Plastic waste from tobacco and vaping products

This briefing note addresses interventions available to health and environmental authorities to address the problems created by post-consumer waste of tobacco and vaping products.

Historically, Canadian health ministries and public health advisors have not factored the environmental damage resulting from tobacco use into their estimates of the economic burden of tobacco use,^{1 2} nor their programs and policies to reduce these harms.³ Environmental agencies have on general not been mandated to contribute to reducing tobacco use as part of their responsibilities to protect the environment.

The need for integrated approaches that protect the environment and human health is acknowledged in the Framework Convention on Tobacco Control.^{4 5} The World Health Organization has identified over the lifecycle of tobacco products many environmental impacts are felt, including those from pesticides and land clearing for tobacco leaf growing, deforestation, energy impacts from curing, manufacture and transportation, toxic residue of tobacco smoke in the air, post consumer waste and others.⁶

The ongoing development of policies to reduce plastic waste in Canada is an opportunity to align public concerns for the environment and health, to develop approaches that contribute to reducing harm to humans and the environment.

Article 18 Protection of the environment and the health of persons

In carrying out their obligations under this Convention, the Parties agree to have due regard to the protection of the environment and the health of persons in relation to the environment in respect of tobacco cultivation and manufacture within their respective territories.

Framework Convention on Tobacco Control

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consumer tobacco waste 13
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- 1 See, for example, Canadian Centre on Substance Use and Addiction and Canadian Institute for Substance Use Research. Canadian Substance Use Costs and Harms 2015-2017. 2020.
- 2 Stigler Granados, P et al. Global Health Perspectives on Cigarette Butts and the Environment. Int J. Environ. Res. Public Health. 2019
- 3 See, for example, the Federal Tobacco and Vaping Products Act, which restricts federal regulatory authority to health issues. Health Canada does not have authority to require package warnings about environmental consequences.
- 4 WHO Framework Convention on Tobacco Control.
- 5 FCTC/COP7(10) Economically sustainable alternatives to tobacco growing (in relation to Articles 17 and 18 of the WHO FCTC)
- 6 World Health Organization, Tobacco and its environmental impact: an overview, 2017

Cigarette filters and tobacco packaging are major pollutants.

Cigarette butts harm the environment

Cigarette filters are made of cellulose acetate, a plastic with poor biodegradability. When smokers discard their butts into the environment, the single-use plastic filter, the remnant tobacco and paper wrap and the toxic compounds that remain in them cause harm to the environment. Tobacco packaging (including the cellophane wrapper and foil liners of cigarette packages) is also frequently discarded improperly, as are disposable and single-use vaping products.

Tobacco and vaping waste can be disposed of safely in landfill sites, which are designed to prevent groundwater contamination, and which meet other environmental protection standards. Cigarette butts that are thrown on the ground, however, can pose serious threats to wildlife and the environment, and often find their way through storm sewars to water systems. They can kill fish, injure freshwater invertebrates, harm birds¹⁰ and plant life, and remain toxic for very long periods.

There are no estimates of the percentage of cigarettes smoked in Canada which are discarded into the environment. Half of U.S. smokers surveyed reported that they threw cigarette butts on the ground, in a sewer/gutter, or down a drain in the past month.¹³ The Australian government estimates that one-third of cigarette filters are littered. ¹⁴



The most commonly littered items on our shorelines are single-use or short-lived products, many containing plastics such as: cigarette butts; tiny plastic or foam ...

Environment and Climate
Change Canada.
Zero plastic waste the need for action. 15

⁷ Bonanomi, G. The fate of cigarette butts in different environments: Decay rate, chemical changes and ecotoxicity revealed by a 5-years decomposition experiment. Environmental Pollution. 2020.

⁸ Slaughter, E et al. Toxicity of cigarette butts, and their chemical components, to marine and freshwater fish. Tobacco Control. 2011.

⁹ Senga Green, D et al. Smoked cigarette butt leachate impacts survival and behaviour of freshwater invertebrates. Environ Poll ut 2020.

Suarez-Rodriguez, M and Garcia, M. There is no such a thing as a free cigarette; lining nests with discarded butts brings short-term benefits, but causes toxic damage. Journal of Evolutionary Biology. 2014.

Green, D et al. Cigarette butts have adverse effects on initial growth of perennial ryegrass (gramineae: Lolium perenne L.) and white clover (leguminosae: Trifolium repens L.). Ectotoxicology and Environmental Safety. 2019.

¹² Gong, M et al. Chemical emission rates from cigarette butts into air. National Institute of Standards and Technology. 2020.

¹³ Rath, JM et al. Cigarette Litter: Smokers' Attitudes and Behaviors. Environmental Research and Public Health. 2012.

¹⁴ Australia. National Plastics Plan 2021. https://www.awe.gov.au/sites/default/files/documents/national-plastics-plan-2021.pdf

¹⁵ Environment and Climate Change Canada. Zero Plastic waste: the need for action. Updated January 2020.

Legal manufacturers reported sales of 24 billion cigarettes in Canada in 2019,¹⁶ representing more than 1 billion packages (the actual amount will be greater if illicit trade is considered). In addition,90 million vaping pods were sold in Canada in 2019.¹⁷ There are an estimated 15,000 tonnes of cigarette waste each year in Canada.¹⁸

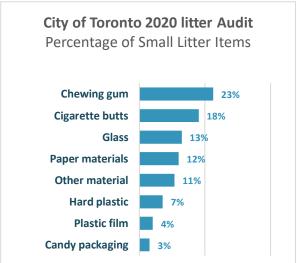
Cigarette butts are the most commonly found litter across Canada.

