

The Promise of EPR for Managing HHW

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Product Stewardship Institute

Building capacity for product stewardship & EPR

*Convening **public & private sectors** in dialogue for **20+ years***

Government Members & Board:

47 **state** agencies
& hundreds of **local** gov'ts

Multi-Stakeholder Partners:

100+ companies, organizations, environmental groups, universities, and international gov'ts

Our mission: Reduce the health and environmental impacts of products across their life cycle


25+
Products:



**&
more...**

What is “HHW”?

HHW covered products could include:

- Aerosols
 - Automotive products (antifreeze, brake fluid, oil, oil filters)
 - Marine Flares
 - Road Flares
 - Furniture and other wood stains and varnishes
 - Gasoline
 - Glue, Contact Cement, Rubber Cement
 - Household Cleaners
 - Hobby chemicals (chemistry sets, photography chemicals, etc.)
 - Lead Debris
 - Lawn and Garden Pesticides and Chemicals
 - Solvents and Thinners
- 
- Swimming Pool and Spa Supplies
 - Explosives and Fireworks
 - Bullets, Ammunition, and Gunpowder
 - Pressurized containers (fire extinguishers, propane tanks, butane tanks, oxygen, acetylene)

Why EPR for HHW?

Problems

- **Low participation rates**
- **Lack of equity** in access + usage
- Inadequate + **inequitable education/awareness**
- Lack of **sustainable** + adequate funding, costs are increasing
- Limited producer **responsibility**
- **Human health + environmental impacts**

Goals

- **Increase collection quantities**
- **Convenient + equitable** collection access
- Equitable access to **education/outreach**
- Shift financial/management burden from local **governments** to **producers**
- Incentivize **toxics reduction**

Why EPR for HHW? (continued)

- **Consumers:**
 - Increased collection convenience + awareness
 - Reduced disparities in convenience + outreach, potential health impacts
- **Workers:** Reduced worker health + safety risks
- **Governments:** Reduced costs of HHW management + reduced liability from HHW entering landfills
- **Producers:** Level playing field, risk reduction, positive image
- **Environment:** Reduced pollution in the environment



Existing HHW EPR: Success in Canada



HHW EPR Success in Canada (continued)

Province	Product Scope	Increase in Number (%) of Collection Sites	Past Collection Volume	2017 Collection Volume	Percent Increase in Collection Volumes
British Columbia 2001-2017	solvents; flammable liquids; gasoline; pesticides	+74 (63%)	28,188 gallons (2001)	131,125 gallons	365%; 8.72% annual increase year over year (2010-2016)
Manitoba 2012-2017	flammables; corrosives; physically hazardous toxics; environment- ally hazardous toxics	+21 (2,100%)	2,613 gallons (2012)	13,553 gallons	419%

Bartlett, Veronica, Christin Seidel, and Glenda Gies. 2016. *Assessment of Economic and Environmental Impacts of Extended Producer Responsibility Programs Operating in BC in 2014*. Presented to British Columbia Ministry of Environment by Morrison Hershfield, Report No. 5160206, November 30, 2016.

Product Care, 2018. *British Columbia Paint and Household Hazardous Waste Stewardship Plan*, Revised and submitted August 31, 2018.

HHW EPR Success in Canada (continued)

British Columbia Paint and HHW EPR Program Results

Result Type	Result	Notes
Collection Rate	1.5 <u>lbs</u> /capita (EPR) vs. 1.1 <u>lbs</u> /capita (without EPR)	<ul style="list-style-type: none"> Combines weights for HHW (relatively small volume but high toxicity) with paint (larger volume; toxicity varies for oil-based versus latex)
Avoided Costs	Saved \$200,000 to \$500,000 (Canadian dollars)	<ul style="list-style-type: none"> Avoided landfilling and mixed waste (garbage) collection costs
Job Creation	12 to 27.5 new jobs	<ul style="list-style-type: none"> Includes staff at stewardship organization and consolidation facility, and for product transport
<i>Net Landfill Space Savings</i>	Saved 3,745 to 8,566 cubic yards	
<i>Net reduction in GHG Emissions</i>	Reduced 3,372 to 3,611 tons CO ₂ equivalents	

HHW EPR Legislation in the US



Vermont

- Bills **introduced** in 2018 to **2022**
- Estimated potential impacts on VT's HHW Management System in terms of **material diverted***:
 - first 2 years: 197 additional tons per year diverted
 - by 2nd year: HHW landfilled reduced to 443 tons (from base rate of 640 tons/year)

Oregon

- Bills **introduced** in 2015 to 2019, 2021
 - Metro, Oregon's estimated potential cost **savings** for enacting an HHW EPR law = **\$2 million/year****
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*Product Stewardship Institute, February 2019. [Report for VT DEC Research on EPR Programs for HHW.](#)

