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July 1, 2019

Ministry of Environment  
Attention: Director, Extended Producer Responsibility Programs  
PO Box 9341, STN PROV GOVT  
Victoria, BC V8W 9M1

Sent via Email: [ExtendedProducerResponsibility@gov.bc.ca](mailto:ExtendedProducerResponsibility@gov.bc.ca)

Dear Director:

**Re: 2018 BC Light Recycling Program Annual Report**

Pursuant to the British Columbia Recycling Regulation, 449/2004, issued under the Environmental Management Act (O.C. 995/2004), please find attached the 2018 annual report for the BC Lamps and Lighting Equipment Stewardship Program covering the period January 1, 2018 through December 31, 2018.

We request confirmation of receipt of the report so that we may make it public by posting it on our website.

If you have any questions regarding this report, please contact me at (778) 331-6968 or [mannie@productcare.org](mailto:mannie@productcare.org).

Yours truly,

A handwritten signature in blue ink, appearing to read "Mannie Cheung", with a stylized flourish extending to the right.

**Mannie Cheung**  
Vice-President, Operations  
Product Care Association

# British Columbia Lights Program Annual Report

**Submitted to:** Director, Extended Producer Responsibility Section  
BC Ministry of Environment and Climate Change Strategy  
PO Box 9341, STN PROV GOVT  
Victoria, BC, V8W 9M1

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July 1, 2019



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## 1 Executive Summary

This annual report has been prepared by Product Care Association of Canada (“Product Care”) 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 and Climate Change Strategy on April 23, 2012 (“Program Plan”), and pursuant to the requirements of the Recycling Regulation B.C. Reg. 449/2004 (“Regulation”).

A new program plan was submitted to the BC MoECCS in April 2017. Following consultation with the BC MoECCS, amendments were submitted in December 2017, July 2018 and August 2018. The new Program Plan was approved by the BC MoECCS on November 13, 2018. As a result of the delay in obtaining approval, this annual report references the 2012–2017 Program Plan with regard to the Program’s performance between January 1 to December 31, 2018.

From July 1, 2010 to July 1, 2012, Product Care’s British Columbia Lamps and Lighting Equipment Stewardship Program (“Program”) 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.<sup>1</sup>

The products captured under the Program are broken down into thirteen Product Categories as listed in Table 1 below.

Table 1: Program Product Categories and Website

<b>Product Categories</b>	<ol style="list-style-type: none"><li>1. Fluorescent Tubes measuring <math>\leq</math> 2 feet</li><li>2. Fluorescent Tubes measuring <math>&gt;</math> 2 feet and <math>\leq</math> 4 feet</li><li>3. Fluorescent Tubes measuring <math>&gt;</math> 4 feet</li><li>4. Compact Fluorescent Lights (CFL)/ Screw-In Induction Lamps</li><li>5. Light Emitting Diodes (LED)</li><li>6. High Intensity Discharge (HID), Special Purpose and Other</li><li>7. Incandescent / Halogen</li></ol>
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<sup>1</sup> Recycling Regulation B.C. Reg. 449/2004 Part 4, Schedule 3, Section 2 (1) (e).

	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 / Transformers (not integrated into lamps or fixture)
<b>Program Website</b>	The Program utilized ReGeneration.ca and LightRecycle.ca as its' website. These two websites were replaced by <a href="https://www.productcare.org">productcare.org</a> in January 2019.

A complete list of products accepted and not accepted by the Program is available in the Program's Product Guide available for download on Product Care's website: <https://www.productcare.org/app/uploads/2017/04/Lights-Product-Guide-EN.pdf>

The Program's regulatory reporting requirements and key performance targets for 2018 are summarized in Table 2 and Table 3 below.

Table 2: Regulatory Reporting Requirements

Regulation Provision	Topic	Summary
Part 2, section 8(2)(a)	Public Education Materials and Strategies	<ul style="list-style-type: none"> <li>• Program Awareness</li> <li>• Website</li> <li>• Program Hotline</li> <li>• Print, Earned Media and Digital Advertising</li> <li>• Community Events and Partnerships</li> <li>• Point of Sale (PoS) and Point of Return (PoR) Materials</li> </ul>
Part 2, section 8(2)(b)	Collection System and Facilities	<p>The Program's collection system had 442 contracted collection sites.</p> <p>Additional collection services included:</p> <ul style="list-style-type: none"> <li>• Courier service and direct pickup service for PCB containing ballasts</li> <li>• Direct pickup service from Large Volume Generators of lamps and pre-crushed lamps</li> <li>• 15 collection events</li> </ul>

Regulation Provision	Topic	Summary
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	<ul style="list-style-type: none"> <li>• Lamps<sup>2</sup> were broken down into component parts and managed as follows: <ul style="list-style-type: none"> <li>- Glass was sent to various concrete manufacturing companies for use in construction materials, concrete manufacturing or as an aggregate.</li> <li>- Metal was sent to various downstream metal sites for recovery and recycling.</li> <li>- Phosphor powder contaminated with mercury was stabilized, and sent to secure landfill.</li> <li>- Mercury was temporarily stored to be chemically treated and sent to secure landfill.</li> </ul> </li> <li>• Residential-use fixtures were broken down into component parts for recovery / recycling.</li> <li>• Commercial fixtures and non-PCB ballasts were collected and managed through the existing market-driven scrap metal recycling system.</li> <li>• PCB ballasts were collected and managed as hazardous waste and sent for incineration at licensed/permitted facilities.</li> </ul>

<sup>2</sup> Includes whole lamps and crushed lamps

Regulation Provision	Topic	Summary
Part 2, section 8(2)(e)	Product Sold and Collected and Recovery Rate	<ul style="list-style-type: none"> <li>Program members reported selling 33,756,685 units of program product in 2018.</li> <li>In 2018, the Program collected an estimated: <ul style="list-style-type: none"> <li>7,367,757 units of lamps</li> <li>709 tonnes of fixtures from residential collection network</li> <li>4,050 kilograms of PCB ballasts</li> <li>7,764 kilograms of crushed lamps</li> </ul> </li> </ul>
Part 2, section 8(2)(e.1)		See Table 16 for estimated collection volumes by regional district.
Part 2, section 8(2)(f)	Summary of Revenues and Expenses	<ul style="list-style-type: none"> <li>The Program is funded by fees remitted by members on the sale of new program products sold in or into British Columbia.</li> <li>An independent financial audit for the reporting period is appended to the report (see Appendix C).</li> </ul>

Table 3: 2018 Key Performance Targets

2018 Key Performance Targets			
Regulation, Part 2 section 8(2)(g)			
2018 Stewardship Plan Targets <sup>3</sup>		2018 Performance	Strategies for Improvement
Capture Rate: Fluorescent Tubes	No target set for 2018	N/A	N/A
Capture Rate: CFLs	No target set for 2018	N/A	N/A
HID, UV, Neon lamps (Units)	119,576 (2017)	233,607	N/A

<sup>3</sup> The 2012–2017 Program Plan did not set targets for 2018. Where targets were provided for 2017, those targets were applied to 2018. Where no target existed for 2017, the program benchmarked 2018 performance against 2017 performance.

2018 Key Performance Targets			
Regulation, Part 2 section 8(2)(g)			
2018 Stewardship Plan Targets <sup>3</sup>		2018 Performance	Strategies for Improvement
Residential Fixtures (MT) <sup>4</sup>	189–220 (2017)	709	N/A
Consumer Awareness	55% (2017)	N/A <sup>5</sup>	N/A
2018 Accessibility Targets <sup>6</sup>			
Residential Lamps	95% (2013)	99.65% (as of Dec 31 <sup>st</sup> 2017)	N/A
Residential Fixtures	95% (2017)	98.07% (as of Dec 31 <sup>st</sup> 2017)	N/A
Commercial Lamps	95% (2017)	99.29% (as of Dec 31 <sup>st</sup> 2017)	N/A
Commercial Fixtures and Non- PCB Ballasts	95% (2017)	95.89% (as of Dec 31 <sup>st</sup> 2017)	N/A

## 2 Program Outline

Product Care Association of Canada (“Product Care”) is a federally incorporated, not-for-profit product stewardship association formed in response to stewardship regulations and is governed by a multi-sector industry board of directors.

In 2018, the Program operated in accordance with Product Care’s Program Plan pursuant to the requirements of the Regulation.

<sup>4</sup> The residential fixtures target was converted from kgs to metric tonnes and rounded to match the data available from Program processors.

<sup>5</sup> No commitment to conduct consumer awareness survey in 2018. The 2018 program plan commits to conduct consumer awareness survey in 2019.

<sup>6</sup> “Access” is defined in the 2012–2017 approved plan, as a 30 minute drive or less to a collection point in urban centres with a population of 150,000 or more, and a 45 minute drive or less for those living in communities greater than 4,000 people.



Between January 1, 2018, and December 31, 2018, 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 2018, Product Care implemented a number of different methods to raise consumer awareness of the light recycling program in British Columbia, in accordance with regulatory requirements. The following section provides details regarding communication and public education activities for the program in 2018.

#### Program Awareness

In December 2017, an online survey was conducted among 1,002 residents representative of British Columbia's adult population. The survey revealed that 55% of residents are aware of a recycling program for lights in the province. This is an increase of 6 percentage points over 2015 awareness (49%). The next consumer awareness study will be conducted in 2019.

#### Website

ReGeneration.ca and LightRecycle.ca, Product Care's former consumer websites (replaced by ProductCare.org in January 2019), included the following content about the Program:

- Recycling locator (a searchable map displaying locations of all recycling locations – see Appendix A)
- Recycling locations' hours of operations and contact information
- List of accepted and non-accepted products
- Consumer videos showing the product management approach for lights
- A online fillable form for ordering promotional materials like rack cards and posters
- Information about the environmental benefits of lights stewardship
- Information for the industrial, commercial, and institutional (ICI) markets, including commercial volume program information and product

management options

- Information about Product Care Association of Canada including annual reports, program plans, and membership information

An estimated 165,662 unique visitors accessed *ReGeneration.ca* during the 2018 calendar year. The British Columbia section (including sub-sections for accepted products, EHF information) received 61,480 total page views. Additionally, 72,115 unique visitors accessed *LightRecycle.ca* with the British Columbia section receiving 18,947 total page views.

In addition, there were a total of 15,530 searches for British Columbia recycling locations using the ReGeneration recycling locator and 10,190 searches using the LightRecycle recycling locator.

### Program Hotline

Product Care continued to operate a toll-free hotline (1-888-772-9772) where consumers obtained information about the Program.

The Program also participated in the Recycling Council of British Columbia (RCBC) recycling hotline service (1 800 667 4321 or 604 RECYCLE). Consumers were able to contact RCBC operators during business hours and obtain information about return options for lighting and fixture products.

Collection sites were included in the Recyclepedia app. Developed by RCBC, Recyclepedia is a free smart phone app that allows users to locate +1000 recycling sites for over 70 products types in BC, including lighting and fixture products. The app creates a list of the 10 closest recycling sites for an item based on users' current location and the product they select in the app's product menu.

These three platforms received a combined total of 6,128 inquiries about lighting products in 2018.

### Print Advertising

- Two half page ads were published in *Office Space* and *Green Space* magazine, targeting the Program's direct pickup service for commercial volumes. 23,500 copies of these publications were distributed. A half page ad was also

published in the *Property Managers Sourcebook*, which specifically focused on the lighting program's commercial volume program.

- A half page print ad was published in Vancouver's *Pride Guide* targeting younger generations. 12,000 copies of this guide were distributed throughout the Lower Mainland.
- Print ads focusing on general consumer education were published in the municipal calendars for Chilliwack, Invermere, Mission, Penticton, and Peace River. An estimated 13,000 calendars were distributed between the five areas.