With such a large volume of plastic waste from cigarettes (24 billion filters per year in Canada), even a small percentage of improperly discarded cigarette butts can result in a significant environmental impact.

Litter audits and clean-up operations have consistently reported that cigarette butts are the mostly commonly found litter items. In the 2019 Great Canadian Shoreline Cleanup, cigarette butts made up 42% of the litter items found. 19 20 On a per-item basis, cigarettes were found on shorelines 22 times more frequently than plastic bags and 26 times more often than plastic straws. Cigarette debris found on shorelines may have been discarded on sidewalks or streets, and then transported through storm sewars to coastlines.

In Vancouver's 2019 litter audit, one-fifth (21%) of small litter items were cigarette butts. Even higher percentages were found in other Canadian cities in recent years. ²¹ In Newfoundland and Labrador, cigarette waste (including packaging) accounted for 88% of litter on highways. ²²





¹⁶ Health Canada. 2019 Canadian Cigarette market Update. February 2020.

¹⁷ Robert Nugent. The Vaping Market in Canada in 2019. Presentation at the Tobacco and Vaping Control Forum. 2020. (Gas and convenience store sales only)

Drope et al. The Tobacco Atlas. Atlanta: American Cancer Society and Vital Strategies. 2018

¹⁹ Great Canadian Shoreline Cleanup. Annual Data. 2019 Dirty Dozen. Accessed October 2020.

²⁰ Konecny, C et al. Towards cleaner shores: Assessing the Great Canadian Shoreline Cleanup's most recent data on volunteer engagement and litter removal along the coast of British Columbia, Canada. Marine Pollution Bulletin.

²¹ City of Vancouver. Street Litter Audits. 2019 Results. Table 16. City of Toronto. Street Litter Audit 2020.

²² Civil Laboratory for Environmental Action Research. Regional report on plastic pollution in Newfoundland and Labrador, 1962-2019.

Electronic cigarettes – new products and new pollution

The recent widespread marketing of disposable nicotine pods and short-lived vaping devices has resulted in a new source of tobacco-product waste. In addition to nicotine, this waste contains electronic circuitry, lithium-ion batteries, and can leach heavy metals.²³ The quantity of these products sold has grown since their legal commercialization in May 2018.

The U.S. Environmental Protection Agency and other environmental agencies have identified that e-cigarette cartridges are considered hazardous waste.²⁴ ²⁵

Managing tobacco waste in Canada.

The development of measures to reduce plastic waste has accelerated in recent years, but specific measures to reduce post-consumer waste from tobacco and vaping products have not yet been proposed.

In 2018, the Canadian Council of Ministers of the Environment, federal and provincial governments adopted a Strategy on Zero Plastic Waste. Cigarette filters were identified among the single-use plastics that were responsible for 43% of marine litter. The strategy acknowledged a variety of instruments that could be used to reduce plastic waste – ranging from performance-based approaches (regulations) and market instruments (fees, deposit-return or investments) to voluntary initiatives (corporate initiatives, education and awareness).

Federal government actions

In June 2019 a parliamentary committee recommended that the federal government include cigarette filters among single-use plastics whose use should be banned.²⁷ When the Prime Minister announced his intention to work with other jurisdictions to ban harmful single use plastics by 2021 or later,²⁸ cigarette filters were not identified for such regulations, however.



U.S. Food and Drug Administration public information materials.

²³ Hendin, Y. Alert: Public Health Implications of Electronic Cigarette Waste. Am J. Public Health. 2018

Letter from Barnes Johnson to Daniel DeWitt. May 2015.

²⁵ Public Health Law Centre. Tobacco Product Waste. Frequently Asked Questions. 2020.

²⁶ Canadian Council of Ministers of the Environment. Strategy on Zero Plastic Waste. 2018

²⁷ Report of the Standing Committee on Environment and Sustainable Development. The last straw: turning the tide on plastic pollution in Canada. June 2019.

²⁸ Prime Minister's Office. Canada to ban harmful single-use plastics and hold companies responsible for plastic waste. June 10, 2019

In January 2020, Environment Canada, Climate Change Canada and Health Canada released a report "Draft Science Assessment of Plastic Pollution," documenting the detrimental impact of macroplastics and microplastics.²⁹ Cigarette filters were identified among the most frequently found macroplastics in aquatic environments. No specific proposals to reduce cigarette filter waste were included although "Extended producer responsibility or collection and recycling requirements" would be applied to cigarette filters.

Environment and Climate Change Canada. Proposed instrument to reduce single-use plastic waste. 30

	Objective: Eliminate or red or restrict use	uce from Canadian market,	Objective: Increase recycling/recovery rate of single-use plastics and packaging			
Instruments:	Ban or restrict use	Incentives to encourage reusable products or systems	Material specifications	Extended producer responsibility or other collection, recycling requirements		
Environmentally Problematic	Plastic checkout bags Stir sticks	Food service ware	Hot and cold drink cups and lids	Beverage bottles and caps Cigarette filters		
Value recovery problematic	Six-pack rings Food service ware made from problematic plastics Straws Cutlery	Personal care product bottles Hot and cold drink cups and lids	Food wrappers Other bags (e.g. garbage) Multi-packaging	Disposable personal care items		

Environment and Climate Change Canada's analysis of selected single-use plastic products

