

# 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,<sup>1,2</sup> nor their programs and policies to reduce these harms.<sup>3</sup> Nor have environmental agencies been mandated to contribute to reducing tobacco use as they exercise 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.<sup>4,5</sup> 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.<sup>6</sup>

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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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.

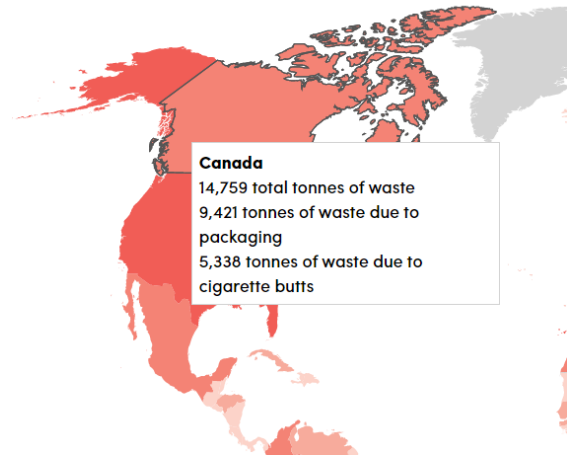
### Cigarette butts harm the environmental

Cigarette filters are made of cellulose acetate, a plastic with poor biodegradability.<sup>7</sup> 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,<sup>8</sup> injure freshwater invertebrates,<sup>9</sup> harm birds<sup>10</sup> and plant life,<sup>11</sup> and remain toxic for very long periods.<sup>12</sup>

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.<sup>13</sup>

Legal manufacturers reported sales of 24 billion cigarettes in Canada in 2019,<sup>14</sup> representing more than 1 billion packages. In addition, 90 million vaping pods were sold in Canada in 2019.<sup>15</sup> There are an estimated 15,000 tonnes of cigarette waste each year in Canada.<sup>16</sup>



*Tons of waste produced by tobacco products in Canada.*

*The Tobacco Atlas*

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- 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 Pollut* 2020.
  - 10 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.
  - 11 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 Health Canada. 2019 Canadian Cigarette market Update. February 2020.
  - 15 Robert Nugent. The Vaping Market in Canada in 2019. Presentation at the Tobacco and Vaping Control Forum. 2020. This estimate refers only to vaping products sold through gas and convenience stores, and does not include those sold by other retailers, including specialty vape shops.
  - 16 Drope et al. *The Tobacco Atlas*. Atlanta: American Cancer Society and Vital Strategies. 2018

## 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.

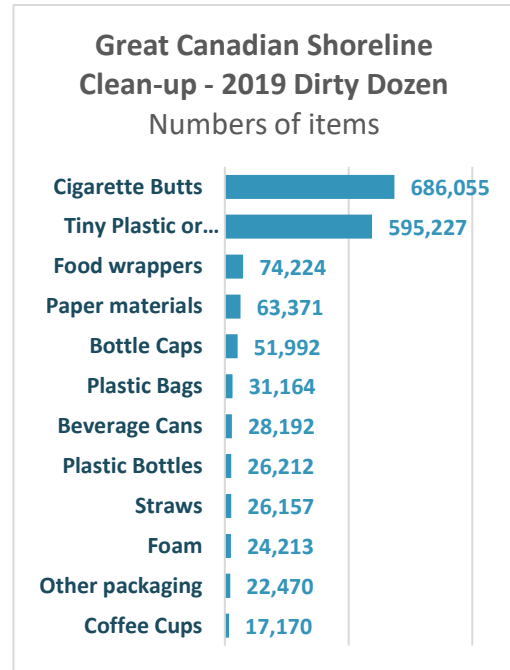
Litter audits and clean-up operations have consistently reported that cigarette butts are the mostly commonly found litter items. In the 2019 Great Canadian Shoreline Cleanup, cigarette butts made up 42% of the litter items found.<sup>17 18</sup> On a per-item basis, cigarettes were found on shorelines 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.<sup>19</sup> In Newfoundland and Labrador, cigarette waste (including packaging) accounted for 88% of litter on highways.<sup>20</sup>

## 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.<sup>21</sup> 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.<sup>22 23</sup>



*“For example, we’ve heard a lot recently about banning single-use plastic straws in the City of Vancouver. But if the data shows that smoking is a big issue and mostly we’re just picking up cigarettes, that’s perhaps a good place to start.”*

**Cassandra Konecny  
Vancouver<sup>24</sup>**

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

18 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.

