



Manitoba Household Hazardous Waste Stewardship Program Plan

January 1, 2017 – December 31, 2021

**Prepared by:
Product Care Association of Canada**

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Abbreviations

CFLs	Compact Fluorescent Lights
EHFs	Environmental Handling Fees
HHW	Household Hazardous Waste
HID	High-Intensity Discharge
LEDs	Light Emitting Diodes
PCA	Product Care Association
PCP	Pest Control Product
WHHM	Waste Household Hazardous Materials

Glossary of Terms

CSA Standard	CSA Standard Z752-03
Full Service	Full service sites accept all HHW materials under the Program Products, paint, lights, pesticides and WHHM
Obligated Stewards	Stewards of designated materials
Program	Manitoba Household Hazardous Waste Stewardship Program
Program Plan	This Program Plan which covers the period January 1, 2017 – December 31, 2021
Program Products	Includes paint, fluorescent lights, flammables, pesticides, physically hazardous, corrosives, toxics and environmentally hazardous materials
Regulation	Manitoba Household Hazardous Material and Prescribed Material Stewardship Regulation (16/2010R)

1 Executive Summary

Product Care Association of Canada (“PCA”) is a non-profit product stewardship association formed in response to stewardship regulations. PCA develops, manages and operates stewardship programs across Canada, on behalf of its members.

PCA currently operates the Manitoba Household Hazardous Waste Stewardship Program (“Program”) under an approved stewardship plan pursuant to the [Manitoba Household Hazardous Material and Prescribed Material Stewardship Regulation \(16/2010R\)](#) (“Regulation”) issued under [The Waste Reduction and Prevention \(Wrap\) Act](#) (C.C.S.M. c. W40), for the period covering April 1, 2011 to December 31, 2016. Pursuant to the Minister’s approval letter, this Program Plan covers the period January 1, 2017 – December 31, 2021 (“Program Plan”).

Following the Ministry’s approval, the Program’s first phase launched on May 1, 2012 and included paint and residential fluorescent lights. The second phase launched on October 1, 2012, expanding the original scope of products to include pesticides, corrosives, flammable liquids/gasoline, toxics and physically hazardous materials, collectively referred to as “Program Products” set out in the Schedule to the Regulation (see Appendix A). Program Products are classified under four major categories, referred to as Household Hazardous Waste (HHW):

- Paint,
- Waste household hazardous materials (WHHM),
- Pesticides and,
- Fluorescent lights

Since inception of the Program, PCA has established over 79 collection sites in the province, that provide a range of services including collecting paint and/or lights to full service sites that collect all products covered under the program, resulting in the successful diversion of:

- 1,046,480 litres of paint,
- 113,433 units of HHW aerosols and physically hazardous materials,
- 67,634 litres of HHW flammables, corrosives, toxics and pesticide materials,
- 231,727 units of fluorescent lights.

The Program offers collection services at no charge to consumers and is based on a shared responsibility model where manufactures, distributors, retailers, consumers and government all have roles to play.

This Program Plan builds on the solid foundation and success of the Program to date. The aim of the plan is continuous improvement, including expansion of collection services and volumes, improving operational efficiencies and program sustainability. The Program has set aspirational, meaningful and realistic performance metrics (Table 1) based on the Program maturity and experience from operating other HHW programs.

The Program will report on a number of metrics including: quantity of Program Product supplied into the Manitoba marketplace, number of collection sites, the quantity of waste

material collected, and the management of the collected material with reference to waste management hierarchy, and consumer awareness.

Table 1: Program Performance Targets

Performance Metric	Performance Target
Paint collection volumes	Increase absolute collection volumes 10% by 2021 over 2015 volumes collected
Lamps collection volumes	Increase total collections of fluorescent lights by 20% - 28% by 2021 over 2015 units collected
Number of full service collection sites	18 by 2017 24 by 2021
Consumer awareness	41% (paint) and 48% (other HHW) by 2017 43% (paint) and 50% (other HHW) by 2019 46% (paint) and 53% (other HHW) by 2021

PCA held public consultations during the course of developing this Program Plan. A summary of stakeholder feedback is provided in Appendix E.

2 Introduction

PCA currently operates the Manitoba Household Hazardous Waste Stewardship Program (“Program”) under an approved stewardship plan pursuant to the *Manitoba Household Hazardous Material and Prescribed Material Stewardship Regulation* (“Regulation”) issued under *The Waste Reduction and Prevention Act* (C.C.S.M. c. W40), covering the period of April 1, 2011 to December 31, 2016. This Program Plan covers the period January 1, 2017 – December 31, 2021 (“Program Plan”).

The Program covers specific categories of household hazardous waste including paint, fluorescent lights, flammable liquids/gasoline, pesticides, corrosives, toxics and physically hazardous materials (“Program Products”).

PCA is a non-profit corporation established by its industry members to develop and manage product stewardship programs across Canada. PCA currently operates programs in other provinces for lamps and lighting products, paint, flammables, pesticides, gasoline, smoke and carbon monoxide alarms. PCA is governed by a multi-sector industry board.

The Program is funded by PCA members who remit Environmental Handling Fees (EHFs) to the Program based on quantities of Program Products sold in or into Manitoba.

3 Program Membership

PCA submits this Program Plan on behalf of its members who are obligated under the Regulation as stewards in Manitoba.

According to the Regulation, a "steward of designated material" defined in section 1(1) is:

- (a) "The first person who, in the course of business in Manitoba, supplies a designated material to another person; or
- (b) A person who, in the course of business in Manitoba, uses a designated material obtained in a supply transaction outside of Manitoba."

For the purposes of this Program Plan, stewards of designated materials are referred to as "obligated stewards".

Membership in the Program is open to all stewards of Program Products (see section 4). Program members include manufacturers, distributors and retailers obligated under the Regulation.

4 Program Products Overview

PCA manages a number of stewardship programs across Canada from British Columbia to Newfoundland. Some of the Program Products captured under the Program are also included in other stewardship programs operated by PCA in other provinces. The Program seeks to harmonize with other product stewardship programs that cover similar products, where possible.

4.1 Designated Products

The Regulation defines "designated material" in section 2, to include:

"Devices, equipment, material, products or substances that are in the following categories of household hazardous material or prescribed material, and their containers, are designated as designated material for the purpose of the Act:

- (a) Waste household hazardous materials category;
- (b) Pesticides category;
- (c) Pharmaceutical products category;
- (d) Natural health products category;
- (e) Automotive antifreeze category;
- (f) Paint products category;
- (g) Fluorescent lighting tubes and compact fluorescent lights category;
- (h) Lead-acid automotive batteries category;
- (i) Rechargeable batteries category;
- (j) Other batteries category."

The Schedule to the Regulation sets out designated materials as provided for reference purposes in Appendix A. This Program Plan only covers specific designated materials from this

list, as some of the other products are managed by separate stewardship organizations and programs.

The Regulation also defines what constitutes “waste material” in Section 1(1) as:


- (a) “household hazardous material or prescribed material
 - i. that through use, storage, handling, defect, damage, expiry of shelf life or other similar circumstance can no longer be used for its original purpose, or
 - ii. that, for any other reason, the owner or person in possession of the material intends to dispose of; and
- (b) the container in which household hazardous material or prescribed material was supplied.”

4.2 Program Product Categorization

Program Products are classified under four major categories: paint, waste household hazardous materials (WHHM), pesticides and fluorescent lights. For the purposes of this Program Plan, these four categories are collectively referred to as Household Hazardous Waste (HHW). The WHHM category is further broken out into 4 sub-categories, including physically hazardous materials, flammables, corrosives, toxics and environmentally hazardous materials.

The Program employs a classification hierarchy to classify products. If a product is described under more than one category, it is classified as the first applicable category (see Table 2).