	Environmentally Problematic		Value recovery problematic			Exemption considerations	
	Prevalent in Environment	Known or suspected to cause environment	Hampers recycling or wastewater treatment	Non- recyclable, low or very low recycling	Barriers to increasing recycling rate	Performs essential function	No viable alternatives
Ban proposed							
Plastic checkout bags	✓	✓	✓	✓	✓		
Stir Sticks	✓	✓	✓	✓	✓		
Six-pack rings	✓	✓	✓	✓	✓		
Cutlery	✓	✓	✓	✓	✓	sometimes	
Straws	✓	✓	✓	✓	✓	sometimes	
Food packaging made from problematic plastics	✓	✓	✓	✓	✓		
Other methods							
Other bags (e.g. garbage)			✓	✓	✓		
Snack food wrappers	some		some	✓	✓	✓	
Multi-packaging			✓	✓	✓		
Disposable personal care items			✓	✓	✓		
Beverage bottles and caps	✓	✓					
Contact lenses and packaging	✓			✓	✓	✓	✓
Drink cups and lids	✓		✓	✓	✓		
Cigarette filters	✓	✓		✓	✓		✓

²⁹ Environment and Climate Change Canada and Health Canada Draft Science Assessment of Plastic Pollution.

³⁰ Environment and Climate Change Canada. A proposed integrated management approach to plastic products to prevent waste and pollution. October 2020.

In October 2020, the government of Canada opened a public consultation on specific measures to reduce Canada's plastic waste . Federal plans to reduce the production and use of single-use plastics (such as straws and carry-out bags) were not extended to cigarette filters. The analysis provided in support of this decision is that there is "no viable alternative" to these products

In April 2023, the federal government added "plastic manufactured items" to the list of toxic substances in the schedule to the Canadian Environmental Protection Act,³¹ and in December 2021 released draft regulations to prohibit certain plastic items.³² Throughout this process the federal government has acknowledged that cigarette filters are an issue, but has not proposed any concrete measures to address them.

Unlike their U.S. counterparts, Canadian governments have not yet provided guidance on disposal of electronic cigarette waste. ³³

Provincial government actions

Ontario:

In 2016, the Smoke-Free Ontario Scientific Advisory Committee identified the absence of a comprehensive strategy to deal with post-consumer tobacco waste in Ontario, and noted some failed legislative attempts to address it, but did not reach a conclusion whether such measures would contribute to public health in the province.³⁴ When the provincial government renewed its tobacco control strategy in 2018, it did not include any measures to mitigate tobacco waste.³⁵

Quebec:

In 2020 the Quebec government adopted a new 5-year strategy for tobacco control.³⁶ The strategy included as denormalization as one of its pillars, and identified communications around the environmental impact of tobacco as a potentially effective intervention.

The Committee recommends that the federal government commit to banning harmful single-use plastic products – such as straws, bags, cutlery, cups, cigarette filters and polystyrene packaging – in Canada, and, where warranted based on existing scientific evidence, take other steps under the Canadian Environmental Protection Act, 1999 to regulate their use, composition and disposal

Report of the Standing Committee on Environment and Sustainable Development. June 2019. 37

Order Adding a Toxic Substance to Schedule 1 to the Canadian Environmental Protection Act, 1999: SOR/2021-86, (23 April 2021) C Gaz

³² Canada Gazette, Part I, Volume 155, Number 52: Single-Use Plastics Prohibition Regulations. December 25, 2021

U.S. Food and Drug Administration. Tips for safe disposal of e-cigarettes and e-liquid waste.

³⁴ Smoke-Free Ontario Scientific Advisory Committee, Ontario Agency for Health Protection and Promotion (Public Health Ontario). Evidence to guide action: Comprehensive tobacco control in Ontario (2016). Toronto, ON: Queen's Printer for Ontario; 2017.

³⁵ Government of Ontario. Smoke-Free Ontario The Next Chapter – 2018.

Government of Quebec. Stratégie pour un Québec sans tabac 2020-2025.

³⁷ Report of the Standing Committee on Environment and Sustainable Development. The last straw: turning the tide on plastic pollution in Canada. June 2019.

British Columbia

In 2019, the B.C. government issued a policy consultation paper on a "Plastics Action Plan".³⁸ Although the plan did not directly identify measures to manage tobacco-waste, Imperial Tobacco Canada responded to the consultation by opposing the use of Extended Producer Responsibility to such waste.³⁹

British Columbia has authorized municipalities to institute bans on plastic bags and certain single-use plastics without provincial approval, but has not included cigarette filters in this authority.

Municipal government actions in Canada

Several Canadian municipalities have erected public ashtrays to collect cigarette butts, or have permitted business improvement areas (BIAs) to do so. Some of these have been implemented as a result of tobacco industry encouragement or with tobacco industry funding. Concerns have been raised that these ashtrays conflict with legislative restrictions on smoking in public places or with public health goals to discourage smoking.⁴⁰ 41 42 43

Vancouver has experimented with industry partnerships, "fun and innovative" ballot box ashtrays and free pocket ashtrays in its efforts to address the 1 million cigarette butts discarded on city streets daily.⁴⁴

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The widespread presence of ashtrays imply tacit government consent, acceptance and even approval of widespread smoking in public. They strengthen the impression that smoking is common, and create smoking zones in public places. Such renormalization of smoking is directly aligned with the strongest interests of the tobacco industry.