19 City of Vancouver. Street Litter Audits. 2019 Results. Table 16.

20 Civil Laboratory for Environmental Action Research. Regional report on plastic pollution in Newfoundland and Labrador, 1962-2019. 2020

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

22 Letter from Barnes Johnson to Daniel DeWitt. May 2015.

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

24 University of British Columbia. Cigarettes account for half of waste recovered on Vancouver and Victoria shorelines. August 2018.

## 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.<sup>25</sup> 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.<sup>26</sup> When the Prime Minister announced his intention to work with other jurisdictions to ban harmful single use plastics by 2021 or later,<sup>27</sup> cigarette filters were not identified for such regulations, however.

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.<sup>28</sup> Cigarette filters were identified among the most frequently found macroplastics in aquatic environments.

In October 2020, the government of Canada proposed specific measures to reduce Canada’s plastic waste. The consultation period on these proposals ends in December 2020, and the government intends to have some regulations in place by the end of 2021.<sup>29 30</sup>

*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.***<sup>31</sup>

*The Government of Canada has committed to working with provinces and territories to develop consistent, national targets, standards and regulations that will make companies that manufacture plastic products or sell items with plastic packaging responsible for collecting and recycling them. This is known as extended producer responsibility.*

***Environment and Climate Change Canada- A proposed integrated management approach to plastic products: discussion paper***

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

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

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

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

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

30 Environment and Climate Change Canada. Press Release. Canada one step closer to zero plastic waste by 2030. October 7, 2020.

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

Federal plans to reduce the production and use of single-use plastics (such as straws and carry-out bags) are not being extended to cigarette filters.

The analysis provided in support of this decision is that there is “no viable alternative” to these products

*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.<sup>32</sup>*

Environment and Climate Change Canada. Proposed instrument to reduce single-use plastic waste. <sup>33</sup>

Instruments:	Objective: Eliminate or reduce from Canadian market, or restrict use		Objective: Increase recycling/recovery rate of single-use plastics and packaging	
	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
<b>Ban proposed</b>							
Plastic checkout bags	✓	✓	✓	✓	✓		
Stir Sticks	✓	✓	✓	✓	✓		
Six-pack rings	✓	✓	✓	✓	✓		
Cutlery	✓	✓	✓	✓	✓	sometimes	
Straws	✓	✓	✓	✓	✓	sometimes	
Food packaging made from problematic plastics	✓	✓	✓	✓	✓		
<b>Other methods</b>							
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	✓	✓		✓	✓		✓

