

2017

Prince Edward Island

Lamps Recycling Program

Annual Report

Submitted to: **Prince Edward Island Department of Communities, Land and Environment**
Submitted by: **Product Care Association of Canada**
Date: **June 29, 2018**

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1.0 About Product Care Association

Product Care Association of Canada (PCA) is a federally incorporated, not-for-profit product stewardship association formed in response to stewardship regulations and is governed by a multi-sector industry board of directors. PCA manages paint, household hazardous waste, smoke and CO alarms and other lamp industry stewardship programs in various provinces in Canada. PCA has an approved lamp product stewardship plan with the Prince Edward Island Department of Communities, Land and Environment under the Materials Recycling Regulations (the “Regulation”) of the Environmental Protection Act. The PEI Lamp Recycling Program (the “Program”) began in April 2015.

PCA’s members are the “brand owners” (manufacturers, distributors, first sellers and retailers) obligated by the Regulation under the lamps product. The Program is open to any brand owner to join.

PCA operates lamp product stewardship programs in three other provinces besides PEI: British Columbia (BC), Manitoba (MB) and Quebec (QC). The BC, MB and PEI programs are branded as LightRecycle while the QC program is branded as RecycFluo. PCA also operates the Paint Recycling Stewardship Program in Prince Edward Island.

1.1 Report Period

This report covers the Program from January 1, 2017 to December 31, 2017.

1.2 Program Summary

The Program offers collection sites, free of charge, throughout the province where consumers and businesses can bring burned out lamps. Most collection sites are operated by Island Waste Management Corporation (IWMC) under contract to PCA. In addition to the IWMC collection sites, a retailer, Home Hardware, in Charlottetown, is also a collection site under the Program.

Environmental Handling Fees (EHFs) applied to each regulated lamp product that is sold into the province provide funding to manage the Program (See Appendix 1 – PEI’s 2016 LightRecycle Environmental Handling Fee Rates). There were no changes to the fee rates in 2017. The Program allows residents and businesses of PEI to return burnt out whole lamps to any of the six IWMC collection sites and one retailer (Home Hardware). The retailer collection site accepts only residential lamp products.

PCA supplies collection sites with standard recyclable collection boxes and metal drums for collection of debris from broken lamps. A hauler contracted by the Program collects the filled boxes on pallets from the collection sites and delivers collection supplies to the collection sites.

The full collection containers are shipped to a processor for recycling. Additional elements of the Program managed by PCA include revenue management, communications and administration.

1.3 Accepted Products

The Program is designed to collect and manage end-of-life intact (whole) lamps. The Program includes the following common categories of lamps, whether they are marketed for residential, industrial or commercial purposes. This list is subject to change by PCA.

- Fluorescent Tubes – Fluorescent tubes come in different lengths (4 feet, 8 feet, etc.), diameters (T5, T8 and T12) and light output. The majority of tubes are straight but some may be curved or shaped.
- Compact Fluorescent Lamps (CFLs) – Fluorescent bulbs that are typically similar in size and are intended to replace an incandescent (traditional) light bulb, including pin-type sockets, covered CFLs and various output wattages.
- High Intensity Discharge Lamps (HID), non-mercury and mercury containing lamps – Includes mercury vapour, metal halide, high or low pressure sodium and UV lamps.
- Incandescent and Halogen lamps – Filament lamps of all shapes, sizes and wattages.
- Light Emitting Diode (LED) lamps – Solid-state lamps used for speciality purposes and conventional lighting applications.

Lamp products can be sold as replacement lamps or integrated into a product intended to illuminate an area (such as a fixture, a flashlight, etc.). When sold integrated into such a product, the lamp portion of the product must be designed to be able to be removed from that product by the end user to be recycled. Lamps that are sold integrated into products that meet this requirement are included in the Program.

The Program is designed to collect and manage whole lamps and crushed lamps. A limited amount of incidental breakage of lamps is accepted by the Program, provided the broken lamps are packaged in accordance with the requirements of the Program.

The Program includes lamp products manufactured by existing producers as well as orphan products (those that are no longer in production or which the manufacturer is no longer producing) if their function was the same as products accepted in the Program.