Dr. Stuart Kreisman Vancouver

- 38 Government of British Columbia. Plastics Action Plan. Policy Consultation Paper. September 2019.
- 39 Imperial Tobacco Canada. Submission on the Policy Consultation Paper. Plastics Action Plan. September 2019.
- 40 Halifax. Cigarette Butt Disposal and Recycling. 2017.
- 41 Esquimalt. Environmental options for cigarette butt disposal. 2018.
- 42 City of Richmond. Report to Committee. Cigarette Butt Recycling Program. June 25, 2014.
- 43 Pablo, C. Vancouver's experimental cigarette-recycling program backfires. The Straight. June 4, 2014.
- 44 Citiy of Vancouver. Cigarette litter reduction. https://vancouver.ca/green-vancouver/cigarette-litter-reduction.aspx

Approaches to tobacco waste taken in other jurisdictions

United Nations Agencies.

The World Health Organization (WHO) and the United Nations Environmental Program (UNEP) have partnered to communicate the need for action on microplastics in cigarettes.⁴⁵ The partnership is implemented through UNEP's Clean Seas program and reflected in the choice to focus World No Tobacco Day 2022 on the environmental damage caused by tobacco products, including filter waste. ⁴⁶

The European Union

In 2018, the European Union adopted a EU plastics strategy intended to transform the way plastic products are designed, used, produced and recycled in the EU."⁴⁷ Following public consultation, the commission proposed a directive for the reduction of single use plastics in May 2018,⁴⁸ and an amended version was circulated in January 2019.⁴⁹ EU Directive 2019/904 was adopted in June 2019, and governments had until July 3, 2021 to implement legislation.⁵⁰

The directive proposed that the approach taken to address tobacco product filters was to increase awareness and to apply extended producer responsibility (EPR). The directive requires that EU member states ensure that:

- producers pay for awareness-raising, litter clean-up, data gathering and reporting and waste collection.
- there are markings on product packages to inform consumers of the plastic content, the appropriate way to dispose and the environmental consequences of litter.

The EU does not propose to ban cigarette filters, but will review the issue in 2027.⁵¹

EU DIRECTIVE

<u>Article</u> 7 on marking requirements

Requirements for "conspicuous, clearly legible and indelible marking" on packaging or product informing consumers of appropriate waste management options and the presence of plastics in the product and the resulting negative impact of littering or other inappropriate means of waste disposal.

Article 8.3 on extended producer responsibility

Producers must be required to cover the costs of awareness raising measures, cleaning up litter resulting from these products, and the costs of data gathering and reporting. (The requirement for extended producer responsibility in the European Union were established in 2008.)

Article 10. Awareness raising.

Member states must inform consumers and incentivise responsible consumer behaviour regarding the impact of littering and other inappropriate waste disposal.

WHO. FCTC. Press release. UNEP, Secretariat of the WHO FCTC partner to combat microplastics in cigarettes February 1, 2022. https://fctc.who.int/newsroom/news/item/01-02-2022-unep-secretariat-of-the-who-fctc-partner-to-combat-microplastics-in-cigarettes

World Health Organization. Protect the environment, World No Tobacco Day 2022 will give you one more reason to quit. 13 Dec 2021

⁴⁷ European Commission. European strategy for plastics. 2018

⁴⁸ European Commission. Proposal for a Directive of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment. 2018.

⁴⁹ Council of the European Union. Final Compromise Text. Proposal for a Directive of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment. 2019.

⁵⁰ European Union. Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment

⁵¹ European Parliament. Parliamentary Questions. E-001678/2020. June 2018

In December 2020, the EU adopted a directive establishing the label that would be required on cigarette packages as of July 2021.⁵²

The EU Directive has been criticized as failing to hold the tobacco industry accountable for the waste it causes, particularly in light of the fact that cigarette filters are included as part of a marketing strategy to appeal to new users and that they do not reduce the harms caused by smoking. ⁵³



France

In 2020 the French government adopted an Antigaspillage (anti-waste) law to address pollution and to impose the costs of doing so on polluting industries.⁵⁴ The explanatory impact assessment identifies a cost equivalent to about 0.03 euro per package that will be imposed on manufacturers,⁵⁵ and a total annual cost of 80 million euros. ⁵⁶

In August 2021, ALCOME was established to manage the tobacco sector's Extended Producer Responsibility.⁵⁷ The organization was established and is governed by the major tobacco companies.⁵⁸

United Kingdom

In July 2020, the U.K. government indicated that it was considering legislation to impose extended producer responsibility if the tobacco industry did not satisfactorily address the problems of cigarette litter. ⁵⁹ In September 2020, it hosted a roundtable with the tobacco industry and environmental agencies, also inviting health representatives. ⁶⁰ The UK Minister of the Environment has identified the need to apply FCTC requirements on interactions with tobacco companies in such discussions.

In November 2021, the UK Department for Environment, Food and Rural Affairs consulted on waste measures including tobacco waste, canvassing for input on the role of the industry in an extended producer responsibility scheme (EPR) and other options.⁶¹

⁵² Commission Implementing Regulation EU 2020/2151 laying down rules on harmonised marking specifications on single-use plastic products listed in Part D of the Annex to Directive (EU) 2019/904 of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment.

⁵³ Schalwyck, et al. No More Butts. Reducing plastic pollution means banning the sale of filtered cigarettes BMJ, 2019.

⁵⁴ LOI n° 2020-105 du 10 février 2020 relative à la lutte contre le gaspillage et à l'économie circulaire

⁵⁵ Etude d'Impact. Projet de loi relative à la lute contre le gaspillage et à l'économie circulaire.