Table 2: Product Classification Hierarchy



Product Classification Hierarchy
Fluorescent Lights
Physically hazardous materials
Pesticides
Paints
Flammables
Corrosives
Toxics
Environmentally hazardous materials

If a product falls within more than one product category, it is generally classified based on the product’s intended use, Transportation of Dangerous Goods classification, or disposal method. For example, oil-based paint may be flammable, but is classified as paint. Antifouling paint, registered and labelled as a pesticide, is processed as a pesticide and therefore is categorized as a pesticide.

If it is unclear which category a product falls under, PCA will make a determination. For the purposes of classification under the Program, aerosols are classified according to their contents.

4.3 Included Products

This Program Plan covers Program Products described below in Section 5 which are supplied for household/domestic use or application.

4.4 Products Not Included

In general, the Program does not accept:

- Products that are unlabelled or cannot be identified (unknowns)
- Products that are leaking or improperly sealed
- Commercial, industrial or agricultural products
- Cosmetics, health and beauty aids
- Insect repellents, disinfectants and pet products
- Pre-crushed lamps

5 Detailed Product Category Definitions

The following section provides details regarding the products captured under each of the main Program Product categories: paint, waste household hazardous materials, pesticides and fluorescent lights. Each section provides an example of included and excluded products using the definitions provided in the Schedule to the Regulation (Appendix A) and CSA Standard Z752-03 (“CSA Standard”), as applicable.¹ Where there is a discrepancy between the definitions in this Program Plan (not including container sizes) and the CSA Standard, the CSA Standard prevails.

According to the CSA Standard, products referenced in the WHHM category description are for “household” and “domestic” use only. Accordingly, no products intended for industrial, commercial or institutional use are included in the Program.

As part of original Program, to assist obligated stewards and others that do not have the ability to apply the technical CSA definition, PCA developed a decision tree, with support from manufacturers, retailers, distributors and in consultation with the Pollution Prevention Branch of Manitoba Conservation, to help clarify whether a product is included in the Program (see Appendix B). The decision tree will continue to be used by the Program and is subject to change.

5.1 Paint Products

Table 3 below describes included and excluded paint products based on the Schedule to the Regulation.

¹ The CSA Standard and associated product can be accessed at <http://www.csagroup.org/>

Table 3: Paint Products Included and Excluded

Category	Included	Excluded
Paint	<ul style="list-style-type: none"> • Architectural paints and stains • Marine paint • All types of paint aerosols • Maximum container size: 30L 	<ul style="list-style-type: none"> • Non-aerosol automotive • Non-aerosol craft paint • Line marking paint • 2 component paints (catalyst or activator)

5.2 Waste Household Hazardous Materials (WHHM)

Five subcategories are included under the definition of WHHM in the Schedule of the Regulation:

- a) Flammable materials;
- b) Corrosive materials;
- c) Physically hazardous materials, including, but not limited to,
 - a. Explosives (but not including ammunition), and
 - b. Medical sharps carrying pathogens;
- d) Toxic materials;
- e) Environmentally hazardous materials, including those materials that meet the criteria of being "toxic", and either "persistent" or "bio-accumulative" as those terms are described in Clauses 7.6.2.2. to 7.6.2.4. of that Standard².

Table 4 below describes included and excluded WHHM products based on the Schedule to the Regulation and the CSA Standard.

Table 4: WHHM Products Included and Excluded

Subcategory	Included	Excluded
(a) Flammable materials	<ul style="list-style-type: none"> • Flammable liquids that have a flash point under 37.8°C; have a fire point or contain water-immiscible liquids with a flash point under 37.8°C • Includes waste gasoline • In containers not exceeding 10L capacity, except for gasoline: 25L 	<ul style="list-style-type: none"> • Non-liquid flammable materials • Wine and distilled spirit beverages • Cosmetic and beauty products • Drugs, medicines and other health products • Gasoline not returned in an approved container
(b) Corrosive materials	<ul style="list-style-type: none"> • pH ≤1 or ≥13. A material with a pH >1 and ≤3, or a pH ≥11 and <13, may be included if acid reserve or alkali reserve meet test criteria 	

² The Standard refers to the CSA Standard Z752-03.

Subcategory	Included	Excluded
	<ul style="list-style-type: none"> • Or if classified under TDGR as class 8 • Maximum container size 4L 	
(c) Physically hazardous materials	<ul style="list-style-type: none"> • Compressed gas fuel cylinders such as welding fuel, camping cylinders, butane cylinders, less than 5kg 	<ul style="list-style-type: none"> • Class 1 explosives³ (including ammunition) • Medical sharps • Refillable propane cylinders
(d) Toxic materials	<ul style="list-style-type: none"> • Vapour LC₅₀ under 2500 mg/m³ and saturated vapour over 0.4 times the LC₅₀ • Dusts and mists with LC₅₀ equal to or under 2500 mg/m³ liquids with a LD₅₀ under 1000 mg/kg 	<ul style="list-style-type: none"> • Mercury switches, products already captured in pesticide category
(e) Environmentally hazardous materials, including those materials that meet the criteria of being "toxic", and either "persistent" or "bio-accumulative" as those terms are described in Clauses 7.6.2.2. to 7.6.2.4. of that Standard. ⁴	Not Determined	

³ The CSA definition of explosives includes both fuel gas cylinders as well as Class 1 explosives. The Program excludes what would be known as explosives in common language.

⁴ To date, there have been no household products identified under this sub-category that are not already captured under the other WHHM sub-categories.

5.3 Pesticides

Table 5 below describes included and excluded pesticide products based on the Schedule to the Regulation.

Table 5: Pesticide Products Included and Excluded

Category	Included	Excluded
Pesticides	<ul style="list-style-type: none"> • Any consumer product that: <ul style="list-style-type: none"> ○ Has the poisonous (skull & cross bones) symbol; ○ Pest Control Product (PCP) number; and ○ The word “Domestic” and “Danger” on the label. • Maximum container size: 10L 	<ul style="list-style-type: none"> • Pesticides which do not have all of the poisonous symbol, the PCP number and the word “domestic” on the label • Insect repellents • Sanitizers and disinfectants • Pesticides for industrial, commercial or agricultural use

5.4 Fluorescent Lights

Table 6 below describes included and excluded lighting products based on the Schedule in the Regulation.

Table 6: Fluorescent Lights Included and Excluded

Category	Included	Excluded
Fluorescent lights	<ul style="list-style-type: none"> • Residential tubes of all lengths and shapes • Residential Compact Fluorescent Lights (CFLs) 	<p>All other lamp technologies, such as, but not limited to:</p> <ul style="list-style-type: none"> • Incandescent • High-Intensity Discharge lamps (HID) • Halogen • Light Emitting Diodes (LEDs)

6 Collection and Logistics

6.1 Collection Sites

The Program does not directly own or manage collection sites, but rather contracts with interested organizations to provide collection services. The Program is responsible for providing supplies, post collection management and support to the collection sites. There is no charge for the public to drop off Program Products at collection sites.

As of December 31, 2015, the Program’s collection infrastructure of 79 sites, consisting of:

- 10 “full service” collection sites that collect all Program Products - paint, lights, pesticides and WHHM
- 42 collection sites that accept paint and lights only

- 14 collection sites that accept paint only
- 13 collection sites that accept lights only

Collection site hours of operation vary depending on the type of facility and size of community. See Appendix C for the locations of existing collection sites.

The Program intends to continue to strategically expand the collection system (collection sites, collection events, large volume end user services) to maximize the number of Manitobans served at a reasonable cost. Collection models and service types will vary across the province depending on the size, location and characteristics of each community and the ability of the Program to support collections, which are subject to change. The establishment of a collection site is also dependent on whether a community views HHW as a priority.

Due to the hazardous nature of some of the Program Products, and the various associated regulatory requirements, establishment of a collection site is much more challenging, complex and time consuming as compared to other non-hazardous stewarded products. Improving and expanding the collection site network has been challenging due to various circumstances beyond PCA's control, such as, but not limited to:

- Limited existing HHW collection infrastructure at the outset of the Program;
- Zoning requirements for HHW storage structures;
- Higher than anticipated costs for collection sites to accommodate HHW;
- Competing priorities at the local municipal level as a result of municipal amalgamation and regional flooding; and
- Extensive process involved in the installation of any required infrastructure.