See Appendix A for examples of all print advertising activities.

### Earned Media Advertising

In December 2018, Product Care pitched an earned media story to BC news outlets, focusing on providing consumers with information on seasonal light and light fixture recycling. Earned media coverage included:

- *The Prince George Citizen* newspaper, published daily in Prince George
  - Physical circulation: 23,634
  - Unique website visitors per month: 62, 654
- *Alaska Highway News* newspaper, published weekly in Dawson Creek, Fort St. John, Fort Nelson and surrounding communities
  - Physical circulation: 3,800
  - Unique website visitors per month: 51, 990
- *Trail Times Daily* newspaper, published daily in Trail
  - Physical circulation: 2,731
  - Unique website visitors per month: 13, 555
- CBC Radio's segment *Daybreak North*
  - Listenership unknown

### Digital Advertising

All digital campaigns listed below reached the entire province.

1. Google Search Advertising Campaign: March to December, 2018
  - a. A search advertising campaign served light recycling ads to provincial residents based on an extensive list of keyword searches relevant to the Program.

- b. British Columbia’s ads collectively generated 7,514 impressions and 1,493 clicks.
- 2. Google Display Advertising Campaign<sup>7</sup>: June to December, 2018
  - a. A British Columbia-specific display advertising campaign served lighting-related ads to provincial residents based on increasingly refined targeting.
  - b. The ads received 3,205,879 impressions and 8,262 clicks.
  - c. Ads were specifically targeted to internet users who performed online searches related to lights and light bulb purchasing, usage, and disposal in British Columbia. Secondary targeting focused on individuals searching for home improvement and DIY-related terms, in order to reach a wider, but still relevant, population.
- 3. Facebook Advertising Campaign: A British Columbia-specific campaign promoted the light recycling program, targeting the province’s residents on an ongoing basis. Audience targeting was broad to allow data collection and analysis on a range of audiences to inform the Program’s digital targeting strategy going forward. Collectively, British Columbia’s Facebook ads generated 1,595,994 impressions.
- 4. Gated Facebook Content Strategy: British Columbia-specific content, available only to provincial residents, focused on lights recycling, special waste and the recycling community in general.
- 5. Targeted blog posts: More than 30 blog posts were targeted at relevant audience members including, but not limited to, homeowners, female heads of households, and environmentally-inclined individuals in British Columbia. Topics included specific information on light recycling, “do it yourself” (“DIY”) content, renovation tips, and sustainability best practices. All posts included a call-to-action to find a recycling location or interact with the brand on social media. Collectively, these posts received 62,141 views.
- 6. British Columbia Electrical Association: A province-specific electrical association website advertisement ran in the top banner position to promote the lights program to industry members.

See Appendix A for examples of all digital advertising activities.

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<sup>7</sup> Display advertising has a primary goal of awareness, while Search ads are shown in response to relevant keyword searches, and have a primary goal of clicks and conversions.

## Community Events and Partnerships

The Program exhibited at BUILDDEX Vancouver in February 2018. 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 the public on the importance of waste diversion and recycling, including:

- Party for the Planet (City of Surrey): April 14
- Burnaby Environmental Festival: May 27
- Vancouver Landfill Open House: June 1
- Vancouver Pride Festival: August 5
- Vancouver Mural Festival: August 11

At these events, knowledgeable staff interacted with thousands of event attendees through a direct engagement program including trivia, giveaways, branded print materials, and other activities.

The Program was also a corporate sponsor of national electrical trade organization, Electro-Federation Canada (EFC). This included advertisements in EFC's newsletters (see Appendix A), branding on EFC collateral materials, and promotion at EFC events and conferences.

Product Care also sponsored Science World's BC Green Games, which 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 educated more than 36,000 students on light and lighting fixture recycling. In addition, the BC Green Games website listed Product Care as a sponsor with a description of its recycling programs.

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

In 2018, Product Care distributed both PoS and PoR materials as requested by

retailers and recycling locations. The following materials were available for order, free of charge, through the online form:

- Brochures
- Posters

Signage for recycling locations was also made available throughout the year, free of charge, for participating recycling locations. See Appendix A for examples.

## 4 Collection System

The Program provides a free and convenient collection system for all consumers of Program Products. Product Care 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 Product Care’s website: <https://www.productcare.org/app/uploads/2017/04/Lights-Product-Guide-EN.pdf>

Table 4: Summary of Program Products

Summary of Program Products
<b>Whole Lamps:</b> <ul style="list-style-type: none"><li>• Fluorescent, induction and UV tubes of all lengths and shapes</li><li>• Compact fluorescent lights (CFL) and screw-in induction lamps</li><li>• Light emitting diodes (LED)</li><li>• High intensity discharge lamps (HID) of all types</li><li>• Special purpose lamps</li></ul>

Summary of Program Products
<ul style="list-style-type: none"> <li>• Incandescent lamps</li> <li>• Halogen lamps</li> <li>• Miniature lamps</li> </ul> <p><b>Pre-Crushed Lamps</b></p>
<p><b>Fixtures:</b></p> <ul style="list-style-type: none"> <li>• Small light fixtures and light strings</li> <li>• Residential light fixtures</li> <li>• Commercial light fixtures</li> <li>• Industrial light fixtures</li> <li>• Large outdoor fixtures</li> </ul>
<p><b>Ballasts:</b></p> <ul style="list-style-type: none"> <li>• PCB Containing</li> <li>• Non-PCB Containing</li> </ul>

#### 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. Product Care 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: Light Recycling 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 442 contracted collection sites, with 11 advertised sites added in 2018 and 13 advertised and 3 non-advertised sites removed, representing a net decrease of 5 sites from 2017.<sup>8</sup> See Table 6 for a list of these changes. See Appendix B for a full list of collection sites by location.

Table 6: Collections Sites Added/Removed in 2018

Depot Name	Depot Location	Change from 2017
Bowen Island Recycling	Bowen Island	Opened
Kitwanga Transfer Station	Kitwanga	Opened
Lax'Kwalam	Lax Kwalam	Opened <sup>9</sup>
Seton Lake Band Transfer	Shalalth	Opened
SM Lighting & Bath Design	Surrey	Opened
Zero Waste Centre Vancouver	Vancouver	Opened
Shearwater Marine	Denny Island	Opened
McMynn's Ace Building Centre	Midway	Opened
Rona - Salmon Arm	Salmon Arm	Opened
Stewart Transfer Station	Stewart	Opened
Princeton Bottle Depot	Princeton	Opened
Asset Investment Recovery	Victoria	Closed
Haney Builders Supplies	Maple Ridge	Closed
Applecross Home Hardware	Nanaimo	Closed
Logan Lake Bottle Depot	Logan Lake	Closed

<sup>8</sup> During the review of the collection sites an error in the sites reported in 2017 was detected, The correct number of collection sites in 2017 was 447, not 445 as reported.

<sup>9</sup> This site was opened in 2017, however due to an error it was not added to the Collection Sites Added/Removed in 2017. To correct this error, it has been added as a change in 2018.



Depot Name	Depot Location	Change from 2017
Unadvertised	Chilliwack	Closed
Southridge Building Supplies	Surrey	Closed
Canadian Tire #351 Penticton	Penticton	Closed
Port Moody One Stop	Port Moody	Closed
Unadvertised	Delta	Closed
High Point Electric	Surrey	Closed
Nanaimo Recycling Exchange Soc.	Nanaimo	Closed
Burgess Plumbing, Heating & Electrical Co Ltd	Williams Lake	Closed
Unadvertised	Kelowna	Closed
Mouat's Home Hardware	Salt Spring Island	Closed
Burnside Home Hardware	Victoria	Closed
The Hut Bottle Depot	Princeton	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	40
Cariboo	10
Central Coast	4
Central Kootenay	10
Central Okanagan	15
Columbia Shuswap	7
Comox Valley	7
Cowichan Valley	14
East Kootenay	8
Fraser Valley	25
Fraser-Fort George	8
Kitimat Stikine	8
Kootenay Boundary	4
Metro Vancouver	149
Mt Waddington	9
Nanaimo Regional District	15
North Okanagan	12

Regional District	# of Collection Sites
Northern Rockies	1
Okanagan Similkameen	15
Peace River	9
Powell River	4
Skeena-Queen Charlotte	4
Sointula	0
Squamish Lillooet	12
Strathcona	8
Sunshine Coast	9
Thompson Nicola	20
<b>Total</b>	<b>442</b>

The Program defines accessibility (2012–2017 approved plan), as a 30 minute drive or less to a collection point in urban centres with a population of 150,000 or more, and a 45 minute drive or less for those living in communities greater than 4,000 people. There were no significant impacts to service accessibility with the 2018 collection site closures as alternative collection services existed in those communities that were still within the driving times. Therefore, the accessibility levels would be similar if not the same as 2017 (Table 3).

The Program provided collection services beyond the accessibility standard. Of the 442 contracted collection sites, 76 of those collections sites were in communities with populations of less than 4000. In addition, the Program provided collection services to a number of Indigenous communities such as Lax Kw'alaams, Shalath and Bella Bella. The Program also provided services to eight communities with populations less than 4,000 that did not have a permanent collection site. Table 8 lists these communities and the type of service provided.

Table 8: Services to Small Communities

Community	Population	Type of Service
Salmo	1,141	Collection Event
Silverton	195	Collection Event
Nakusp	1,605	Collection Event
Sicamous	2,441	Collection Event
Crofton	1,373	Direct Pick-Up Service

Community	Population	Type of Service
Elkford	2,523	Direct Pick-Up Service
Golden	3,708	Direct Pick-Up Service
Port Mellon	1,328	Direct Pick-Up Service

## 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

Product Care provided courier service for collections of PCB ballasts under 5kgs. A direct pickup service was provided for volumes of PCB ballasts over 5kgs.

## 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 9 lists the dates and locations of the 16 collection events in 2018 that the Program participated in.

Table 9: 2018 Collection Events

Date	Location
February 24, 2018	Vancouver
March 10, 2018	Barclay Manor
April 21, 2018	Summerland
April 21, 2018	Vancouver
May 5, 2018	Sicamous

Date	Location
May 5, 2018	Vancouver
June 16, 2018	Vancouver
July 14, 2018	Barclay Manor
September 15, 2018	Creston
September 15, 2018	Vancouver
September 16, 2018	Salmo
September 22nd, 2018	Kitsilano
September 23, 2018	Nakusp
September 29, 2018	Castlegar
October 13, 2018	Barclay Manor
October 20, 2018	Langley

#### 4.4 Waste Composition Audits

The Program participated in waste composition studies conducted by the Stewardship Agencies of BC (SABC) in 2018.

SABC participated in two waste audits in 2018 in partnership with the Columbia Shuswap and Squamish regional districts. Table 10 presents the results of the audits.

Table 10: SABC Waste Audit Results

Regional District	Location	Kg/capita <sup>10</sup>
District of Squamish	<ul style="list-style-type: none"> <li>District of Squamish Sanitary Landfill</li> </ul>	0.09
Columbia Shuswap Regional District	<ul style="list-style-type: none"> <li>Golden Refuse Disposal Site</li> <li>Revelstoke Refuse Disposal Site</li> <li>Salmon Arm Refuse Disposal site</li> <li>Sicamous Refuse Disposal Site</li> </ul>	1.54

<sup>10</sup> Calculated using the combined weight of lamps, fixtures and ballasts, with the population based on 2016 census data.

