



NOVA SCOTIA PAINT STEWARDSHIP PLAN 2018-2022

For submission to:

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Table of Contents

1	Introduction	2
2	About Product Care Association of Canada	2
3	Program Membership and Program Funding	2
4	Product Definition and Program Products.....	3
5	Collection System.....	4
6	Product Management.....	5
7	Communication and Public Awareness.....	10
8	Tracking and Auditing Mechanisms	13
9	Annual Reporting	14
	Appendix A: List of Program Products and Non-Program Products	15

1 Introduction

The 2018-2022 Nova Scotia Paint Stewardship Program Plan (“Program Plan”) is submitted by Product Care Association of Canada (“PCA”) to the Nova Scotia Department of Environment (“NSE”) pursuant to the requirements of Sections 18B – 18I of the *Solid Waste-Resource Management Regulations* enacted under Section 102 of the *Environment Act* (the “Regulation”). Upon approval by NSE, this plan replaces the previous program plan developed and implemented by PCA in 2012. This plan comes into effect on January 1, 2018, and will expire on December 31, 2022.

2 About Product Care Association of Canada

The Nova Scotia Paint Stewardship Program (“Program”) is operated and managed by PCA, a federally incorporated, not for profit product stewardship association formed in response to stewardship regulations and governed by a multi-sector industry Board of Directors.

PCA also operates paint stewardship programs under the brand “PaintRecycle” in seven other Canadian provinces: British Columbia, Saskatchewan, Manitoba, Ontario, New Brunswick, Prince Edward Island and Newfoundland and Labrador.

3 Program Membership and Program Funding

The Program Plan is submitted by PCA on behalf of paint brand owners who appoint PCA as their agent under the Regulation. The Program is open to any brand owner to join.

The Program is funded by membership fees, known as “Environmental Handling Fees” (EHF), remitted to PCA by its members based on the quantity of sales of designated paint products sold in or into Nova Scotia. The EHF is not a tax or a refundable deposit. The EHF may appear at the time of retail sale as a separate charge or be integrated into the product price. Program revenues generated by the EHF are applied towards program operations, including but not limited to:

- Administration;
- Public education and communication;
- Collection, transportation, recycling and responsible disposal of collected products; and
- Establishing and maintaining a reserve fund.

The reserve fund is used to stabilize program funding in the case of unexpected collection volume increases, fluctuations in operating costs or reduced revenue due to economic or other factors. The reserve fund is also intended to cover the cost of winding up the Program in the event of regulatory changes. EHF rates are set by PCA and are subject to change as needed to address surpluses or deficits. Given that the Program does not have direct control over its revenue stream, EHF are reviewed on a regular basis to ensure there are sufficient funds to operate the Program and maintain the necessary reserve as per PCA Board policy. Current EHF for Program Products are listed on the PCA’s website.

4 Product Definition and Program Products

Regulatory Requirement

18B (1) (c) *"Consumer paint product" means a latex, oil or solvent-based architectural coating, including stain and paint for commercial and industrial use, but does not include a specially formulated industrial, automotive or marine coating; ...*

18B (1) (f) *"Post-consumer paint product" means a consumer paint product and its container that are no longer used and required by a consumer*

The Program manages "post-consumer paint products" sold in the Province as defined in the Regulation, regardless of brand or user.

For further clarity, the paints and coatings included in the Program are referred to as "Program Products". The list of Program Products is found in Appendix A, and is subject to change by PCA. The maximum container size accepted is 25L.

All paint aerosols (maximum container size 660g or 24oz) are included in the Program in order to harmonize with other provincial paint stewardship programs.

The Program accepts all brands of Program Products from all users in Nova Scotia including residents, businesses, commercial painters, and all levels of government.

Non-Program Products

The Program is only responsible for managing Program Products. Products that are outside of the scope of Program Products are defined as Non-Program Products. A list of examples of Non-Program Products are in Appendix A, including but not limited to industrial paints and coatings, unlabelled containers and other household hazardous waste, consistent with other PCA paint programs.

