



Pharmaceutical Annual Report

January to December 2011

Submitted to:

Mr. David Ranson
Director of Waste Management
Environmental Quality Branch
Ministry of Environment
PO Box 9341, STN PROV GOVT
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Prepared by:

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Date:

June 30, 2012

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1. Executive Summary

Collections through community pharmacies across British Columbia (BC) increased slightly from 60,543 kg to 69,044 kg of returns in 2011, representing a 14% increase in medications collected. The quantity of product returns also increased from .013 kg to .0151kg per capita.



Nanaimo Recycling Exchange promoted the program in their area with visits and presentations to pharmacies, senior homes as well at community events. As a result, the regional district had the highest level of returns per capita at .0282kg per capita.

Post-Consumer Pharmaceutical Stewardship Association (PCPSA) achieved several goals in regards to promotion and education on safe, efficient and secure drug returns.

- **Collection points:** In 2011, PCPSA was able to maintain pharmacy participation rates at 95% with convenient access to over 1,033 locations.
- **Information:** The public is informed about proper medication disposal through a number of channels, including: easy-to-find links to pharmacies on the Recyclopedia on the Recycling Council of British Columbia's website, links to participating pharmacies on the British Columbia Pharmacy Association's website, our own directory and on the majority of Regional District or Municipalities' websites.
- **Promotion:** The BC Pharmacists Association (BCPhA) campaign involved sending promotional materials and shelf signs to more than 480 pharmacies and 6 regional districts, and five news releases to promote the *BC Medications Returns Program (BCMRP)*. The Capital Regional District also ran a Slogan Master campaign (targeting males 18-34, but youth in general). This was a social media campaign to invite participants to submit slogans (via Twitter) to promote the medications return program. Finally, we also ran a competition to produce a short video on the safe disposal of medications: "Don't Throw it out" will be added to our product line for educating the public in 2012.

This program continues to focus on unused and expired medications from households and continues to offer multiple solutions to reflect local/regional differences. Permanent collection programs provide ongoing, year-round drop-off services for consumers.

Once approved, this report will be available on the medications return website at www.medicationsreturn.ca

2. Program Outline

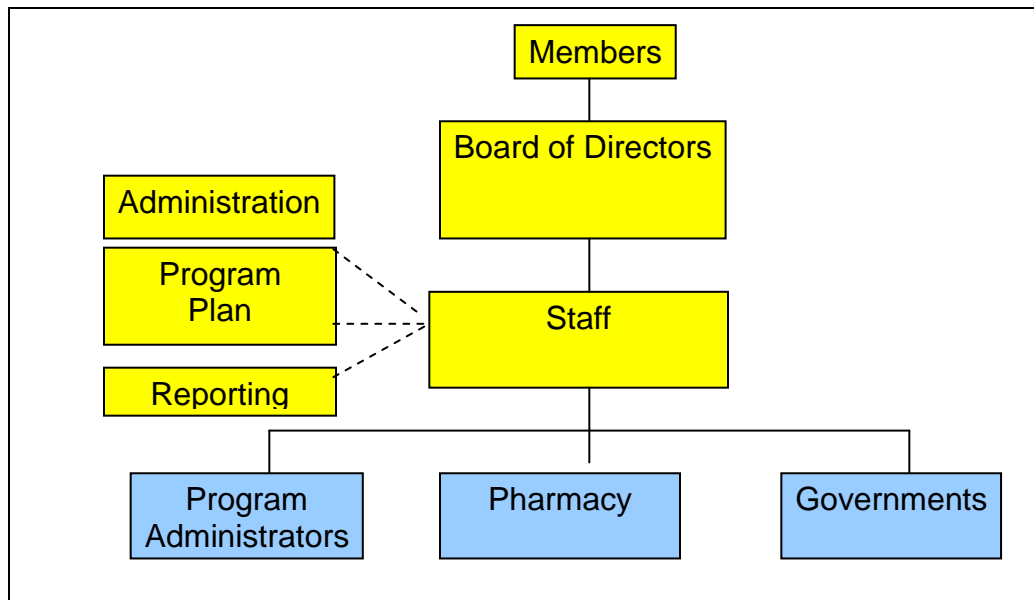
Association:

PCPSA is a not-for-profit association formed in 1999 under the British Columbia extra-provincial Society Act and registered with Industry Canada since 2000. PCPSA's mandate is to perform on behalf of each steward certain duties required under the *Recycling Regulation* through our stewardship plan filed with the Ministry of Environment.

Our goal is to develop, promote, implement and operate *BC Medications Return Program* for designated health products in the Province of British Columbia. PCPSA's mandate is to perform, on behalf of each steward, certain duties required under the *Recycling Regulation* (B.C. Reg. 449/2004) through our stewardship program plan filed with the Ministry of Environment, Community Waste Reduction Section, Environmental Standards Branch.

The industry stewards (109) are responsible for 100% of the costs for the *BC Medications Return Program*. *BC Medications Return Program* is accountable to its members for the collection and responsible disposal of unused or expired medications returned from the public through our network of registered pharmacies.

A nine-member Board of Directors manages PCPSA, with representatives from brand name, generic and consumer health products sectors. An Executive Director reports to the Board and is responsible for operations management, financial management, communications and general administrative duties.