Non Program Material

Non-program materials are products other than the lamp products listed above. Minimization of non-program material is achieved through a comprehensive program of public education, signage, collection facility staff training, as well as effective regulatory enforcement against

those who abandon products at or near collection facilities. Non-program material includes, but is not limited to, the following:

- All types of fixtures
- Ballasts
- Any other lighting products (Products containing lights with a primary purpose that is not to illuminate or assist in the illumination of space (e.g., germicidal lamps).
- Lamps integrated into products that are not intended for removal/replacement by end users. Due to technological modifications, this exclusion may be subject to review.

2.0 Brand Owner Sales Information

Program members reported the sale of program products in PEI from January 1 to December 31, 2017, for a total of 634,361 units as shown below in Table 1.

Table 1: Total Units Sold by Category

	Fluorescent tubes	Compact Fluorescent Lights (CFL)	LED	HID and Other	Incandescent/ Halogen	Mini bulbs package ¹	Total
Units	73,430	46,358	182,562	4,418	304,642	22,951	634,361

3.0 Collection

The following section provides the total amount of lamps collected in PEI, as well as the location of the collection sites.

3.1 Total Amount of Lamps Collected

Table 2 shows the total number of lamp units by category that were collected and processed by the Program.

Table 2: Total Units of Lamps Collected in 2017

	Fluorescent tubes	Compact Fluorescent Lights (CFL)	LED	HID and Other	Incandescent/ Halogen	Total
Units	65,963	13,489	313	2,382	19,621	101,768

¹ Mini bulb packages include packages of LED, incandescent or halogen bulbs.

3.2 Collection Sites

As of December 31, 2017, seven collection sites participated in the Program. Six collection sites were operated and managed by IWMC and one collection site was a retail location. See Table 3 for the list of collection sites. Appendix 2 (**Collection Site Locator Tool Snapshot**) contains a snapshot of the collection site locator tool, available at <https://www.lightrecycle.ca/collection-site-locator/>.

Table 3: 2017 PEI Lamp Collection Sites

Collection Site	Address	City
GreenIsle	8 Superior Crescent	Charlottetown
Brockton	2202 Dock Road Rte # 150	Brockton
New London	10142 Rte #6	New London
Murray River	378 Cape Bear Road Rte #18	Murray River
Dingwells Mills	100 Selkirk Road Rte #309	Dingwells Mills
EPWMF	29786 Rte #2	Wellington Center
Home Hardware	115 St Peters Rd.	Charlottetown

4.0 Processing

4.1 Lamps Processed

All lamps collected through the Program were sent to a processor in Quebec for processing. In 2017, a total of 75 skids of burnt out whole lamp products (101,768 lamps) were processed. During the reporting period, all lamp products collected were processed. The Program's processor is required to conform to the Product Care's Processor Standard.

4.2 Disposal Method Descriptions

The following sections describe each method the Program used to reuse, recycle, or otherwise treat or dispose of lamp products.

Reuse

The Program is designed to manage end-of-life lamp products that no longer work and cannot be reused.

Recycling

Collected Program Products are broken down into their component parts in a controlled environment. The resulting glass, ceramic and metal components are recovered as commodities. The metal components (including electronics) are sent to smelters. From January until mid-August 2017, due to lack of options for recycled glass on the market, the glass

and ceramics were landfilled. Starting mid-August and for the rest of year 2017, glass and ceramics were sent to a glass recycler to be used for insulation material and sand blasting.

Secure Landfill

During the separation of the components, the mercury and the phosphate powder are collected in drums. The contents of the drums are sent to a waste management company in Quebec where they are encapsulated into a concrete-like material and securely landfilled. Although the mercury can be removed from the phosphate powder by retort, the market for recycled mercury has been greatly reduced in the last few years due to regulatory restrictions. These restrictions include a US ban on mercury exports, which has limited the availability of recycling options for mercury.

4.3 Design for Environment

The lighting industry is pursuing innovations in product development that strike a balance between sustainability, health & safety and performance. Industry competition encourages manufacturers to develop products containing less material to help reduce costs, maximize product performance relative to energy consumption, and increase the life span and comfort of use for consumers. All these efforts lead to natural market-driven product improvements. Increased public awareness of the presence of mercury in certain lamp products is driving consumers to encourage manufacturers to reduce the quantity of mercury used in lamp products. As a result, mercury in lamp products has significantly decreased in previous years, as shown in Table 4.