## 5 Product Environmental Impact Reduction, Reusability and Recyclability

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

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

The advancement of LED lighting technology is having a significant impact on the lighting market as a whole. Manufacturers are focusing most of their efforts in this area and are no longer spending research energy on expanding the CFL product line. Acceptance of LED technologies is increasing as prices decrease. In fact, the acceptance and adaptation to LED technology has been much more rapid and widespread than most industry experts would have forecasted some years ago. Due to the significantly longer lifespan of LED lights, there is a decrease in sales expected for other traditional lighting technologies, such as halogen, incandescent and fluorescent lights. The shift to more energy efficient and longer lasting lighting technology is clear. Most LED lamps are more than 50% more efficient than CFL lamps, reducing electricity use and reducing pollution from power generation. These

changes all help to decrease the impact on the environment, with longer life lamps helping to reduce waste, reduction in mercury making lamps less hazardous and the reduction in the size of lamps helping to use less glass. New LED lamp designs have also been shrinking in size to minimize waste.<sup>11</sup>

## 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 the Program 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 2018 were estimated based on these calculations, to be 5,000 tonnes of equivalent carbon dioxide (CO<sub>2</sub>e). This value is based on 4 tonnes of CO<sub>2</sub>e 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. Product Care works with its service providers to ensure Program Products are managed using the highest option on the Pollution Prevention Hierarchy<sup>12</sup> that is technically feasible and economically reasonable. 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 two for processing whole lamps, two for fixtures, one for

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<sup>11</sup> Personal Communication with representative of GE.

<sup>12</sup> The pollution prevention hierarchy is explained on pages 9 and 10 of the BC Recycling Regulation Guide available here: [https://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/recycle/reg\\_guide.pdf](https://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/recycle/reg_guide.pdf)

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 Product Care by the Program's primary processors.

Lamp processors are required to conform to the Program's 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.
- Phosphor powder contaminated with mercury were stabilized, and sent to secure landfill.
- Mercury was temporarily stored to be 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 CESA-contracted collection sites. 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 Environment and Climate Change Strategy and Transport Canada.

Table 11 provides a consolidated overview of the treatments and final disposition of materials derived from Program Products.

Table 11: Material Treatments

Material	Sub-Component	Downstream Processing	End-Fate
Lamps (all technologies)	Phosphor Powder contaminated with Mercury	Chemical treatment, stabilization	Securely landfilled
	Mercury	Temporary storage until enough volume to send for chemical treatment, stabilization and secure landfill	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
	Ferrous Steel	Production, Processing, Non-processing	Recycled



Material	Sub-Component	Downstream Processing	End-Fate
Residential Fixtures <sup>13</sup>	Plastics	Processing, Non-processing	Recycled
	Aluminum	Non-processing	Recycled
	Wire and Cables and String lights	Processing, Non-processing	Recycled
	Copper	Processing, Non-processing	Recycled
	Glass	Non-processing, Processing, Other final disposition	Recycled
	Circuit Boards	Refining, Processing	Recycled
	Rechargeable and Non Rechargeable Batteries	Processing, Non-Processing	Recycled
Commercial Fixtures and Non-PCB Ballasts	N/A	Managed through the existing market driven scrap metal recycling system	
PCB Ballasts	N/A	Hazardous Waste Management Company sent to PCB licensed incinerator.	Incineration

## 7 Product Sold, Product Collected and Recovery Rate

### 7.1 Products Sold

In 2018, members of the Program reported sales of 33,756,685 units Program Products in BC. Table 12 shows the reported units sold in 2018 broken down by Product Category.

Table 12: Units Reported Sold by Product Category in 2018

Product Category	Units Reported Sold
1. Fluorescent Tubes measuring ≤ 2 feet	163,217
2. Fluorescent Tubes measuring > 2 feet and ≤ 4 feet	2,148,341
3. Fluorescent Tubes measuring > 4 feet	195,701

<sup>13</sup> Downstream Processes are based on the descriptions provided by the Recycler Qualification Office (RQO) and EPSC Electronic Recycling Standard provided by verified Processors detailing the end disposition of product managed.

Product Category	Units Reported Sold
4. Compact Fluorescent Lights (CFL)/ Screw-In Induction Lamps	1,180,151
5. Light Emitting Diodes (LED)	10,781,140
6. High Intensity Discharge (HID) and Other	311,399
7. Incandescent / Halogen	6,459,612
8. Miniature Bulb Package	612,722
9. Designated Small Fixtures/Decorative Light Strings	6,855,426
10. Fixture Category A	4,449,511
11. Fixture Category B	228,766
12. Large Outdoor Fixtures	41,986
13. Ballasts/Transformers (not integrated into lamps or fixtures)	328,713
<b>Total</b>	<b>33,756,685</b>

## 7.2 Products Collected

In 2018, the Program collected approximately 7,367,757 units of lamps, 709 tonnes<sup>14</sup> of fixtures through residential collections, 4,050 kg of PCB ballasts<sup>15</sup> and 7,764 kg<sup>16</sup> of crushed lamps. Table 13 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, 2018, as reported by the Program's processors. The reported quantities may include Program Products received in the 2017 fiscal year, but processed in the 2018 fiscal year and may exclude units collected in the 2018 fiscal year that were not processed as of December 31, 2018.

<sup>14</sup> Residential light fixtures are collected together with CESA products. The program and CESA use a sampling protocol to determine the proportion of CESA products and lighting fixtures. The program utilizes the sampling results to approximate the tonnage of residential light fixtures. .

<sup>15</sup> This weight includes the weight of the container.

<sup>16</sup> This weight includes the weight of the drum.

Table 13: Estimated Quantity of Products Collected in 2018

Program Product	Estimated Quantity Collected
Whole Lamps	7,367,757 units
Residential Fixtures	709 tonnes
PCB Containing Ballasts	4,050 kg
Crushed Lamps	7,764 kg

Table 14 presents a breakdown of the estimated number of units of each lamp Product Category collected by the Program in 2018.

Table 14: Whole Lamp Units Collected by Product Category

Lamp Product Category	Units Collected
1. Fluorescent Tubes (All sizes and shapes) <sup>17</sup>	2,741,600
2. Compact Fluorescent Lights (CFL)/ Screw-In Induction Lamps	1,308,775
3. Light Emitting Diodes (LED)	182,667
4. High Intensity Discharge (HID) and Other <sup>18</sup>	233,607
5. Incandescent / Halogen <sup>19</sup>	2,901,108
<b>Total Units Collected</b>	<b>7,367,757</b>

Table 16 sets out the estimated number of lamp units collected by individual regional districts. The estimated quantities were calculated by multiplying an average of units per box type (see Table 15) by total boxes received by type as reported by the

<sup>17</sup> This number includes 0-2', 2-4', 4-8', and U and O shaped tubes.

<sup>18</sup> 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.

<sup>19</sup> This number includes projector bulbs and miniature bulbs.

Program's processors. The average units per box type were based on a small sample of the collected boxes in 2018.

Table 15: Average Units per Box Type 2018<sup>20</sup>

<b>Box Type</b>	<b>Average Units per box</b>
Residential CFL and mixed bulbs	148
Residential four foot tubes	29
Residential eight foot tubes	14
Commercial CFL and mixed bulbs	383
Commercial four foot tubes-gaylord	867
Commercial large four foot tube box	30
Commercial four foot tubes-plywood	215
Commercial eight foot tubes	29

Table 16: Estimated Units of Lamps Collected by Regional District in 2018

<b>Regional District</b>	<b>Estimated Lamp Units</b>
Alberni Clayoquot	33,199
Bulkley Nechako	20,911
Capital Regional District	472,834
Cariboo	59,617
Central Coast	4,984
Central Kootenay	51,406
Central Okanagan	316,311
Columbia Shuswap	53,391
Comox Valley	81,718
Cowichan Valley	104,142
East Kootenay	47,405
Fraser Fort George	91,336
Fraser Valley	413,649
Kitimat Stikine	36,868
Kootenay Boundary	53,565

<sup>20</sup> Average units per box were determined by sampling shipments of each container size

<b>Regional District</b>	<b>Estimated Lamp Units</b>
Metro Vancouver	4,959,343
Mt. Waddington	14,107
Nanaimo Regional District	161,274
North Okanagan	117,531
Northern Rockies	5,572
Okanagan Similkameen	103,683
Peace River	33,722
Powell River Regional District	27,802
Skeena-Queen Charlotte	14,065
Squamish Lillooet	73,694
Strathcona	30,803
Sunshine Coast	38,196
Thompson Nicola	145,304
<b>Total</b>	<b>7,566,432</b>

Due to the variability in the number of units actually collected within a box, the total number of units by regional district only represents an estimate of collected units and does not necessarily reflect the actual number of units collected by regional district. The estimated total of units collected by regional district and units collected by product type vary as the methodology for calculating the units by regional district is based on different estimations than that of units collected by product type.

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

Table 17 provides a summary of the targets and the Program's performance. All collection targets were exceeded by the Program in 2018.

Table 17: Collection Rate Targets and Performance

<b>Collection Rate Targets</b>	<b>2018 Target<sup>21</sup></b>	<b>2018 Collections</b>	<b>Program's Performance</b>
<b>HID, UV, Neon lamps (Units)</b>	119,576	233,607	Target Exceeded
<b>Residential Fixtures (MT)<sup>22</sup></b>	189–220	709	Target Exceeded

### 7.3 Capture Rates

The Program Plan set capture rate targets for 2012 to 2017 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.

No capture rate targets were set for 2018 as a new Program Plan was approved in November 2018.

Since 2012, the Program has consistently met and exceeded its capture rate targets, in some instances achieving a capture rate above 100%. Furthermore, with the emergence of LED technologies, a shift is being seen in the industry away from fluorescent tubes and CFLs. The rate of change in technology has exceeded industry expectations making it very challenging to accurately estimate the amount of lights available to collect in a given year. Consequently, no capture rates have been calculated for 2018.

## 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

<sup>21</sup> See note 3.

<sup>22</sup> The residential fixtures target was converted from kgs to tonnes and rounded to match the data available from Program processors

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 2018, all fees were used for program purposes; directly funding the promotion, administration, collection, transportation and recycling of collected products. Table 18 provides a list of the EHF rates charged per unit for product categories in 2018.

Table 18: 2018 EHF Rate Schedule

<b>Product Category</b>	<b>Fee Category</b>	<b>EHF in 2018</b>
<b>Lamps</b>	1. Fluorescent/Induction/UV Tubes measuring $\leq$ 2 feet	\$0.20
	2. Fluorescent/Induction/UV Tubes measuring $>$ 2 feet and $\leq$ 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
<b>Fixtures</b>	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
<b>Ballasts</b>	13. Ballasts	\$0.15

## 9 Plan Performance

2018 Key Performance Targets			
Regulation, Part 2 section 8(2)(g)			
2018 Stewardship Plan Targets <sup>23</sup>		2018 Performance	Strategies for Improvement
Capture Rate: Fluorescent Tubes	No target set	N/A	N/A
Capture Rate: CFLs	No target set	N/A	N/A
HID, UV, Neon lamps (Units)	119,576 (2017)	233,607	N/A
Residential Fixtures (metric tonnes) <sup>24</sup>	189–220 (2017)	709	N/A
Consumer Awareness	55% (2017)	N/A <sup>25</sup>	N/A
2018 Accessibility Targets <sup>26</sup>			
Residential Lamps	95% (2013)	99.65% (as of Dec 31 <sup>st</sup> 2017)	N/A
Residential Fixtures	95% (2017)	98.07% (as of Dec 31 <sup>st</sup> 2017)	N/A
Commercial Lamps	95% (2017)	99.29% (as of Dec 31 <sup>st</sup> 2017)	N/A
Commercial Fixtures and Non-PCB Ballasts	95% (2017)	95.89% (as of Dec 31 <sup>st</sup> 2017)	N/A

<sup>23</sup> See note 3

<sup>24</sup> The residential fixtures target was converted and rounded from kgs to metric tonnes to match the data available from Program processors

<sup>25</sup> No commitment to conduct consumer awareness survey in 2018. The 2018 program plan commits to conduct consumer awareness survey in 2019.