The introduction of Non-Program Products into the collection system introduces a number of challenges including, but not limited to increased expenses and unfunded costs, health and safety risks, and regulatory compliance concerns.

Minimization of Non-Program Products is achieved through a comprehensive program of public education, collection site signage, and collection site staff training. In addition, an effective regulatory enforcement process is required to deter abandonment of products at or near collection sites. Any Non-Program Product that enters the system is segregated at the time of processing for special handling.

5 Collection System

Regulatory Requirements

18H (1) *The owner of a return collection facility shall accept a post-consumer paint product, regardless of the identity of the brand owner of the consumer paint product from which it was generated.*

18H (3) (b) *Accept from any person any quantity of post-consumer paint products that does not exceed the maximum allowable per person daily quantity as authorized by an Administrator; and*

(c) Not charge a fee for accepting post-consumer paint products in accordance with clause (b).

The Program accepts Program Products from all sectors: residential, commercial, institutional and industrial, regardless of brand. There is no charge for dropping of Program Products at any of the Program collection sites. PCA does not directly own or manage collection sites, but rather contracts with a variety of facilities including Enviro-Depots™, retailers and certain municipal facilities. The Program will maintain a minimum of 68 collection sites to provide reasonable access to Nova Scotians at a level comparable with other programs. Where feasible and subject to considerations such as economics and performance, the Program will include Enviro-depots. The collection system will utilize the accessibility levels developed by Divert NS (previously RRFB), namely:

- Rural sites shall be located to ensure that at least 90% of the Province’s rural population is within a 30 kilometre radius of the nearest collection site;
- Urban sites in Halifax Regional Municipality and Cape Breton Regional Municipality shall be located to ensure that at least 50% of their respective urban populations are within a 10 kilometre radius of the nearest collection site;
- Urban and rural sites in HRM and CBRM shall be sited so as to ensure that at least 90% of their respective combined (urban and rural) populations are within a 30 kilometre radius of the nearest collection site;

A list of collection sites is included in the Program’s annual report. Any major changes in the collection network will be communicated to stakeholders and the general public in affected communities.

The Program will visit all collection sites bi-annually (a frequency consistent with other paint stewardship programs) to ensure compliance with PCA’s operating standards, including staff training.

6 Product Management

Regulatory Requirement

18B (1) (d) (ii) *“Consumer paint product stewardship program” means a program that incorporates the principles of a pollution prevention hierarchy by moving progressively from disposal to reduction, reuse and recycling and recovery of postconsumer paint products*

6.1 Design for Environment

Regulatory Requirement

18F (1) (d) *Efforts taken through consumer paint product marketing strategies to reduce post-consumer paint products and packaging waste;*

The objective of the Program is to minimize the improper disposal of Program Products by providing an effective collection program and ensuring that the collected materials are either recycled or disposed of in an environmentally responsible manner, adhering to the pollution prevention hierarchy, where technically feasible and economically viable.

The ability of a stewardship program of this scope to influence product design is limited. The paint industry is a consolidating industry and most brand-owners manufacture for a market area that includes more than one province or country. However, there have been several advances, which have reduced the environmental impacts of Program Products.

The composition of many of the paint products covered by the Program have changed over time as a result of design for environment activity. In general, there continues to be a steady shift in the marketplace from oil based (alkyd) paints to water based latex paints due to a number of factors, including:

- Consumer preference for more environmentally friendly products
- Advanced water based coating technology providing similar product performance as oil based technology
- Regulatory influences, such as Environment Canada’s *Volatile Organic Compound (VOC) Concentration Limits for Architectural Coatings Regulation (P.C 2009-1535)*, which sets limits for VOC for a number of coatings including architectural coatings and require coatings manufacturers to switch to low VOC formulations.

This trend is expected to continue as consumer preference for latex paint increases and the technical specifications for latex products improve.

