

Toxic Tobacco Product Waste General Plans Model Policy

*Eliminate Toxic Tobacco Product Waste in your Community using
Land-use Planning.*



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Introduction

Note on Sacred Tobacco

The term “tobacco” used throughout this document strictly refers to commercial tobacco, defined as “tobacco [that] is manufactured by companies for recreational and habitual use in cigarettes, e-cigarettes, smokeless tobacco, pipe tobacco, cigars, hookahs, and other products.”¹ This does not include traditional tobacco, which has been used for centuries in sacred ways by Native American tribes.

About the Project

The Sierra Club’s Environmental Justice and Tobacco Control Project is a statewide project funded by the California Tobacco Control Program (CTCP) housed under the California Department of Public Health (CDPH). This funding originates from the Tobacco Tax and Health Protection Act of 1988 (Prop 99), which increased the state cigarette tax by 25 cents, and from the California Healthcare Research and Prevention Tax Act of 2016 (Prop 56), which subsequently increased the cigarette tax from \$0.87 to \$2.87 per pack.²



The Environmental Justice and Tobacco Control Project is an effort across California to fight for a more clean, just, and sustainable world by mobilizing young adults, environmentalists, and other community partners. The Project seeks to promote environmental justice (EJ) and protect communities from toxic tobacco product waste (TTPW). This statewide project is based out of the Sierra Club’s Mother Lode Chapter and serves a total of four local Sierra Club chapters in Northern, Central, and Southern California.

Special Acknowledgement

The project would like to especially recognize the contributions of Carolina Saavedra, Jamie Long, Kai Hill, Rachel Chambers, and Tom Pryor of the Public Health Law Center and Isabel Alcocer of the project’s Young Adult Advisory Board.

What is Toxic Tobacco Product Waste (TTPW)?

Toxic tobacco product waste includes, but is not limited to, discarded cigarette ‘filters’, cigarillo and cigar tips, waste from electronic smoking devices (e.g. vapes, e-cigarettes), and single-use packaging. All of these products are toxic to the user and environment.

Cigarette ‘filters’ are the most abundant TTPW. Every year 4.5 trillion cigarette ‘filters’ [hereafter referred to as ‘butts’] are discarded worldwide, making them the most littered item on Earth.³ Studies have shown that cigarette butts do not reduce the harms of smoking cigarettes overall, and may lead to other serious cancers in deeper lung tissue.⁴ Cigarette butts contain a laundry list of hazardous chemicals, such as nicotine (classified as an acute hazardous waste by the EPA) and hydrocarbons (a class of toxic “forever chemicals”). They also contain heavy metals such as arsenic and lead.⁵ Cigarette butts are not composed of cotton, as they may appear to be, but of a non-biodegradable plastic called cellulose acetate. When

¹ Traditional vs. Commercial | Keep It Sacred. (n.d.). Retrieved August 7, 2023, from <https://keepitsacred.itcmi.org/tobacco-and-tradition/traditional-v-commercial/>

² California Tobacco Control Program. (2017). *Proposition 99 and the Legislative Mandate for the California Tobacco Control Program*. <https://tcfor.catcp.org/index.cfm?fuseaction=opportunities.background>

³ Araújo, M. C. B., & Costa, M. F. (2019). A critical review of the issue of cigarette butt pollution in coastal environments. *Environmental Research*, 172, 137–149. <https://doi.org/10.1016/j.envres.2019.02.005>

⁴ Novotny, T. E., & Hamzai, L. (2023). *Cellulose acetate cigarette filter is hazardous to human health*. Tobacco Control, tc-2023-057925. <https://doi.org/10.1136/tc-2023-057925>

⁵ Torkashvand, J., Farzadkia, M., Sobhi, H. R., & Esrafilii, A. (2020). Littered cigarette butt as a well-known hazardous waste: A comprehensive systematic review. *Journal of Hazardous Materials*, 383, 121242. <https://doi.org/10.1016/j.jhazmat.2019.121242>

discarded, cigarette butts break down into more than 15,000 individual microfiber strands, creating a source of microplastic pollution.⁶

Environmentalists concerned about the fossil fuel industry may be concerned about the tobacco industry's continued reliance on single-use plastics and ties to the fossil fuel industry. As the global economy decarbonizes, plastics are anticipated to drive nearly all of oil demand by 2050.⁷ The fossil fuel and tobacco industry have been linked for decades.⁸ Both industries use similar tactics, employ the same public relations firms, and utilize the same research institutes.

E-cigarettes, which are popular among youth and young adults, are toxic, harmful to the environment, and a public nuisance. Lithium-ion batteries in e-cigarettes have a unique propensity to explode and catch on fire when damaged. This propensity has led the Federal Emergency Management Agency (FEMA) to refer to e-cigarettes as "flaming rockets"⁹. Vape pens can turn on accidentally in trash cans and start fires by igniting trash¹⁰. Incorrect disposal of e-cigarettes in the garbage has created a unique safety risk to waste haulers and first responders.

