

Objective 6: Reduce Tobacco Product Waste

Tobacco products cause harm not only while being used, but also after they are discarded. Cigarette butts have been the most commonly collected trash item in beach cleanups for nearly four decades.¹ Discarded butts create environmental health hazards, are harmful to aquatic life, animals, and humans, cost millions of dollars to clean up, and also spark wildfires.^{2,3} They contain filters made of a type of plastic called cellulose acetate, which breaks down into harmful microplastics.⁴ Filters wreak havoc on the environment but do nothing to protect the health of people who smoke.⁵

Other tobacco products and components, such as vaping devices, nicotine pods, heated tobacco products, cigarillo tips, and tobacco product packaging also damage the environment when discarded. These products and components are known collectively as tobacco product waste (TPW). Many forms of TPW are non-biodegradable

and contain toxic substances.⁶

Vaping devices, considered tobacco

products under

state law regardless of whether they are used for tobacco or cannabis,⁷ can also be very harmful to the environment. For example, e-waste from the devices and their batteries leaches toxic chemicals and heavy metals into the soil or water when discarded.⁶

Over the past several decades, the tobacco industry has repeatedly expressed concern about the effects of TPW on the environment but has touted ineffective “solutions” such as cleanup programs that may improve the industry’s public image but do little for the environment.⁸ The industry consistently opposes approaches that would have a more meaningful impact, such as eliminating cigarette filters.^{2,5} Many of these approaches have broad public support, as shown below in Figure 3.

Key Themes

- ❖ Tobacco products not only harm those who use them, but also create serious health and environmental hazards when discarded.
- ❖ Tobacco product waste is one of the most plentiful contributors to trash and pollution, and among the costliest to clean up.
- ❖ Strong measures are needed to reduce waste from tobacco and cannabis products and protect the environment.



November 2022 edition of Tobacco Control, featuring a CTPP media campaign ad on plastic pollution caused by the tobacco industry.

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Recommended Strategies

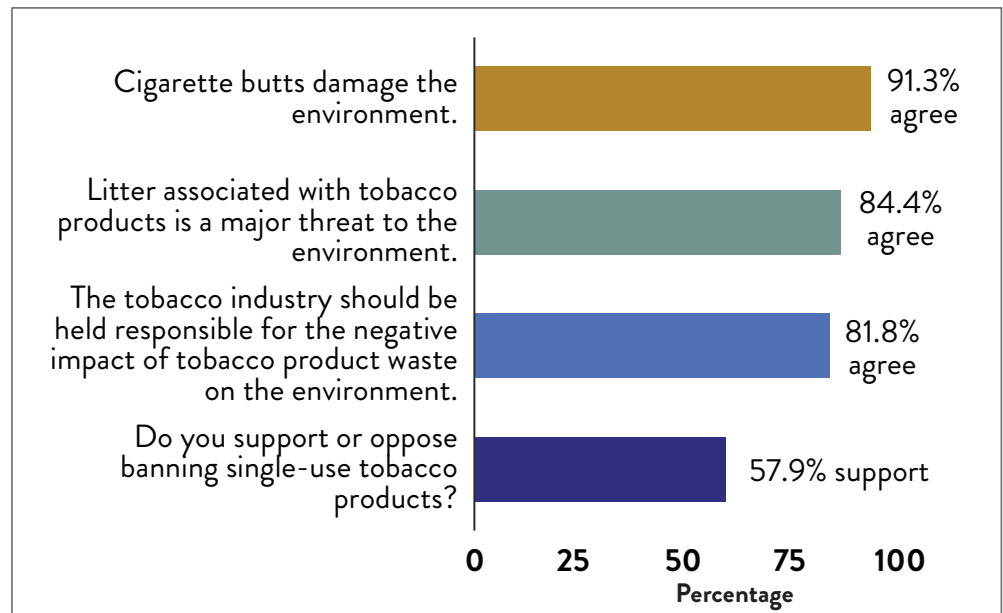
Policy

- To reduce tobacco product waste at the source, prohibit the sale of all tobacco products, if possible, or restrict the sale of those products that contribute the most to the problem of environmental pollution. These include tobacco products with single-use components like cigarette filters, single-use vape pods, and plastic cigarillo tips.
- Restrict the issuance of tobacco retailer licenses to reduce the density of retailers and the resulting accumulation of TPW, especially in the low-income communities most impacted by this problem.
- Regulate TPW as hazardous waste, including requiring hazardous waste signage at the point-of-sale and providing specific instructions for the handling, storage, transportation, and disposal of TPW.
- Ensure that the tobacco industry is not involved in decision making about any programs created to hold them accountable for the cost of mitigating TPW.