In addition, PCA engages in a number of efforts to extend product life cycle and reduce the environmental impact of Program Products:

- Promotion to the consumer of the “B.U.D.” rule, i.e. **B**uy what you need, **U**se what you buy and **D**ispose of the remainder responsibly;
- Educating the consumer on the proper storage of leftover paint;
- Applying variable EHF, which increase with the size of the container, to encourage consumers to buy the appropriate amount;
- Making collected paint available for ReUse; and
- Seeking alternative management options for collected materials

6.2 Leftover Paint Management

Leftover paint can be managed in a number of different ways. Where technically feasible and economically viable, the Program will manage the collected Program Products in accordance with the principles of the pollution prevention hierarchy. The Program currently follows the product management options set out below, which are subject to change.

Latex Paint

- Paint Reuse
 - Reprocessing as paint
 - Engineered Landfill

Oil Based Paint

- Paint Reuse
 - Reprocessing as paint
 - Energy Recovery

Aerosol Paint

- Energy Recovery
 - Incineration

Empty Paint Containers

- Recycling
 - Disposal in an appropriate facility

(a) Paint Reuse

PCA has implemented a “Paint Reuse” Program, which gives away better quality returned paint (latex and alkyd) to the public, at no charge, at participating collection sites. This is an efficient way to manage leftover paint as the product is used for its originally intended purpose, and does not require transportation and reprocessing. Users of the Paint Reuse Program are notified that the suitability of the container contents cannot be guaranteed. Users are also required to sign a waiver form prior to taking the paint away for reuse.

(b) Paint Reprocessing

While paint recycling is an option for certain types of paints, not all paint can be recycled. Paint to paint recycling is heavily dependent on whether there is demand or a market for the recycled paint. In addition,

a number of different factors such as age, quality and physical state of the paint returned impact whether the paint is suitable for recycling or not. Other limitations include, but are not limited to:

- Limited ability to alter the colour of recycled paint;
- Additional shelf space required for recycled paint at retail versus just carrying virgin base paint and tinting it at the counter;
- Regulatory requirements, such as the Volatile Organic Compound (VOC) Concentration Limits for Architectural Coating Regulation, that impose criteria/limitations on use of ingredients and allowable concentrations.

Recycling alkyd paint back into paint is more difficult due to a number of factors:

- Hazardous waste and transportation regulations, which limit the movement of this kind of material;
- Old alkyd paints tend to be higher in VOCs;
- The chemistry of alkyd paints makes it more difficult to recycle into paint and coating products;
- The market for alkyd products is significantly smaller than that for latex paint products and is diminishing, making it more difficult to find end markets for the recycled product.

(c) Aerosol Paint Management

The residual volumes recovered from paint aerosols are very small and represent a variety of product formulations that limit the options for recycling. Paint aerosol containers are punctured, the propellant is filtered through activated carbon, and the contents drained. The residual paint is typically used for energy recovery.

(d) Energy Recovery

As noted above, not all paint is suitable for recycling and as such, requires alternative management options. Depending on the type of paint, paints (including latex) typically have varying degrees of heat value, which makes them more or less suitable for energy recovery. Given its chemical composition, alkyd paint is especially suited for use as a fuel in energy recovery. Some cement kilns and incinerators have the necessary environmental approvals or permits to allow the use of alternative fuel, such as paint, in place or in conjunction with traditional fuel sources, such as natural gas.

(e) Incineration

Some older paints may have other contaminants, such as PCBs, or exist in a state that is not suitable for other management options. In such cases, the paint is sent for incineration at government licensed/permitted facilities.

(f) Disposal in Engineered Landfill

In many jurisdictions, solidifying and landfilling latex paint is a regulatory acceptable practice. Landfilling is the least preferred option for latex paint, but may be a necessary option depending on market conditions and other factors including, but not limited to age, quality, and physical state of the paint.

