414.	Unadvertised	Victoria	Capital Regional District
415.	Unadvertised	Langley	Metro Vancouver
416.	Unadvertised	Coquitlam	Metro Vancouver
417.	Unadvertised	Winlaw	Central Kootenay
418.	Unadvertised	Burnaby	Metro Vancouver
419.	Unadvertised	Dawson Creek	Peace River
420.	Unadvertised	Fort St. John	Peace River
421.	Unadvertised	Vancouver	Metro Vancouver
422.	Unadvertised	Richmond	Metro Vancouver
423.	Urban Impact Recycling	Richmond	Metro Vancouver
424.	Valemount Recycling Center	Valemount	Fraser Fort George
425.	Vancouver Central Return-It Depot	Vancouver	Metro Vancouver
426.	Vancouver West Bottle Depot	Vancouver	Metro Vancouver
427.	Venture Bottle Depot - Lumby	Lumby	North Okanagan
428.	Venture Training Vernon	Vernon	North Okanagan
429.	Village of Gold River	Gold River	Strathcona
430.	Village of New Denver	New Denver	Central Kootenay
431.	Walnut Grove Bottle Depot	Langley	Metro Vancouver
432.	Wastech Services	Coquitlam	Metro Vancouver
433.	Wells Gray Home Hardware	Clearwater	Thompson Nicola
434.	West Coast Metal Recycling	Langley	Metro Vancouver
435.	West-Can Home Hardware	Burnaby	Metro Vancouver
436.	Westbank Home Hardware	Westbank	Central Okanagan
437.	Westcoast Hardware	Port Alberni	Alberni Clayoquot
438.	Whistler Home Hardware	Whistler	Squamish Lillooet
439.	White Rock Return It Depot	White Rock	Metro Vancouver
440.	Wide Sky Disposal	Fort Nelson	Northern Rockies
441.	Willow Point Bottle Depot	Campbell River	Strathcona
442.	Willowbrook Recycling Depot	Langley	Metro Vancouver
443.	Wilway Lumber	Abbotsford	Fraser Valley
444.	Winfield Return It Centre	Lake Country	Central Okanagan
445.	Woss Recycling Depot	Woss	Mt. Waddington

Appendix C - Audited Financial Statement

PRODUCT CARE ASSOCIATION OF CANADA
BC LAMPS AND LIGHTING EQUIPMENT PROGRAM

STATEMENT OF REVENUES AND EXPENSES

31 DECEMBER 2017

PRODUCT CARE ASSOCIATION OF CANADA
BC LAMPS AND LIGHTING EQUIPMENT PROGRAM
Statement of Revenues and Expenses
For the year ended 31 December 2017

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ROLFE, BENSON LLP
CHARTERED PROFESSIONAL ACCOUNTANTS

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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 Lamps and Lighting Equipment Program (the "Statement") as reported by Product Care Association of Canada for the year ended 31 December 2017 and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Statement

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

Auditors' Responsibility

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

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

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

INDEPENDENT AUDITORS' REPORT - continued

Opinion

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

Restriction on Distribution

This report is prepared on the direction of Product Care Association of Canada's management and the 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 of Canada's management and the BC Ministry of Environment and should not be distributed to other parties.

Rolfe, Benson LLP

CHARTERED PROFESSIONAL ACCOUNTANTS

Vancouver, Canada
10 April 2018

PRODUCT CARE ASSOCIATION OF CANADA
BC LAMP AND LIGHTING EQUIPMENT PROGRAM
Statement of Revenues and Expenses
For the year ended 31 December 2017

		2017
Revenues	**$**	**5,494,612**
Program expenses		
Processing		**2,984,581**
Collection		**728,195**
Administration (Note 3(c))		**496,002**
Transportation		**295,697**
Communications		**218,435**
		4,722,910
Excess of revenues over expenses for the year	**$**	**771,702**

Change in Accounting Policy (Note 2)

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

PRODUCT CARE ASSOCIATION OF CANADA
BC LAMPS AND LIGHTING EQUIPMENT PROGRAM
Notes to the Statement of Revenues and Expenses
For the year ended 31 December 2017

1. Basis of Presentation

The Statement of Revenues and Expenses (the "Statement") only includes the revenues and expenses of the BC Lamps and Lighting Equipment Program (the "Program") (previously the BC Light Recycle Program), a segment of the operations of Product Care Association of Canada (the "Association").