**Cascadia Consulting Group, 2012. *Producer Responsibility Scenario Analysis: Product Stewardship in Oregon and Expected Implications for Metro's Hazardous Waste Program.*

Elements of Effective U.S. EPR Laws

1. Product Scope
2. Covered Entities
3. **Collection + Convenience**
4. Producer/Responsible Party
5. Governance
6. **Funding Inputs + Allocation**
7. Design for Environment
8. **Performance Standards**
9. Outreach + Education
10. Enforcement + Penalties
11. Stewardship Plan Contents
12. Annual Reporting
13. Implementation Timeline
14. Additional Components (anti-trust, rulemaking authority, etc.)
15. Definitions



How Does HHW EPR Work?

Product Scope

Jurisdiction	Scope
British Columbia	Solvents, flammable liquids, gasoline, pesticides, and containers
Manitoba	Flammables, corrosives, physically hazardous, toxics, environmentally hazardous, fluorescent lights, and containers
Alberta	Batteries, corrosives, flammables, pesticides, toxics, and containers
Ontario	Antifreeze, oil filters and containers, paints and coatings, pesticides, pressurized containers, solvents, barometers, thermometers, thermostats, and fertilizers
Saskatchewan	Flammables, corrosives, physically hazardous, toxics, pesticides, and containers
Oregon (2021 bill, HB 2955)	<p>Products that are hazardous waste under RCRA</p> <p>Products that meet criteria for specific US DOT hazardous material rules</p> <p>Pesticides under FIFRA (except for commercial ag products)</p>
Vermont (2022 bill, H 115)	<p>Products that are hazardous waste under RCRA and specific VT hazardous waste codes</p> <p>Products that meet criteria for specific US DOT hazardous material rules,</p> <p>Products that are federal marine pollutants</p> <p>Nonrefillable propane cannisters</p> <p>Certain pesticides registered with the VT Agency of Ag, Food, & Markets</p>

How Does HHW EPR Work? Collection + Convenience

Where does collection take place?

- Local government facilities (e.g., BC, MB, VT and OR bills)
- Collection events (e.g., BC, MB, VT and OR bills)
- Private Depots (BC)



How Does HHW EPR Work?

Collection + Convenience (continued)

Jurisdiction	Convenience
British Columbia	107 permanent HHW collection sites (2021)
Manitoba	34 permanent HHW collection sites (2021) [Guidelines - within 15 minutes travelling distance for urban areas; radius of 50 km (~30 mi) for rural areas; other standards may be proposed for remote and northern areas]
Ontario	≥ 1 collection site or collection event/year in each municipality/district if there is a retail location in that municipality/district that supplies the hazardous product. [May vary for other products, such as gas cylinders.]
Oregon	Use of existing HHW collection sites If no existing HHW collection site, 1 event/year for ≥ 25K population and 1 event/2 years for <25K (2021 bill, HB 2955)
Vermont	Not less than one permanent collection program in each county with year-round access (2020 bill, H 75) Maintain current level of convenience, including hours/days available to the public (2022 bill, H 115)

How Does HHW EPR Work? Funding

Inputs

- Cost internalization (e.g., VT and OR bills)
- Visible “eco-fee”
- Producer choice (cost internalize or visible fee) (e.g., BC)



Outputs (costs covered by program)

- Collection, processing, and end-of-life management, including facility and equipment costs, event contractor or facility set-up fees, facility maintenance, and labor (e.g., VT bill)
- Transportation and end-of-life management costs covered (e.g., BC, MB)
- Education and outreach (e.g., VT and OR bills)

How Does HHW EPR Work?

Performance Goals

- Participation Rate (e.g., VT bill)
- Recovery Rate (e.g., BC)
- Consumer Awareness Target (e.g., MB, OR bill provides for adopting by rule)



CT EPR Success + Implications for HHW EPR



- Electronics, mattresses, mercury thermostats, and paint programs save **CT municipalities > \$2.6 million per year*** and have

- Expanded **convenience**
- Increased **collection** and safe EOL management
- Increased **education and outreach**



- Once implemented, gas cylinders EPR will further increase that savings
- HHW EPR can contribute to this success