(g) Empty Paint Containers

The Program will begin accepting empty paint containers within one year of the approval of the Program Plan. No operational changes to the collection network in order to accept empty containers are anticipated. The following actions will be taken to implement this change:

- Collection sites and stakeholders will be notified of the Program's acceptance of empty cans.
- Collection site signage, guidelines will be modified to reflect the change.
- Consumer education and promotional assets will be updated.

PCA will submit an update on the above actions to the Department within three months of the Program Plan approval.

Recycling options for empty containers are dependent on the availability of commodity markets and scrap metal commodity prices. Accordingly, the Program will endeavour to recycle paint containers (metal, plastic) where a recycling market exists and is economically viable and logistically feasible. In order to reduce unnecessary transportation cost, collection sites already managing scrap metal on site will be encouraged to manage empty metal paint containers with the rest of their recycled metals.. Where recycling markets become unavailable or not economically sustainable or reasonable, PCA may manage containers using the best available option, including disposal in jurisdictions that accept these materials.

6.3 Paint Collection Rates

Regulatory Requirement

18(G) (1) (d) *Ensure that 70% of the reusable and recyclable portion of the post-consumer paint products collected at the return collection facility is reused or recycled.*

. The Program will ensure that a minimum of 70% of the paint that is collected through the Program and processed (including PaintReUse) are reused or recycled. The Program will also ensure that a minimum of 70% of containers that are processed are recycled.

Factors that can affect the amount of paint that is reusable or recyclable include the:

- Condition of returned paint;
- Capacity of paint recycling facilities;
- Current technology for recycling paint; and
- Markets for recycled paint.

The reuse rate is calculated as follows:

$$\text{Reuse Rate for paint} = \frac{\text{Reuse volume (PaintReuse) + Recycled volume of paint processed}}{\text{Reused volume (PaintReuse) + Total volume of paint processed}}$$

$$\text{Reuse Rate for container} = \frac{\text{weight of paint containers processed that are recycled}}{\text{Total weight of paint containers generated through processing}}$$

where the total paint volume processed reflects the actual volume of paint processed according to the available management options (i.e., reused, recycled, energy recovery, incinerated, landfilled) in a given year.

7 Communication and Public Awareness

Regulatory requirement

18G (1) (b) *Implement an education and awareness program for consumers of consumer paint products that includes information respecting*

- (i) The consumer paint product stewardship program,*
- (ii) Consumer access to return collection facilities, and*
- (iii) The environmental and economic benefits of participating in the consumer paint product stewardship program;*

PCA will continue to employ industry best practices in the promotion of the Program, subject to economic feasibility, adjusting its specific mix of media channels, partners and suppliers on the basis of ongoing performance analysis and Program needs. The following describes the types of communications tools and methods PCA will employ.

(a) Program Websites

PCA offers to consumers, members and service partners online access to information about the Program, including, but not limited to:

- Collection site locations (via a location-based collection site finder) with details on hours of operation and products accepted;
- Description of Program and Non-Program products;
- Details about environmental handling fees associated with the Program;
- Contact information for those with questions;
- Information for consumers about buying the right amount of paint as well as the safe storage and handling of Program Products;
- Information about the PaintReuse Program;
- FAQs related to the Program;
- Relevant news and updates; and
- The environmental benefits of recycling paint.
- Annual reports and other Program documentation; and
- A dedicated section for Program service providers to order promotional materials free of charge.

(b) Paint Recycling “Hotline”

The Program employs a toll-free public inquiry “hotline” as an alternative method for consumers to obtain program information.