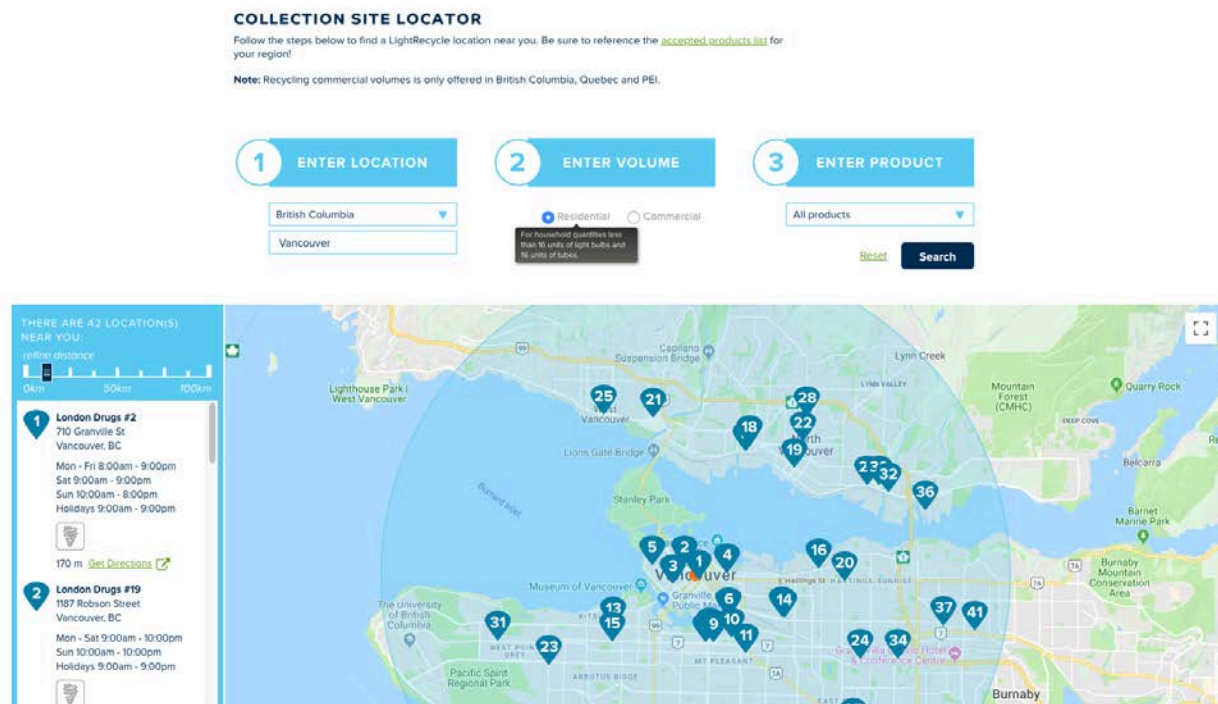
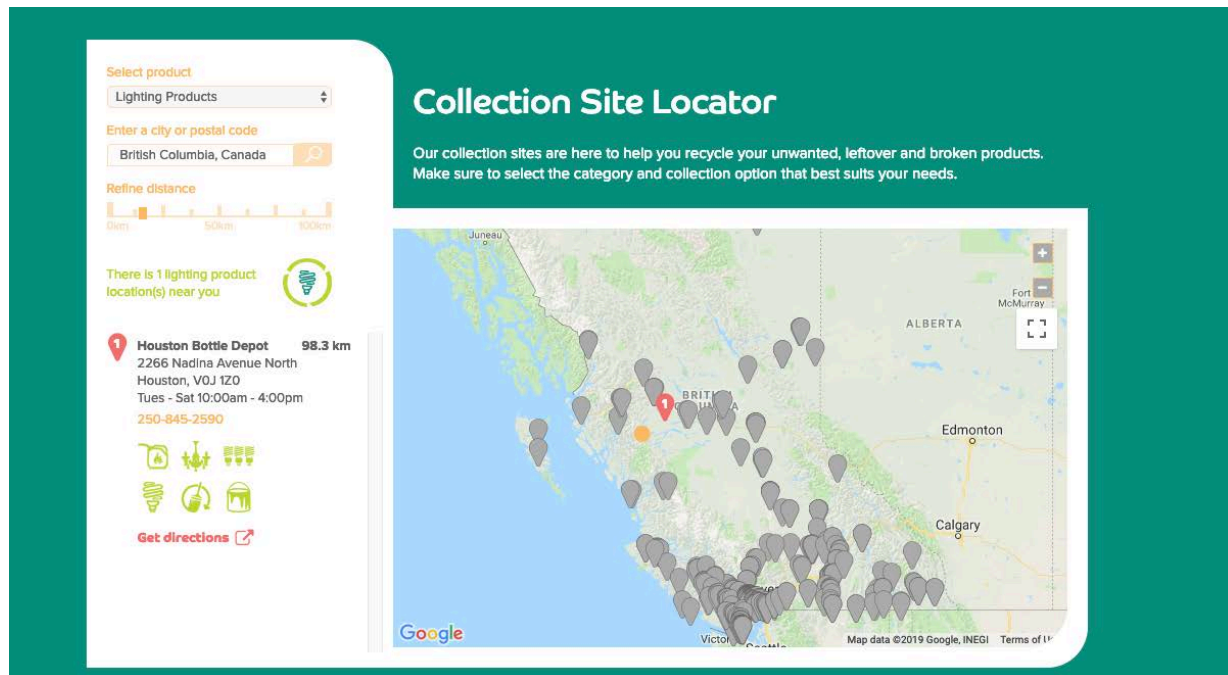
<sup>26</sup> See note 6



## Appendix A – Advertising and Communication Materials

### Recycling Locator tool

Below is a snapshot of the recycling locator tools found at [regeneration.ca](http://regeneration.ca) and [lightrecycle.ca](http://lightrecycle.ca).



## PoR/Pos Brochures

### Life Cycle of a Fluorescent Light Bulb:

**Benefits of Recycling Lights:**  
While that one burnt out bulb may seem trivial at first, know that when you recycle it, you contribute to a growing movement that is making a significant positive impact on our environment. When in doubt about whether to recycle your lights or not, just remember: every bulb diverted from the landfill counts! In the case of CFLs and fluorescent tubes, recycling keeps mercury out of our natural environment, while all bulbs contain valuable materials such as glass and metal that can be repurposed as new products.

### About LightRecycle:

LightRecycle is a family of recycling programs operated by Product Care Association, a non-profit industry association, specializing in product stewardship on behalf of the manufacturers, distributors and retailers of products that are regulated under provincial Extended Producer Responsibility (EPR) laws.

In essence, we are a passionate group of environmentally-minded solutions providers who want to help good people, like you, change the world for the better. We do that by making sure that your burnt-out or unwanted lighting products end up in the recycling stream and not in the trash.

### BC's Recycling Program for Lights

RESIDENTIAL • COMMERCIAL • INDUSTRIAL • INSTITUTIONAL

**LightRecycle.ca**  
Toll-Free: 1-888-772-9772

### Consumers:

Did you hear? LightRecycle has diverted over 12 million lighting products from our landfills since 2010! It's true—every bulb counts!

There are more than 400 LightRecycle collection sites located across British Columbia for you to drop off your burnt-out light bulbs, tubes, ballasts and fixtures for free.

To find a collection site closest to you, visit us at [LightRecycle.ca](http://LightRecycle.ca).

### Large Volume Generators:

Any large volume generator, including contractors, businesses, remodelers, schools, hospitals, and building managers can recycle lighting products used in commercial, industrial and institutional applications, for free.

### Light Bulbs and Tubes

All types and quantities of light bulbs and tubes ranging from fluorescent tubes to high intensity discharge (HID) lamps, can be recycled for free. Large Volume Generators who consolidate a pallet or more of whole lights, in accordance with the program's packaging requirements, may qualify for a free pick-up service.

The LightRecycle program also includes a growing network of collection sites that accept less than a pallet of whole lights.

### Ballasts

Lighting ballasts are replaceable components designed to regulate or transfer the electrical current/energy in a lighting fixture and may be present in fluorescent and other vapour lamps/lighting fixtures in your home, place of business or community institutions.

Ballasts that do not contain PCB oils are accepted.

### PCB-Containing Ballasts

Ballasts manufactured prior to 1980 may contain Polychlorinated Biphenyl (PCB) based oils for cooling and insulation. PCB-containing lighting ballasts are classed as Waste Articles Containing Polychlorinated Biphenyls (class 9, UN2315, PGII) under the Transportation of Dangerous Goods Regulations (TDGR) and require special handling.

LightRecycle will pick-up PCB-containing ballasts directly from large volume generators for free. These products must be identified and separated from

### Accepted Light Bulbs:

All types of light bulbs and tubes can be recycled, including:

- CFLs (Compact Fluorescent Lights)
- Fluorescent tubes
- Halogen and Incandescent bulbs
- LEDs (Light Emitting Diodes)

Maximum limit for return at one time in the consumer collection system is a combined total of 16 fluorescent tubes and/or a combined total of 16 other bulb types (i.e. any combination of CFL, HID etc. to a total of 16).

### Accepted Fixtures:

Common examples of accepted lighting fixtures and products include:

- Floor and table lamps
- Ceiling and wall fixtures
- Outdoor fixtures
- Light strings (e.g. Christmas lights)
- Chandeliers
- Bicycle Lights
- Flashlights

For a complete list of accepted products, visit [LightRecycle.ca](http://LightRecycle.ca).

ballasts that do not contain PCB oils and should NOT be taken to LightRecycle collection sites.

### Lighting Fixtures

Lighting fixtures are recycled at scrap metal recycling sites. A number of recycling options are typically available for those with scrap metal (pick-up through recycling companies, drop-off at scrap metal sites etc.), including LightRecycle's network of collection sites.

Large volume generators that deliver their fixtures to collection sites will be paid for scrap metal depending on the product and material type. As scrap metal is a market driven commodity, LightRecycle does not set the price paid by recyclers.

For more information, visit [LightRecycle.ca](http://LightRecycle.ca).

### Program Funding:

The LightRecycle program is funded by environmental handling fees (EHF) submitted to LightRecycle by its members, on the sale of new light bulbs and tubes. The EHPs are used to cover program costs, including managing the collection, transportation and recycling systems for returned products.