As a consequence of these challenges, several interested communities have experienced delays in obtaining necessary approvals to construct collection facilities.

Some communities were interested in collecting HHW but did not have the necessary infrastructure to support a collection site. To assist with infrastructure challenges, PCA has developed a financial assistance program to support qualified local communities with infrastructure development. The capital funding assistance program has been successful in helping to establish a number of collection sites to date. PCA will continue to evaluate the need of communities and the financial ability of the Program to provide capital funding support to qualified and targeted communities. For those communities that have experienced delays in establishing a collection site and were interested in providing interim services, PCA worked in partnership with the community to host single day HHW collection event(s).

6.2 Large Volume End Users

Certain collection sites that are better able to handle large volumes are designated as "preferred sites" for consumers that generate large volumes of Program Product, such as commercial painters. Advance notice of delivery of large volumes may be requested to ensure

proper storage and handling at the collection site. Collection sites may voluntarily limit the amount of Program Products accepted from a customer at any one time.

6.3 Events

To augment the collection site network, PCA supports local communities that are interested in hosting single day HHW collection event(s) in summer months around the Province. Since inception of the Program, PCA has supported 68 HHW collection events in Manitoba, 18 of which were in 2015, 4 of those were held in northern communities. Collection events are typically held in partnership with local communities. As the number of collection sites grow, the reliance of collection events may be reduced.

6.4 Northern and Remote Communities

The Program has been working on initiatives, including collection events, to provide services to northern and remote communities in Manitoba. These types of service are typically provided at a much higher cost. Some events produce very limited volumes, indicating limited demand for HHW service. The Program has been an active participant in the Solid Waste Advisory Team (SWAT) on initiatives to aid with diversion programs in Northern and First Nations communities. Where feasible and where there is a demand for service, the Program will work with other organizations and stewardship programs to collect and remove Program Products from these communities.

The Program will work with other agencies and partners, such as Indigenous and Northern Affairs Canada over the coming years to identify First Nations communities that have identified HHW as a priority under their solid waste management strategy and are willing to partner with the Program.

6.5 Direct Pickup Service

The Program gives consideration to special direct pickups for high volume generators. The Program provides transportation and product management services to waste disposal grounds and landfills in certain instances to address stockpiles of Program Product.

PCA will continue to actively expand the collection system. PCA will examine the potential for establishing collection sites at facilities such as retailers, recycling organizations (both non-profit and for profit), local government recycling centres or transfer stations/landfills or at other associations or businesses. The Program will continue to assess the convenience and accessibility of the collection network on an ongoing basis as part of its efforts to improve collection services and continue to supplement the collection system with collection events, as needed and where feasible.

6.6 Transportation

The Program contracts out the function of transporting Program Products from collection points to consolidation or processing locations, in accordance with requirements under the *Federal Transportation of Dangerous Goods Regulation, Provincial Dangerous Goods Handling and Transportation Act* and associated regulations such as *The Hazardous Waste Regulation*.

7 Product Management

The objective of the Program is to minimize the improper disposal of hazardous materials by providing an effective HHW collection program and ensuring that the collected materials and containers are either recycled or disposed of in an environmentally responsible manner. The Program strives to manage collected products in accordance with the “pollution prevention hierarchy” as described in detail below. Processing and recycling options in Manitoba vary by Program Product as outlined below. Accordingly, the application of the pollution prevention hierarchy and the management of each product varies by Program Product depending on options available and economic feasibility. Products may be “downcycled” (i.e., managed through an available process that is lower on the pollution prevention hierarchy) where necessary.

This section outlines the current product management processes employed by the Program, by Program Product category.

The Program encourages consumers to buy the right amount of a consumable product for their needs resulting in less waste and a reduction in the volume of product needlessly purchased. This is achieved through the “BUD” Rule, promoted through the Program website and promotional material, which encourages consumers to:

- Buy no more than you need.
- Use all that you buy.
- And dispose of leftovers safely.

The Program anticipates that product management options, as described in this section, will remain the same however they are subject to change based on changing conditions, such as but not limited to, availability of options, feasibility and market conditions.

7.1 PaintReuse (formerly Paint Exchange)

A unique feature of the Program is PaintReuse, where collected leftover paint is offered at participating collection sites free of charge to residents. PaintReuse is a cost-effective and energy-efficient alternative for managing leftover paint, and diverts it out of the environment. Leftover paint is available on an as-is, as-available basis from collection sites who are registered to participate.

The Program provides PaintReuse signage at participating collection sites to inform consumers about the availability of free paint. Consumers can find PaintReuse locations on the collection site locator on the Program’s website. As the PaintReuse network expands, the Program will seek to promote PaintReuse as part of its broader communication strategy.

With the exception of paint, reuse is not appropriate for any other Program Products (including paint aerosols).

7.2 Liquid Paint

The Program allows paint to be reused by consumers free of charge through its PaintReuse program.

Latex paint is sent to a recycling facility to be reprocessed into paint and coating products. Unrecyclable latex paint is solidified and sent to landfill. Recycling is not a viable option for oil based paint due to regulatory limits on VOC and limited demand. Consequently, oil based paint is consolidated and blended with other flammable liquids and sent for energy recovery at licensed facilities.

7.3 Aerosol Paints

Residual volumes recovered from paint aerosols are nominal compared to recovered liquid paint and represent a variety of product formulations that limit the options for recycling. Paint aerosol cans are punctured and contents drained. The propellant is absorbed by activated carbon, the residual paint blended with other flammable liquids destined for energy recovery.

7.4 Flammable Liquids/Gasoline

Given the varied nature of flammable products, material mix/composition and limited volumes, it is not economically viable or feasible to reuse or recycle flammable liquids. Since many flammable products are sold as fuels, leftover flammable liquids and gasoline are blended and sent for energy recovery. Flammable aerosols are evacuated and the flammable liquids are treated in the same manner as paint aerosols.

7.5 Corrosives

Corrosives are neutralized, treated and stabilized for landfill. Corrosive aerosols are evacuated, the propellant absorbed by activated carbon, and the corrosive liquids neutralized.

7.6 Toxics

Toxic liquids are fuel blended and sent for energy recovery. Toxic solids are incinerated at high temperature in a government regulated and permitted incinerator.

7.7 Physically Hazardous Material (Fuel Cylinders)

Fuel from fuel cylinders is either sent for energy recovery or is recaptured and used as fuel.

7.8 Pesticides

All pesticides are incinerated at high temperature in a government regulated and permitted incinerator. Pesticide aerosols are evacuated, propellants absorbed by activated carbon, and the residual pesticides are sent for incineration.

7.9 Paint and HHW Containers

Following the removal of the residuals, metal containers are typically recycled as scrap metal, subject to market conditions. Where possible and economically feasible, plastic containers will

be sent for recycling. Where it's not viable or feasible to recycle metal or plastic containers (e.g. pesticides, toxics etc.), they are sent to landfill.

7.10 Fluorescent Lights

Spent fluorescent lights are collected and shipped to a processor where they are broken down into their component parts (i.e., mercury/phosphor powder, glass, ceramics, electronic circuits and metals) under a controlled environment. The metal end caps are sent to a scrap metal recycling facility. The glass, ceramics and electronic circuits were further processed and utilized as raw materials in various manufacturing processes. The mercury phosphor powder undergoes further processing where it is chemically treated, stabilized, and sent to secure landfill. Since the USA banned the exportation of mercury, there has been limited options to recycle mercury.