Looking Ahead



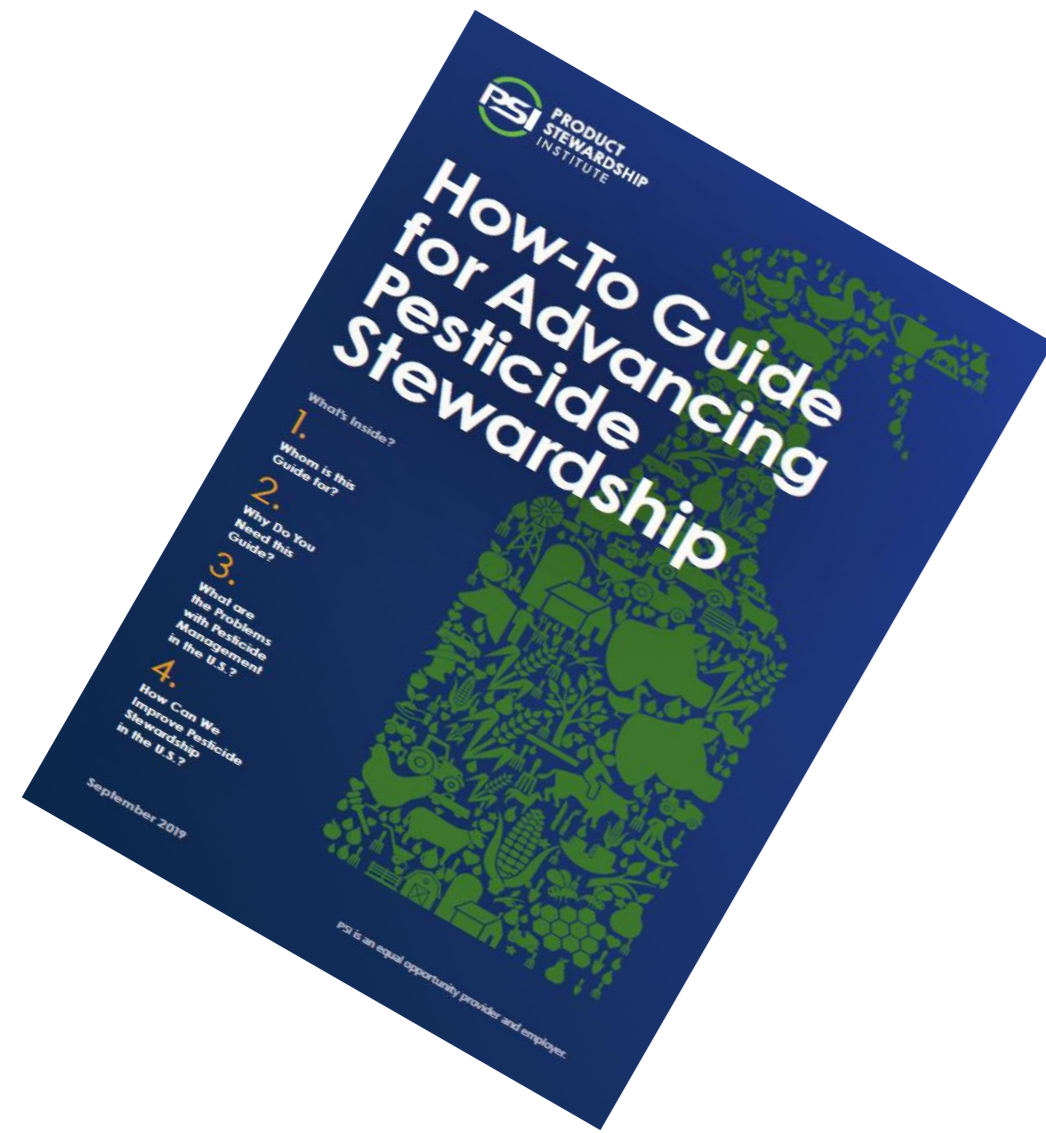
- Interest in EPR for HHW is rising
 - **US:** States beyond VT and OR interested
 - **Canada:** In past 2 years, Saskatchewan and Alberta have passed legislation
- Ontario's HHW EPR program moved to individual producer responsibility (IPR) in 2021 – an **opportunity to gain new insights**
- Emerging **best practices**

How has PSI worked to advance HHW EPR?

- Helped develop and support **bills + stakeholder processes** in OR and VT
- Conducted **research** to
 - support development of bills in OR and VT
 - understand the potential for use of EPR to manage HHW in WA
- Held **national calls + webinars** to increase understanding of
 - how these programs operate in Canada
 - lesson learned for potential US HHW EPR implementation
- Developed several **reports and guidance documents**



PSI Resources



- ✓ Political Feasibility Analysis of EPR for HHW in King County, WA (2022)
- ✓ [Report for VT DEC: Research on EPR Programs for HHW](#) (2019)
- ✓ Supporting HHW for EPR in Oregon: Operational Feasibility Study) (2018)
- ✓ [How-To Guide for Advancing Pesticide Stewardship](#) (2019)
- ✓ [HHW and Pesticide Stewardship Webinars](#)
- ✓ EPR for HHW: Phase I Research (2014)
- ✓ EPR for HHW: Phase II Research (2015)



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Thank You!

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