Table 4: Average Content of Mercury in Lamp Products Over Time: 2006, 2010 & 2013

Types	Average Mercury Content		
	2006 ¹	2010 ²	2013 ²
CFL	3.7 mg	2.3 mg	1.6 mg
Fluorescent tubes	7.6 mg	7.1 mg	5.4 mg
HID	37 mg	43 mg	18 mg

¹ Source : Electro-Federation Canada.

² Source : GE General Electric

5.0 Communication and Education

PCA continued its communication and public outreach in 2017 to educate consumers about the Program in accordance with regulatory requirements. The following describes the various communication and education tactics that were employed.

5.1 Website

PCA operates a consumer-facing brand, LightRecycle, through which it engages Program end-users through numerous communications platforms. The central consumer information hub for LightRecycle continued to be the website, lightrecycle.ca; home to the following bilingual content for the Program:

- Collection site locator
- Collection sites hours of operations
- Accepted and non-accepted products
- Consumer graphics showing the product management approach for lights

A link to lightrecycle.ca was also available through IWMC's website.

An estimated 39,375 unique visitors accessed lightrecycle.ca during the 2017 calendar year. The program page specific to PEI received 1,636 page views, while the collection site finder page received 223 page views.

5.2 Telephone Hotline

PCA continued to operate a toll-free, bilingual "hotline" (1-888-772-9772) through which consumers were able to obtain information about the Program.

5.3 Digital Advertising

PCA ran a PEI targeted digital campaign under the organization's primary brand -- ReGeneration (which includes information about light recycling) -- including syndicated bilingual Facebook posts, targeted digital display ads, and smart digital display (i.e., retargeting or re-serving ads to pre-qualified users who had engaged with ReGeneration's website at some previous point in time).

Additionally, our Facebook advertising campaign pursued a “gated” strategy, meaning content viewable by residents of PEI was relevant to that audience specifically, and was not disseminated to audiences in other provinces.

5.4 IWMC Partnership

PCA continued to contract with Island Waste Management Corporation (IWMC) to promote the Program to the public through the following methods on an ongoing basis:

1. Waste Watch News

Newsletters were distributed to Island residences (including seasonal dwellings and apartment units) in June and in December through Canada Post. These newsletters were available in both PEI’s official languages, English and French. French speaking individuals could either print them off the IWMC website or call Customer Services for a copy to be mailed out. To supplement the unaddressed mail delivery, copies of newsletters were available at all Access PEI locations (central government service locations), and at city and town halls across the Island.

2. Interactive Sorting Guide

The IWMC website’s Interactive Sorting Guide provided information on specific products, including how to place materials to be disposed of in the correct stream and links to the LightRecycle website for more information. There were 140,741 recorded visits to the website in 2017.

3. Sorting Guide (hard copy)

Paper sorting guides were available in English, French, and Mandarin. They were also produced in poster size for use in businesses and at apartment/condo dwellings. IWMC produces approximately 4,000 copies of the sorting guide in paper format annually. Posters are printed as required and laminated to extend their use.

4. New Residential Customers

New residential customers were provided with a set of carts, a kitchen mini bin, a Residential Participant Guide and a Sorting Guide. French Participant Guides were available upon request.

5. Business Customers

Business Guides help the industry, commercial and institutional sectors manage waste. IWMC included Sorting Guides when distributing the Business Participant Guide.

6. Waste Watch Program for Tenants

A brochure developed for the rental sector was available to landlords upon request and was also posted on the IWMC website. The Sorting Guide was placed inside this brochure when distributed to tenants.

7. Call Center

The Customer Service Center receives inbound calls on a multitude of issues, including from customers requiring disposal information. IWMC receives on average 50,000 calls every year.

8. Corporate Annual Report

Information on lightbulb and paint recycling is highlighted in the IWMC Annual Report. This report is tabled in Legislature, and the most current report is available on the IWMC website². Reports were also distributed to government officials and made available by special request at the Head Office.

9. Newspaper Columns

In 2017, three newspaper columns were prepared where paints and/or lights were discussed, and these appear in Appendix 2.

10. Sorting Game

A bilingual sorting game consists of panels with Velcro icons. Paint and bulb icons are visible on the Special Disposal panel (see Appendix 2). This game was widely used by audiences of every age (day care, schools, community college, English as a Second Language sessions, community groups). The game was used at community events, when doing presentations, and lent out to organizations wanting to enhance the waste skills of their membership. IWMC has 5 sets of the game and uses this tool approximately 50-60 times per year (potential reach of 1000-1500 people).