Product category:

BC Medications Return Program is administered by the PCPSA to cover these following categories:

- | | |
|--------------------------------|--------------------------------|
| ✓ All prescriptions drugs | All dosage forms |
| ✓ Over-the-Counter Medications | Units sold in oral dosage form |
| ✓ Natural Health Products | Units sold in oral dosage form |

- The Program includes both products clearly attributable to an existing steward and orphan products.
- There is no eco-fee associated with pharmacy participation or returns.
- Board governance representing industry stewards' set contribution is based on market share, making the program financially viable.
- There are no exclusions from the above product categories.
- The Program's focus is the collection and proper disposal of unused or expired medications from the residential sector.

Collection system:

The collection sites for the *BC Medications Return Program* are community pharmacies. Pharmacy managers interested in participating can sign up voluntarily (no fees charged) to be a collection and storage point for the Program. Information providing details on the program is available to ensure that management and staff are knowledgeable on the Program and its operation. Once the container is full, the pharmacist contacts the service provider who arranges for pick-up and replacement of containers within 7 days. All containers are tracked by pickup date, weight and location, and are stored in a secure location until a shipment is ready for safe destruction through a licensed destruction facility.

Environmental assessment:

Expired medications do not represent a serious threat to public health. Medications collected under this program do not meet the criteria from Transport Canada for hazardous material. Health Canada and Environment Canada evaluate the environmental risk according to the criteria of persistence, bio-accumulation and toxicity.

Fee structure:

PCPSA continues to invoice stewards of affected products once a year. Their contributions are based on prescriptions dispensed/market shared (brand-name and generic) and/or percentage of sales of affected consumer health products (OTC's/NHP's). Rates are set yearly by the Board of Directors in relation to projected costs. The *BC Medications Return Program* is fully funded by the members, Appendix 1.

There are no fees to the public for returning medications to participating pharmacies.

3. Educational Materials and Strategies

PCPSA's 2011 publicity target has been achieved: information on the *BC Medications Return Program* is posted on 14 regional districts and municipalities websites, and in 11 recycling calendars.

Senior Information Directory: Full page ad in the 2011-2012 Kamloops, Vernon, Salmon Arm, Kelowna, Penticton, East Kootenays and West Kootenays directory.

Yellow Pages: Richmond Product Stewardship Collection

Local government partnerships: In 2011, PCPSA continued its efforts to work with municipalities and regional districts with promoting the *BC Medications Return Program*.

- Advertising in municipal garbage collection/recycling calendars. (Table 1)

5" x 2.5" Ad	
Markets	Population
North/West Vancouver	53,000
Mission	12,500
Central Okanagan	185,443
Okanagan-Similkameen	32,760
Invermere East Kootenay	3,500
Peace River	63,366
Thompson Nicola (excl. Kamloops)	17,500
Cariboo	65,471
Bulkley-Nechako	31,183
Kootenay Boundary	31,885
Langley (Vancouver)	40,000
Chilliwack (Fraser Valley)	20,000
Coquitlam	32,000
TOTAL	588,608

Table 1 BC Annual Recycling Calendar Ads

PCPSA was a sponsor at the RCBC Annual Zero Waste Conference and the Coastal Waste Management Conference in 2011.

Recycling Council for British Columbia (RCBC): PCPSA continued its contract with the RCBC "recycling hotline" service. RCBC hotline operators provide consumers with a convenient "one stop" contact to obtain information about PCPSA programs and any other recycling questions. In 2011, RCBC received 99 calls relating to medications, representing less than 1% of their total calls.

RCBC Recyclepedia: PCPSA collection sites are also listed online through this search engine <http://rcbc.bc.ca/recyclepedia>. During 2011, we expanded the medications categories to include several options; traffic per year was the following:

Medications	104
Natural Health Products	100
Non-Prescription Medications	131
Prescription Medications	338
Total	673

Website links: Many consumers look to their local government for recycling information. Accordingly, PCPSA contacted BC's regional districts in order to establish or confirm the placement of links on the regional districts' websites to the PCPSA site or to collection sites. Currently 20 of the 27 regional districts websites have links to the PCPSA website.

Regional Districts	Website	Annual Calendars	Link to PCPSA
Alberni - Clayoquat	yes		yes
Bulkley - Nechako	yes	yes	yes
Capital	yes		yes
Cariboo	yes		yes
Central Kootenay	yes		yes
Central Okanagan	yes	yes	yes
Columbia Shuswap	yes		yes
Comox-Strathcona	yes		yes
Cowichan Valley	yes		
East Kootenay		Invermere	
Fraser - Fort George	yes		yes
Fraser Valley	yes	Mission	yes
Metro Vancouver	yes	North and West Vancouver	yes
Central Coast			
Kitimat - Stikine	yes		yes
Kootenay Boundary		yes	
Mount Waddington			yes
Nanaimo	yes		yes
North Okanagan	Partial		
Northern Rockies			
Okanagan - Similkameen	yes	yes	yes
Peace River	yes	yes	yes
Powell River			yes
Skeena-Queen Charlotte			
Squamish-Lillooet			
Strathcona			yes
Sunshine Coast	yes		yes
Thompson-Nicola		yes	

Table 2 2011 RD Websites and links

Ambassador program: From May to September 2011, a team of two university students embarked on a province-wide tour as part of the sixth annual summer ambassador program. The goal of this year's program was to continue spreading awareness on used oil and antifreeze, PCPSA Medications Return Program as well as the Electronic Stewardship Association of BC (ESABC) and Product Care (PC). The summer ambassador program expanded to 17 weeks this year in order to give the ambassadors a greater opportunity to attend more community events, connect with additional program stakeholders, including regional government officials and return collection facilities. The ambassadors visited 39 pharmacies' facilities as well as gathered feedback from government officials and promoted their recycling programs to the public at community events.