(c) Advertising

PCA will make use of available media partners to promote the Program throughout the province. It is PCA's aim to ensure that the level of advertising in-market appropriately reflects our ongoing effort to increase public awareness and use of the Program. PCA will strive to employ a mix of approaches, including general messaging related to the Program and targeted, geographically-focussed messaging. Advertising platforms may include any of the following in appropriate combinations:

- Print (dailies, periodicals, community publications)
- Radio
- Digital
- Sponsorships
- Provincial and community television

(d) Point of Sale (PoS) Materials

Regulatory Requirement

18G (3) *Every retailer shall provide, either at the point of display or at the point of sale, a place for the display of information [in regard to the Paint Stewardship Plan]*

The Program will continue to offer point of sales information such as brochures/counter cards and posters containing Program information on request to retail stores and collection facilities free of charge. PCA will make best efforts to remind retailers of their regulatory obligation to make educational material available to their customers. In addition, numerous resources (i.e. website, brochures, collection site signs and collection sites guidelines) are currently available to consumers and collection sites to help identify Program and Non-Program Products. The Program will strive to continuously improve these resources and consider other options to help stakeholders determine whether a product is included or excluded from the Program.

In order to measure the awareness of consumers, the Program utilizes a third party research firm to conduct biannual consumer awareness surveys to gauge consumer awareness of recycling options for paint. Surveys are conducted in a manner that recognizes the demographic distribution of the provincial population.

Consumer awareness levels vary by product type and jurisdiction. Comparing awareness levels across jurisdictions and products is generally not appropriate and can be misleading for many reasons including, but not limited to:

- Consumer habits, including who purchases and uses the product within a household, percentage of the population that uses the product etc. In the case of paint products, unlike other consumer products, paint products are primarily used by only a proportion of consumers, typically on an infrequent basis. Therefore, it is reasonable to expect that only a portion of the population will be aware of the Program.
- Program characteristics, including program age, product types and lifespan, and characteristics of collection systems.

- Surveying methodology, including timing of the survey and method of capturing responses, etc.

PCA will contact and offer to meet with Regional Solid Waste Coordinators (RSWC) at least once a year to discuss opportunities for collaboration on educating consumers about the Program.

PCA will continue to conduct a consumer awareness survey on a bi-annual basis, starting in 2019. Results of the survey will be reported in the Program's annual report. In the context of existing awareness levels, the characteristics of the products and the primary users and the frequency of use (discussed above), the Program will aim to maintain a consumer awareness level in the range of 60%-70% for paint products.

Another tool that may help confirm consumer behaviour is waste composition surveys. Waste composition surveys sample an amount of material from landfills to provide a snapshot of the composition of the waste stream at a given time. The results help to identify the extent to which consumers are disposing of Program Products into landfill. Waste composition surveys, when combined with other tools such as consumer awareness surveys, can be informative in guiding Program activities.

As with any survey that relies on sampling, waste composition surveys involve a degree of uncertainty dictated by the sample size relative to the total amount of waste. The survey results are considered to be informative for the region in which the survey was conducted, but due to variations in collection patterns and waste management practices, are not considered applicable to other regions. Therefore, waste composition survey results are used to confirm trends. Absolute values cannot be used to confirm total regional or provincial volumes of Program Product disposed in landfill. The Program will consider participating in waste composition surveys undertaken by the Provincial Government or Divert Nova Scotia, subject to availability and costs.

8 Tracking and Auditing Mechanisms

Regulatory Requirements

18G (1) (c) *Confirm that the post-consumer paint products generated from the brand owner's consumer paint products are recycled or reused to the maximum extent possible;*

The Program utilizes a database tracking and control system to record and track waste materials managed from point of collection to recycling and disposal, including:

- Number of paint collection containers managed by the collection system,
- Residual volumes collected by the Program as reported by all processors and recyclers, and
- Details on how those volumes are managed (except aerosol residual volumes, which are estimated based on industry data such as average can sizes, volumes, and units).

This data is recorded and used to develop reports, which are used for tracking and auditing purposes. The system employs best management practices and guidelines including handling and safety requirements.

