



Manitoba Household Hazardous Waste Stewardship Program Plan

July 1, 2023 – June 31, 2028

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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 July 1, 2023 – June 30, 2028
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 July 1, 2018 to June 30, 2023. Pursuant to the Minister’s approval letter, this Program Plan covers the period July 1, 2023 – June 30, 2028 (“Program Plan”).

Program historic timelines:

- Initial program approved on August 26, 2010, including paint and residential fluorescent lights
- October 1, 2012, program expanded 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 renewed on July 1, 2018.
- January 1, 2020, program expanded the scope of products to include Industrial, Commercial and Institutional (ICI) fluorescent Lights.

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 123 collection sites in the province and conducted 154 collection events, that provide a range of services including collecting paint and/or lights to Full-service sites that collect all products covered under the program. This resulted in the successful diversion of the following products between 2012 - 2021: Over

- 3.1 million litres of paint,
- 898,000 units of HHW aerosols and physically hazardous materials,
- 740,000litres of HHW flammables, corrosives, toxics and pesticide materials,
- 1.4 million 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, continuing to educate consumers and promote the program to maintain current program awareness levels at a minimum, 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 and events, 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
Lamps collection volumes	Increase total collections of fluorescent lights by 3% - 7% above baseline units collected (265,000) ¹
Number of Full-service Collection Sites	41 by 2027.
Consumer awareness	Maintain a consumer awareness level above 72% for the Program

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 July 1, 2018 to June 30, 2023. This Program Plan covers the period July 1, 2023 – June 30, 2028 (“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

¹ Baseline units collected is an average of collection volumes between 2017 - 2021, adjusted for the inclusion of ICI lights.

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 numerous 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, with exception to fluorescent lights, which includes products which are supplied for ICI use or application.

4.4 Products Not Included

In general, the Program does not accept:

- Products that are missing the manufacturers label or cannot be identified (unknowns)
- Products that are leaking or improperly sealed
- Commercial, industrial or agricultural formulated products²
- 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.³ 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, (with the exception of fluorescent lights) 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

² With the exception of fluorescent lights, which includes products which are supplied to or used in ICI applications.

³ The CSA Standard and associated product can be accessed at <http://www.csagroup.org/>

manufacturers, retailers, distributors and in consultation with Manitoba Environment and Climate, 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.

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 Standard⁴.

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 	<ul style="list-style-type: none"> Non-liquid flammable materials Wine and distilled spirit beverages Cosmetic and beauty products

⁴ The Standard refers to the CSA Standard Z752-03.

Subcategory	Included	Excluded
	<ul style="list-style-type: none"> In containers not exceeding 10L capacity, except for gasoline: 25L 	<ul style="list-style-type: none"> 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 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 explosives⁵ (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. ⁶	Not Determined	

⁵ 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.

⁶ 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 and Industrial, Commercial and Institutional (ICI) use tubes of all lengths and shapes • Residential and ICI use 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, 2021, the Program’s collection infrastructure of 123 sites, consisting of:

- 34 Full-service collection sites that collect all Program Products - paint, lights, pesticides and WHHM
- 67 collection sites that accept paint and lights only
- 12 collection sites that accept paint only
- 10 collection sites that accept lights only

Collection site hours of operation vary depending on the type of facility and size of community and are typically in accordance with the facilities normal business hours of operations. 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.

The collection of HHW is very different from the collection of other recyclable materials due to the unique characteristics of HHW which requires specific considerations, such as risk management, when establishing collection services. The Program employs a process to assess the appropriateness of potential collection sites and events, including but not limited to an application process that assesses parameters such as weather protection, site access, site security, licensing etc. Training support is available to contracted collection sites and all collection sites are provided with a collection guidelines. Collection sites are required to comply with the guidelines, which provides guidance on best practices and safe handling/packaging practices for Program Products.

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
- Zoning requirements for HHW storage structures;
- Costs for collection sites to accommodate HHW;
- Extensive process involved in the installation of any required infrastructure.