France. Ministere de la transition écologique. Press release. August 10, 2021. Pollution due aux mégots de cigarettes : un eco-organisme pour la mise en oeuvre d'une nouvelle filière pollueur-payeur

⁵⁷ LégiFrance. Arrêté du 28 juillet 2021 portant agrément d'un éco-organisme de la filière à responsabilité élargie du producteur des produits du tabac équipés de filtres composés en tout ou partie de plastique et des produits qui sont destinés à être utilisés avec des produits du tabac relevant du 19° de l'article L. 541-10-1 du code de l'environnement https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000043920977

⁵⁸ ALCOME. Qui sommes nous? https://alcome.eco/le-collectif/#les-membres

⁵⁹ Cole, R Government to consider legislating over cigarette butt litter

⁶⁰ UK Department for Environment, Food and Rural Affairs. Smoking related litter roundtable meeting, 2 Sep 2020

UK Department for Environment, Food and Rural Affairs. Call for evidence on commonly littered and problematic plastic items, https://consult.defra.gov.uk/environmental-quality/call-for-evidence-on-commonly-littered-and-problem/supporting_documents/Call%20for%20evidence%20document.pdf

Other jurisdictions

California – municipal litter abatement fee

In 2009, San Francisco introduced a cigarette litter abatement fee, originally set at \$0.20 per package. In 2018, the fee was increased to \$0.85 per pack of cigarettes 62 63 64 65 The fee is imposed on and remitted by every cigarette retailer. 66

State of California – ban on filters

In 2019, the California Senate passed Bill SB 424 which would ban filtered cigarettes, disposable plastic holders and mouthpieces and single-use electronic cigarettes, as well as calling for manufacturers to take back any non-recyclable parts of reusable cigarettes. It was passed to the Assembly Committee on Governmental Organization, but not discussed further. A similar bill was re-introduced in 2022.⁶⁷

New Zealand — consideration of a ban on filters.

In New Zealand's Smoke-Free Aotearoa 2025 plan was announced in December 2021. One of the measures under consideration is a ban on filters.⁶⁸

New York State – proposed deposit-return system

The New York legislature has passed legislation (not yet signed into law) which would create a state-wide program for collecting and recycling cigarette butts using a deposit and refund system for each cigarette butt, as well as establishing a pubic education program. Manufacturers would be required to place anti-littering messages on packages.⁶⁹

Korea – waste charge on cigarettes and e-cigarettes

Since 1996, the Republic of Korea has imposed a waste charge on cigarettes, which was increased to 24.4 won per package of 20 cigarettes, e-cigarette cartridges or heat-not-burn sticks in 2015.⁷⁰

Australia – intention to work with industry

March 2021 the Australian Government released its first National Plastics Plan,⁷¹ in which it estimated that one-third of cigarettes smoked resulted in a littered filter. The government said it would initiate an industry-led cross-sectoral stewardship taskforce to develop options.

- 62 San Francisco Treasurer and Tax Collector. Cigarette Litter Abatement Fee. https://sftreasurer.org/cigarette
- 63 Schneider, JE et al. Tobacco litter costs and public policy: a framework and methodology for considering the use of fees to offset abatement costs. Tobacco Control. May 2011.
- 64 San Francisco Treasurer and Tax Collector. Notice to cigarette retailers regarding cigarette litter abatement fee increase. December 12, 2018
- 65 Freiberg, M. (Don't) see more butts: pre-emption and local regulation of cigarette litter. Hamline Law Review. 2014.
- 66 California Legislative Information. SB-424. Tobacco products: single-use and multi-use components.
- 67 California Legislature Assembly Bill No. 1690. Tobacco products: single-use components.
- New Zealand. Smokefree Aotearoa 2025 Action Plan
 - https://www.health.govt.nz/system/files/documents/publications/hp7801_-_smoke_free_action_plan_v15_web.pdf
- 69 Assembly Bill A3892. Establishes a butt recycling program.
- 70 World Bank Group. Reducing Tobacco Use through Taxation: the experience of the Republic of Korea. 2018f

⁷¹ Australia. National Plastics Plan 2021, https://www.awe.gov.au/sites/default/files/documents/national-plastics-plan-2021.pdf

Tobacco industry initiatives

Public concerns about tobacco waste are a threat to tobacco companies, as they add to the public understanding of the harmfulness of this industry's products and activities.

To reduce this threat, the industry uses public relations and other efforts to try to frame the issue and influence public policy in ways that minimize the impact on their businesses. They focus attention away from their producer responsibilities and instead present tobacco waste as a problem related to smoker behaviour. They frame tobacco waste as a problem

caused by user non-compliance, and not the result of manufacturing practices and product design. Philip Morris International states its objective is to "Prevent littering of our products by promoting appropriate behaviour among adult consumers."⁷²

The industry's efforts to maintain this framing use litter surveys,⁷³ research,⁷⁴ public education, and the provision of public and private (portable) ashtrays. They provide some environmental groups with funding to support clean-up and educational efforts, engaging volunteers to clean up the debris caused by their products.

Recent examples of these include:

- Philip Morris International (the largest multinational tobacco company) established its own anti-littering campaign – "our world is not an ashtray" - in July 2020.⁷⁵
- Its Canadian subsidiary, Rothmans, Benson & Hedges includes employee clean-up events⁷⁶ and granting programs under its "UNSMOKE" campaign brand (also used to promote heated tobacco products).



Rothmans, Benson & Hedges employee clean-up, Toronto, 2019.

BAT acknowledges that cigarette filters provide a waste issue for regulators. However, it believes that the most appropriate solution is promoting the proper disposal of butts so that they don't pollute the environment.