² The IWMC website is <https://www.iwmc.pe.ca>.

11. Presentations & Tours

IWMC is invited to make presentations to conferences, learning institutions, special events and to visitors at their collection sites. In almost every case, the presentation has a sorting component. IWMC explains how its Stewardship Programs work as part of Waste Watch and has slides to capture the highlights of each program. See Appendix 2 to see slides used in a typical presentation. An average of 30 presentations occur every year.

12. LightRecycle Posters and Pamphlets

Information about the Program was available at all IWMC disposal facilities and offices. Where room permits, posters were displayed. Posters and pamphlets were also distributed as part of IWMC displays and IWMC presentations.

6.0 Financial Information

The following is a summary of the Program's finances for the reporting year.

(\$'000s)	2017
PEI Lights Revenue	100
<i>Program Expenses</i>	
Collection	12
Transportation	13
Processing	30
Communications	3
Regulatory	5
Administration	5
Total PEI Lights Operations Expense	68
Shared Admin Cost	4
Total Expense	72
Surplus/Deficit from Operations	28
Cumulative Surplus / (Deficit)	62

Appendix 1 – PEI’s 2017 LightRecycle Environmental Handling Fee Rates (no change from 2016).

Accepted Lamp Products	2015 Rates
Fluorescent Tubes measuring ≤ 2 feet	\$0.30
Fluorescent Tubes measuring > 2 feet and ≤ 4 feet	\$0.50
Fluorescent Tubes measuring > 4 feet	\$1.00
Compact Fluorescent Lights (CFL)/Screw-in induction lamps	\$0.20
Light Emitting Diodes (LED)	\$0.15
High Intensity Discharge (HID), Special purpose and Other	\$1.10
Incandescent / Halogen	\$0.05
Miniature Bulb Package	\$0.10

Appendix 2 – Communications Materials

Sorting Game



Presentation Slides

Stewardship Programs

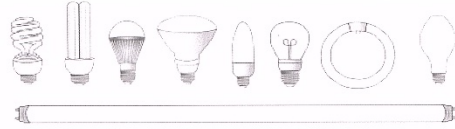
- **ELECTRONICS** – Electronics Products Recycling Association
- **LEAD ACID BATTERIES** – Canadian Battery Association
- **LIGHT BULBS** – Light Recycle
- **MEDICATIONS** (*Residential Only*) – Health Stewards Association
- **NEEDLES/SYRINGES** (*Residential Only*) – Health Stewards Association
- **MOTOR OIL / AUTOMOTIVE ANTIFREEZE** – UOMA Atlantic-Atlantique
- **PAINT PRODUCTS** -- Regeneration

DISPOSAL FOR STEWARDSHIP PROGRAMS
FREE!!



IWMC
Ipswich Waste Management Company

Light Recycling Program



- ◆ Operated by Light Recycle
- ◆ Includes all lights that can safely be removed from fixtures
- ◆ Accepted bulbs include CFLs, Fluorescents, LEDs, HIDs, Incandescents and Halogens
- ◆ 5.47 tonnes recovered in 2016



Newspaper Article English and French

WASTE WATCH UPDATE

Brought to you by **The Guardian**









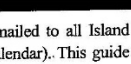
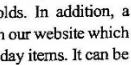
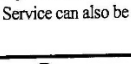

HEY! IT'S FREE!!

76,493 – That's how many customers visited our Waste Watch Drop-Off Centers in 2016. This number does not include homeowners who visit on Saturday mornings to drop off recyclables for free. *Here are a few of the comments we hear most often:*

"I Had No Idea There Was No Charge For ..."

On PEI, a Waste Watch user fee is applied to all residential property taxes. This fee covers the cost of compost, waste and recyclable collections, Spring and Fall Cleanup and Christmas Tree pickup. In fact, each home is provided with a total of 71 collections every year! The Waste Watch fee also pays for other expenses involved in waste management such as disposal facility operations, equipment, vehicles, and staffing.