As a consequence of these challenges, some communities have and will experience delays in obtaining necessary approvals to construct or site a collection facility.

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 developed and implemented 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 Generator Pick-Ups

The Program operates a Large Volume Generator (LVG) Direct Pickup service, for Paint and Lights, for contractors and businesses that meets the qualifications. To receive service, an application is required, in addition to the requirement to pack the materials as per PCA's collection guidelines. The application requests information from the LVG to ensure the LVG complies with applicable regulatory requirements, such as generator registration, etc. The pickup service is free of charge. All materials collected through the LVG Direct Pickup service are managed in the same way as other Program Products, as outlined in section 7.

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 154 HHW collection events in Manitoba, 71 of which were in between 2017-2021, 18 of those were held in northern communities. Collection events are typically held in partnership with local communities.

In some case, such as in smaller communities, a year-round collection site is not warranted or wanted by the community. In such cases, in partnership with the local community, collection events provide collection services to those communities. Product Care will support events in communities that are interested in hosting collection events or prefer collection events over full or partial-service collection facilities.

6.4 Northern and Remote First Nations Communities

PCA worked with a group of stewardship organizations operating in Manitoba to develop a pilot project to provide services to Northern and Remote First Nations communities. The pilot first ran in 2019 and this initiative continued to operate in 2020 and 2021. Since 2020, this initiative has achieved the removal of over 6000 Kg of Program Products and over 1900Kg of non-program products. Some events produce very limited volumes of Program Products. However, the Program understands that Program Products may not be the top priority for these communities, in comparison with other stewarded materials. The program also recognizes that long-term, consistent engagement with these communities is required to build effective working relationships and deliver long term results.

Therefore, the Program re-commits to continuing with this initiative and its long-term support for Northern and Remote communities. The Program will provide the necessary support to the communities to collect and remove Program Products from these communities, in conjunction with other stewardship programs, where feasible and where there is demand for service.

The Program will also continue to work with other agencies and partners, such as Indigenous Service Canada, and Indigenous and Northern Affairs Canada to identify First Nations communities across Manitoba that have identified HHW as a priority under their solid waste management strategy and are willing to partner with the Program to provide collection services

to the communities. As of December 31, 2021, PCA had four collection sites in First Nations communities, including two which are Full-service collection sites.

6.5 One-Time Clean-up Events

The Program provides direct pickups for solid waste facilities, such as waste disposal grounds and landfills, that has stockpiles of Program Products. The Program provides collection container, transportation, and product management services to qualified local governments and First Nations Communities to help clean up the sites.

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 contracted 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*. Service providers are contractually required to maintain regulatory compliance and advise the Program of any infractions. Additionally, we have an employee in MB that liaises with them regularly to ensure communication. The Program is in constant communications with contracted service providers to ensure quality of service, regulatory compliance and Program support.

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.

Except for fluorescent lights, Program Products are consumables and therefore different to other stewarded materials. 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.

The Program supports the philosophy and importance of reuse. The Program encourages consumers to reuse and use up all their Program Products. Unlike other stewarded products, reuse is not as applicable to Program Products due to a number of factors such as; the collected products may no longer be compliant with current product regulations such as labelling requirements and active ingredients and; Lamps are typically collected by the program when they are no longer functional.

7.1 Liquid Paint

Latex paint is sent to a recycling facility to be reprocessed into paint and coating products. Unrecyclable latex paint may be recycled as a raw material in cement manufacturing or 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.

7.2 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.

7.3 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.

7.4 Corrosives

Corrosives are neutralized and treated. Solids and treatment sludge are stabilized for landfill, liquids are sent to deep well. Corrosive aerosols are evacuated, the propellant absorbed by activated carbon, and the corrosive liquids neutralized.

7.5 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.

7.6 Physically Hazardous Material (Fuel Cylinders)

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

7.7 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.