LIGHTS/LAMPS	EHF
Fluorescent Tubes ≤ 2 feet	\$0.20
Fluorescent Tubes > 2 feet and ≤ 4 feet	\$0.40
Fluorescent Tubes > 4 feet	\$0.80
Compact Fluorescent Lights (CFL)	\$0.15
Light Emitting Diodes (LED)	\$0.15
High Intensity Discharge (HID) and Other	\$1.30
Incandescent/Halogen	\$0.05
Miniature Bulb Package	\$0.10
FIXTURES	EHF
Designated Small Fixtures/Decorative Light Strings (e.g. flashlights, holiday lights)	
Category A (e.g. table lamps, chandeliers)	\$0.15
Category B (e.g. high bay)	
Large Outdoor Fixtures (e.g. flood, street lights)	
BALLASTS	EHF
Ballasts/Transformers (not integrated into lamps or fixtures)	\$0.15

## Recycling Location Signage



# Recycle your light bulbs & tubes here

### All Bulbs And Tubes Accepted



Compact fluorescent lights (CFLs)



Incandescent bulbs



Light emitting diodes (LEDs)



Fluorescent tubes (all shapes), UV and germicidal lamps



High-intensity discharge (HIDs)



Halogens

A separate collection system is available for lighting fixtures (such as table lamps, chandeliers, flashlights, etc.). For more information visit [LightRecycle.ca](http://LightRecycle.ca)

[LightRecycle.ca](http://LightRecycle.ca)  
Toll-Free: 1-888-811-6234


**LightRecycle**



# Recycle your bulbs, tubes & fixtures here

### Accepted Bulbs & Tubes



Compact fluorescent lights (CFLs)



Fluorescent tubes (all shapes), UV and germicidal lamps



Incandescent bulbs



Light emitting diodes (LEDs)



High-intensity discharge (HIDs)



Halogens

### Accepted Fixtures








[LightRecycle.ca](http://LightRecycle.ca)  
Toll-Free: 1-888-811-6234


**LightRecycle**

## Website Blog Posts

### 4 HOME LIGHTING FIXTURE TRENDS TO TRY IN 2018

March 23rd, 2018 / [Blog](#)



Spring is here, which mean it's that time of year when people are ...

[READ MORE](#)

### LIGHT BULB RECYCLING 101: WHY IT'S SO IMPORTANT TO RECYCLE YOUR LIGHT BULBS

June 21st, 2018 / [Blog](#)



Where would we be without the humble light bulb? They brighten up our ...

[READ MORE](#)

### HOW TO RECYCLE CHRISTMAS LIGHTS IN BRITISH COLUMBIA

November 29th, 2018 / [Blog](#)

It's that time of year when the holidays are in full swing. The fireplace is crackling, festive tunes are playing, chestnuts are roasting, and your holiday lights ...

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#### LIGHT BULB RECYCLING 101: WHY IT'S SO IMPORTANT TO RECYCLE YOUR LIGHT BULBS

June 21st, 2018 / [Blog](#)

[← Back to News](#)

Where would we be without the humble light bulb? They brighten up our lives on dreary days, help [keep our homes on track](#), and today's energy-efficient bulbs can last for years without burning out.

When a light bulb does burn out, what do you do? Don't throw it in the trash! It's important to recycle light bulbs safely – and here's why.

[Why it's important to recycle mercury-containing bulbs](#)

[Why CFL light bulbs contain mercury](#)

[Why CFL light bulbs are good for the environment](#)

[What happens to light bulbs when they get recycled](#)

[What to do if you break a light bulb](#)

[Where and how to recycle your light bulbs](#)



## Google Search Ad

Recycle Light Bulbs in BC | Find A Recycling Location

**Ad** [www.lightrecycle.ca](http://www.lightrecycle.ca)

Light bulbs don't belong in the trash. Recycle them for free at 200+ sites in BC. 200 Locations in BC. Many Products Accepted. Free to Drop-Off. Open to Everyone. Service catalog: Light bulbs, CFLs, Incandescent bulbs, LEDs, L

## Google Display Ad

A Google Display Ad with a blue background. The text reads: "Keep light bulbs out of our landfills. Recycle them for free!" Below this is a dark blue button with a red location pin icon and the text "FIND OUT WHERE". To the right of the button is a white compact fluorescent light bulb. At the bottom left is the LightRecycle logo, which consists of a circular icon with a stylized 'R' and the text "LightRecycle".

**Keep light bulbs out of our landfills.**

**Recycle them for free!**

**FIND OUT WHERE**

**LightRecycle**

## Sample Facebook Ad



ReGeneration

Sponsored · 🌐

...

Burnt out light bulbs don't belong in the trash! Recycle them through our free-to-use program.



REGENERATION.CA

**Find a Recycling Location**

Burnt out light bulbs are recyc...

[LEARN MORE](#)

👍 😊 ❤️ 83

43 Comments 41 Shares



Like



Comment



Share

## Sample Gated Facebook Post



ReGeneration

Sponsored · 🌐

...

Many types of light bulb contain small amounts of mercury and should not be thrown in the trash.



REGENERATION.CA

**Light bulb recycling: Why it's so important**

[LEARN MORE](#)

👍 9

9 Comments 7 Shares



Like



Comment

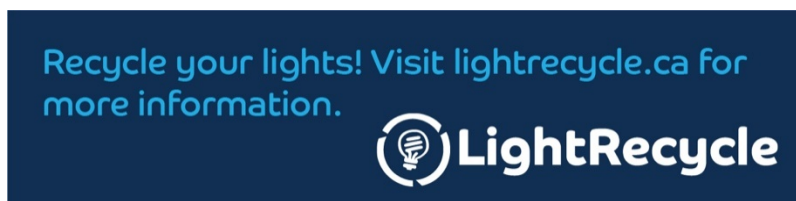


Share

## BC Electrical Association Digital Advertisement



## Electro Federation E-Newsletter advertisements



## Do you have large quantities of lights for recycling?

It's a no-brainer. Ask about our **FREE** large volume pick up service for lights by calling 1-888-811-6234 or emailing [bcopslights@productcare.org](mailto:bcopslights@productcare.org).

Only have a few lights, fixtures, or ballasts to recycle? Drop them off at a designated collection site for free.

[productcare.org](http://productcare.org)



## Have large quantities of paint, lights or smoke alarms for recycling?

Product Care offers a first-of-its-kind recycling program for paint, paint aerosols, lights, lighting fixtures, ballasts, smoke alarms, and carbon monoxide alarms. Drop them off at a designated collection site for **FREE**, or contact us for more details on our **FREE** large volume pick up service.

For details, restrictions, and a full list of accepted products, visit [productcare.org](http://productcare.org).







## Making it really easy for busy business operators to do the right thing

Burnt out bulbs piling up? No time to dispose of them? We'll pick them up and recycle them for you – for free! Register as a large volume generator, and we'll do the rest:

Call 1 888 811 6234 or email [pickup@lightrecycle.ca](mailto:pickup@lightrecycle.ca) to find out if you qualify for free pickup



### Vancouver Pride Guide Print ad



## Recycle with pride!

Recycle your paint, lights, and smoke alarms for free across BC. Find your nearest location at [ReGeneration.ca/pride](http://ReGeneration.ca/pride)





## Municipal Calendar Print Advertisement



Keep BC beautiful with our  
free to use, easy to find  
recycling programs



- ✓ Paint
- ✓ Alarms
- ✓ HHW
- ✓ Lights

Find your nearest drop-off  
location at [ReGeneration.ca](https://www.regeneration.ca)



## Appendix B – List of Contracted Collection Sites as of December 31<sup>st</sup> 2018

	<b>Depot Name</b>	<b>City</b>	<b>Regional District</b>
1.	7 Mile Landfill	Port McNeill	Mt. Waddington
2.	Abbotsford Bottle Depot	Abbotsford	Fraser Valley
3.	Abbotsford Community Services Recycling	Abbotsford	Fraser Valley
4.	ABC Recycling – Fort St. John	Fort St. John	Peace River
5.	ABC Recycling – Kelowna	Kelowna	Central Okanagan
6.	ABC Recycling – Prince George	Prince George	Fraser Fort George
7.	ABC Recycling – Terrace	Terrace	Kitimat Stikine
8.	ABC Recycling – Burnaby	Burnaby	Metro Vancouver
9.	ABC Recycling – Campbell River	Campbell River	Strathcona
10.	ABC Recycling – Surrey	Surrey	Metro Vancouver
11.	ACE Hardware – Abbotsford #70636	Abbotsford	Fraser Valley
12.	ACE Hardware #70501	Fort St. James	Bulkley Nechako
13.	Action Steel Sales	Penticton	Okanagan Similkameen
14.	Agassiz Bottle Depot	Agassiz	Fraser Valley
15.	Aldergrove Bottle Depot	Aldergrove	Metro Vancouver
16.	Allied Salvage & Metals	Richmond	Metro Vancouver
17.	Allied Scrap Metal Squamish	Squamish	Squamish Lillooet
18.	Alpine Disposal & Recycling	Victoria	Capital Regional District
19.	Armstrong Bottle Depot	Armstrong	North Okanagan
20.	Augusta Recyclers	Powell River	Powell River Regional District
21.	Bay Street Castle	Victoria	Capital Regional District
22.	Bella Bella Eco-Depot	Bella Bella	Central Coast
23.	Bella Coola Recycling Depot	Hagensborg	Central Coast
24.	Bill's Bottle Depot	Salmon Arm	Columbia Shuswap
25.	Bings Creek Solid Waste	Duncan	Cowichan Valley
26.	Blight's Home Hardware	Vancouver	Metro Vancouver
27.	Border Town Recycling Group	Stewart	Kitimat Stikine
28.	Bottle Depot – Glanford	Saanich	Capital Regional District
29.	Bottle Depot – Queens Ave	Victoria	Capital Regional District
30.	Boucherie Bottle Depot & Self Storage	West Kelowna	Central Okanagan
31.	Bowen Island Recycling Depot	Bowen Island	Metro Vancouver
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.	Burns Lake Home Hardware	Burns Lake	Bulkley Nechako
36.	Burns Lake Recycling Return-It Depot	Burns Lake	Bulkley Nechako
37.	Campbell Mountain Sanitary Landfill	Penticton	Okanagan Similkameen

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

	<b>Depot Name</b>	<b>City</b>	<b>Regional District</b>
76.	Columbia Bottle Depot – St. Paul	Kelowna	Central Okanagan
77.	Columbia Recycle	Kimberley	East Kootenay
78.	Comox Valley Auto & Metal Recyclers	Courtenay	Comox Valley
79.	Comox Valley Waste Management Centre	Cumberland	Comox Valley
80.	Cook St. Castle Building Center	Victoria	Capital Regional District
81.	Coquitlam Return-It Depot	Coquitlam	Metro Vancouver
82.	Coquitlam Transfer Stn (Emterra Environmental)	Coquitlam	Metro Vancouver
83.	Cormorant Island Recycling Facility Alert Bay	Alert Bay	Mt. Waddington
84.	Cortes Island Waste Management Centre	Cortes Island	Strathcona
85.	Courtenay Return-It Depot	Courtenay	Comox Valley
86.	Cranbrook Bottle Depot	Cranbrook	East Kootenay
87.	D&S Electric	Williams Lake	Cariboo
88.	D.C. Campbell Recycling	Dawson Creek	Peace River
89.	Davie Village Home Hardware	Vancouver	Metro Vancouver
90.	Davis Trading & Supply	Vancouver	Metro Vancouver
91.	District of Oak Bay Recycling Depot	Oak Bay	Capital Regional District
92.	District of Tumbler Ridge	Tumbler Ridge	Peace River
93.	DL's Recycling Centre	Saanichton	Capital Regional District
94.	Do Your Part Recycling	Terrace	Kitimat Stikine
95.	Dolly's Home Hardware	Qualicum Beach	Nanaimo Regional District
96.	Duncan Home Hardware Building Centre	Duncan	Cowichan Valley
97.	Dunlop's Home Hardware Building Centre	Port Hardy	Mt. Waddington
98.	East Hastings Bottle Depot	Burnaby	Metro Vancouver
99.	Eco-Depot Recycling Centre	Fort St John	Peace River
100.	Edmonds Return-It Depot	Burnaby	Metro Vancouver
101.	Enderby Return-it Depot	Enderby	North Okanagan
102.	Fernie Bottle Depot	Fernie	East Kootenay
103.	Fernie Home Hardware Building Center	Fernie	East Kootenay
104.	Fisher Road Recycling	Cobble Hill	Cowichan Valley
105.	Fleetwood Bottle Return Depot	Surrey	Metro Vancouver
106.	Fraser Lake Bottle Depot	Fraser Lake	Bulkley Nechako
107.	Fraser Valley Metal Exchange	Maple Ridge	Metro Vancouver
108.	Fraser Valley Metal Recycling	Abbotsford	Fraser Valley
109.	Fraservalley Return-It Depot	Langley	Metro Vancouver
110.	Gabriola Island Recycling	Gabriola Island	Nanaimo Regional District
111.	Galiano Island Recycling Resources	Galiano Island	Capital Regional District
112.	Galiano Trading	Galiano Island	Capital Regional District
113.	Gandy's Home Hardware	Vancouver	Metro Vancouver
114.	General Grant's North Shore Bottle Depot	Kamloops	Thompson Nicola