There are a number of residential items that cannot be collected at curb for a variety of reasons. Some may be hazardous, others too large for the collection truck, and yet others may need to arrive at a facility intact for off-Island shipment and proper treatment. There is **NO CHARGE** for the following residential items at Waste Watch Drop-Off Centers:

- Batteries & Cell Phones 
- Household hazardous waste (i.e. cleaning products, pesticides, cosmetics, etc.) 
- Ink cartridges 
- Large bulky furniture (i.e. couches, mattresses, etc.) 
- Propane tanks (30 lb or less) 
- Tires 
- White goods (stoves, washers, freezers, etc.) 
- Electronics (TVs, computers, etc.) 
- Automotive lead acid batteries 
- Light bulbs (LEDs, incandescents, fluorescents, broken bulbs, etc.) 
- Motor oil, automotive antifreeze, oil filters 
- Paint products 

NOTE: Disposal fees may apply to other items. Contact IWMC for more information.

"Where Does What Go?"

A sorting and special disposal guide is mailed to all Island homes twice a year (along with a new calendar). This guide has lots of information to assist households. In addition, a comprehensive sorting guide is available on our website which contains thousands and thousands of everyday items. It can be accessed by a one-word prompt. Customer Service can also be contacted for assistance.

FOR MORE INFO: Visit IWMC Website at www.iwmc.pe.ca

Customer Service Centre (Toll Free) 1-888-280-8111

Email our Info Line at info@iwmc.pe.ca

BULLETIN WASTE WATCH

en collaboration avec La Voix acadienne

HÉ! C'est GRATUIT!!

76,493 – Voilà combien de clients ont visité nos centres de collecte Waste Watch en 2016, et cela n'inclut pas les visiteurs qui livrent le matériel accepté gratuitement (comme les sacs bleus le samedi matin). *L'un des commentaires les plus fréquents que nous recevons est :*

« Je n'avais aucune idée qu'il n'y avait pas de coût pour... »

À l'Î.-P.-É., plusieurs articles ne sont pas ramassés en bordure de rue pour diverses raisons – peut-être que certains articles comportent des composants dangereux ou que d'autres sont trop lourds/gros pour un seul conducteur. De plus, il y a d'autres articles qui doivent être envoyés intacts pour le recyclage; ils nécessitent donc plus de soin pour le transport. *Les articles suivants ne sont jamais ramassés, mais sont acceptés GRATUITEMENT des propriétaires.*

- Piles 
- Téléphones cellulaires 
- Cartouches d'encre 
- Déchets ménagers dangereux (c.-à-d. produits de nettoyage, pesticides, produits cosmétiques, etc.) 
- Gros meubles et appareils ménagers 
- Réservoirs de propane (30 lb ou moins) 
- Pneus 
- Appareils électroniques (télévisions, ordinateurs, etc.) 
- Batteries d'accumulateurs au plomb de véhicules 
- Ampoules (ampoules DEL, ampoules à incandescence, ampoules fluorescentes, ampoules brisées, etc.) 
- Huile pour moteurs, antigel pour véhicules automobiles, filtres à huile 
- Produits de peinture 

Veillez communiquer avec la SGD si vous avez besoin de plus de renseignements.

Pour de plus amples renseignements, veuillez communiquer avec le Service à la clientèle sans frais au **1-888-280-8111**
info@iwmc.pe.ca • www.iwmc.pe.ca

Collection Site Locator Tool Snapshot³

COLLECTION SITE LOCATOR

Follow the steps below to find a LightRecycle location near you. Be sure to reference the [accepted products list](#) for your region!

Note: Recycling commercial volumes is only offered in British Columbia, Quebec and PEI.


1 ENTER LOCATION

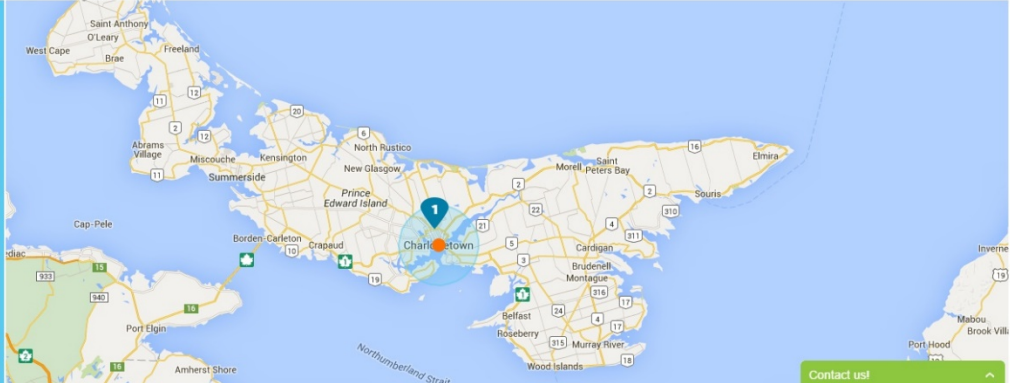
2 ENTER VOLUME
 Residential Commercial
For household quantities less than 15 units of light bulbs and 15 units of tubes.