7.8 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. Recycling plastic containers that contained Paint and HHW, is very difficult. Challenges include:

- Lack of economies of scale. The volume of plastics from the Program is very small when compared to other plastics waste stream,
- Lack of uniformity of the types and color of the plastics. Plastics used for the containers of Paint and HHW Program Products are often multiple polymers to meet safety requirements.
- Inherent odour associated with Program Products e.g., pesticides
- Washing the containers result in generation of additional hazardous waste by-product that requires further product management to ensure its safe disposal

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

7.9 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
- Product management in relation to the pollution prevention hierarchy
- Consumer awareness
- Number of collection sites and collection events

PCA operates nationally, on a calendar year basis. However, upon approval, this Program Plan will be in effect from mid-year (July 2023) and the Program is required by the regulation to report annually. For clarity, the first annual report to include performance measures from this plan will be the 2024 Annual Report, which will be published in April 2025. The Annual Report for 2023, will continue to report on the Performance measures detailed in the previous Program Plan.

8.2 Program Performance Targets

Unlike other consumer products, Program 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 Program 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 not appropriate for Program Products that are consumables as these products are designed to be used. Collection targets for consumables could provide an incentive to increase the residuals collected, which would be counter to the program's consumer awareness campaigns of BUD, which prioritise consumers using up the consumable products. These campaigns ensure the program incentivises the most environmentally friendly

behaviour, in consistent with the 4R principles. Therefore, the program will not use collection targets for consumable Program Products, paint and HHW. The program will use collection targets for Lights only.

Fluorescent Lights

Historical collection of both CFLs and fluorescent tubes have seen consistent increases year over year, however the collections of these lights have begun to stabilize over the duration of the current approval period. In addition, with the technological transition of CFLs and fluorescent tubes to LED lamps, sales of CFLs and fluorescent tubes have been declining rapidly to the point of where it is difficult to find the product on a retail shelf. 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, due to what is already in market, it is expected that the rate of increase will decrease significantly year over year and become negative. On this basis, the Program will increase total collection units of fluorescent lights by 3% - 7% by 2027 over a baseline level, which will be an average of collection volumes between 2017 - 2021, adjusted for the inclusion of ICI lights. (265,198 units).

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 rates⁷, are not necessarily 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

⁷ Recovery rate is the amount of material collected divided by the amount of material sold in the same year.

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 not use recovery rate as a performance target.

Consumer Awareness

The plan for consumer awareness is discussed in section 9.2 below. The consumer awareness 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

- a) the BC Paint and HHW stewardship program, which has been in operation for more than 23 years and is considered one of the most successful programs, has achieved an awareness level of 78%.
- b) the MB HHW stewardship program, which has been in operation for more than 11 years has achieved an awareness level of between 72% and 74%

Based on this, the program commits to maintaining consumer awareness targets for the Program above 72% during the duration of the Program Plan.

Number of Full-service Collection Sites.

There are many factors that influence the likelihood of communities participating in a stewardship program. Prior to the implementation of the Program, there was minimal HHW collection sites in the province. Since the Program started, 34 Full-service collection sites have become operational. See Section 6 for a discussion of the development of the Program’s collection network and associated challenges. Since inception of the Program, accessibility has greatly increased, and the Program enters the mature stage of its life cycle, fewer and fewer collection site gaps remain. It will be more challenging to fill in these gaps in collection service. Over the duration of this Program Plan, PCA intend to increase the number of collection sites to 41⁸.

Table 7 sets out the targets for the number of Full-service collection sites in the province.

Table 7: Number of Full-service Collection Sites Target

Year	Total number of Full-service collection sites targeted
2021 (Actual)	34
End of 2027 (Target)	41

⁸ There are certain communities that have actively expressed that they want collection services to be delivered in the form of a collection event, and do not want a collection site located in their communities. In these instances, PCA will deem service has been provided to a community if a collection event is held in those communities.