The team was directed to lower-performing facilities as per provincial norms to assist in identifying barriers or concerns with the program. Many of the pharmacies believed that community awareness was high although these facilities had the lowest return percentages in the province.

<i>Partner Facilities</i> TRIP/REGION	PCPSA	ESABC	PC
Metro Vancouver	2	2	6
Trip 1: Vancouver Island South	2	5	7
Trip 2: Okanagan and Kootenays	8	9	13
Trip 3: Northern BC	17	6	11
Trip 4: Vancouver Island North	5	2	2
Trip 5: Thompson-Nicola	2	2	2
Trip 6: Whistler-Squamish	3	1	4
Trip 7: Sunshine Coast	0	1	3
Grand Total	39	28	48

4. Collection System Information

In 2011, PCPSA was able to maintain pharmacy participation rates at 95% with convenient access to over 1,033 locations.

In addition to regular collection sites, PCPSA has agreed to provide take-back containers for unused or expired medications from the public to sites with special needs, such as a community hospitals (5) located in a remote area as well as 5 retirement/care facilities or clinics.

All community pharmacies currently participating in the Program can be easily located by the public on the Association's website or through RCBC Recyclopedia.

5. Recovery Rate

Medications may have a long delay between purchase and return and prescriptions drugs should be fully consumed unless otherwise directed by a health professional. The *Medications Return Program* collects medications; not the bottle or vial used to market the product or used to dispense the prescription. We recommend that containers be recycled by the pharmacists or the consumer.

The average rate of returns per capita for the province is 0.015 kg. The highest rate of return is Nanaimo at .0282 kg followed by the Capital Regional District and Nanaimo at .0254 kg; the lowest rate is .008 kg in the Northern Rockies. Table 4 is the absolute collection per capita by Regional Districts. Appendix 2 shows the absolute collection of medication in kilogram (mass recovered) on a quarterly basis.

	POPULATION	WEIGHT (kg)	CONTAINER	per capita/kg
British Columbia	4,573,321	69044	5676	0.0151
Alberni-Clayoquot	31,664	236	19	0.0075
Bulkley-Nechako	39,371	556	38	0.0141
Capital	374,675	9508	859	0.0254
Cariboo	65,847	864	63	0.0131
Central Coast	3,182			
Central Kootenay	60,681	617	50	0.0102
Central Okanagan	187,234	3147	272	0.0168
Columbia-Shuswap	53,748	588	56	0.0109
Comox-Strathcona	64,805	1684	123	0.0260
Strathcona	44,498			0.0260
Cowichan Valley	83,300	1306	96	0.0157
East Kootenay	60,301	901	70	0.0149
Fraser Valley	286,981	4233	341	0.0148
Fraser-Fort George	96,928	861	64	0.0089
Island Trust		232	15	
Kitimat-Stikine	40,283	298	28	0.0074
Kootenay-Boundary	31,851	506	41	0.0159
Metro Vancouver	2,404,911	32981	2566	0.0137
Mount Waddington	12,034	141	11	0.0117
Nanaimo	150,632	4254	458	0.0282
North Okanagan	83,052	1133	82	0.0136
Northern Rockies	6,324	67	6	0.0008
Okanagan-Similkameen	82,644	1030	79	0.0125
Peace River	64,280	460	35	0.0072
Powell River	20,525	358	25	0.0174
Skeena-Queen Charlotte	19,482	185	13	0.0095
Squamish-Lillooet	41,379	292	24	0.0071

Table 4 2011 Collection by Regional Districts

6. Life Cycle Management

The Canadian Council of Ministers of the Environment in their Extended Producer Responsibility Product Evaluation Tool proposed several criteria to measure the impact of pharmaceutical waste on human and environment health.

The bulk of human pharmaceuticals found in waterways most likely got there by way of sewage. It is questioned whether take-backs have any real environmental and safety benefit. Taking unused pharmaceuticals out of landfills might have only a small difference in the concentrations found in water. But take-back programs may help prevent leftover pharmaceuticals from being misused, diverted or illicitly used.

Pollution prevention hierarchy:

The pollution prevention hierarchy requirements outlined in the *Recycling Regulation* to reduce the environmental impact are not feasible for pharmaceutical products; consequently, PCPSA disposes of the waste at government-approved facilities through incineration.