2. Change in Accounting Policy

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

The Association has accounted for this change in accounting policy retroactively as a prior period restatement of opening accumulated surplus. As a result, accumulated surplus as at 1 January 2017 has decreased by $533,518 which represents revenues that were previously reported in the 2016 fiscal year and are now reported in 2017 under the new accounting policy. As the Program's Statement does not present comparative figures or accumulated surplus the adjustments impacting the previous year are not reflected in the Statement.

3. Summary of Significant Accounting Policies

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

(a) Revenue Recognition

Environmental Handling Fees (EHFs) are received from members of the BC Lamps and Lighting Equipment 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. EHFs revenues are recognized as individual members report and remit them as required by the Association's membership agreement which is at the end of the month following the reporting period that the designated program materials were sold by the member.

(b) Use of Estimates

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

3. Summary of Significant Accounting Policies - continued

(c) General and Administrative Expenses - Overhead Allocation

A portion of the total general and administrative expenses of the Association, net of expense recoveries, has been allocated to this Program. The allocation of general and administrative expenses to this Program is determined using the percentage of program specific operating expenses as compared to total operating expenses for all the Association's programs. Included in administration expense is $258,871 of overhead expense which has been allocated to the Program.

Appendix D - 2017 Third Party Assurance Statement for Non-Financial Information

PRODUCT CARE ASSOCIATION OF CANADA
BC LAMPS AND LIGHTING EQUIPMENT PROGRAM

INDEPENDENT REASONABLE ASSURANCE REPORT

31 DECEMBER 2017

ROLFE, BENSON LLP
CHARTERED PROFESSIONAL ACCOUNTANTS

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INDEPENDENT REASONABLE ASSURANCE REPORT

To the Directors of
Product Care Association of Canada,

Assurance Level and Selected Information

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 Lamps and Lighting Equipment Program ("LightRecycle") to the Ministry of Environment for the year ended 31 December 2017:

- Section 4.1 - Collection Sites and Appendix B - 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 7.2 - Products Collected - the description of how total amounts of the producer's product collected has been calculated in accordance with Section 8(2)(e) of the Recycling Regulation; and
- Section 9 - Plan Performance – the description of performance for the year in relation to targets in the approved stewardship plan under Section 8(2)(b), (d) and (e) of the Recycling Regulation.

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

Responsibilities

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

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.

Applicable Quality Control Requirements

We apply Canadian Standard on Quality Control 1 and, accordingly, maintain a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Scope of the Reasonable Assurance Engagement

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; and
- 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 Lamps and Lighting Equipment Program for the year ended 31 December 2017 presents fairly, in all material respects, in accordance with the evaluation criteria listed in Appendix 1:

- The location of collection facilities, and any changes in the number and location of collection facilities from the previous report in accordance with Section 8(2)(b) of the Recycling Regulation;
- The description of how the recovered product was managed in accordance with the pollution prevention hierarchy under Section 8(2)(d) of the Recycling Regulation;
- The description of how total amounts of the producer's product collected 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 in the Annual Report:

1. The Association does not present a recovery rate in the Annual Report. As such, the total amount of producer's products sold as presented on Table 10 - Units Reported Sold by Product Category in 2017 of the Annual Report has not been included in the Selected Information in accordance with the Guide to Third Party Assurance Requirements for Non-Financial Information in Annual Reports - 2017 Reporting Year dated October 2017 as issued by the British Columbia Ministry of Environment.
2. Section 9 - Plan Performance of the Annual Report contains performance targets for capture rates which is not included in the scope of our reasonable assurance engagement for Section 8(2)(e) of the Recycling Regulation, and as such, this is not included in the Selected Information.

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.