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 <https://www.productcare.org/products/paint/manitoba/>, <https://www.productcare.org/products/hhw/manitoba/>, and <https://www.productcare.org/products/lights/manitoba/> 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
- Details on what happens to the materials and how they are recycled/managed
- Annual reports and other Program administrative information
- Information for consumers on buying the right amount of Program Products as well as the safe storage and handling of Program Products
- PCA contact information

b) Communications Strategy

PCA executes a communications plan, which uses an omnichannel approach to public education. The channels from year-to-year based on efficacy, and may include:

- Digital and traditional advertising
- Social media engagement
- Community events
- Point of sale printed material dissemination.
- Stakeholder communications
- Government and other partnerships
- Other opportunities as best practices dictate

Point of sale material is posted on the Program's website for retailers, distributors, local governments and others to order as required, for ongoing public education, awareness and promotion of the Program. These materials can be made available for consumers at retail, local government facilities, collection sites or collection events. Orders can be placed online, via the Programs toll-free phone number, fax and email. All orders are fulfilled and replenished upon request, free of charge.

9.2 Public Awareness

The Program completed an awareness survey in 2021 to determine the level of public awareness about the Program. The results indicated that approximately 72% of Manitobans were aware that household hazardous waste can be recycled. In considering awareness levels,

it is important to keep in mind that, unlike other stewarded products, the products within this Program are not used by all consumers and for those consumers that use Program Products, usage is typically infrequent and therefore not necessarily top of mind.

The Program commits to conducting a public awareness survey every two years, starting in 2024 with findings reported in the Program's annual report. Consumer awareness targets are listed in Section 8.

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. 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 reviews/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. Review/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 (see section 6.1 and 6.6). 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 Environment and Climate 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 Environment and Climate, 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:

- Revised changes to the Program Plan were presented at the MARR conference on 11th October 2022
- A draft version of the Program Plan was posted to the Program website on November 7, 2022.
- Notice was sent via email to members of all stakeholder groups – Program members, industry associations, service providers (including collection sites), environmental organisations, and government agencies.
- Invitations to attend consultations were distributed via email to First Nations & Indigenous stakeholders through Indigenous Services Canada.
- Invitations to attend consultations were distributed to members of the Association of Manitoba Municipalities through their newsletter.
- Notice was posted in the News section of the Program website and through the Program's social media accounts

- Notice was also provided via digital advertising throughout the provinces, digital impressions were served to Manitobans who searched a large inventory of key words related to the program.
- Print and radio advertising invited Manitobans to offer their feedback and queries on the Program Plan
 - Print advertising was done through the Winnipeg Free Press
 - Radio Advertising specifically targeted First Nations stakeholders and was conducted through NCI Radio
- Email invitations to attend consultation webinars were sent to Program stakeholders on November 16, 2022
- Consultation Webinars took place on the November 25, 28 and December 2, 2022.
- In total the consultation webinars had 79 unique registrants, of which 51 attended the webinars. All registrants were sent copies of the consultation slides, along with a further request for comment.
- All Program Stakeholders were invited to provide written submissions via email three times throughout the consultation period (November 7, 2022 – December 31, 2022).
- The deadline for feedback on the Manitoba Program Plan was set for December 31, 2022.

Subsequent to PCA's public consultation, Manitoba Environment and Climate 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>