Education

- Engage youth and young adults in efforts to increase awareness among their peers and in their communities about the harmful effects of TPW, including how microplastics and other toxic chemicals in TPW affect people and the environment.
- Educate the public about the health impacts of TPW and that TPW is hazardous waste that must be disposed of properly.
- Educate the public about the economic costs of TPW and the benefit of ending or limiting tobacco product sales to reduce the burden of TPW in their communities.
- Ensure that the tobacco industry is not involved in decision making about any programs created to hold them accountable for the cost of mitigating TPW.
- Educate individuals who violate tobacco anti-littering policies about how TPW harms the environment, both to help change norms around littering and to discourage tobacco use.
- Develop and disseminate guidelines for schools and universities to safely collect and dispose of TPW discarded on campus.

Figure 3. Beliefs about tobacco product waste among California adults aged 18–64 years.



Source: [California Tobacco Facts and Figures 2024](#), based on data from Online California Adult Tobacco Survey, 2023

Research

- Continue research on the environmental impacts of and costs related to the entire life cycle of tobacco cultivation, production, use, and disposal, including effects on aquatic and land-based ecosystems.
- Continue to assess the health impacts of TPW, including the risks to children, adults, and pets of discarded cigarettes, vape pods and batteries, nicotine, and other forms of TPW.
- Continue efforts to model the economic costs associated with TPW, such as the cost of TPW clean-up and disposal, damage to ecosystems, and fires caused by discarded cigarette butts.
- Research how best to hold the tobacco industry responsible for the costs of TPW disposal and removing TPW from the environment without ceding decision-making authority or control over the process to the industry.
- Assess the range of TPW prevention strategies, from preventive solutions such as prohibiting or restricting tobacco sales, to mitigation solutions such as tobacco litter cleanups, to determine best practices for reducing TPW in the environment.
- Research the environmental impacts, health impacts, and economic costs associated with waste from tobacco-cannabis crossover products, such as vaping devices used to consume both substances.

Partnership

- Collaborate with schools, universities, and other organizations serving young people to encourage activism around TPW and the environment.
- Collaborate with environmental groups to increase awareness of the harmful effects of TPW on the environment and build support for cross collaboration on environmental issues related to TPW.

Funding

- Increase tobacco retail licensing fees and allocate a portion to schools, universities, and other public entities to cover the costs of TPW clean-up, hazardous waste disposal, and educational campaigns to prevent TPW, especially in communities most impacted by this problem.



Solano County students engage in a service learning activity on tobacco product waste.

Source: Vacaville Police Activities League (PAL)

References

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- ³ Novotny TE, Lum K, Smith E, Wang V, Barnes R. [Cigarettes butts and the case for an environmental policy on hazardous cigarette waste](#). *Int J Environ Res Public Health*. 2009;6(5):1691–1705.
- ⁴ Belzagui F, Buscio V, Gutierrez-Bouzan C, Vilaseca M. [Cigarette butts as a microfiber source with a microplastic level of concern](#). *Sci Total Environ*. 2021;762:144165.
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- ⁶ Beutel MW, Harmon TC, Novotny TE, et al. [A review of environmental pollution from the use and disposal of cigarettes and electronic cigarettes: contaminants, sources, and impacts](#). *Sustainability*. 2021;13(23):12994.
- ⁷ California Business and Professional Code § 22950.5 (d)(1)(B), Revenue and Tax Code § 30121 (b).
- ⁸ Novotny TE, Bialous SA, Hill KJ, et al. [Tobacco Product Waste in California: A White Paper](#). Sacramento, CA: California Department of Public Health, California Tobacco Control Program; 2022.