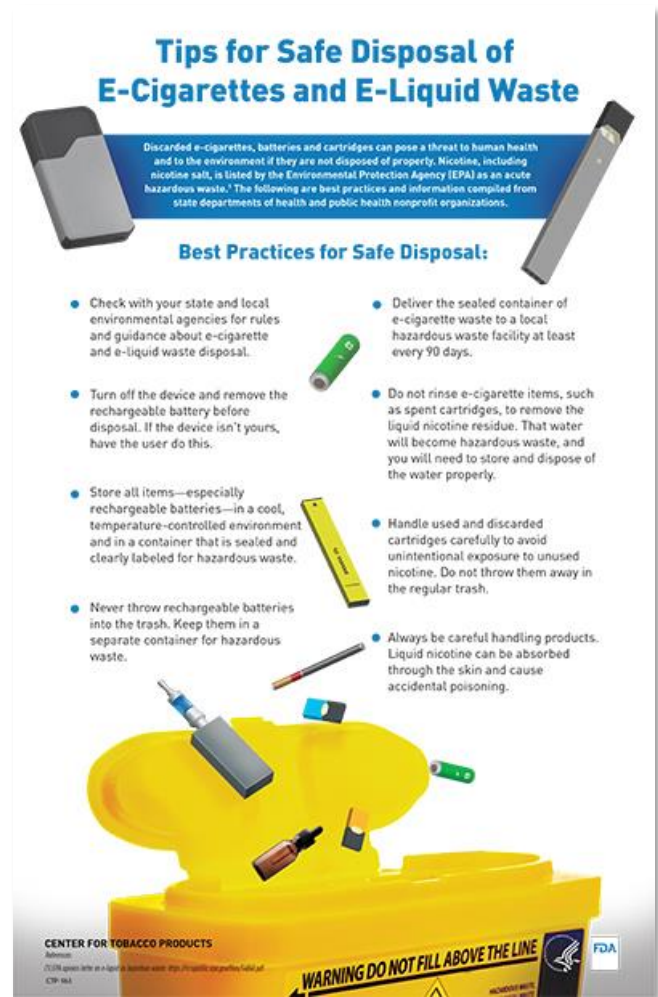
32 Environment and Climate Change Canada. Zero Plastic waste: the need for action. Updated January 2020.

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

Proposed measures included a ban on certain plastic items, including shopping bags and straws. As shown in the tables extracted from the discussion document and shown below, the federal environment ministry considered that cigarette filters were eligible for an exemption from restrictions on production and use as they met the criteria of “no viable alternative”.

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.

Unlike their U.S. counterparts, Canadian governments have not yet provided guidance on disposal of electronic cigarette waste.<sup>34</sup>



**U.S. Food and Drug Administration<sup>35</sup>**

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

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

## 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.<sup>36</sup> When the provincial government renewed its tobacco control strategy in 2018, it did not include any measures to mitigate tobacco waste.<sup>37</sup>

### Quebec:

In 2020 the Quebec government adopted a new 5-year strategy for tobacco control.<sup>38</sup> The strategy included as denormalization as one of its pillars, and identified communications around the environmental impact of tobacco as a potentially effective intervention.

### British Columbia

In 2019, the B.C. government issued a policy consultation paper on a “Plastics Action Plan”.<sup>39</sup> 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.<sup>40</sup>

## 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.<sup>41 42 43 44</sup>

*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 re-normalization of smoking is directly aligned with the strongest interests of the tobacco industry.*

**Dr. Stuart Kreisman**  
Vancouver

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36 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.  
37 Government of Ontario. Smoke-Free Ontario The Next Chapter – 2018.  
38 Government of Quebec. Stratégie pour un Québec sans tabac 2020-2025.  
39 Government of British Columbia. Plastics Action Plan. Policy Consultation Paper. September 2019.  
40 Imperial Tobacco Canada. Submission on the Policy Consultation Paper. Plastics Action Plan. September 2019.  
41 Halifax. Cigarette Butt Disposal and Recycling. 2017.  
42 Esquimalt. Environmental options for cigarette butt disposal. 2018.  
43 City of Richmond. Report to Committee. Cigarette Butt Recycling Program. June 25, 2014.  
44 Pablo, C. Vancouver's experimental cigarette-recycling program backfires. The Straight. June 4, 2014.

## Approaches to tobacco waste taken in other jurisdictions

### 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.<sup>45</sup> Following public consultation, the commission proposed a directive for the reduction of single use plastics in May 2018,<sup>46</sup> and an amended version was circulated in January 2019.<sup>47</sup> EU Directive 2019/904 was adopted in June 2019, and governments have until July 3, 2021 to implement legislation.<sup>48</sup>

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 legislation in 2027.<sup>49</sup>

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.<sup>50</sup>

### **Article 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*

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45 European Commission. European strategy for plastics. 2018

46 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.