7. Public Awareness

BCPhA Campaigns

In January 2011, the BC Pharmacists Association (BCPhA) and Metro Vancouver joined forces to urge members of the public to make a New Year's resolution to bring their unused medications back to their local pharmacy instead of throwing them in the garbage. The campaign raised awareness in more than 20 pharmacies in Port Coquitlam, Surrey and West Vancouver. Media releases in local newspapers as well as an article and pictures in the BCPhA newsletter "The Tablet" Feb./May 2011 helped promote the program across the province.

The College of Physician and Surgeons of BC also published an article on the program in their May/June 2011 newsletter. It helped raise awareness amongst health professionals.

Social Media Contests:

Thanks to the participation of the Capital Regional District's Source Control Team, PCPSA's *Medications Return Program* was promoted through a Slogan Master campaign to spread the word about unused or expired medications. "Fist can't say no to drugs- Bring your old meds to your pharmacists" was selected as the snappy, short slogan for the 2012 promotion campaign in pharmacies.

Another province-wide public awareness campaign for a video on proper disposal was also conducted through an (internet) social media contest. This project touched on knowledge and understanding of the health, safety and environmental hazards of improperly taking, storing and disposing of health products. Videos produced in the video contest were embedded into social media contest web pages and used as part of the social media contest. This project consisted of:

- development of an informational website
- a video contest

- a social media contest directed at schools, adult programs
- creation of posters for display in the community
- and informational campaigns for regional districts and health authorities (2012)

LEFTOVER/EXPIRED Medications at Home?

DO NOT...



TOSS



FLUSH



LEAVE IN THE CABINET

WHY NOT?



The Environment and Ground Water



The Young and Vulnerable



Diversion for Misuse or Abuse

▶ Prescription pain medications have replaced heroin as the main opioid drug of choice for street users

▶ Youths are getting drugs from friends, relatives or from their home medicine cabinets

▶ Lock your medicine cabinet, especially if you have pain medications



RETURN unused and expired medications and health products to your pharmacy

www.medicationsreturn.ca

PCPSA website: www.medicationsreturn.ca was maintained throughout 2011 to provide information to BC residents, listing participating locations, descriptions of products accepted by the Program and annual reports.

	2011		2010	
	Hits	Visits	Hits	Visits
January	81,227	1,615	34,426	1,113
February	54,936	1,216	31,656	946
March	59,434	1,324	30,104	1,164
April	51,018	1,088	44,469	886
May	45,790	1,148	28,913	916
June	51,387	1,212	34,149	836
July	47,021	1,073	29,273	950
August	31,679	961	31,679	961
Sept	29,462	1,024	29,462	1,024
Oct	40,935	1,021	40,935	1,021
Nov	32,397	1,058	32,397	1,058
Dec.	29,449	962	29,449	962
TOTAL	396,912	11,837	405,235	15969

Table 3 2011 Websites traffic

8. Fee Information

- (i) No fee collected or charges for this product

9. Performance Targets

2011 Planned Target Set in Approved Stewardship Plan

Maintain a pharmacy program participation rate of 90%.	Actual pharmacy program participation rate of 95%
2011 planned strategies: 1. Contact new licensed community pharmacies from amended list purchased from the B.C. College of Pharmacists on a monthly basis 2. Contact existing pharmacies with ownership and/or manager changes on a quarterly basis. 3. Contact pharmacies with a significant change in collection pattern.	Completed as planned on a quarterly basis Completed as required Done

Waste composition study target from 2007 to 2011:	Decrease the presence of pharmaceuticals in regional districts that conduct waste composition studies.
Performance measure:	Reports on amounts of pharmaceuticals are statistically significant regional districts' waste composition studies.
Strategies:	We have joined with the BC Stewards Group/Ministry staff in developing a template to conduct detailed waste audits to determine the makeup of the waste stream.
Develop protocol for waste composition studies with other stewards and selected regional districts through BC stewardship council.	Coming along, need to address EPR product categories in more detail and develop a set of guidelines for this product category.

Public Awareness Target from 2007 to 2011:	50% increase in public awareness of the Program compared to 2007. Baseline program awareness level at 31% SD \pm 4.3%.
Performance Measures	Measured changes in awareness and behaviour in 2010.
Year 5	Social and video media contest in secondary and adult school. Projects with regional districts and Health Authorities on the <i>Medications Return Program</i> .

Public Awareness Target from 2007 to 2011:	Maintain a minimum quantity collected of 14,000 kg
Performance Measures	Report total quantity collected on a yearly basis with quarterly results by regional <i>Return Program</i> .
Target RD's with lower returns	Visits to collection sites with lower returns were coordinated with the Ambassadors program in 2011.

Promotion performance target 2007-2011	Publicity on the <i>Medications Return Program</i> in 14 regional districts or municipalities' websites with recycling sections. Indication of program in 13 recycling calendars.
Performance measure:	Increase in awareness of program to dispose of medications.
2011 strategies Report on 2010 strategies:	PCPSA continued its efforts to work with municipalities and regional districts in promoting the <i>Medications Return Program</i> . Specific actions include: <ul style="list-style-type: none"> • Advertising in all municipal garbage collection/recycling calendars.(page 6) • Working with Local government website linkages (page 7)

10. Disposal

There are limited options for disposing drugs collected through this program. Pharmaceutical waste should always be incinerated. We continue to look at viable alternatives for responsible disposal.