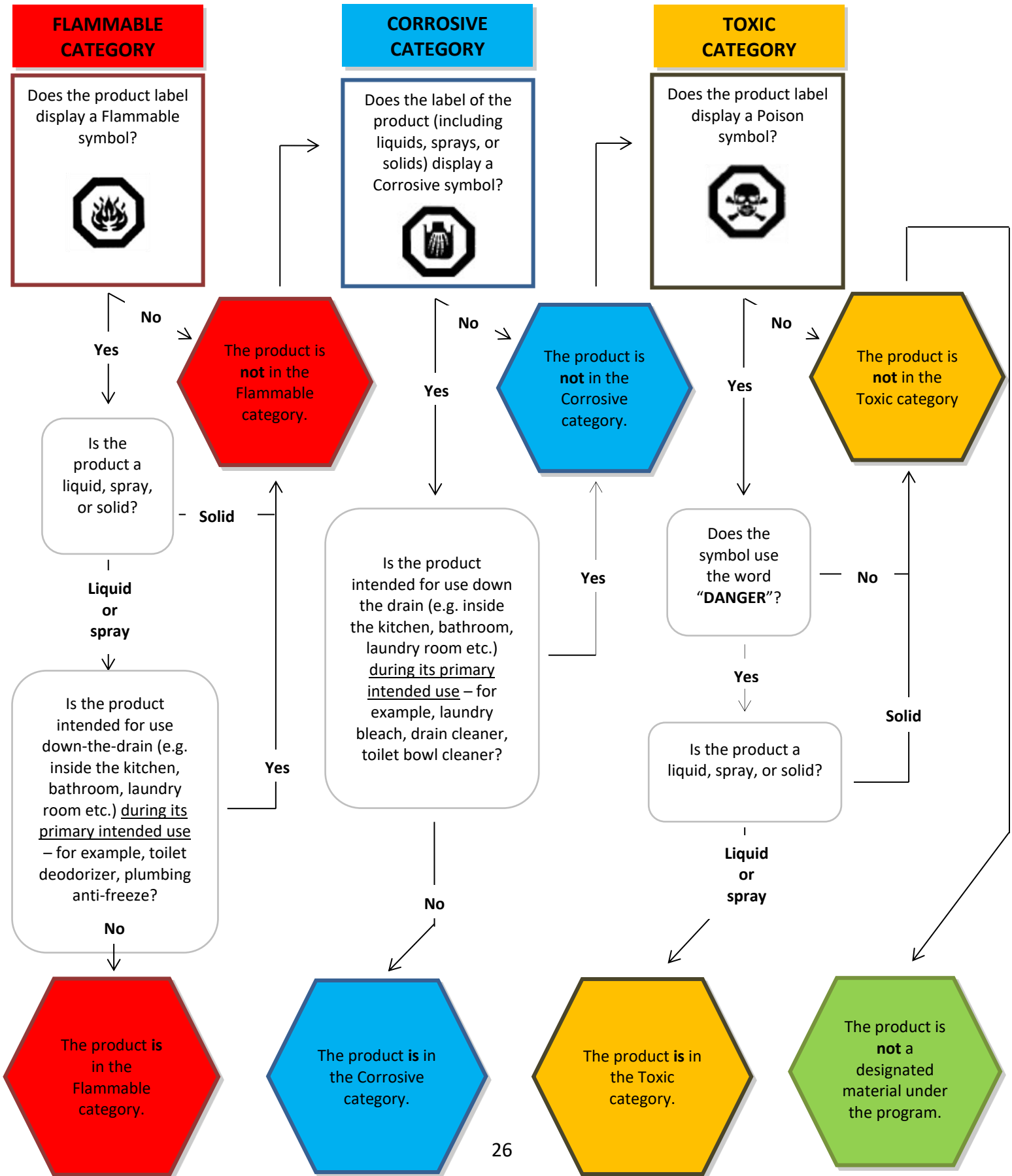
Category Name	Description of Included Devices, Equipment, Material, Products or Substances
	This category is limited to household quantities of pharmaceutical products.
Natural Health Products	A natural health product as defined in <i>The Natural Health Products Regulation</i> under <i>The Food and Drugs 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>