Imperial Tobacco
Submission to BC Plastics
Action Plan, 2019. 77

⁷² Philip Morris International. Integrated Report 2019. July 2020.

⁷³ Philip Morris International. New PMI survey finds encouraging signs in cigarette butt littering behavior and attitudes – and key areas to address. July 2020.

Carto. Using location intelligence to combat litter with PMI. August 2020.

⁷⁵ Philip Morris International. Our World Is Not an Ashtray.

⁷⁶ Rothmans, Benson & Hedges. Employees Sweep Toronto Streets Clean of Cigarette Butts to Mark , UNSMOKE Canada week,.

⁷⁷ Imperial Tobacco Canada. Submission on the Policy Consultation Paper. Plastics Action Plan. September 2019.

- In September 2020, RBH announced that it had partnered with the Great Outdoors Fund to provide funds to 17 clean-up operations in Canada.^{78 79}
- In 2021, RBH sponsored Terracycle to run programs for cigarette filters⁸⁰ and e-cigarette waste.⁸¹

Past initiatives

In 2012, Imperial Tobacco Canada Ltd (the Canadian subsidiary of British American Tobacco) partnered with Terracycle to run cigarette butt recycling programs. ⁸² By 2019, cities partnering with Terracycle included Montreal, ⁸³ of Belleville, ⁸⁴ Hamilton, ⁸⁵ Kingston, ⁸⁶ London, ⁸⁷ and Thunder Bay ⁸⁸ have implemented a similar partnership program with Terracycle. Other cities, including Halifax decided against such a program, subsequent to receiving a report outlining challenges experienced by other cities. ⁸⁹

Tobacco Industry Interference in Public Health Measures

How cigarette waste is addressed can have an impact on the health of Canadians. The public ashtray programs promoted by industry can serve to re-normalize smoking, and involvement of manufacturers in designing littering programs can serve to re-normalize the industry.

Canadian governments are bound by the Framework Convention on Tobacco Control, which provides guidance on how to protect public health from commercial and other vested interests. ⁹⁰ Partnerships with tobacco companies in providing public ashtrays – as implemented in some communities and proposed by the B.C. Ministry of Municipal Affairs and Housing in 2018 ⁹¹ – are likely not consistent with this article of the FCTC.



Vancouver's partnership with Imperial Tobacco-funded butt recycling program was criticized as being inconsistent with health objectives. The pilot program was subsequently dropped.

In setting and implementing their public health policies with respect to tobacco control, Parties shall act to protect these policies from commercial and other vested interests of the tobacco industry in accordance with national law.

WHO Framework Convention on Tobacco Control

- 78 Rothmans, Benson and Hedges. Unsmoke Canada to Fund Litter Cleanups Across Canada. September 2. 2020.
- 79 The Litter Prevention Program. (https://www.litterpreventionprogram.com; accessed October 2020).
- 80 Rothmans, Benson & Hedges. Unsmoke Canada and TerraCycle to Reduce Cigarette Waste Nationwide. Press Release. March 1, 2021.
- 81 Canadian Packaging. TerraCycle launches Canada's first national recycling solution for e-cigarettes and nicotine vape pods. October 2021
- 82 Terracycle. Leaving no butts behind: TerraCycle launches second year of ambitious program to recycle cigarette waste. Press release. June 19, 2013.
- 83 City of Montreal. Cendriers urbain.
- 84 Snowdon, Frazer. City of Belleville invests in cigarette butt recycling program. Global News. September 2018.
- 85 Mitchell, D. Hamilton's one day 'Butt Blitz' takes 37,000 cigarette remains off city streets. Global News. April 27, 2019.
- 86 Kingston Whig Standard. Cigarette butt program shows early signs of success. May 24, 2019.
- 87 CBC News. Have you noticed all the cigarette butts on the street right now? April 1, 2018.
- 88 Eco Superior Environmental Programs. Did you know that most cigarette butts are plastic??
- City of Halifax. Environment & Sustainability Committee. Cigarette Butt Disposal and Recycling. November 2, 2017.
- 90 WHO Framework Convention on Tobacco Control. Guidelines for implementation of Article 5.3 of the WHO Framework Convention on Tobacco Control.
- 91 Provincial Response to the Resolutions of the 2016 Union of British Columbia Municipalities Convention. 2018

Policy options to address post-consumer tobacco waste

1. Ban plastic cigarette filters or phase-out cigarettes

Historically, filters were promoted (including by some health authorities) as a way to remove some toxins from smoke. They were marketed as a way of providing a "smoother" smoking experience and a less harmful tobacco product.⁹².

This marketing practice is now understood to be "fraudulent".93 Rather than reducing disease, cigarette filters are now linked to an increase in the harmfulness of smoking. By altering the combustion, they result in increased toxins, by facilitating deeper inhalation, they increase smokers' exposure to toxins and by providing a 'lighter' smoking experience they give smokers a false perception of health benefit.94

Concerns about the environmental and health consequences of cigarettes has prompted many to call for regulations to ban cigarette filters, ⁹⁵ ⁹⁶ and for some legislators to propose doing so. ⁹⁷

Although proposals to ban cigarettes have had significant public support for many years, 98 they were long considered to be less effective public health strategies. The ongoing challenge of the smoking epidemic, the development of alternative sources of nicotine, and other factors have led many to call for the abolition or phasing out the commercial sale of combustible cigarettes. 99

Canadian environmental organizations which support banning plastic cigarette filters include the Environmental Law Centre at the University of Victoria, ¹⁰⁰ the National Zero Waste Council, ¹⁰¹ and Greenpeace. ¹⁰²

As we now know, claims that filtered cigarettes were "healthier" were fraudulent. The only thing filters may have done is make smoking easier and less harsh, increasing both the risk of addiction for smokers and the overall burden of the non-biodegradable and toxic cellulose acetate filters in our environment.