	<b>Depot Name</b>	<b>City</b>	<b>Regional District</b>
115.	General Grant's Sahali	Kamloops	Thompson Nicola
116.	Gibsons Building Supplies	Gibsons	Sunshine Coast
117.	Gibsons Recycling Depot	Gibsons	Sunshine Coast
118.	Go Green Bottle Depot	Vancouver	Metro Vancouver
119.	Gold Trail Recycling	100 mile House	Cariboo
120.	Grand Forks Bottle Depot	Grand Forks	Kootenay Boundary
121.	Grand Forks Home Hardware	Grand Forks	Kootenay Boundary
122.	GRIPS	Madeira Park	Sunshine Coast
123.	Guildford Bottle Depot	Surrey	Metro Vancouver
124.	Hagens Home Hardware Building Centre	Mackenzie	Fraser Fort George
125.	Haney Bottle Depot	Maple Ridge	Metro Vancouver
126.	Happy Stan's Recycling	Port Coquitlam	Metro Vancouver
127.	Hartland Landfill Recycling Depot	Victoria	Capital Regional District
128.	Hazelton Bottle Depot	New Hazelton	Kitimat Stikine
129.	Hewer Home Hardware	Vancouver	Metro Vancouver
130.	Highway 4 Auto Salvage	Coombs	Nanaimo Regional District
131.	Hipperson Home Hardware	Nelson	Central Kootenay
132.	Home Building Centre Salmon Arm	Salmon Arm	Columbia Shuswap
133.	Home Building Centre Vernon	Vernon	North Okanagan
134.	Home Hardware Bldg Cntr Merritt	Merritt	Thompson Nicola
135.	Home Hardware Building Center - Courtenay	Courtenay	Comox Valley
136.	Home Hardware Cranbrook	Cranbrook	East Kootenay
137.	Home Hardware Penticton	Penticton	Okanagan Similkameen
138.	Home Hardware Princeton	Princeton	Okanagan Similkameen
139.	Home Hardware Revelstoke	Revelstoke	Columbia Shuswap
140.	Home Hardware Sidney	Sidney	Capital Regional District
141.	Home Hardware Williams Lake	Williams Lake	Cariboo
142.	Hope Bottle Depot	Hope	Fraser Valley
143.	Hornby Island Waste Management Centre	Hornby Island	Comox Valley
144.	Houston Bottle Depot	Houston	Bulkley Nechako
145.	Interior Freight and Bottle Depot	Vernon	North Okanagan
146.	Invermere Home Hardware	Invermere	East Kootenay
147.	Ironwood Bottle Depot	Richmond	Metro Vancouver
148.	Island Return It - Duncan	Duncan	Cowichan Valley
149.	Island Return-It Campbell River	Campbell River	Strathcona
150.	Island Return-It Esquimalt	Esquimalt	Capital Regional District
151.	Island Return-It Sidney	Sidney	Capital Regional District
152.	Island Return-It South Cowichan	Cobble Hill	Cowichan Valley
153.	Island Solid Waste Landfill Port Clements	Port Clements	Skeena-Queen Charlotte
154.	Island Solid Waste Management Queen Charlotte	Queen Charlotte	Skeena-Queen Charlotte

	<b>Depot Name</b>	<b>City</b>	<b>Regional District</b>
155.	J&C Bottle Depot	Penticton	Okanagan Similkameen
156.	Junction Bottle Depot	Ladysmith	Cowichan Valley
157.	Kamloops Home Hardware	Kamloops	Thompson Nicola
158.	Kaslo Building Supplies	Kaslo	Central Kootenay
159.	Kensington Return-it	Burnaby	Metro Vancouver
160.	Keremeos Sanitary Landfill	Keremeos	Okanagan Similkameen
161.	Kerrisdale Lumber	Vancouver	Metro Vancouver
162.	Kitchener Bottle Depot	Burnaby	Metro Vancouver
163.	Kitwanga Transfer Station	Kitwanga	Kitimat Stikine
164.	Knox Mountain Metals	Kelowna	Central Okanagan
165.	KUTE Kitimat Recycling Depot	Kitimat	Kitimat Stikine
166.	Ladner Bottle Depot	Delta	Metro Vancouver
167.	Lake Cowichan Home Hardware	Lake Cowichan	Cowichan Valley
168.	Langley Bottle Depot	Langley	Metro Vancouver
169.	Lax Kw'alaams Band	Lax Kw'alaams	Skeena-Queen Charlotte
170.	Lee's Bottle Depot	Burnaby	Metro Vancouver
171.	Lillooet Landfill	Lillooet	Squamish Lillooet
172.	London Drugs #10	Vancouver	Metro Vancouver
173.	London Drugs #11	Richmond	Metro Vancouver
174.	London Drugs #12	Kelowna	Central Okanagan
175.	London Drugs #14	Victoria	Capital Regional District
176.	London Drugs #15	Coquitlam	Metro Vancouver
177.	London Drugs #16	Abbotsford	Fraser Valley
178.	London Drugs #17	Delta	Metro Vancouver
179.	London Drugs #18	Langley	Metro Vancouver
180.	London Drugs #19	Vancouver	Metro Vancouver
181.	London Drugs #2	Vancouver	Metro Vancouver
182.	London Drugs #25	Burnaby	Metro Vancouver
183.	London Drugs #28	Vancouver	Metro Vancouver
184.	London Drugs #29	Victoria	Capital Regional District
185.	London Drugs #3	New Westminster	Metro Vancouver
186.	London Drugs #35	Kamloops	Thompson Nicola
187.	London Drugs #36	Nanaimo	Nanaimo Regional District
188.	London Drugs #37	Delta	Metro Vancouver
189.	London Drugs #39	Vernon	North Okanagan
190.	London Drugs #4	Vancouver	Metro Vancouver
191.	London Drugs #41	Chilliwack	Fraser Valley
192.	London Drugs #42	White Rock	Metro Vancouver
193.	London Drugs #44	West Vancouver	Metro Vancouver
194.	London Drugs #46	Victoria	Capital Regional District

	<b>Depot Name</b>	<b>City</b>	<b>Regional District</b>
195.	London Drugs #47	Maple Ridge	Metro Vancouver
196.	London Drugs #5	North Vancouver	Metro Vancouver
197.	London Drugs #50	Vancouver	Metro Vancouver
198.	London Drugs #51	Prince George	Fraser Fort George
199.	London Drugs #52	Richmond	Metro Vancouver
200.	London Drugs #53	Vancouver	Metro Vancouver
201.	London Drugs #54	Victoria	Capital Regional District
202.	London Drugs #55	Mission	Fraser Valley
203.	London Drugs #56	Burnaby	Metro Vancouver
204.	London Drugs #6	Burnaby	Metro Vancouver
205.	London Drugs #61	Gibsons	Sunshine Coast
206.	London Drugs #67	Courtenay	Comox Valley
207.	London Drugs #7	Vancouver	Metro Vancouver
208.	London Drugs #70	Penticton	Okanagan Similkameen
209.	London Drugs #71	Burnaby	Metro Vancouver
210.	London Drugs #72	Nanaimo	Nanaimo Regional District
211.	London Drugs #73	Campbell River	Strathcona
212.	London Drugs #74	Vancouver	Metro Vancouver
213.	London Drugs #75	Surrey	Metro Vancouver
214.	London Drugs #76	Westbank	Central Okanagan
215.	London Drugs #77	Duncan	Cowichan Valley
216.	London Drugs #78	Vancouver	Metro Vancouver
217.	London Drugs #8	Surrey	Metro Vancouver
218.	London Drugs #80	Squamish	Squamish Lillooet
219.	London Drugs #81	Surrey	Metro Vancouver
220.	London Drugs #82	Vancouver	Metro Vancouver
221.	London Drugs #85	Abbotsford	Fraser Valley
222.	London Drugs #9	Surrey	Metro Vancouver
223.	Lone Butte Supply	100 Mile House	Cariboo
224.	Lorne Street Bottle Depot	Kamloops	Thompson Nicola
225.	Lougheed Return-It Depot	Coquitlam	Metro Vancouver
226.	Louis Creek Eco-Depot	Louis Creek	Thompson Nicola
227.	Lower Nicola Eco-Depot	Merritt	Thompson Nicola
228.	Lowe's Abbotsford	Abbotsford	Fraser Valley
229.	Lowe's Nanaimo	Nanaimo	Nanaimo Regional District
230.	Lowe's Prince George	Prince George	Fraser Fort George
231.	Lowe's Queensborough	New Westminster	Metro Vancouver
232.	Lowe's Victoria	Victoria	Capital Regional District
233.	Mac's Traders	Langley	Metro Vancouver
234.	MAKE/DO	Creston	Central Kootenay



	<b>Depot Name</b>	<b>City</b>	<b>Regional District</b>
235.	Maple Ridge Bottle Depot	Maple Ridge	Metro Vancouver
236.	Maple Ridge Lighting	Maple Ridge	Metro Vancouver
237.	Mayne Island Building Center	Mayne Island	Capital Regional District
238.	McMynn's Ace Building Centre #70025	Midway	Kootenay Boundary
239.	Meade Creek Recycling Drop-off Depot	Lake Cowichan	Cowichan Valley
240.	Merritt Return-It Depot	Merritt	Thompson Nicola
241.	Metrotown Bottle Return-It Center	Burnaby	Metro Vancouver
242.	Mission Flats Landfill	Kamloops	Thompson Nicola
243.	Mission Recycling	Mission	Fraser Valley
244.	Mission Recycling Centre & Bottle Depot	Mission	Fraser Valley
245.	Mountain High Lighting	Castlegar	Central Kootenay
246.	Nak'azdli Recycling Depot	Fort St. James	Bulkley Nechako
247.	Nelson Home Hardware Building Centre	Nelson	Central Kootenay
248.	Nelson Leafs Recycling Centre	Nelson	Central Kootenay
249.	New & Nearly New	Kimberley	East Kootenay
250.	New Westminster Recycle Depot	New Westminster	Metro Vancouver
251.	Newton Bottle Depot	Surrey	Metro Vancouver
252.	North Shore Bottle Depot	North Vancouver	Metro Vancouver
253.	North Shore Transfer Stn (Emterra Environmental)	North Vancouver	Metro Vancouver
254.	North Vancouver Bottle & Return-It Depot	North Vancouver	Metro Vancouver
255.	Oak Bay Home Hardware	Victoria	Capital Regional District
256.	OK Bottle Depot	Richmond	Metro Vancouver
257.	Okanagan Falls Landfill	Okanagan Falls	Okanagan Similkameen
258.	Oliver Sanitary Landfill	Oliver	Okanagan Similkameen
259.	Osoyoos Bottle Depot	Osoyoos	Okanagan Similkameen
260.	Osoyoos Home Hardware	Osoyoos	Okanagan Similkameen
261.	Panorama Village Return-It	Surrey	Metro Vancouver
262.	Parksville Bottle & Recycling Depot	Parksville	Nanaimo Regional District
263.	Parksville Home Building Center, Central Builders	Parksville	Nanaimo Regional District
264.	Parksville Home Hardware	Parksville	Nanaimo Regional District
265.	Parsons Scrap Metals	Surrey	Metro Vancouver
266.	Pearson's Home Hardware	North Vancouver	Metro Vancouver
267.	Peerless Road Recycling	Ladysmith	Cowichan Valley
268.	Pemberton Recycling Centre	Pemberton	Squamish Lillooet
269.	Pender Island Recycling Society	Pender Island	Capital Regional District
270.	PG Recycling	Prince George	Fraser Fort George