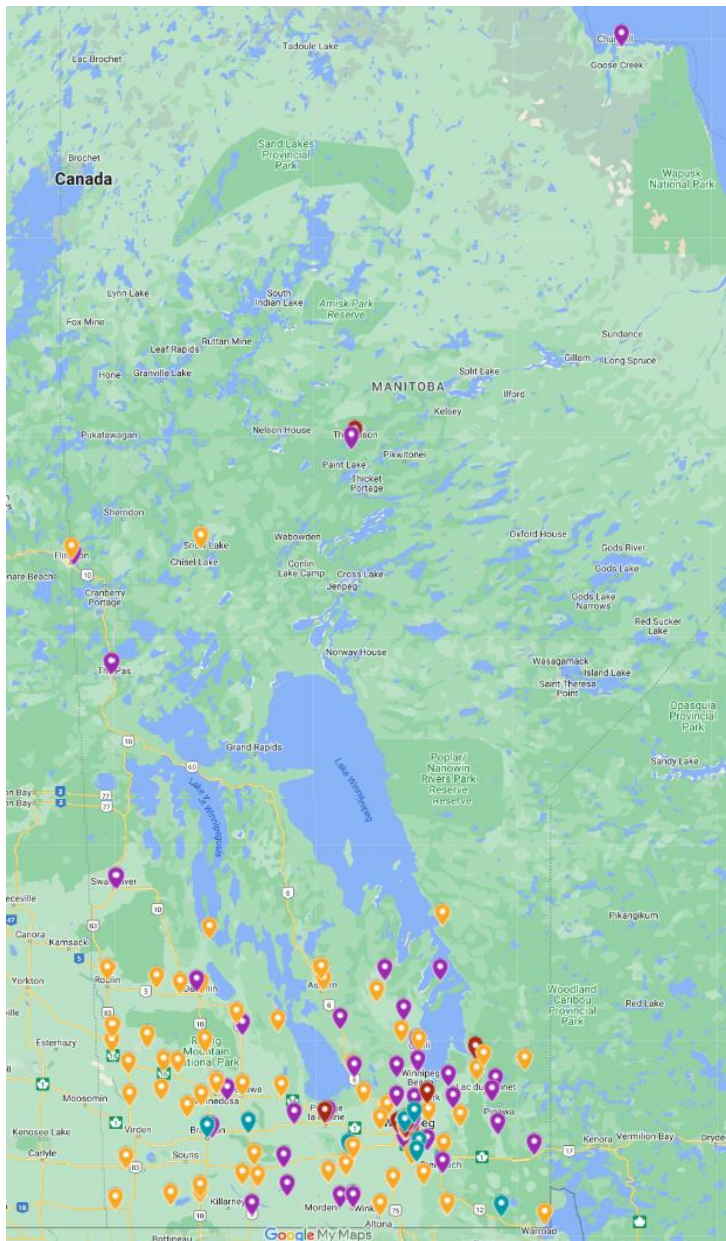
TOXIC CATEGORY	6.	Does the product label display a Poison symbol? 	Yes	Go to step 7.
			No	Product is not in the Toxic category and is not a designated material under the Program. <i>Classification is finished.</i>
	7.	Does the symbol use the word “DANGER”?	Yes	Go to step 8.
			No	The product is not 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 (except for Paint & ICI Fluorescent lights)
- 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

Collection Sites:



■ Lights Only
■ Paint Only
■ Paint and Lights
■ Full Service

Appendix D. Consultation Feedback Summary

Feedback	Response
General	
<p>From a distributor standpoint, when we're being asked to determine applicability to the program, a skull & cross bones + the word "domestic" is not a feasible way to categorize. Is there further support for this or material guidelines to better confirm applicability?</p>	<p>The product classification is set out in the regulation. PCA provides resources to Producers to assist with categorization of products, such as the accepted/non accepted products list and the decision tree.</p>
Program Products	
<p>Is there a program for incandescent light bulbs</p>	<p>The Program reflects what is obligated under the regulation - fluorescent lamp technology only</p>
<p>I am wondering if there is any consideration to accept more HHW categories from the ICI sector. I am thinking especially of schools and hospitals/nursing stations in rural and northern communities.</p>	<p>The regulation references CSA Standard Z752-03, <i>Definition of Household Hazardous Waste</i>. The HHW definition does not include products intended commercial and industrial applications. The exception to this is fluorescent lights from the ICI sector. These are included in the program, as required by the previous programs plan's approval letter.</p>
<p>Product Care said some communities are banning the sale of fluorescent bulbs or tubes so why are incandescent bulbs still sold?</p>	<p>As these are not program products, we cannot speak to why these products are still being sold. However, when certain products are banned, there is usually an inventory on the market to be used up.</p>
<p>Are the product definitions matching the materials that are being entered into the program? It seems unlikely that a consumer would know if a flammable has a flashpoint greater the 38C</p>	<p>We provide training to staff at collection sites in order be able to assess whether or not a Program Product or not. We also provide consumer materials and direct consumers to our website in order for them to assess whether or not a product is accepted by the program. The Decision Tree is a tool that assists all stakeholders, including consumers, to help classify a product.</p>
<p>We do not see any direct reference to the introduction of adding new program products such as spray foam and helium tanks, as well as smoke & CO alarms as stated in the Introduction as program products in other provinces. This would help divert more products from landfills, but also bridge some of the downtime that depots experience because of the variable drop-offs by customers on any given day and therefore provide more overall funding based on operating hours. Please advise on this potential.</p>	<p>The scope of products is defined and set by the regulation and not by the Program.</p>
Fees	