In 2011, PCPSA used incinerators in Alberta.

11. Appendices

Appendix 1 2011 Membership list

Appendix 1 Membership list

AA Pharma Inc.	Indigene Pharma Inc.
Abbott Laboratories Limited	Institut Rosell-Lallemand
Abraxis BioScience Inc.	Jamieson Laboratories
Advantage Sales and Marketing Canada	Janssen Inc.
Alcon Canada Inc.	Johnson & Johnson Inc.
Amgen Canada Inc.	Katz Group Canada Ltd
Amway Canada Corporation	King Pharmaceuticals
Apotex Inc.	Kripps Pharmacy
Aptalis Pharma Canada Inc.	Laboratoires Atlas
Astellas Pharma Canada Inc.	Laboratoires Riva
AstraZeneca Canada Inc.	Leo Pharma Inc.
Bayer HealthCare, Consumer Care	Loblaw Companies Ltd
Bioforce Canada Inc.	London Drugs Limited
Biogen Idec Canada Inc	Lundbeck Canada Inc.
Biovail Pharmaceuticals Canada	Mead Johnson Nutrition (Canada) Co.
Boehringer Ingelheim Canada Ltd.	Medicopia Life Sciences Inc.
Boiron Canada Inc.	Merck Canada Inc.
Bristol-Myers Squibb Pharmaceutical Group	Mint Pharmaceuticals Inc
Canada Safeway Ltd.	Mylan Canada
Chattem (Canada) Inc.	Natural Factors Nutritional Products Ltd.
Church & Dwight Canada	Nature's Sunshine Products of Canada Ltd.
Cobalt Pharmaceuticals Inc.	Nature's Way Canada Ltd
Combe Incorporated	Northwest Natural Products
Costco	Novartis Consumer Health Canada Inc.
Cytex Pharmaceutical Inc.	Novartis Pharma Canada Inc.
Eli Lilly Canada Inc.	Novo Nordisk
EMD-Serono Canada Inc.	Nu-Pharm Inc
Environmental Advisory Group	Nycomed Canada Inc.
Enzymatic Therapy	Odan Laboratories Ltd.
Ferring Inc.	Omega Alpha Pharmaceuticals
Gaia Garden Herbs Inc.	Omega Laboratories Ltd.
Galderma Canada	Organika Health Products Inc.
General Nutrition Centres Canada	Overwaitea Food Group Ltd Partnership
GlaxoSmithKline Consumer Healthcare Inc.	Paladin Labs Inc.
GlaxoSmithKline Inc.	PendoPharm, a Division of Pharmascience Inc.
Graceway Pharmaceuticals	Peoples Drug Mart (B.C.) Ltd
Helix BioPharma Corp.	Pfizer Canada Inc
Herbalife of Canada	Pfizer Consumer Healthcare, Division of Pfizer Canada Inc.
Hospira Healthcare Corporation	Pharmasave Drugs (National) Ltd.
HPI Health Products/Lakota	Pharmascience Inc.
Hudson's Bay Company	

Appendix 1 2011 Membership list

Platinum Naturals	Stiefel Canada Inc., a GSK Company
Procter & Gamble Inc.	Stirling Pharma Inc.
ProMedics Nutraceutical Ltd	Swiss Herbal Remedies Ltd.
Purdue Pharma	Taro Pharmaceuticals Inc.
Ranbaxy Pharmaceuticals Canada Inc.	Teva Canada / Novopharm
Reckitt Benckiser (Canada) Inc.	Triton Pharma Inc.
Roche Limited	Trophic Canada
Sandoz Canada	UniPHARM Wholesale Drugs
Sanis Health Inc.	USANA Canada Co.
Sanofi-Aventis	Valeant Canada Limited
Schering-Plough Canada Inc.	Vita Health Products Inc.
Seaford Pharmaceuticals Inc.	W.F. Young, Inc.
Sepracor Pharmaceuticals Inc.	Wal-Mart Pharmacy
Servier Canada Inc.	Warner Chilcott Canada Co.
Shaklee Canada Inc.	WellSpring Pharmaceutical Canada Corp.
Shire Canada Inc.	Westcoast Naturals
Shoppers Drug Mart, Pharmaprix	WN Pharmaceuticals Ltd.
SISU Inc.	Wyeth Canada