47 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.

48 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

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

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



## France

In July 2019, the French Minister of State to the Minister for the Ecological Transition (*Secrétaire d'État auprès du ministre de la Transition écologique et solidaire*, Brune Poirson) proposed an Antigasillage (anti-waste) law to address pollution and to impose the costs of doing so on polluting industries, which was adopted in 2020.<sup>51</sup> The explanatory impact assessment identifies a cost equivalent to about 0.03 euro per package that will be imposed on manufacturers.<sup>52</sup>

## 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.<sup>53</sup> In September 2020, it hosted a roundtable with the tobacco industry and environmental agencies, also inviting health representatives.<sup>54</sup> At the outset of the meeting, the UK Minister of the Environment acknowledged the obligation to protect public policy from tobacco industry interference, in accordance with the Framework Convention on Tobacco Control (FCTC).

*In order to comply with the Litter Strategy for England, UK Tobacco Control Policy and our international legal obligations under the WHO Framework Convention on Tobacco Control (FCTC), this meeting will relate only to environmental policy and not public health policy, and will follow the recommendations in the FCTC guidelines. Therefore, at this meeting, we will not agree a partnership with the industry, including accepting any financial or educational contribution on behalf of the department; promote, or offer the tobacco industry any opportunity to promote themselves publicly through claims of social responsibility or similar; or give preferential treatment to the tobacco industry.*

## Article 5.3

*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

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

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

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

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

## 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<sup>55 56 57 58</sup> The fee is imposed on and remitted by every cigarette retailer. The data from tax revenues, in theory, can be used to assess consumption patterns at a neighbourhood level.<sup>59</sup>

### 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.

### 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 public education program. Manufacturers would be required to place anti-littering messages on packages.<sup>60</sup>

### 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.<sup>61</sup>

*The first major change in the design of the cigarette was introduced for the convenience of the smoker and rightly so. This was the introduction of the filter tips so that the tobacco bits would not get into the smoker's mouth and so that his lips would not stick to the cigarette. That this innovation reduced the cost of the cigarettes for the manufacturer (filters in general being cheaper than tobacco) only speeded up its introduction. But filters, to start with, were not introduced for their delivery reduction potential.*

**British American Tobacco, 1985<sup>62</sup>**

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55 San Francisco Treasurer and Tax Collector. Cigarette Litter Abatement Fee. <https://sftreasurer.org/cigarette>

56 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.

57 San Francisco Treasurer and Tax Collector. Notice to cigarette retailers regarding cigarette litter abatement fee increase. December 12, 2018.

58 Freiberg, M. (Don't) see more butts: pre-emption and local regulation of cigarette litter. Hamline Law Review. 2014.

59 California Legislative Information. SB-424. Tobacco products: single-use and multi-use components.

60 Assembly Bill A3892. Establishes a butt recycling program.

61 World Bank Group. Reducing Tobacco Use through Taxation: the experience of the Republic of Korea. 2018f

62 British American Tobacco. 1985. Products of the 80s and 90s and the Future Quality Control Needs in the Production Unit

## 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."<sup>63</sup>

The industry's efforts to maintain this framing use litter surveys,<sup>64</sup> research,<sup>65</sup> 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.<sup>66</sup>



*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.*<sup>67</sup>

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

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

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

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

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

- Its Canadian subsidiary, Rothmans, Benson & Hedges includes employee clean-up events<sup>68</sup> and granting programs under its “UNSMOKE” campaign brand (also used to promote heated tobacco products). In September 2020, RBH announced that it had partnered with the Great Outdoors Fund to provide funds to 17 clean-up operations in Canada.<sup>69 70</sup>