8 Performance Measures

8.1 Reporting

The Program previously reported out on quantities of annual product sales and products collected, number of collection sites, the management of the collected material with reference to waste management hierarchy, as well as consumer awareness (see section 9.2). The Program will report out on the following for Program Products in its annual report as applicable:

- Sales volumes of Program Products
- Amounts of waste material collected
- Recovery rate
- Product management in relation to the pollution prevention hierarchy
- Consumer awareness
- Number of collection sites and collection events

8.2 Program Performance Targets

Unlike other consumer products, HHW products (with exception of fluorescent lights) are generally consumable products, not durable products, meaning that they:

- Are meant to be consumed,
- Generally do not have an expiration date,
- Are not used on a daily basis and therefore are not necessarily top of mind for consumers,
- Retain value for consumers even after initial use,
- Are not considered a waste product until the consumer decides they no longer want or need them.

For various reasons including those stated above, setting performance targets is challenging for HHW products. The evaluation of the Program's performance may not be measured in the same manner as stewardship programs for other types of products. No single performance indicator will provide the ability to evaluate the Program as a whole. The evaluation of the Program performance should be based on a range of metrics. Evaluation should be based on

trends observed across the entire set of performance indicators, as opposed to any one indicator. The performance targets should be aspirational, meaningful and realistic.

Collection Targets

Collection targets are set based on observable trends in collection volumes and take into consideration collection volumes were higher than usual during the start of the Program due to limited options available to consumers and collection facilities.

Paint

As anticipated, collected volumes of paint showed strong increases in the first two years of the Program followed by more modest increases in years 3 and 4. On that basis, the Program targets to increase absolute collection volumes 10% by 2021 over 2015 volumes collected (320,253L).

Table 7: Historic Paint Collection and Sales Volumes

Litres	2012 ⁵	2013	2014	2015
Collection Volumes	156,544	260,912	308,771	320,253
Sales	4,587,076	6,584,133	6,548,004	6,708,057

Fluorescent Lights

Historic collection of both CFLs and fluorescent tubes have seen consistent increases year over year, however based on the performance of similar lamp programs that PCA operates, collections tend to stabilize with more modest annual increases as the program matures. In addition, with the technological transition of CFLs and fluorescent tubes to LED lamps, sales of CFLs and fluorescent tubes have been declining rapidly. Therefore, while the Program anticipates that the absolute number of CFL lamps and fluorescent tubes collected will continue to increase annually during the term of this Program Plan, it is expected that the rate of increase will decrease significantly year over year. On this basis, the Program will increase total collection units of fluorescent lights by 20% - 28% by 2021 over 2015 volumes collected (96,561 units).

Table 8: Historic Fluorescent Light Collection and Sales Volumes

Units	2012 ⁵	2013	2014	2015
Collection Volumes	11,819	48,525	74,822	96,561
Sales	673,308	1,135,257	1,153,843	1,007,737

Recovery Rate

Both sales volume and waste material collected give an overall picture of Program performance that is more meaningful than the Program's recovery rate. Recovery rates⁶, are not necessarily

⁵ 2012 was a partial year, with the program beginning in May 2012 for Paint and Light collections.

⁶ Recovery rate is the amount of material collected divided by the amount of material sold in the same year.

useful measures of success for stewardship programs managing paint and household hazardous wastes for various reasons:

- With the exception of lamps, paints and household hazardous wastes are designed to be consumed. Therefore, it is arguable that a low recovery rate could indicate strong program performance, suggesting consumers are being efficient with the use of the consumable products they purchase. Indeed, PCA actively promotes reduction by promoting campaigns highlighting the BUD rule: “Buy what you need, use what you buy and dispose of leftovers safely.” This rule serves to reduce the amount of waste generated which further drives down the recovery rate.
- The relationship between volumes of Program Products purchased and recycled is not linear. Consumable Program Products have a long shelf life and leftover product may be stored by the consumer for long periods of time with the intention of later use.
- The time span between the purchase of a product and the decision by a consumer that it is no longer needed varies considerably and is heavily dependent on consumer habits.
- Although fluorescent lights are not consumable, reference to recovery rates as a measure of Program performance is problematic. The lifespan of a fluorescent bulb can vary depending on a number of factors including bulb quality and technology, the usage location (e.g., lights used in recessed fixtures may have a shorter lifespan) and hours of use. There is also a pantry effect with lamps, where consumers purchase multiple lamps for future use which may sit in the pantry unused for long periods of time. For these reasons it is not accurate to assume that the amount sold in a given year is equal to the amount available to be collected and recycled.

For these reasons, PCA will continue to report out on Program recovery rates for appropriate Program Product categories, but will not use recovery rate as a performance target.

Consumer Awareness

The plan for increasing consumer awareness is discussed in section 9.2 below. Consumer awareness targets for the Program are set out Table 9. The targets were developed based on maturity of the Program and experience from other HHW programs in the country. In evaluating the Program’s awareness levels, it is informative to consider that the BC Paint and HHW stewardship program, which has been in operation for more than 18 years and is considered one of the most successful programs, has achieved an awareness level of 66%.

Table 9: Consumer Awareness Targets

Year	Paint	Other HHW
2014 Actual	36%	43%
2017 Target	41%	48%
2019 Target	43%	50%
2021 Target	46%	53%

Number of Full Service Collection Sites

While there are many factors that influence the likelihood of communities participating in a stewardship program, it is estimated that 24 full service collection sites will be operational by 2021. Prior to the implementation of the Program, there was minimal HHW collection sites in the province. See Section 6 for a discussion of the development of the Program’s collection network and associated challenges. Table 10 sets out the targets for the number of full service collection sites in the Province.

Table 10: Full Service Collection Sites Targets

Year	Total number of full service collection sites targeted
2015 Actual	10
End of 2017 Target	18
End of 2021 Target	24

With the objective of increasing accessibility, the Program will target specific regions based on community interest. Table 11 shows the expected number of permanent collection sites by region over the period of this Program Plan. See Appendix D for a map of these regions.

Table 11: Target Regions for Full Service Collection Sites

Region	Number of collection sites
Burntwood	One or more by 2021
Nor-Man	One or more by 2021
Central	One or more by 2021
Interlake	One or more by 2021
Winnipeg & Capital Region	One or more by 2021
Midwest	One or more by 2021
Western	One or more by 2021
North Eastern	One or more by 2021
South Eastern	One or more by 2021
Parkland	One or more by 2021

9 Communications

9.1 Program Communications

PCA employs a number of best communication practices to communicate information about the Program to the public, to increase awareness of the Program and its objectives, and to stimulate Program use. Under the Program Plan, the Program commits to the following:

a) Program Website

The Program websites at <http://www.regeneration.ca/programs/paint/manitoba/>, <http://www.regeneration.ca/programs/pesticides-flammable-liquids/manitoba/>, and <http://www.lightrecycle.ca/consumers/manitoba/accepted-products/> will continue to provide information to Manitoba residents on:

- Collection locations with details on hours of operation and accepted products
- Details on applicable Environmental Handling Fees
- Annual reports and other Program administrative information
- Program FAQs, including information for consumers on buying the right amount of paint as well as the safe storage and handling of Products
- PCA contact information, including an in-site live chat tool

b) Annual Communications Strategy

PCA will develop and execute a communications plan on an annual basis to address the specific needs of the Manitoba recycling market. The communications plan will:

- Employ research on the habits and perspectives of Manitoba residents to inform in-market tactics
- Make use of promotional channels that are relevant to Manitoba residents, taking into account the varied geography of the province
- Be subject to ongoing review and revision based on measurable performance indicators

The Annual Communications Plan may employ the following:

- Digital and traditional advertising
- Social media engagement
- Community events
- Point of sales material dissemination
- Stakeholder communications
- Earned media efforts
- Contests and promotions
- Government and other partnerships
- Other opportunities as best practices dictate

Point of sales material is posted on the Program's website for retailers and distributors to order as required. All orders are fulfilled and replenished upon request, free of charge.