Appendix 2 Regional Districts collection

Appendix 2 Collection

B. C. MEDICATIONS RETURN PROGRAM												
RESULTS BY REGIONAL DISTRICT												
FOR THE PERIOD JANUARY 1 TO DECEMBER 16, 2011												
	Q1		Q2		Q3		Q4		2011 Total		2010 Total	
	Kg	Palic	Kg	Palic	Kg	Palic	Kg	Palic	Kg	Palic	Kg	Palic
Greater Vancouver	8,553	650	8,257	633	9,325	729	6,846	554	32,981	2,666	29,791	2,311
Capital	2,523	222	2,480	228	2,472	224	2,033	185	9,508	859	8,021	709
Fraser Valley	1,159	92	1,145	102	1,112	86	817	61	4,233	341	3,422	263
Nanaimo	1,055	114	1,105	126	1,161	123	933	95	4,254	458	3,183	287
Central Okanagan	797	66	753	67	779	66	818	73	3,147	272	1,811	216
Thompson-Nicola	470	44	589	59	478	50	497	48	2,034	201	1,670	122
Comox-Strathcona	439	30	414	30	502	37	329	26	1,684	123	2,427	186
Cowichan Valley	231	17	424	32	343	25	308	22	1,306	96	943	71
North Okanagan	199	15	360	24	255	19	319	24	1,133	82	1,488	105
Okanagan - Similkameen	311	22	197	18	294	22	228	17	1,030	79	898	66
East Kootenay	217	17	227	18	270	19	187	16	901	70	840	60
Cariboo	299	21	175	13	230	17	160	12	864	63	696	54
Fraser - Fort George	181	14	181	13	294	21	205	16	861	64	537	37
Sunshine Coast	170	12	149	11	166	11	87	7	572	41	568	39
Columbia Shuswap	161	14	182	16	139	14	106	12	588	56	589	47
Bulkley - Neohako	170	11	148	11	163	10	75	6	556	38	264	20
Central Kootenay	91	8	255	19	135	11	136	12	617	50	625	49
Kootenay Boundary	155	13	120	10	100	8	131	10	506	41	660	48
Powell River	132	9	89	6	68	5	69	5	358	25	585	53
Peace River	105	8	59	5	114	9	182	13	460	35	295	23
Squamish-Lillooet	114	8	43	4	86	7	49	5	292	24	353	23
Kitimat - Stikine	33	2	10	1	194	19	61	6	298	28	186	12
Alberni - Clayoquot	94	7	81	7	49	4	12	1	236	19	154	13
Islands Trust	82	5	28	2	76	5	46	3	232	15	81	5
Skeena-Queen Charlotte	39	3	70	5	47	3	29	2	185	13	220	16
Mount Waddington	74	5	32	3	20	2	15	1	141	11	168	12
Northern Rockies	15	1	21	2	21	2	10	1	67	6	68	7
	17,888	1,430	17,684	1,486	18,893	1,648	14,888	1,233	89,044	6,878	80,643	4,864

Appendix 3 Non-financial Audit

Appendix 3 Specified audit procedures and results

Appendix 4 Promotion & Communication Material

Appendix 4 Promotion and communication material

Specified audit procedures performed on non-financial
information and results

**Post-Consumer Pharmaceutical
Stewardship Association**

December 31, 2011

To: Management of the Post-Consumer Pharmaceutical Stewardship Association

As specifically agreed, we have performed test procedures at the Post-Consumer Pharmaceutical Stewardship Association (the "Association") operations in the Province of British Columbia as described in this letter for the year ended December 31, 2011 over certain non-financial information related to:

1. BC Reg449/2004, Section 8 (2) (b) - the location of its collection facilities, and any changes in the number and location of collection facilities from the previous report;
2. BC Reg449/2004, Section 8 (2) (d) - a description of how the recovered product was managed in accordance with the pollution prevention hierarchy; and,
3. BC Reg449/2004, Section 8 (2) (e) - the total amount of the producer's product sold and collected and, if applicable, the producer's recovery rate.

The results of applying the procedures are detailed in the attached Appendix. These procedures do not constitute an audit of the Association's non-financial information and therefore, we express no opinion on the overall accuracy or completeness of the non-financial information of the Association for the year ended December 31, 2011.

This letter is for use solely by the management of the Association and the British Columbia Ministry of Environment in connection with their consideration of the accuracy and completeness of certain non-financial information as reported by the Post-Consumer Pharmaceutical Stewardship Association for the year ended December 31, 2011.

OHCD LLP.

OUSELEY HANVEY CLIPSHAM DEEP LLP
Licensed Public Accountants

Ottawa, Ontario

June 28, 2012

Appendix A – Specified Audit Procedures and Results

For the following procedures, test samples were selected from the year-ended December 31, 2011, unless otherwise noted.

Non-Financial Information Requirement: BC Reg449/2004, Section 8 (2) (b) - the location of its collection facilities, and any changes in the number and location of collection facilities from the previous report;

Testing Procedure #	Objective and Purpose	Testing Procedures	Results
1.1	To obtain comfort over the existence and accuracy of the collection facilities reported in the Agency's annual report.	<ol style="list-style-type: none"> 1. For the period under review, obtain a listing of all Collection Facilities from the Agency broken out by type (if applicable). 2. Compare total count of collection facilities from the listing with the annual report; investigate any discrepancies with the Agency as applicable. 3. Randomly select a sample of Collection Facilities and obtain the business file for each. Review each file to determine that a registration form meets the following criteria: <ol style="list-style-type: none"> a. A registration form exists for the Collection Facility. b. The registration form lists contact information and location, which agrees with the detailed listing. c. The registration form is signed by the Collection Facility. 4. Using contact information on the Facility listing provided in #1 above, phone each randomly selected Collection Facility to verify their existence and that they have an adequate understanding of the program. 	<ol style="list-style-type: none"> 1. We obtained a list of all of the Collection Facilities from the Association as at December 31, 2011. 2. The listing stated 1033 facilities, matching the number in the 2011 annual report. 3. We randomly selected 30 Collection Facilities in accordance with the Sample Size General Guidance as provided. Management indicated that registration forms were not available from these facilities because as of January 1, 2012 the Association began using a new company to manage the program. Any forms would be with the old company, and could not be retrieved. Management indicated that starting in 2012, there will be