	<b>Depot Name</b>	<b>City</b>	<b>Regional District</b>
271.	Pitt Meadows Bottle & Return-It Depot	Pitt Meadows	Metro Vancouver
272.	Planet Earth Recycling	Westbank	Central Okanagan
273.	Port McNeil Recycling Depot	Port McNeill	Mt. Waddington
274.	Powell Street Return-it Bottle Depot	Vancouver	Metro Vancouver
275.	Powerhouse Recycled Auto & Truck Parts	Cumberland	Comox Valley
276.	Princeton Return-It Depot	Princeton	Okanagan Similkameen
277.	Puds Auto Wrecking & Towing	Osoyoos	Okanagan Similkameen
278.	Quality Glass	Ashcroft	Thompson Nicola
279.	Queensborough Landing Return-It	New Westminster	Metro Vancouver
280.	R&T Bottle Depot	Abbotsford	Fraser Valley
281.	R3 Recycle-It Resource Recovery	Fort St John	Peace River
282.	Refuse Resource Recovery	Victoria	Capital Regional District
283.	Regional Recycling Abbotsford	Abbotsford	Fraser Valley
284.	Regional Recycling Burnaby	Burnaby	Metro Vancouver
285.	Regional Recycling Cloverdale	Surrey	Metro Vancouver
286.	Regional Recycling Nanaimo - Hayes	Nanaimo	Nanaimo Regional District
287.	Regional Recycling Nanaimo - Old Vic	Nanaimo	Nanaimo Regional District
288.	Regional Recycling Prince Rupert	Prince Rupert	Skeena-Queen Charlotte
289.	Regional Recycling Richmond	Richmond	Metro Vancouver
290.	Regional Recycling Vancouver	Vancouver	Metro Vancouver
291.	Regional Recycling Whistler	Whistler	Squamish Lillooet
292.	Revelstoke Bottle Depot	Revelstoke	Columbia Shuswap
293.	Richmond Recycling Depot	Richmond	Metro Vancouver
294.	Ridge Meadows Recycling	Maple Ridge	Metro Vancouver
295.	Rona Vancouver #61760	Vancouver	Metro Vancouver
296.	Rona Abbotsford #61220	Abbotsford	Fraser Valley
297.	Rona Alert Bay #01215	Alert Bay	Mt. Waddington
298.	Rona Burnaby #61270	Burnaby	Metro Vancouver
299.	Rona Chilliwack #61390	Chilliwack	Fraser Valley
300.	Rona Clearwater #06410	Clearwater	Thompson Nicola
301.	Rona Cobble Hill #61040	Cobble Hill	Cowichan Valley
302.	Rona Coquitlam #61260	Coquitlam	Metro Vancouver
303.	Rona Coquitlam #61290	Coquitlam	Metro Vancouver
304.	Rona Fraser Valley Mission #08470	Mission	Fraser Valley
305.	Rona Hope #61350	Hope	Fraser Valley
306.	Rona Kamloops #61310	Kamloops	Thompson Nicola
307.	Rona Kelowna #61700	Kelowna	Central Okanagan
308.	Rona Langley #61810	Langley	Metro Vancouver
309.	Rona Madeira Park #09551 & #61420	Madeira Park	Sunshine Coast
310.	Rona Maple Ridge #61190	Maple Ridge	Metro Vancouver

	<b>Depot Name</b>	<b>City</b>	<b>Regional District</b>
311.	Rona Nanaimo #61030	Nanaimo	Nanaimo Regional District
312.	Rona New Westminster #6158	New Westminster	Metro Vancouver
313.	Rona North Vancouver #08140	North Vancouver	Metro Vancouver
314.	Rona North Vancouver #61740	North Vancouver	Metro Vancouver
315.	Rona Pemberton Valley Hardware #08522	Pemberton	Squamish Lillooet
316.	Rona Penticton #61490	Penticton	Okanagan Similkameen
317.	Rona Port McNeil #01195	Port McNeil	Mt. Waddington
318.	Rona Powell River #02791	Powell River	Powell River Regional District
319.	Rona Quesnel #61320	Quesnel	Cariboo
320.	Rona Richmond #08040	Richmond	Metro Vancouver
321.	Rona Salmon Arm #06175	Salmon Arm	Columbia Shuswap
322.	Rona Squamish #61450	Squamish	Squamish Lillooet
323.	Rona Surrey #61240 South Surrey	Surrey	Metro Vancouver
324.	Rona Surrey #61720 (Fleetwood)	Surrey	Metro Vancouver
325.	Rona Surrey Newton #61250	Surrey	Metro Vancouver
326.	Rona Tsawwassen Commons #8880	Tsawwassen	Metro Vancouver
327.	Rona Vanderhoof #70519	Vanderhoof	Bulkley Nechako
328.	Rona Vernon #61300	Vernon	North Okanagan
329.	Rona Victoria #61710	Victoria	Capital Regional District
330.	Rona Whistler #61460	Whistler	Squamish Lillooet
331.	Rona Williams Lake #61340	Williams Lake	Cariboo
332.	Ross Bay Home Hardware	Victoria	Capital Regional District
333.	Rypac Metal Recycling	Surrey	Metro Vancouver
334.	Salish Soils	Sechelt	Sunshine Coast
335.	Salt Spring Island Recycling Depot	Salt Spring Island	Capital Regional District
336.	Salvation Army - Brentwood Thrift Store	Brentwood	Capital Regional District
337.	Salvation Army - E 12th Ave Thrift Store	Vancouver	Metro Vancouver
338.	Salvation Army - Hillside Thrift Store	Victoria	Capital Regional District
339.	Salvation Army - Langley Thrift Store	Langley	Metro Vancouver
340.	Salvation Army - Mill Bay Thrift Store	Mill Bay	Cowichan Valley
341.	Salvation Army - North Vancouver Thrift Store	North Vancouver	Metro Vancouver
342.	Salvation Army - Port Coquitlam Thrift Store	Port Coquitlam	Metro Vancouver
343.	Salvation Army - Prince George	Prince George	Fraser Fort George
344.	Salvation Army - Sooke Thrift Store	Sooke	Capital Regional District
345.	Salvation Army - View Royal Thrift Store	View Royal	Capital Regional District

	<b>Depot Name</b>	<b>City</b>	<b>Regional District</b>
346.	Sandy's Auto Parts	Langford	Capital Regional District
347.	Sapperton Return-It Depot	New Westminster	Metro Vancouver
348.	Sardis Bottle Depot	Chilliwack	Fraser Valley
349.	Schnitzer Steel Pacific - Campbell River	Duncan	Cowichan Valley
350.	Schnitzer Steel Pacific - Cassidy	Cassidy	Nanaimo Regional District
351.	Schnitzer Steel Pacific - Duncan	Duncan	Cowichan Valley
352.	Schnitzer Steel Pacific - Victoria	Victoria	Capital Regional District
353.	Scotch Creek Bottle Depot	Scotch Creek	Columbia Shuswap
354.	Scotch Creek Home Building Center	Scotch Creek	Columbia Shuswap
355.	Scott Road Bottle Depot	Surrey	Metro Vancouver
356.	Scrap King Autowrecking & Towing	Salmo	Central Kootenay
357.	Sechelt P/U Recyclers	Sechelt	Sunshine Coast
358.	Semiahmoo Bottle Depot	Surrey	Metro Vancouver
359.	Shearwater Marine	Denny Island	Central Coast
360.	Shepherds Home Hardware	Armstrong	North Okanagan
361.	Simpson Home Hardware	West Vancouver	Metro Vancouver
362.	Skyway Distributors	Cranbrook	East Kootenay
363.	SM Lighting and Bath Design	Surrey	Metro Vancouver
364.	Smithers Home Hardware	Smithers	Bulkley Nechako
365.	Smithers Lumber Yard	Smithers	Bulkley Nechako
366.	Smokey Creek Salvage	South Slocan	Central Kootenay
367.	Sointula Recycling Depot	Sointula	Mt. Waddington
368.	Sooke Home Hardware	Sooke	Capital Regional District
369.	South Thompson Recycling	Pritchard	Thompson Nicola
370.	South Van Bottle Depot	Vancouver	Metro Vancouver
371.	Stewart Transfer Station	Stewart	Kitimat Stikine
372.	Summerland Landfill	Summerland	Central Okanagan
373.	Sun Coast Waste Eco-Depot	Port Alberni	Alberni Clayoquot
374.	Sun Dial Lighting Vernon	Vernon	North Okanagan
375.	Sunset Coast Bottle Depot	Powell River	Powell River Regional District
376.	Surrey Central Return-It	Surrey	Metro Vancouver
377.	Surrey Transfer Station - Emterra Environmental	Surrey	Metro Vancouver
378.	T-2 Market Bottle Depot	Oliver	Okanagan Similkameen
379.	Terrace Bottle Depot	Terrace	Kitimat Stikine
380.	The Battery Doctors	Kelowna	Central Okanagan
381.	The Lampost	Kamloops	Thompson Nicola
382.	The Re-Build-It Centre Whistler	Whistler	Squamish Lillooet

	<b>Depot Name</b>	<b>City</b>	<b>Regional District</b>
383.	Thompson-Nicola Regional District - 660 M.F.Rd	Kamloops	Thompson Nicola
384.	Thorsen Creek Recycling Depot	Bella Coola	Central Coast
385.	Tofino Co-op Hardware	Tofino	Alberni Clayoquot
386.	Trail Bay Hardware #51784	Sechelt	Sunshine Coast
387.	Trail Bottle Depot	Trail	Kootenay Boundary
388.	Tri Port Recycling (Port Hardy Return-It)	Port Hardy	Mt. Waddington
389.	Tsal'alh Eco-Depot (Seton Lake)	Shalalth	Squamish Lillooet
390.	Tsawwassen Home Building Centre	Delta	Metro Vancouver
391.	Tsawwassen Return-It Centre - D&G	Delta	Metro Vancouver
392.	Ucluelet Bottle Depot	Ucluelet	Alberni Clayoquot
393.	Unadvertised	Kelowna	Central Okanagan
394.	Unadvertised	Langford	Capital Regional District
395.	Unadvertised	Maple Ridge	Metro Vancouver
396.	Unadvertised	Nanaimo	Nanaimo Regional District
397.	Unadvertised	Saanich	Capital Regional District
398.	Unadvertised	Surrey	Metro Vancouver
399.	Unadvertised	Vancouver	Metro Vancouver
400.	Unadvertised	Victoria	Capital Regional District
401.	Unadvertised	Delta	Metro Vancouver
402.	Unadvertised	Victoria	Capital Regional District
403.	Unadvertised	North Vancouver	Metro Vancouver
404.	Unadvertised	Surrey	Metro Vancouver
405.	Unadvertised	Abbotsford	Fraser Valley
406.	Unadvertised	Richmond	Metro Vancouver
407.	Unadvertised	New Westminster	Metro Vancouver
408.	Unadvertised	Burnaby	Metro Vancouver
409.	Unadvertised	Coquitlam	Metro Vancouver
410.	Unadvertised	Vancouver	Metro Vancouver
411.	Unadvertised	Surrey	Metro Vancouver
412.	Unadvertised	Victoria	Capital Regional District
413.	Unadvertised	Langley	Metro Vancouver
414.	Unadvertised	Coquitlam	Metro Vancouver
415.	Unadvertised	Winlaw	Central Kootenay
416.	Unadvertised	Burnaby	Metro Vancouver
417.	Unadvertised	Burnaby	Metro Vancouver
418.	Unadvertised	Dawson Creek	Peace River
419.	Unadvertised	Fort St John	Peace River
420.	Urban Impact Recycling	Richmond	Metro Vancouver
421.	Valemount Recycling Center	Valemount	Fraser Fort George