9.2 Public Awareness Levels

The Program completed an initial awareness survey in 2015 to determine the level of public awareness about the Program. The results indicated that 36% of Manitobans were aware of the existence of a program that recycles paint and 43% were aware of the existence of a program that recycles household hazardous waste. In considering awareness levels, it is important to keep in mind that, unlike other products, HHW products are not used by all consumers and for

those consumers that use HHW products, usage is typically infrequent and therefore not necessarily top of mind.

The Program commits to conducting a public awareness survey every two years (i.e., 2017, 2019, and 2021) with findings reported out in the Program's annual report. PCA anticipates that awareness levels will increase as communications efforts continue over the term of the Program Plan. Consumer awareness targets are listed in Section 8, Table 9.

10 Administration

10.1 Environmental Handling Fees (EHFs)

The Program is entirely funded by members who pay EHFs to the Program based on the number of units of Program Products sold in Manitoba. PCA's membership list is posted on its website. No fees are charged to consumers at any of the Program's point of collection for Program Products. Annual financial information for the Program is included in annual reports, which are posted on the PCA website.

EHFs are set through the Program budgeting process and are reviewed and approved by PCA's Board of Directors. EHFs are used only for Program purposes including, but not limited to communications, administration, collection, transportation, processing, reserve fund and government fees (as required by the Regulation). EHFs may be adjusted over time to ensure financial sustainability of the Program and fiscal responsibility.

It is the option of the member whether or not to recover the EHFs paid to the Program, in which case EHFs may be listed as a separate invoice item or included in the product price.

The Program verifies that member remittances are correct through the use of a compliance system that includes member reviews/audits. Detailed audits of members are performed on a regular basis to ensure both compliance and completeness in the reporting of EHF to PCA. Audit selection is a function of, but not limited to, materiality, irregularities, non-compliance with PCA's policies, and PCA's audit framework. Audits follow established procedures and may involve, but are not limited to, the following: sales records, purchase records and accounts payable records. Audit procedures consist primarily of enquiries, analytical procedures, discussion, and examination related to information provided by the member.

10.2 Risk Management and Reserve Fund

The Program manages environmental risk in a number of ways including, but not limited to, service provider selection criteria, policies and guidelines and site visits. The Program also maintains environmental insurance to strengthen the risk management system.

The Program has established a reserve fund, which serves primarily to provide financial stability for the Program, particularly in the context of the declining revenue due to market conditions and technological changes in products (i.e., fluorescent lights to LED lamps). The reserve fund is

continually monitored and is subject to a reserve fund policy determined by PCA's Board of Directors. The reserve fund is also available for other purposes including the funding of any uninsured environmental claims, and fluctuations in operating costs.

10.3 Steward Recruitment

In order to maintain a 'level playing field' for Program members and to ensure compliance with the Regulation, the Program actively searches for, identifies and recruits stewards of Program Products.

Once a potential steward is identified, PCA follows a formal compliance process protocol, such as phone calls, email and letters to recruit the steward into the Program. PCA will seek assistance as needed from the Department of Sustainable Development to ensure regulatory compliance of obligated stewards who refuse to comply with the Regulation.

10.4 Dispute Resolution Procedure

PCA contracts with all suppliers and service providers to the Program by the use of commercial agreements. Disputes arising from collection or processing contracts are resolved using normal commercial legal procedures, which may include negotiation, mediation, arbitration or formal legal proceedings depending on the nature of the dispute.

11 Stakeholder Consultation

As a prerequisite to submitting this Program Plan with the Department of Sustainable Development, stakeholder consultations were conducted with interested parties. The consultation process was intended to solicit feedback and ideas to strengthen the plan. The consultation process included the following steps:

- A draft version of the Program Plan was posted to the Program website from April 8, 2016 – April 26, 2016.
- Notice was sent via email to members of all stakeholder groups – Program members, industry associations, service providers including collection sites, environmental organizations, and government agencies – who were requested to forward it to their members where appropriate.
- Notice was posted in the News section of the Program website and on the Program's Facebook page.
- Notice was also provided via digital advertising throughout the province. Digital impressions were served to Manitobans who searched a large inventory of key words related to the Program. Digital ads invited them to offer their feedback and queries on the Program and to learn more via the Program website.
- Print and radio advertising invited Manitobans to offer their feedback and queries on the Program Plan and to learn more via the Program website, ReGeneration.ca.
- A request for consultation was posted to Manitobans only on the Program's Facebook page.

- All interested parties were invited to participate in a webinar on April 13, 2016.
- All interested parties were invited to provide written submissions on the Program Plan.

Subsequent to PCA's public consultation, Manitoba Sustainable Development conducted its own public consultation. The consolidated summary of feedback from both consultations is included in Appendix E. The feedback provided was from a handful of commenters.

Appendix A. Schedule to Household Hazardous Material and Prescribed Material

Category Name	Description of Included Devices, Equipment, Material, Products or Substances
Waste Household Hazardous Materials	<p>Devices, equipment, material, products and substances that meet the criteria for waste household hazardous materials set out in the CSA Standard Z752-03, <i>Definition of Household Hazardous Waste</i>, including, but not limited to, devices, equipment, material, products and substances that meet the criteria for:</p> <ul style="list-style-type: none"> (a) flammable materials; (b) corrosive materials; (c) physically hazardous materials, including, but not limited to, <ul style="list-style-type: none"> i. explosives (but not including ammunition), and ii. medical sharps carrying pathogens; (d) toxic materials; or (e) environmentally hazardous materials, including those materials that meet the criteria of being "toxic", and either "persistent" or "bio-accumulative" as those terms are described in Clauses 7.6.2.2. to 7.6.2.4. of that Standard.
Pesticides	<p>Control products, as defined in the <i>Pest Control Products Act</i> (Canada), registered under that Act that</p> <ul style="list-style-type: none"> (a) are required to be labelled with the product class designation "Domestic"; and (b) display on the label the symbol shown in Schedule III of the Pest Control Products Regulation (Canada) for the signal word "Poison"; <p>but not including the following pest control products:</p> <ul style="list-style-type: none"> (c) insect repellents; (d) sanitizers and disinfectants; (e) products for use on pets; (f) unpackaged products or products not ordinarily sold to, used or purchased by a consumer without repackaging.
Pharmaceutical Products	<p>A substance or mixture of substances manufactured, sold or represented for use in</p> <ul style="list-style-type: none"> (a) the diagnosis, treatment, mitigation or prevention of a disease, disorder or abnormal physical state, or its symptoms; or (b) restoring, correcting or modifying organic functions; <p>including, but not limited to, medications available with or without a prescription, but not including contact lens disinfectants, antidandruff products and shampoos, cosmetics, antiperspirants, antiseptic or medicated skin-care products, sunburn protectants, mouthwashes, fluoridated toothpastes, and veterinary medications and products.</p>