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Testing Procedure #	Objective and Purpose	Testing Procedures	Results
			<p>registration forms filled out and retained for new registrants. They will not go back and get old registrants to sign a new form.</p> <p>4. We randomly selected 30 Collection facilities using the contact information in the listing. We called each facility and verified the existence by confirming the address of the facility. We asked each facility to acknowledge the existence of the Medication Returns Program pails at the location, with no exceptions except as follows:</p> <ul style="list-style-type: none"> a) Two of the locations called had closed subsequent to registering and no longer exist. b) One location was not aware of the program. They directed us to call back to speak with the Pharmacy Manager. The Manager was aware of the program. c) One location had closed and

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Testing Procedure #	Objective and Purpose	Testing Procedures	Results
1.2	To obtain comfort over the completeness, consistency, and validity of the number of Collection Facilities.	<ol style="list-style-type: none"> 1. Obtain the historical data for the total number of collection facilities for the past 3 years as reported by the Agency in their annual reports. 2. Investigate any fluctuations greater than 5% to understand the reason for the fluctuation in the number of collection facilities. 	<p>all of their clients were transferred to another Pharmacy. The other Pharmacy is a participant in the program, so we called them and they were aware of this program.</p> <ol style="list-style-type: none"> 1. We obtained the historical data for the total number of Collection Facilities for the past 3 years as reported by the Association in the annual reports: 2011 – 1033; 2010 – 1022; 2009 – 1080. 2. The calculated fluctuation in the number of Collection Facilities for 2011 is an increase of 1% compared to 2010, and a decrease of 4% versus 2009. Both fluctuations are under the 5% threshold for investigation.

Non-Financial Information Requirement: BC Reg449/2004, Section 8 (2)(d) - A description of how the recovered product was managed in accordance with the pollution prevention hierarchy

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Testing Procedure #	Objective and Purpose	Testing Procedures	Results
<p><i>Where Processors/Manufacturers etc. are subject to audit around their product management practices, only Step 2.1 as well as sub-steps 1 – 3 in test 2.2 should be completed. Where Processors/Manufacturers etc. are not subject to audit, Test 2.1 is not relevant, but Test 2.2 should be completed in its entirety.</i></p>			
2.1	<p>To obtain comfort over the effective weight¹ of end-use product collected and the accuracy of the manufacturer's receipt of weight of product.</p>	<ol style="list-style-type: none"> 1. Where available, obtain the 3rd party auditors opinion over registered processors/manufacturers compliance with waste management or program specific guidelines for managing product appropriately. 2. Ensure the auditor's opinion is unqualified. 	<p>Not applicable – Management stated that the Association does not engage 3rd party auditors to give an opinion on the processor's compliance with waste management guidelines.</p>
2.2	<p>To obtain comfort over the accuracy, completeness and existence of end-use of the product collected and the accuracy of the manufacturer's or processor's</p>	<ol style="list-style-type: none"> 1. Obtain a schedule/listing of products shipped to processors/manufacturer for the period under review. The listing should provide: <ol style="list-style-type: none"> a. The processor/manufacturer name/address. b. The total weight of the product weighed at the collection site or consolidation site (where applicable). c. The total weight of the product weighed at the processor/manufacturer. d. The date of delivery to the processor/manufacturer. 	<ol style="list-style-type: none"> 1. There is no listing of products shipped. There were only 4 shipments in the year, so the information was readily available from the shipping documents. The shipping documents contain all of the information in items (a) through (d). <p>2-3 The only processor used by</p>

¹ The term "weight" includes "volume" or "quantity," respective to the type of product managed by the Agency.

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Testing Procedure #	Objective and Purpose	Testing Procedures	Results
	<p>receipt of weight of product, test on a sample basis the deliveries of product recovered to their end-use (or next along the custody chain).</p>	<ol style="list-style-type: none"> 2. Obtain a listing of all registered processors/manufacturers. 3. Scan listing to ensure that all receivers of product were approved processors/ manufacturers. If there is not a listing of approved manufacturers/processors, ensure that the manufacturer is not a related party to the processor by researching the related parties of each organization and ensuring that the transaction was made at arm's length. 4. Randomly select shipments and obtain a copy of the invoice or other supporting documentation. 5. Verify that each Invoice or other supporting document has evidence of the weight of the product shipped by the Processor and received by the customer. 6. Compare the total weight listed on the Invoice or other supporting documentation with the weight listed on the detailed listing received in #1 and note any discrepancies. 	<p>the Association was Wainwright Waste to Energy Authority ("Wainwright") who is the only approved processor.</p> <p>4-6 We randomly selected one shipment in accordance with the Sample Size General Guidance as provided, and obtained the invoice and bill of lading. The invoice was issued by Wainwright and the bill of lading was issued by Pearson Transport Ltd. The invoice is supported by a Certificate of Destruction presented to the Association to certify that all waste defined on the bill of lading was received and destroyed. The weight recorded on the bill of lading provided by Pearson Transport Ltd indicated the 48,500 lbs was shipped while the processor (Wainwright) indicated that 22,410kgs (49,302lbs)</p>

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Testing Procedure #	Objective and Purpose	Testing Procedures	Results
			converted) was received.