	<b>Depot Name</b>	<b>City</b>	<b>Regional District</b>
422.	Vancouver Central Return-It Depot	Vancouver	Metro Vancouver
423.	Vancouver West Bottle Depot	Vancouver	Metro Vancouver
424.	Vancouver Zero Waste Centre	Vancouver	Metro Vancouver
425.	Venture Bottle Depot Lumby	Lumby	North Okanagan
426.	Venture Training Vernon	Vernon	North Okanagan
427.	Village of Gold River	Gold River	Strathcona
428.	Village of New Denver	New Denver	Central Kootenay
429.	Walnut Grove Bottle Depot	Langley	Metro Vancouver
430.	Wastech - Abbotsford Transfer Stn	Abbotsford	Fraser Valley
431.	Wells Gray Home Hardware	Clearwater	Thompson Nicola
432.	West Coast Metal Recycling	Langley	Metro Vancouver
433.	Westbank Home Hardware	Westbank	Central Okanagan
434.	West-Can Home Hardware	Burnaby	Metro Vancouver
435.	Westcoast Hardware	Port Alberni	Alberni Clayoquot
436.	Whistler Home Hardware	Whistler	Squamish Lillooet
437.	White Rock Return-It Depot	Surrey	Metro Vancouver
438.	Wide Sky Disposal	Fort Nelson	Northern Rockies
439.	Willow Point Bottle Depot	Campbell River	Strathcona
440.	Willowbrook Recycling Depot	Langley	Metro Vancouver
441.	Winfield Return It Centre	Lake Country	Central Okanagan
442.	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 2018**

**PRODUCT CARE ASSOCIATION OF CANADA  
BC LAMPS AND LIGHTING EQUIPMENT PROGRAM  
Statement of Revenues and Expenses  
For the year ended 31 December 2018**

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**ROLFE, BENSON LLP**

CHARTERED PROFESSIONAL ACCOUNTANTS

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## INDEPENDENT AUDITORS' REPORT

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To: BC Ministry of Environment,

### Report on the Audit of the Statement of Revenues and Expenses

#### Opinion

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

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

#### Basis for Opinion

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

#### Other Matter - Restriction on Distribution and Use

This report is prepared on the direction of Product Care Association of Canada's management and the 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.

#### Responsibilities of Management and Those Charged with Governance for the Statement

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



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## **INDEPENDENT AUDITORS' REPORT - continued**

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

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

### **Auditors' Responsibilities**

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

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

- Identify and assess the risks of material misstatement of the Statement, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Association's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Association's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the Statement or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Association to cease to continue as a going concern.



**ROLFE, BENSON LLP**

CHARTERED PROFESSIONAL ACCOUNTANTS

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## INDEPENDENT AUDITORS' REPORT - continued

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

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

*Rolfe, Benson LLP*

CHARTERED PROFESSIONAL ACCOUNTANTS

Vancouver, Canada  
4 April 2019

**PRODUCT CARE ASSOCIATION OF CANADA**  
**BC LAMPS AND LIGHTING EQUIPMENT PROGRAM**  
**Statement of Revenues and Expenses**  
**For the year ended 31 December 2018**

	2018	2017
<b>Revenues</b>	<b>\$ 5,561,327</b>	<b>\$ 5,494,612</b>
<b>Program expenses</b>		
Processing	3,106,490	2,984,581
Collection	691,154	728,195
Administration (Note 2(c))	485,806	496,002
Transportation	309,723	295,697
Communications	64,325	218,435
	<u>4,657,498</u>	<u>4,722,910</u>
<b>Excess of revenues over expenses for the year</b>	<b>\$ 903,829</b>	<b>\$ 771,702</b>
<b>Fund transfer - allocation of interim program costs (Note 3)</b>		

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

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**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 2018**

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**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"), a segment of the operations of Product Care Association of Canada (the "Association").

**2. Summary of Significant Accounting Policies**

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

**(a) Revenue Recognition**

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

**(b) 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.

**(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 \$289,775 (2017 - \$258,871) of overhead expense which has been allocated to the Program.

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**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 2018**

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**3. Fund Transfer - Allocation of Interim Program Costs**

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

These costs are to be allocated over a five year period to each of the Association's Light Recycling Programs proportionally based on the 2017 operating expenses of these Programs. The total amount allocated to the BC Lamps and Lighting Equipment Program for the 5 year period is \$530,161. This is to be allocated as a fund transfer decreasing the accumulated surplus (deficit) of the Program in each of the 2018 to 2022 fiscal years in equal amounts. During the year, \$106,032 was recorded as a fund transfer, with \$424,129 remaining to be transferred in future years.

## Appendix D – 2018 Third Party Assurance Statement for Non–Financial Information

**PRODUCT CARE ASSOCIATION OF CANADA -  
BC LAMPS AND LIGHTING EQUIPMENT STEWARDSHIP  
PROGRAM**

**INDEPENDENT REASONABLE  
ASSURANCE REPORT**

**31 DECEMBER 2018**





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## INDEPENDENT REASONABLE ASSURANCE REPORT

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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 to the Ministry of Environment and Climate Change Strategy for the year ended 31 December 2018:

- 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 Recycling Regulation Guidance - Third Party Assurance for Non-Financial Information in Annual Reports – 2018 Reporting Year dated October 2018 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
- Evaluating the presentation of the Selected Information 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 2018 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 12 - Units Reported Sold by Product Category in 2018 of the Annual Report has not been included in the Selected Information in accordance with the Recycling Regulation Guidance - Third Party Assurance for Non-Financial Information in Annual Reports – 2018 Reporting Year dated October 2018 as issued by the British Columbia Ministry of Environment and Climate Change Strategy.
2. The Selected Information included in Section 6 Pollution Prevention Hierarchy and Product/Component Management for processors of non-hazardous waste is determined based on supporting documentation and survey responses from the primary processors. During the year, survey responses were received from all primary processors except for one processor of lamps that ceased operations during 2018. As such, there is uncertainty surrounding the Selected Information contained in the Pollution Prevention Hierarchy and Product/Component Management section of Appendix 1 for the end fate of the non-hazardous waste sub-components of Lamps.

**Other Matter**

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

CHARTERED PROFESSIONAL ACCOUNTANTS

Vancouver, Canada  
27 June 2019

## 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 31 <sup>st</sup> 2018 for which evaluation criteria were developed	
Disclosure per Annual Report	Reference
Total number of collection facilities - 442	Appendix B - List of Contracted Collection Sites as of December 31 <sup>st</sup> 2018
“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. Product Care 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 collection system included 442 contracted collection sites, with 11 advertised sites added in 2018 and 13 advertised and 3 non-advertised sites removed, representing a net decrease of 5 sites from 2017.”	
“During the review of the collection sites an error in the sites reported in 2017 was detected. The correct number of collection sites in 2017 was 447, not 445 as reported.”	

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 2018, 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
<p>“After collection, Program Products are transported to the Program’s primary processors. These processors include two 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 Product Care by the Program’s primary processors.”</p>	
<p><b>Material: Lamps</b>  Sub-Component: Phosphor Powder contaminated with Mercury  End fate: Securely landfilled</p> <p>Sub-Component: Mercury  End fate: Securely landfilled</p> <p>Sub-Component: Metal  End fate: Recycled - metal commodity</p> <p>Sub-Component: Glass  End fate: Recycled as aggregate in concrete or as granules in construction material manufacturing</p>	Table 11: Material Treatments
<p><b>Material: Crushed Lamps</b>  Sub-Component: Metal and Glass  End fate: Same as whole lamps</p> <p>Sub-Component: Mercury and Phosphor Powder  End fate: Same as whole lamps</p>	Table 11: Material Treatments
<p><b>Material: Residential Fixtures</b>  “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 CESA-contracted collection sites. They were shipped to two independent processors where they were comingled with other electronics and broken down into their respective components.”</p>	
<p>Sub-Component: Ferrous Steel  End fate: Recycled – Production, Processing, Non-processing</p> <p>Sub-Component: Plastics  End fate: Recycled – Processing, Non-processing</p> <p>Sub-Component: Aluminum  End fate: Recycled – Non-processing</p> <p>Sub-Component: Wire and Cables and String lights  End fate: Recycled – Processing, Non-processing</p>	Table 11: Material Treatments

Sub-Component: Copper End fate: Recycled – Processing, Non-processing	
Sub-Component: Glass End fate: Recycled – Non-processing, Processing, Other Final Disposition	
Sub-Component: Circuit Boards End fate: Recycled – Refining, Processing	
Sub-Component: Rechargeable and Non Rechargeable Batteries End fate: Recycled – Processing, Non-processing	
<b>Material: Commercial Fixtures and Non-PCB Ballasts</b> “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 11: Material Treatments
<b>Material: PCB Ballasts</b> “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, Transport Canada and the Ministry of Environment and Climate Change Canada.”	
Sub-Component: NA End fate: Incineration	Table 11: 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), except for one processor of Lamps that ceased operations during 2018.
- 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, 2018, as reported by the Program's processors. The reported quantities may include Program Products received in the 2017 fiscal year, but processed in the 2018 fiscal year and may exclude units collected in the 2018 fiscal year that were not processed as of December 31, 2018."	
<b>Product collected</b> Whole Lamps – 7,367,757 units  Residential Fixtures – 709 tonnes  PCB Containing Ballasts – 4,050 kg  Crushed Lamps – 7,764 kg	Table 13: Estimated Quantity of Products Collected in 2018
"Residential light fixtures are collected together with CESA products. The program and CESA use a sampling protocol to determine the proportion of CESA products and lighting fixtures. The program utilizes the sampling results to approximate the tonnage of residential light fixtures."	
<b>Product Collected – Lamps</b> Fluorescent Tubes (All sizes and shapes) – 2,741,600 units  Compact Fluorescent Lights (CFL)/ Screw-In Induction Lamps – 1,308,775 units  Light Emitting Diodes (LED) – 182,667 units  High Intensity Discharge (HID) and Other – 233,607 units  Incandescent / Halogen – 2,901,108 units	Table 14: 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) 2018 Assertion – Target Exceeded

Target: Residential Fixtures (tonnes collected) 2018 Assertion – Target Exceeded

"The residential fixtures target was converted and rounded from kgs to metric tonnes to match the data available from Program processors."

"The 2012-2017 Program Plan did not set targets for 2018. Where targets were provided for 2017, those targets were applied to 2018. Where no target existed for 2017, the program benchmarked 2018 performance against 2017 performance."

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.