Feedback	Response
<p>How do the fees in MB compare to elsewhere in Canada</p>	<p>to the fees in Manitoba are reflective of the cost to operate the Manitoba program and meet the objectives of the regulation. The fees vary from province to province, program to program and are dependent on various factors.</p>
<p>Given that the City of Winnipeg studies show that our related costs are not consistently covered, are there any results available to us of how the Environmental Handling Fees system determines the coverage of the costs?</p>	<p>EHF's are set through the program budgeting process and are reviewed and approved by PCA's Board of Directors. EHF's are used only for Program purposes which include, but are not limited to communications, administration, collection, transportation, processing, and reserve fund.</p>
<p>In relation to the WRAP Act and Regulation 16/2010, the Guideline for Household Hazardous Material and Prescribed Material Stewardship: 2010-01E, part B. Program Plan Evaluation, states: For the purpose of plan evaluation, proposed plans shall demonstrate how: 8. funds raised for the management of a material or product will relate to the costs of managing that designated material or product; Overall we would appreciate feedback on why there is not an annual inflationary increase component for program products set into the plan. We know there is a review as per Section 10.1 Environmental Handling Fees (EHF's), but, based on the statement in this section that the EHF's are based on the 'number of units of Program Products sold in Manitoba', it seems to be influenced by point-of-sale aspects and not diversion and recycling costs. An annual increase based on an appropriate index would help alleviate the cost discrepancies, assuming appropriate fees were set based on current costs. Please advise if this has or will be considered.</p>	<p>The model utilised by the Program and by other programs, is a volume-based incentive model, rather than a reimbursement model, that has proven to be a successful and effective model in Manitoba and other jurisdictions. The Program includes a copy of its audited financial statement as part of the annual report that provides statements of revenue and expenses</p>
Operations	
<p>What does a municipality have to provide to host a full-service site</p>	<p>PCA provides our collection site guidelines via our website or on request. These detail the requirements for collection sites.</p>
<p>Does a site have to be staffed every day or can it be, in a smaller community, be say 1 or 2 days per week?</p>	<p>Hours can be set based on community requirements, but we do recommend they are consistent and regular hours. The sites must be staffed during operating hours due to the nature of the products.</p>

Feedback	Response
Are any of these sites hosted by volunteer committees?	Not currently. But the Program is not opposed to have voluntary committees. We need people to staff the collection site, whether that be staff, contractors or volunteers, that is up to the community.
In the Product Management slide, why is 'containers' isn't shown under 'Recycle'? For Flammables	PCA's preference would be to recycle these containers, however the contamination of the material and the variability of the polymers found in these materials, lack of scale of economy limits the recyclability of these materials. Subsequently, they cannot be recycled at this time.
Communications	
Awareness of and participation in are two very distinct realities. How did you do on participation?	Participation in the program is very hard to measure as not all consumers use the products, and the products are not a waste until such time the consumer deems they no longer need the product. The most effective, appropriate and practical proxy for measuring participation is a consumer awareness level.