World Health Organization Tobacco and its environmental impact: an overview 2017¹⁰³

Recommended method of management: A national prohibition on the use of cellulose acetate (or any non-biodegradable material) as a filter for cigarette manufacturing

National Zero Waste Council.

⁹² Harris. B. The intractable cigarette 'filter problem'. Tobacco Control. 2017

World Health Organization. Tobacco and its environmental impact: an overview. 2017.

⁹⁴ Song, M et al. Cigarette Filter Ventilation and its Relationship to Increasing Rates of Lung Adenocarcinoma. J Natl Cancer Inst. 2017.

⁹⁵ Schalwyck, et al. No More Butts. Reducing plastic pollution means banning the sale of filtered cigarettes BMJ, 2019.

⁹⁶ Novotny, T et al. Cigarettes Butts and the Case for an Environmental Policy on Hazardous Cigarette Waste. Int. J. Environ. Res. Public Health. 2009. See also: Cigarette Butt Pollution Project: cigwaste.org

⁹⁷ See, for example, California Senate Bill 424. Tobacco products: single-use and multiuse components. 2019; New York Senate Bill 57259 The Tobacco product waste reduction act,

⁹⁸ Connolly, GN et al. Public attitudes regarding banning of cigarettes and regulation of nicotine. Am J Public Health. 2012.

See, for example: Proctor, RN. Why ban the sale of cigarettes? The case for abolition. Tobacco Control. 2013.; and Callard, C and Doucas,
 F. Provinces should push for timetable for rapid phase-out of cigarettes. Commentary Chronicle Herald. February 2020.
 Smith, EA and Malone, RE. An argument for phasing out sales of cigarettes. Tobacco Control. 2019.

¹⁰⁰ University of Victoria. Environmental Law Centre. A National Strategy to Combat Marine Plastic Pollution. A blueprint for federal action. April 2018.

¹⁰¹ National Zero Waste Council. Regulatory Approaches for Priority Plastic Waste. December 2019. Also, Mr. Andrew Marr before the Standing Committee on Environment and Sustainable Development. Wednesday April 3, 2019.

¹⁰² King, S. A single-use plastic ban in Canada? Let's hold the feds to it. Greenpeace. June 2019.

¹⁰³ World Health Organization. Tobacco and its environmental impact: an overview. 2017

Currently, federal regulatory authority to require cigarettes to be manufactured without filters and to impose similar product standards on vaping products is linked to the health objectives of the *Tobacco and Vaping Products Act*.¹⁰⁴ The *Canadian Environmental Protection Act*,¹⁰⁵ under which it is proposed to ban plastic straws, stir sticks and other products, is primarily managed by the Minister of Environment and Climate Change, with some participation and responsibilities to the Minister of Health.

2. Extended Producer Responsibility (EPR).

Extended Producer responsibility is a policy approach which requires producers to accept responsibility (financial and/or physical) for the treatment or disposal of post-consumer products.

Researchers, including some based in Canada, have applied the principle of Extended Producer Responsibility for tobacco waste and have drafted a model *Tobacco Waste Act*. ¹⁰⁶ Under their proposed law, tobacco manufacturers would be responsible for collection, transport, processing and safe disposal of tobacco product waste. To address the complexities of multiple stakeholders (consumers, retailers, etc), their proposal includes product stewardship requirements to encourage support.

Extended Producer Responsibility is the approach that has been adopted in France. The execution of that program illustrates how it offers tobacco companies the opportunity to influence public policy and extend its engagement with civil society. ¹⁰⁷

Environment and Climate Change Canada proposes to apply EPR to tobacco-waste or other collection/recycling methods. Details of how this would be implemented have not yet been made public.

Tobacco product waste (TPW) related Extended Producer Responsibility (EPR) and Produce Stewardship (PS) interventions could include:

- 1. Mandating corporate takeback programmes for TPW, both as individual and collective activities of tobacco companies;
- 2. Shifting product disposal management responsibilities away from local communities and taxpayers to producers, distributors and consumers of tobacco products;
- 3. Enabling cost recovery schemes to fund EPR programme management, implementation and compliance through enforcement;
- 4. Collecting TPW from beaches, parks, campuses or neighbourhoods as a way of raising awareness about tobacco use and the impact of TPW;
- 5. Changing the product such that it creates less waste at the end of life. This could include eliminating sales of the cellulose acetate filter.

Curtis et al.

Tobacco industry responsibility
for butts: a Model Tobacco

Waste Act

Government of Canada. Tobacco and Vaping Products Act. s 5 and s. 7.2.

¹⁰⁵ Government of Canada. Canadian Environmental Protection Act.

¹⁰⁶ Curtis, C et al. Tobacco industry responsibility for butts: a Model Tobacco Waste Act. Tobacco Control. 2016. Supplementary files: Model Act; Visual Summary

¹⁰⁷ Alcome.eco. Qui Sommes Nous.

Deposit-Return

Often as part of a EPR approach, provincial Canadian governments currently require some beverage manufacturers to use a deposit-return system in order to increase recycling and reduce waste. British Columbia was the first province to implement such a program, in 1970.