9 Annual Reporting

Regulatory Requirements

18(F) (1) *Every brand owner shall, on or before June 30 in each year or on some other date agreed upon in writing by the Administrator, provide the Administrator with an annual report on their consumer paint product stewardship program during the previous fiscal year including, but not limited to, information respecting*

- (a) The total amount of consumer paint products sold and post-consumer paint products collected;*
- (b) The total amount of post-consumer paint products processed or in storage;*
- (c) The percentage of post-consumer paint products that were treated or contained, reduced, reused, recycled or recovered;*
- (d) Efforts taken through consumer paint product marketing strategies to reduce post-consumer paint products and packaging waste;*
- (e) The types of processes used to reduce, reuse, recycle or recover post-consumer paint products, including but not limited to details of efforts to incorporate the priorities of a pollution prevention hierarchy by moving progressively from disposal to reduction, reuse, recycling and recovery of post-consumer paint products;*
- (f) The location of return collection facilities or depots;*
- (g) The location of any long-term containment or final treatment and processing facilities for post-consumer paint products;*
- (h) The types of educational information and programs provided;*
- (i) The process of internal accountability used to monitor environmental effectiveness; and*
- (j) Any other information requested by the Administrator,*

And the annual report shall be accompanied by copies of the annual financial statements prepared by an independent auditor of the revenues received and the expenditures incurred.

As agreed on with NSE, the annual report will be submitted on or prior to May 31 of each year. The annual report will include the following:

- Paint sold in the Province
- Waste paint collected and processed by management method
- Percentage of non-program products collected
- Total number of paint containers processed
- The weight and management option by container type processed (metal, plastic)
- Process of internal accountability
- Design for environment
- Location of the Program collection sites
- Location of processing facilities
- Communication and educational activities pursued by the Program
- Audited financial statement

Appendix A: List of Program Products and Non-Program Products

Program Products

- Architectural paint and related containers (including already empty containers) to a maximum container size of 25L, sold in Nova Scotia including:
 - ✓ Interior & exterior: latex, acrylic, water-based, alkyd, enamel, oil-based consumer paints
 - ✓ Deck coatings and floor paints (including elastomeric)
 - ✓ Varnishes and urethanes (single component only)
 - ✓ Concrete/masonry paints
 - ✓ Drywall paints
 - ✓ Primers (metal, wood)
 - ✓ Undercoats
 - ✓ Stucco paint
 - ✓ Marine paint (treated as Non-Program if registered under Pest Control Products Act)
 - ✓ Wood finishing oils
 - ✓ Wood preservatives (treated as Non-Program if registered under Pest Control Products Act)
 - ✓ Melamine, metal & anti-rust paints, stains, shellac
 - ✓ Swimming pool (single component only)
 - ✓ Already empty paint containers
 - ✓ Stain blocking paint
 - ✓ Textured paints
 - ✓ Block fillers
 - ✓ Wood, masonry, driveway sealers or water repellants (non-tar-based or bitumen based only)
 - ✓ Already empty containers

- Paint aerosols of all types to a maximum container size of 680 grams or 24 ounces
 - ✓ Automotive aerosols
 - ✓ Craft aerosols
 - ✓ Industrial aerosols

Non -Program Products

The Program does not accept the following products:

- Unidentifiable or unlabelled containers
- Paints or wood preservatives that are registered as a pesticide under the Pest Control Products Act (has a P.C.P. Registration number) such as marine anti-fouling paint. These products are pesticides and need to be managed as pesticides
- Craft paint (non-aerosol)
- Automotive paint (non-aerosol)
- Industrial paints & finishes (e.g. baked-on, heat resistant etc.)
- 2-part or component paints containing catalyst or activator
- Roof patch or repair
- Tars
- Tar-based or bitumen based product
- Traffic or line marking paint
- Quick drying paint
- Resins
- Paint thinners, mineral spirits or solvents
- Deck cleaners
- Colorants and Tints
- Caulking compound, epoxies, glues or adhesives
- Brushes, rags and rollers
- Improperly sealed paint containers
- Paint containers with poor integrity (e.g. badly rusted cans) or leaking
- Bulging containers
- Non paint and non-coating products
- Other household hazardous waste