Rolfe, Benson LLP

CHARTERED PROFESSIONAL ACCOUNTANTS

Vancouver, Canada
27 June 2018

Appendix 1

Evaluation Criteria

Collection facilities

Specific disclosures in the annual stewardship report from Section 4.1 - Collection Sites and Appendix B - List of Contracted Collection Sites as of December 31st 2017 for which evaluation criteria were developed	
Disclosure per Annual Report	**Reference**
Total number of collection facilities - 445	Appendix B - List of Contracted Collection Sites as of December 31st 2017
"A collection site is a physical location where consumers can drop off Program Products. Collection sites can offer one or more collection services based on various factors. Services offered by collection sites are generally advertised to the public. In some cases, collection sites are not advertised where the location does not collect from the general public. LightRecycle enters into separate contracts with collection sites for each collection service offered and as a result, there is no one-to-one relationship between the number of sites and the number of services offered."	
"The Program's system included 445 contracted collection sites, with 13 sites added in 2017 and 9 advertised and 1 non-advertised sites removed, representing a net increase of 3 sites from 2016."	

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 2017, a physical location that is available to collect program materials, and the staff of the facility has an adequate understanding of the program.
- 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.
- Large volume generators (LVG's) and collection events are excluded from the number 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 from Section 6 - Pollution Prevention Hierarchy and Product/Component Management for which evaluation criteria were developed	
Disclosure per Annual Report	**Reference**
"After collection, Program Products are transported to the Program's primary processors. These processors include three for processing whole lamps, two for fixtures, one for crushed lamps and one for PCB containing ballasts. At the processors, Program Products are broken down into their respective component materials and either processed on site or sent to a downstream processor for further processing. Information about how material was managed by the Program's primary processors was based on information provided to PCA by the Program's primary processors."	
Material: Lamps Sub-Component: Phosphor Powder End fate: Securely landfilled Sub-Component: Mercury End fate: Securely landfilled Sub-Component: Metal End fate: Recycled - metal commodity Sub-Component: Glass End fate: Recycled as aggregate in concrete or as granules in construction material manufacturing	Table 9: Material Treatments
Material: Crushed Lamps Sub-Component: Metal and Glass End fate: Same as whole lamps Sub-Component: Mercury and Phosphor Powder End fate: Same as whole lamps	Table 9: Material Treatments
Material: Residential Fixtures "Residential fixtures contain materials similar to small appliances (e.g., metal, glass, plastics, etc.). As a result, the Program partnered with the Canadian Electrical Stewardship Association (CESA) stewardship program (ElectroRecycle) to collect residential fixtures along with small appliances and power tools at contracted collection sites that also serve as CESA depots. They were shipped to two independent processors where they were comingled with other electronics and broken down into their respective components." "Downstream Processes are based on the descriptions provided in the Downstream Flow documents detailing the end disposition of product managed, prepared by the Recycler Qualification Office (RQO) according to the EPSC Electronic Recycling Standard."	
Sub-Component: Ferrous Steel End fate: Recycled - Production, Processing, Non-processing Sub-Component: Plastics End fate: Recycled - Processing, Non-processing Sub-Component: Aluminum End fate: Recycled - Processing, Non-processing	Table 9: Material Treatments

Sub-Component: Wire and Cables and String lights End fate: Recycled - Processing, Non-processing Sub-Component: Copper End fate: Recycled - Processing, Non-processing Sub-Component: Glass End fate: Recycled - Processing, Non-processing, Other final disposition Sub-Component: Circuit Boards End fate: Recycled - Refining, Processing Sub-Component: Rechargeable and Non Rechargeable Batteries End fate: Recycled - Non-Processing	
Material: Commercial Fixtures and Non-PCB Ballasts "Commercial fixtures and non-PCB ballasts were collected and managed outside the Program through the existing market driven scrap metal recycling system. Given the value of the metal commodity, the Program assumes that the material is recycled, but some non-metal material would need to be disposed of. Since it is a market driven system, the Program has no ability to verify or report on the volume and portion of the material recycled and or disposed of through this system."	
Sub-Component: NA End fate: Managed through the existing scrap metal recycling system	Table 9: Material Treatments
Material: PCB Ballasts "PCB ballasts were collected and managed as hazardous waste and incinerated at a high temperature in a PCB licensed incinerator. PCBs are regulated from transportation to disposal by the BC Ministry of the Environment and equivalent agencies."	
Sub-Component: NA End fate: Incineration	Table 9: Material Treatments