Deposit-return programs have been proposed for cigarette butts. ¹⁰⁸ In 2016, the Union of British Columbia Municipalities called for the BC Ministry of Environment to implement a province-wide cigarette butt deposit-return program for the elimination of cigarette litter. In 2020, the city of Delta, B.C. again proposed a deposit-return system. ¹⁰⁹ Suggested design principles for a deposit-return system are provided below.

A properly designed depositreturn program will likely be much more effective [than public education or ashtray programs] as it relies only on personal financial self-interest, and not any plea to "do the right thing".

Dr. Stuart Kreisman Vancouver

DESIGN PRINCIPLES for Deposit-Return system for cigarette butts

Deposit: the deposit must be large enough to dissuade most smokers from actually littering.

Fully Refundable: on return of the pack with all 20 used (or preferably unused!) filters. It is important to be able to state that this is not an additional tobacco tax in order to help foster public consent for the program.

Return: this should be done at central depots. This will decrease the visibility of smoking and of tobacco litter, thereby furthering the public health mandate of denormalizing the tobacco industry.

Recycleability: it should be recognized that being able to recycle the butts is an added bonus,

and not necessary to the usefulness of the program. Even if all the butts were to end up being placed en masse in a landfill, this would be infinitely better than billions entering sensitive areas of the environment individually.

Portable ashtrays: these cost very little, and their use can be encouraged as a means to extinguish and transport the butts before placing them in the packs

Marking of packs eligible for return: cigarette packs are already marked by provincial origin and multiple options are available to enhance such including stamps, bar codes, and other electronic means. This will lead to the packs

themselves as the functional holders of most of the deposit value, and therefore any littered packs will become quite valuable, as they could be filled up with any 20 littered butts for a full refund.

Return of "orphaned" littered butts: these should also be considered for refund, however at a much lower rate. Including this component will virtually guarantee that almost all cigarette litter will rapidly disappear one way or the other..

The tobacco industry should not be involved other than as a funder.

⁰⁸ Physicians for a Smoke-Free Canada. A provincial deposit-return program for cigarettes. 2014.

¹⁰⁹ Gyarmati, C Delta wants cigarette butt return program. Delta Optimist. July 2020

4. Product Stewardship (PS)

End-of-life management of tobacco waste can be managed using similar waste management techniques without assigning the costs to tobacco companies under a product stewardship program. Product Stewardship approaches uses a shared responsibility by all parties involved in the distribution and use. Canadian governments have, however, stated an intention to move away from product stewardship approaches to extended producer responsibility.

4. A mixed approach

Independent environmental and public health researchers have proposed sets of measures to address cigarette waste. Among these are the proposals of the U.S.-based Cigarette Butt Pollution Project (cigwaste.org). 110

Product stewardship is the act of minimizing health, safety, environmental and social impacts, and minimizing economic benefits of a product and its packaging throughout all lifecycle stages. The maker of the product has the greatest ability to minimize adverse impacts, but other stakeholders, such as suppliers, retailers, and consumers, also play a role.

California Tobacco Control Program¹¹¹

Extended Producer Responsibility (EPR) and Product Stewardship (PS)¹¹²

In Canada, both "extended producer responsibility" (EPR) and "product stewardship" programs are used to manage products at their end-of-life. The key differences in approaches are explained below:

EPR programs

- Identify end-of-life management of products as the responsibility of producers (e.g., brand owners, first importers or manufacturers).
- Funding is provided by producers.
- Costs can be internalized as a factor of production or may be passed on to consumers.

Product stewardship programs

- Allocate responsibility to provincial/territorial or municipal governments.
- Legislated environmental fees and/or public funds are commonly used as a funding base.
- Usually do not allocate financial responsibility to producers.

The Canadian Council of Ministers of the Environment (CCME), through the <u>Canada-wide Action Plan for Extended Producer Responsibility</u>, supports the move towards greater producer responsibility, including work towards transforming "product stewardship" initiatives into full EPR programs.

¹¹⁰ Cigarette Butt Pollution Project. https://www.cigwaste.org/policy-positions

¹¹¹ California Tobacco Control Program. Tobacco Product Waste Reduction Toolkit. 2013

¹¹² Environment Canada. Overview of extended producer responsibility in Canada. https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/overview-extended-producer-responsibility.html

Conclusions

There are several measures available to address tobacco waste. These include:

- Banning or regulating the manufacturing of cigarettes with filters.
- Requiring producers to implement deposit-return programs
- Banning smoking in designated outdoor areas and places
- Suing tobacco companies for failing to ensure safe cleanup and disposal of their products.
- Assessing cleanup costs and imposing abatement fees or waste fees on cigarettes. (This can be done at the national or subnational levels.)
- Including labels on cigarette packages that remind smokers that cigarette butts are toxic and should be properly disposed of.
- Fining tobacco companies for the amount of their product found as litter.
- An endgame for tobacco that integrates environmental and public health strategies, including a phase out of cigarettes

Governments have obligations under the Framework Convention on Tobacco control to:

- Address the environmental consequences of tobacco use
- Protect health policies from tobacco industry interference and conduct their engagements with the industry in a transparent manner.

"...A National Strategy should also include specific, practical commitments to take action in a number of key areas:...

Reduce cigarette filter pollution by banning smoking in national parks, funding cigarette butt recycling programs, banning the sale of cigarettes with plastic filters, and/or assessing the existing health science on filtered cigarettes and banning their sale if supported by the science.

A National Strategy to Combat Marine Plastic Pollution: A Blueprint for Federal Action Environmental Law Centre. University of Victoria