## Past initiatives

In 2012, Imperial Tobacco Canada Ltd (the Canadian subsidiary of British American Tobacco) partnered with Terracycle to run cigarette butt recycling programs.<sup>71</sup> By 2019, cities partnering with Terracycle included Montreal,<sup>72</sup> of Belleville,<sup>73</sup> Hamilton,<sup>74</sup> Kingston,<sup>75</sup> London,<sup>76</sup> and Thunder Bay<sup>77</sup> 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.<sup>78</sup>

## 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.<sup>79</sup> 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<sup>80</sup> – 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.*

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68 Rothmans, Benson & Hedges. Employees Sweep Toronto Streets Clean of Cigarette Butts to Mark ,UNSMOKE Canada week.  
69 Rothmans, Benson and Hedges. Unsmoke Canada to Fund Litter Cleanups Across Canada. September 2, 2020.  
70 The Litter Prevention Program. (<https://www.litterpreventionprogram.com>; accessed October 2020).  
71 Terracycle. Leaving no butts behind: TerraCycle launches second year of ambitious program to recycle cigarette waste. Press release. June 19, 2013.  
72 City of Montreal. Cendriers urbain.  
73 Snowdon, Frazer. City of Belleville invests in cigarette butt recycling program. Global News. September 2018.  
74 Mitchell, D. Hamilton’s one day ‘Butt Blitz’ takes 37,000 cigarette remains off city streets. Global News. April 27, 2019.  
75 Kingston Whig Standard. Cigarette butt program shows early signs of success. May 24, 2019.  
76 CBC News. Have you noticed all the cigarette butts on the street right now? April 1, 2018.  
77 Eco Superior Environmental Programs. Did you know that most cigarette butts are plastic??  
78 City of Halifax. Environment & Sustainability Committee. Cigarette Butt Disposal and Recycling. November 2, 2017.  
79 WHO Framework Convention on Tobacco Control. Guidelines for implementation of Article 5.3 of the WHO Framework Convention on Tobacco Control.  
80 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.<sup>81</sup>

This marketing practice is now understood to be “fraudulent”.<sup>82</sup>

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.<sup>83</sup>

Concerns about the environmental and health consequences of cigarettes has prompted many to call for regulations to ban cigarette filters,<sup>84</sup> <sup>85</sup>and for some legislators to propose doing so.<sup>86</sup>

Although proposals to ban cigarettes have had significant public support for many years,<sup>87</sup> 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.<sup>88</sup>

*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  
2017<sup>89</sup>**

*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.**

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81 Harris, B. The intractable cigarette ‘filter problem’. Tobacco Control. 2017

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

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

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

85 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

86 See, for example, California Senate Bill 424. Tobacco products: single-use and multiuse components. 2019; New York Senate Bill S7259 The Tobacco product waste reduction act,

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

88 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.

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

Canadian environmental organizations which support banning plastic cigarette filters include the Environmental Law Centre at the University of Victoria,<sup>90</sup> the National Zero Waste Council,<sup>91</sup> and Greenpeace.<sup>92</sup>

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*.<sup>93</sup> The *Canadian Environmental Protection Act*,<sup>94</sup> 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*.<sup>95</sup> 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.

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 take-back 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***

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

91 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.

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

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

94 Government of Canada. Canadian Environmental Protection Act.

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

## 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.<sup>96</sup> 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.<sup>97</sup> Suggested design principles for a deposit-return system are provided below.

*A properly designed deposit-return 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.**

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

97 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).<sup>98</sup>

*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 Program<sup>99</sup>**

## Extended Producer Responsibility (EPR) and Product Stewardship (PS)<sup>100</sup>

**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 Canada-wide Action Plan for Extended Producer Responsibility, supports the move towards greater producer responsibility, including work towards transforming “product stewardship” initiatives into full EPR programs.**

98 Cigarette Butt Pollution Project. <https://www.cigwaste.org/policy-positions>

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

100 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 sub-national levels: San Francisco currently requires retailers to pay \$1 for each pack of cigarettes sold<sup>101</sup>).
- 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***

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101 City of San Francisco. Cigarette Litter Abatement Fee. 2020 Quarterly Return.