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.
- The primary processor provides an invoice indicating the amount of product processed and in some cases a certificate of processing/reclamation.
- The primary processor provides information on product management in an annual questionnaire or an annual report to the Association. Questionnaire responses were received from all processors used by the program (excluding the processors of residential fixtures).
- The primary processors for residential fixtures have been approved by the Recycler Qualification Office ("RQO") and the final disposition reported in the Annual Report agrees to the audit report issued by the RQO.
- Shipments of hazardous waste generated from the processing of lamps flow through a multi-step processing environment. Shipments to the primary processor are supported by a bill of lading that does not include information on the expected disposition of these products 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.

- Shipments of hazardous waste generated from crushed lamps and PCB ballasts are tracked on a hazardous waste manifest indicating the expected disposition.
- The Association performs periodic site inspections of the processors' facilities (excluding the processors of residential fixtures). Site inspection criteria have been developed to confirm the responses in the questionnaire provided by these primary processors. Site inspections are to be performed on a rotating 3 year schedule.

Product collected

Specific disclosures in the annual stewardship report from Section 7.2 - Products Collected for which evaluation criteria were developed	
Disclosure per Annual Report	**Reference**
"Collection quantities for the different Program Products are based on annual reports and/or estimated based on quantities processed by the Program's processors between January 1 and December 31, 2017, as reported by the Program's processors. The reported quantities may include Program Products received in the 2016 fiscal year but processed in the 2017 fiscal year and may exclude units collected in the 2017 fiscal year that were not processed as of December 31, 2017."	
Product collected Whole Lamps – 6,990,298 units Residential Fixtures – 627 tonnes PCB Containing Ballasts – 20,327 kg Crushed Lamps – 12,544 kg	Table 11: Estimated Quantity of Products Collected in 2017
"Due to the comingling of collections and processing (residential fixtures) and the complexity of the recycling system, it is not possible for the Program to be able to specifically identify the proportion of materials attributed to LightRecycle and the Program has limited ability to verify accuracy of the reported information to a precise degree of certainty." "This weight (PCB ballasts) includes the weight of the drum."	
Product Collected – Lamps Fluorescent Tubes (All sizes and shapes) – 2,758,031 units Compact Fluorescent Lights (CFL)/ Screw-In Induction Lamps – 1,272,124 units Light Emitting Diodes (LED) – 88,236 units High Intensity Discharge (HID) and Other – 227,725 units Incandescent / Halogen – 2,644,182 units	Table 12: Whole Lamp Units Collected by Product Category
"This number (fluorescent tubes) includes 0-2', 2-4', 4-8', and U and O shaped tubes." "This number (high intensity discharge and other) includes Sodium lamps, HPS lamps (High Pressure Sodium), Metal Halide lamps, Mercury Vapour lamps, Induction tubes, UVC lamps and tubes, and Neon and Poly-coated tubes. Neon and poly-coated tubes are reported from the processor in length of feet. The length is then divided by 4 and rounded to nearest whole number to obtain reported units." "This number (incandescent/halogen) includes projector bulbs and miniature bulbs."	

The following evaluation criteria were applied to the assessment of the description of how total amounts of the producer's product collected 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 provided by the processor which indicates the total units collected and the type of program materials collected.
- Residential fixtures are co-mingled with other end of life electronic materials during collection. The processors perform periodic sampling activities to determine the estimated percentage of program materials belonging to the program. The weights of residential fixtures related to the program are calculated by multiplying the total weight of co-mingled materials by the estimated percentage of LightRecycle program materials.

Performance targets

Specific disclosures in the annual stewardship report from Section 9 - Plan Performance for which evaluation criteria were developed
Collection Rate Targets Target: HID, UV, Neon lamps (units collected) 2017 Assertion – Target Exceeded Target: Residential Fixtures (tonnes collected) 2017 Assertion – Target Exceeded
"The residential fixtures target was converted and rounded from kgs to tonnes to match the data available from Program processors."

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.