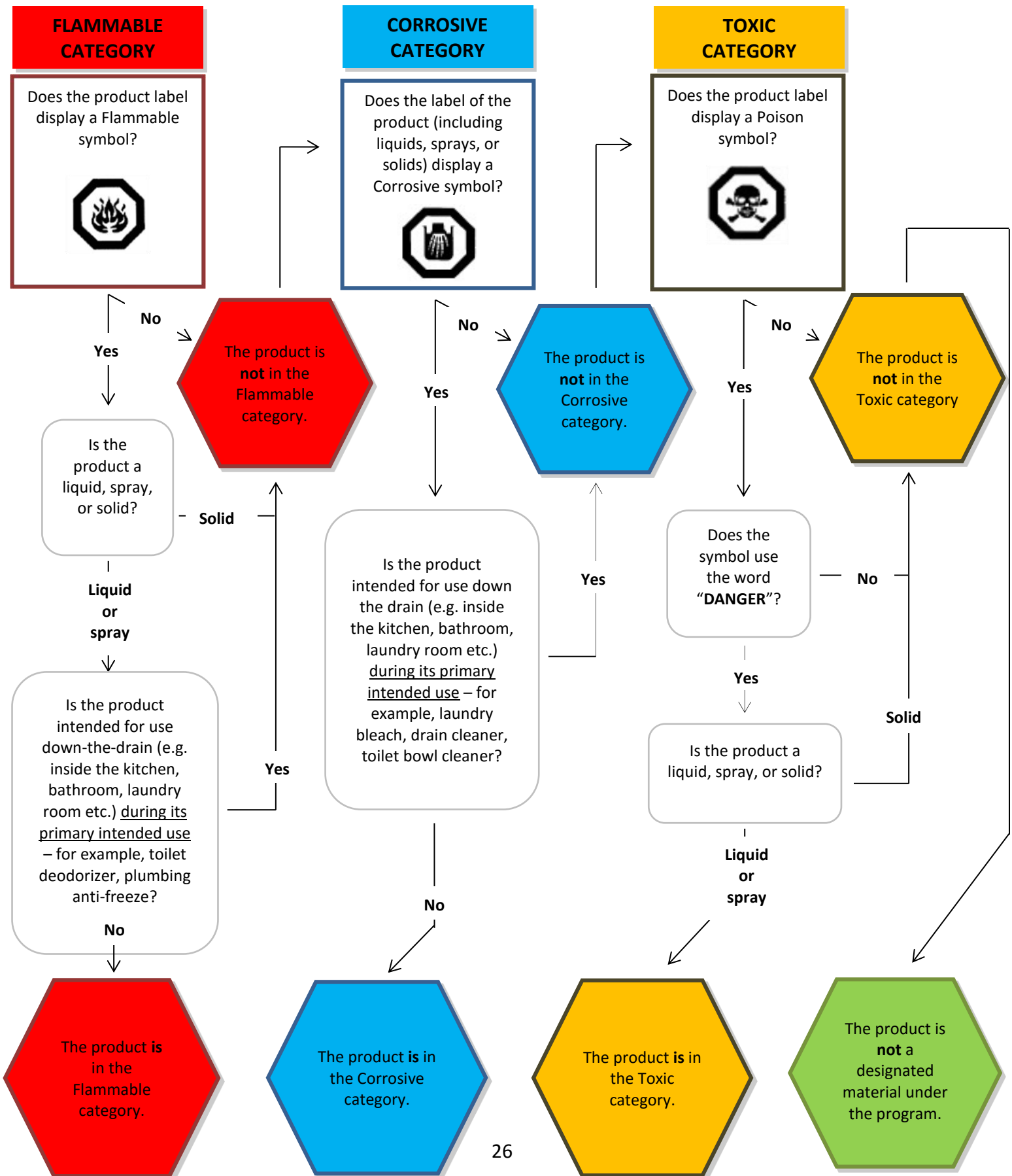
Category Name	Description of Included Devices, Equipment, Material, Products or Substances
	This category is limited to household quantities of pharmaceutical products.
Natural Health Products	A natural health product as defined in <i>The Natural Health Products Regulation</i> under <i>The Food and Drugs Act</i> (Canada). This category is limited to household quantities of natural health products.
Automotive Antifreeze	
Paint Products	<ol style="list-style-type: none"> 1. Latex, oil-and solvent-based architectural coatings, whether tinted or untinted, including paints and stains for commercial and homeowner use, but not including unpressurized coatings supplied in containers with a capacity of more than 30 L. 2. Paints and stains sold in pressurized aerosol containers.
Fluorescent Lighting Tubes and Compact Fluorescent Lights	
Lead-Acid Automotive Batteries	Devices that convert chemical energy to electrical energy for use in motor vehicles.
Rechargeable Batteries	Devices that convert chemical energy to electrical energy and that can be restored to full charge by the application of electrical energy.
Other Batteries	Devices that convert chemical energy to electrical energy including, but not limited to, zinc-air, zinc-carbon, lithium, silver-oxide or alkaline-type batteries, but not including batteries in the lead-acid automotive batteries and rechargeable batteries categories.

Note: This excerpt from the Regulation is provided for reference purposes only and is not a list of Program Products included in this Program Plan.



Appendix B. HHW Product Classification Decision Tree (Subject to Change)


First, check that your product is not listed in the Excluded List on the last page of this decisions tree, then proceed. Start Here:

Manitoba HHW (Flammables, Corrosives, Toxics) Decision Tree November 18, 2013



FIRST check that your product is not listed in the MB HHW Excluded List on the last page of this decision tree, then proceed.

			Comments	
FLAMMABLE CATEGORY	1.	Does the product label display a Flammable symbol?	Yes	Go to step 2.
			No	The product is not in the Flammable category. Go to step 4 (Corrosive symbol).
	2.		Is the product a liquid, spray, or solid?	Liquid or spray
		Solid		The product is not in the Flammable category. Go to step 4 (Corrosive symbol).
	3.	Is the product intended for use down-the-drain (e.g. inside the kitchen, bathroom, laundry room etc.) <u>during its primary intended use</u> – for example, toilet deodorizer, plumbing anti-freeze?	Yes	The product is not in the Flammable category. Go to step 4 (Corrosive symbol).
			No	The product is in the Flammable category. <i>Classification is finished.</i>
CORROSIVE CATEGORY	4.	Does the label of the product (including liquids, sprays, or solids) display a Corrosive symbol?	Yes	Go to step 5.
				No
	5.	Is the product intended for use down the drain (e.g. inside the kitchen, bathroom, laundry room etc.) <u>during its primary intended use</u> – for example, laundry bleach, drain cleaner, toilet bowl cleaner?		Yes
			No	The product is in the Corrosive category. <i>Classification is finished.</i>

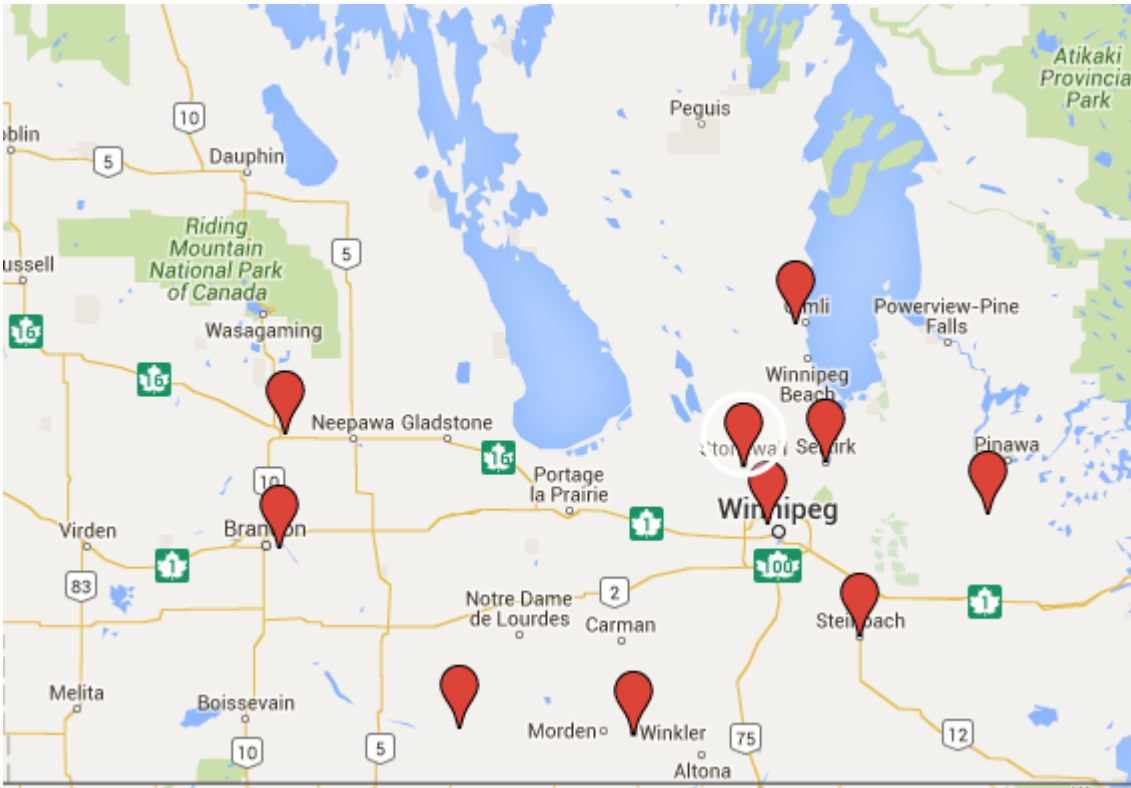
TOXIC CATEGORY	6.	Does the product label display a Poison symbol?	Yes	Go to step 7.
			No	Product is not in the Toxic category and is not a designated material under the Program. <i>Classification is finished.</i>
	7.	Does the symbol use the word	Yes	Go to step 8.
		“DANGER”?	No	The product is not in the Toxic category. Product is not a designated material under the Program. <i>Classification is finished.</i>
	8.	Is the product a liquid, spray or solid?	Solid	The product is not in the Toxic category. The product is not a designated material under the Program. <i>Classification is finished.</i>
			Liquid or spray	The product is in the Toxic category <i>Classification is finished.</i>