3 ENTER PRODUCT

[Reset](#)

THERE ARE 1 LOCATION(S) NEAR YOU:
refine distance
0km 50km 100km

1 Greenisle
8 Superior Crescent
Charlottetown
Mon-Fri 7:00am-5:30pm
Sat 7:00am - 2:00pm
Hours are subject to change

4.26 km [Get Directions](#)























[Contact us!](#)

³ This does not contain a provincial map with the all locations. The link to the collection site locator is <https://www.lightrecycle.ca/collection-site-locator/>

SPECIAL DISPOSAL **FREE**

DO NOT PLACE IN CARTS, BLUE BAGS OR IN DUMPSTERS:

ITEM	DESCRIPTION	DISPOSAL
Batteries	Rechargeable and non-rechargeable batteries (i.e. AAA, AA, C, D, button type, lithium, etc.) and items such as disposable flashlights where the battery cannot be removed. 	Place in battery recycling containers found at most grocery stores or Waste Watch Drop-Off Center
Cell Phones	Any type 	Visit www.recyclingmycell.ca for drop-off locations or take to a Waste Watch Drop-Off Center
Household Hazardous Waste (HHW)	<ul style="list-style-type: none"> fuel (gasoline, kerosene, etc.)  silicone, caulking, adhesives  pesticides, herbicides, insecticides  items with mercury  aerosol cans (with contents)  cosmetics & personal care products  pet medications  	Waste Watch Drop-Off Center - Must be in sealed original container. Jerry cans (or other containers) used for transporting must be left behind with contents
Ink Cartridges	Laser or ink jet 	Accepted at most electronic retailers or Waste Watch Drop-Off Center
Large Bulky Furniture	Material larger than 4 ft. or heavier than 50 lb. such as sofas, tables, china cabinets, mattresses, patio furniture, etc. 	Waste Watch Drop-Off Center
Propane Tanks	30 lb. or less  Over 30 lb. 	Propane dealer OR Waste Watch Drop-Off Center Propane dealer
Tires	Must be removed from rims 	Waste Watch Drop-Off Center
White Goods	Appliances (stoves, washers, dishwashers, hot water heating tanks, etc.) 	Waste Watch Drop-Off Center
Electronics	Televisions, computers, audio equipment, cameras, etc.	Visit www.epra.ca for drop off locations or take to a Waste Watch Drop-Off Center
Automotive Lead Acid Batteries	Any size 	Accepted at place of purchase, scrap metal dealers or at Waste Watch Drop-Off Center
Light Bulbs	All lights that can be removed from fixture, i.e. Fluorescent (CFLs, linear, u-tubes, etc.), high intensity bulbs, LEDs, halogens, incandescents 	Waste Watch Drop-Off Center
Medications	Prescriptions, over-the-counter drugs (pain & cold medications, etc.), natural health products (vitamins & mineral supplements, etc.) 	Participating pharmacies (see www.healthsteward.ca)
Motor Oil / Automotive Antifreeze	Oil fluids, containers, & oil filters; automotive antifreeze fluids and containers, aerosol containers for propelled lubricant and brake cleaner	Return to a collection facility (see www.soghuoma.com) or to a Waste Watch Drop-Off Center
Needles / Syringes	Needles, syringes, needle tips, lancets, insulin pens, and other sharps 	Pick up free sharps container at participating pharmacies (www.healthsteward.ca). When container is full, return to pharmacy for disposal
Paint Products	Paints, stains, etc. AND empty paint containers 	Waste Watch Drop-Off Center

ADDITIONAL SORTING INFORMATION: www.iwmc.pe.ca or 1-888-280-8111

STEWARDSHIP PROGRAMS