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Non-Financial Information Requirement: BC Reg449/2004, Section 8 (2)(e) - The total amount of the producer's product sold and collected and, if applicable, the producer's recovery rate.

Testing Procedure #	Objective and Purpose	Testing Procedures	Results
3.1	To ensure that there were no qualifications within the auditor's opinion over the schedule of product recovered.	<ol style="list-style-type: none"> 1. Obtain the Auditor's Opinion over the Schedule of Product Recovered for the most recent fiscal year. 2. Review the opinion to ensure that there are no qualifications. 3. Check the mathematical accuracy of the calculated recovery rate (where applicable), as reported in the audited financial statements. 4. Compare calculated recovery rate to the recovery rate reported by the agency in their annual audited report. Note any discrepancies. 	Not applicable as there are no product's recovered.
3.2	To ensure the accuracy and completeness of total product sold.	<p>Note that the financial statements, in the case of most agencies, include revenues from eco-fees which are tied to the total product sales.</p> <ol style="list-style-type: none"> 1. Obtain the Financial Statement Auditor's Opinion for the most recent fiscal year. 2. Review the opinion to ensure that there are no qualifications. 3. Obtain a schedule of eco-fees by product type from the agency (in total and by unit). 4. Compare the total eco-fees collected from the above schedule to the total reported in the Agency's financial statements (as 	<ol style="list-style-type: none"> 1. We obtained the audited financial statements for the year ended December 31, 2011 for the Association. 2. The opinion was issued with no qualifications. 3-6. Not applicable. Management has stated that the Association

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Testing Procedure #	Objective and Purpose	Testing Procedures	Results
		<p>opined by the financial statement auditor).</p> <ol style="list-style-type: none"> 5. Recalculate the product sold by unit by dividing the total fees by product type by the per unit fee to arrive at total product sold for each unit. 6. Compare calculated total product sold to the amounts reported by the Agency in their annual report. Note any discrepancies. 	<p>does not collect eco-fees.</p>
3.3	<p>To obtain comfort over the completeness, accuracy, cut-off and validity of the total product recovered, test on a sample basis, the collection of product recovered.</p>	<ol style="list-style-type: none"> 1. Obtain a listing of product shipments (for each product the Agency manages) from collection facilities for the period under review with the following details: <ol style="list-style-type: none"> a. The Collection Facility name/address. b. The date of collection from the facility. c. The consolidation site or processor to which the product was delivered. d. The date of delivery to the consolidation site or processor. e. The amount of product collected (in units and in weight, where applicable). 2. Compare the total weight of product collected from the detailed listing to the report total of product recovered from the Agency's annual report. 3. Scan the detailed listing to ensure that there were no collections that were outside of the organization's fiscal year. 4. Randomly select shipments and obtain the supporting document (Bill of Lading or other support) to verify the 	<ol style="list-style-type: none"> 1. As outlined in 1.1, the Association changed program managers; As such a detailed listing of product shipments (containing the information outlined in a-e of the procedures) was not available. There was a summary report, that shows the total weight collected per district and overall. The detailed report will be available in 2012, and management did show us an example of the 2012 report. 2. The total weight collected on the

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Testing Procedure #	Objective and Purpose	Testing Procedures	Results
		<p>amount of product shipped.</p> <p>5. Verify that each of the supporting documents received has appropriate evidence of the total product shipped and weight of product received by the consolidation site supported by a scale ticket or like support, and signatures by the collection facility, consolidation site and hauler/transporter.</p> <p>6. Confirm that the total product (in units/weight etc.) listed on the supporting document matches the total listed on the detailed listing.</p>	<p>summary (69,044kg) from Collection facilities per the listing and the weights reported on the annual report agree without exception.</p> <p>3. The listing does not indicate when the shipment occurs. But management stated one shipment was in 2012, and this appears on their 2012 detailed listing (Service Date 1/1/2012).</p> <p>4-6. There is no detailed listing available. However the Association did have the shipping returns documents on file. These documents are filled out by the Collection Facility. We randomly selected 25 samples in accordance with the Sample Size General Guidance as</p>

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Testing Procedure #	Objective and Purpose	Testing Procedures	Results
3.4	To obtain comfort over the calculated recovery rate, by product type (where applicable).	<ol style="list-style-type: none"> 1. Check the mathematical accuracy of the calculated recovery rate (where applicable) by dividing product recovered by product sold, as reported in the audited financial statements. 2. Compare calculated recovery rate to the recovery rate reported by the Agency in their annual report. Note any discrepancies. 	<p>provided. Of the samples tested, 16 were signed by the Collection Facility. The weights were indicated on the documents, but they could not be traced to the bill of lading or the detailed listing, since as outlined earlier no detailed breakdown was available for 2011.</p> <p>The Association does not publish its Recovery rate. Procedure 3.4 is not applicable.</p>