List of Manitoba HHW Excluded Products:

- Commercial, industrial, or agricultural products
- Powder forms (solid) of masonry products, cement, grout, mortar, plaster of Paris
- Caulking compounds
- Lead acid batteries
- Oil / Antifreeze
- Mercury switches
- Fertilizer
- Wine and distilled spirits
- Drugs and medicines
- Diesel
- Medical sharps
- Insect repellents, disinfectants and pet products
- Cosmetics
- Ammunition
- Refillable propane cylinders

Appendix C. Collection Sites

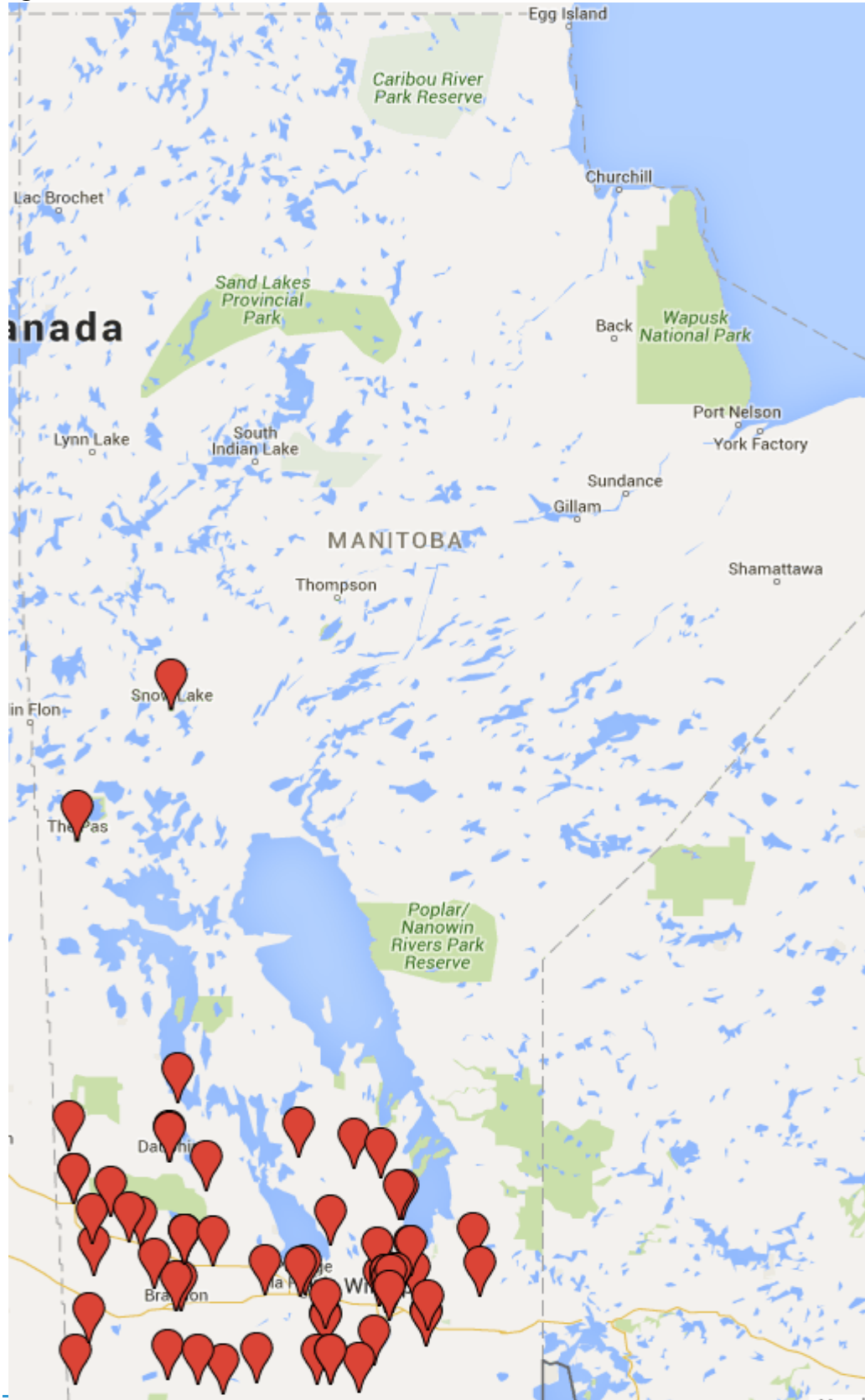
Full Service Collection Sites:



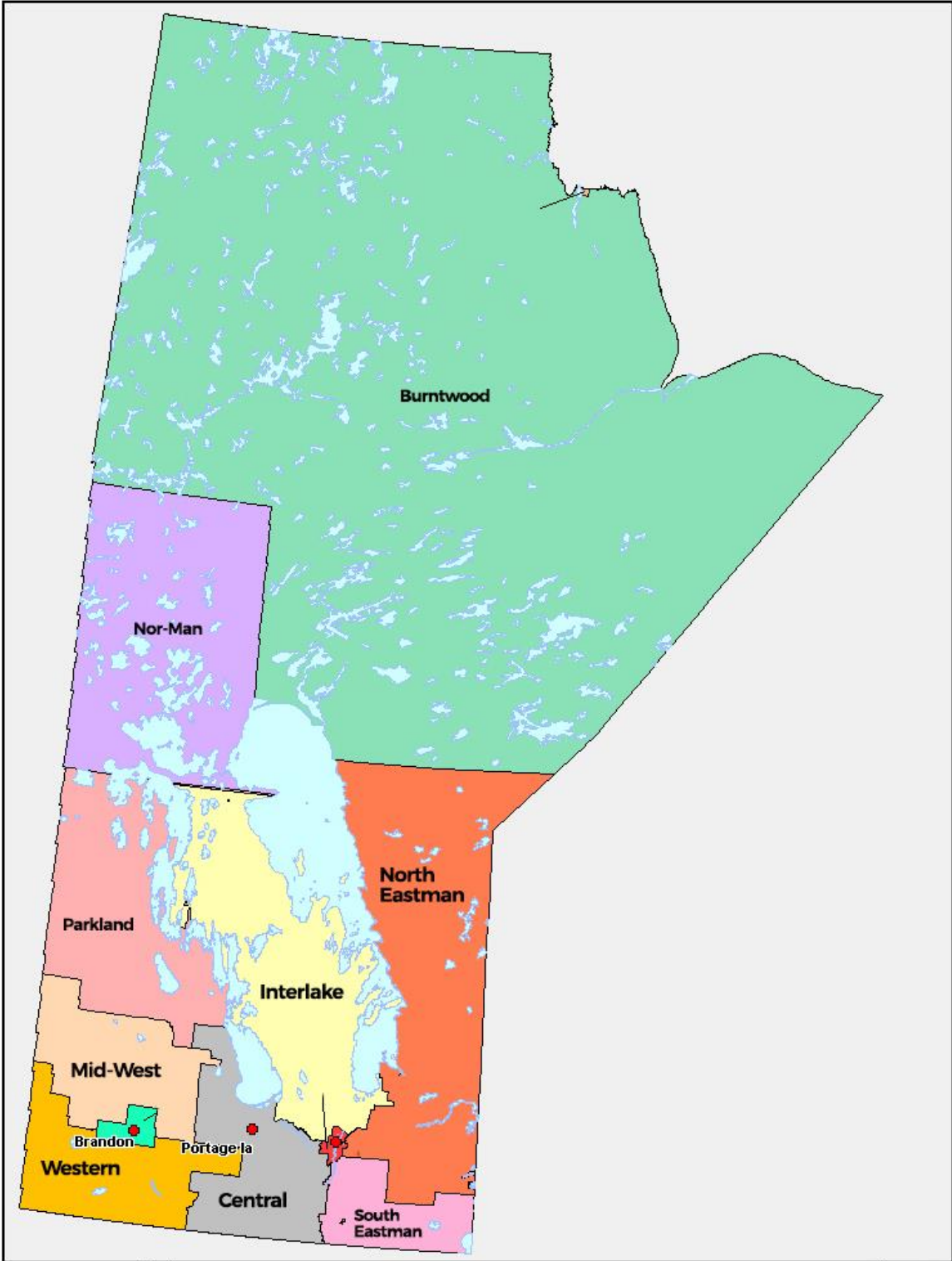
Paint Collection Sites:



Lights Collection Sites:



Appendix D. Manitoba Regional Map



Appendix E. Consultation Feedback Summary

Feedback	Response
General	
What are the key differences between the original Program Plan and the new Program Plan?	The new Program Plan has the benefit of being able to reference the actual operations systems and performance information obtained since the Program was launched in 2012 and uses the information collected since the onset of the Program to establish performance measures.
A local office in MB would allow for direct contact and collaborative work and increase diversion rates.	PCA employs a field coordinator in MB, who is responsible for developing the collection network and liaise with collection sites, community members, and various governmental agencies.
Create an advisory committee to allow municipalities and stakeholders the opportunity to provide feedback and gain information to increase transparency and accountability of the Program.	PCA currently has a number of advisory committees that provide feedback and recommendations at a national level. The Program will consider establishing a local advisory committee during the duration of this Program Plan.
Conduct formal annual reviews to allow for a robust analysis of the Program's achievements, acceptable Program materials, collection practices, and allow for adjustments in these areas of the Program as required.	As per the regulation, PCA produces annual reports for the Program which are provided to Manitoba Sustainable Development summarizing the Program activities and the audited financial statements covering the Program for the calendar year. These are posted on the PCA website.
Program Products	
Is the Program anticipating expansion of any Program Product categories?	The Program Plan does not include any changes to the scope of products included.
The original Program Plan did not accept paint "containers with a capacity of more than 30 L", but the new Program Plan states it will accept a "maximum container size: 25L".	The change in paint container size to 25L is to allow harmonization with other paint programs. This should not have any impact on product inclusion as we are not aware of any paint containers that are marketed in sizes between 25L and 30L.

Feedback	Response
Industry members feel strongly that EPR model is not suitable for IC&I materials. Generators, not producers/brand owners, should be responsible for IC&I programs. This is a cost of running the generator's business.	The Program Plan does not propose to enlarge the scope of products included in the Program.
We are pleased that the Manitoba Decision Tree for corrosives and flammables, developed collaboratively by CCSPA, PCA, and Retail Council of Canada before launch of the Program in 2012, remains a key education tool.	The Program as noted in Section 5, will continue to make the Decision Tree available for use.
Targets	
The new Program Plan sets a goal to increase the volume of paint collected by 10% over 2015 volumes. What is the basis for this goal?	The collection targets take into account historic performance as well as trends observed in other programs.
Targets are underwhelming. 10% increase in paint volumes by 2021 does not go far enough to prevent material entering the waste stream.	<p>The collection targets set take into account historical performance data as well as trends observed by other paint and HHW programs. As with other programs, the Program continues to increase the amount of paint collected, with the rate of increase tapering over time. As seen in other paint programs managed by PCA, the volume of paint collected annually is expected to plateau with an average 2% increase over the next 5 years.</p> <p>As part of the public education and awareness platform, the Program encourages consumers to buy the right amount of paint, thereby reducing the amount of unused paint that requires management.</p>
Targets for collection sites are limited.	Prior to the start of the Program, there was only one permanent collection site in the Province. The Program has established more than 70 plus collection sites. As noted in Section 6.1, the establishment of a collection site for HHW in Manitoba is much more challenging, complex, cost intensive and time consuming in comparison to other non-hazardous stewarded products. PCA will

Feedback	Response
	continue to expand on the networks accessibility.
Fees	
Does Product Care anticipate a change in fees as a result of declining CFL sales or other factors?	The Program will continue to monitor the impacts of declining sales of CFLs and evaluate the need to modify fee rates as needed. The Program does not anticipate any changes to the fees in 2016.
Why are fees not adjusted based on the volume of products collected?	Fee setting is based on a multi-year budgeting process that takes into account expected revenues – based on forecast sales - and operational costs (collection, transportation and processing) – based on quantities collected - as well as other programs costs such as administration and communications. The multi-year budgeting approach provides a degree of fee stability. Budgets are updated annually and when required, fee changes are approved by the PCA Board of Directors.
Current incentive rates are inadequate given complexities of handling HHW. Revise the model to ensure municipalities are receiving compensation in the amount of 80% of their actual costs of collecting and handling the materials. Needs to be addressed in PP, even in general terms. Consider adding handling fees in addition to incentive rates.	The model utilized by the Program and by other programs, is a volume-based model that has proven to be a successful and effective model in Manitoba and other jurisdictions. The more Program Product collected, the greater the compensation. In general, collection volumes, and hence compensation, increase year over year. This is an incentive model and not a reimbursement model.
There is an expense to the site to accept and process materials that are not in the Program which are being dropped off. Municipalities should receive compensation for resources that are utilized for receiving any residual, non-program material at special waste facilities.	The Program is only responsible for Program Products.
Operations	
Under the Program, how does a company become a service provider and does the Program give preference to local processors	PCA follows a competitive process when awarding service contracts. Any interested service providers are encouraged to contact

Feedback	Response
	PCA. All service providers are evaluated based on criteria including, but not limited to, compliance with standards, specifics of the services proposal and cost.
Is the Program mandated to use best practice for recycling of Program Products?	In general the Program follows the recycling hierarchy in the recycling of Program Products, as referenced in the Guideline #2010-01E, subject to availability and economic feasibility.
Have all options been reviewed in regard to phosphor powder going to landfill?	The Program continues to seek viable alternatives to managing phosphor powder higher up the 4R's hierarchy.
Communications	
How is the Program aligning its communication goals with those of local governments?	The Program recognizes local governments as a known and trusted source of information for residents, and is interested in opportunities to work with local governments to provide Program information to residents.
Only 36% of consumers aware of paint program in 2014. Commitment to public education initiatives must be elevated substantially.	<p>PCAs commitment to public education is outlined in Section 9 of the Program Plan. The communication strategy is also reviewed annually and adjusted as necessary. In considering awareness levels, it is important to keep in mind that, unlike other products, HHW products are not used by all consumers and for those consumers that use HHW products, usage is typically infrequent and therefore not necessarily top of mind.</p> <p>As noted in Section 8, awareness is also dependent on the maturity of the Program. The Paint Program in Manitoba began in 2012 and according to the consumer awareness survey, within 3 years 36% of the province were aware a paint program existed and 43% for HHW. This is in keeping with awareness levels of other programs in operation for similar periods of time. Other programs have achieved higher awareness levels, but are much more mature programs.</p> <p>PCA will continue to invest in public education of the MB program.</p>