E-cigarettes are classified as hazardous waste under state and federal law. These devices are often disposed of improperly due to missing or confusing industry guidance. A 2019 Truth Initiative survey of nearly 4,000 participants found that almost half (46.9%) of e-cigarette owners reported their e-cigarettes did not come with disposal instructions, and 51% said they put e-cigarette pods and other disposables in the garbage.¹¹ It follows that large quantities of e-cigarette devices are being disposed of improperly. In fact, a recent waste characterization study in Sonoma County collected astounding 70 tons of vape waste. The sample was comprised of only 567 residential and commercial waste streams.¹²

As new products emerge, the industry will continue to boast unproven claims of harm reduction and environmental sustainability. Tobacco products create a myriad of upstream harms at nearly every stage of production. One in eight trees harvested worldwide is used in tobacco production, making the industry a significant contributor to global deforestation.¹³ Trees act a carbon sink. By annually cutting down at least 600 million trees worldwide the industry contributes up to 5 percent of global greenhouse gas emissions worldwide. Additionally, tobacco cultivation further degrades the soil through the use of pesticides and fertilizers. The curing process involve wood burning, which results in further deforestation. Tobacco manufacturing necessitates water and energy, produces toxic industrial waste, and emits greenhouse gases that exacerbate climate change^{14 15 16}. According to a Human Rights Watch Report, the industry is also responsible for numerous human rights violations, most notably the use of child labor in tobacco farming.¹⁷



⁶ Belzagui, F., Buscio, V., Gutiérrez-Bouzán, C., & Vilaseca, M. (2021). Cigarette butts as a microfiber source with a microplastic level of concern. *The Science of the Total Environment*, 762, 144165. <https://doi.org/10.1016/j.scitotenv.2020.144165>.

⁷ Brigham, K. (2022, January 29). *How the fossil fuel industry is pushing plastics on the world*. CNBC. <https://www.cnbc.com/2022/01/29/how-the-fossil-fuel-industry-is-pushing-plastics-on-the-world-.html>

⁸ Hulac, ClimateWire, B. (n.d.). *Tobacco and Oil Industries Used Same Researchers to Sway Public*. *Scientific American*. Retrieved August 7, 2023, from <https://www.scientificamerican.com/article/tobacco-and-oil-industries-used-same-researchers-to-sway-public/>

⁹ Jr, L. A. M. (n.d.). *Electronic Cigarette Fires and Explosions in the United States 2009-2016*.

¹⁰ O'Connor, P. (n.d.). *An Analysis of Lithium-ion Battery Fires in Waste Management and Recycling*.

¹¹ Truth Initiative. (2021). *A toxic, plastic problem: E-cigarette waste and the environment*. <https://truthinitiative.org/research-resources/harmful-effects-tobacco/toxic-plastic-problem-e-cigarette-waste-and-environment>

¹² Waste Characterization Study 2022. (n.d.). Zero Waste Sonoma. Retrieved August 7, 2023, from <https://zerowastesonoma.gov/reports/waste-characterization-study-2022>.

¹³ *Tobacco Stains*. (2007, October 1). In *These Times*. <https://inthesetimes.com/article/tobacco-stains>

¹⁴ Environmental Impacts of the Tobacco Lifecycle | CDC. (2023, July 11). <https://www.cdc.gov/globalhealth/infographics/tobacco/tobacco-lifecycle.html>.

¹⁵ *Tobacco: Poisoning our planet*. (n.d.). Retrieved August 7, 2023, from <https://www.who.int/publications-detail-redirect/9789240051287>.

¹⁶ *The Environmental Destruction Topic Page*. (n.d.). California Tobacco Control Program. Retrieved August 7, 2023, from <https://www.undo.org/environmental-impact>.

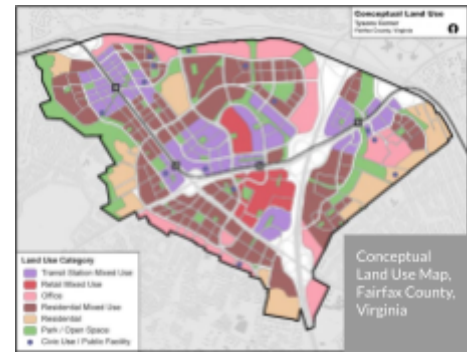
¹⁷ Wurth, M & Buchanan, J. (2015). *Teens of the tobacco fields: Child labor in tobacco farming*. *Human Rights Watch*. https://www.hrw.org/report/2015/12/09/teens-tobacco-fields/child-labor-united-states-tobacco-farming#_ftn4

About General Plans

What is a General Plan?

All cities and counties in the state of California are required to develop a general plan. A general plan is a blue-print that outlines and anticipates, over a 15 to 20-year time frame, a city or county's physical development and growth, and the possible impact the development has on its economic and natural resources¹⁸. State law requires that general plans must be long-term, comprehensive, and consistent, which is crucial to establish a framework in which to address future policy and land use decisions.

Every general plan consists of seven "elements," as required by state law: land use, circulation, housing, conservation, open space, noise, and safety. A jurisdiction must ensure that the goals set with respect to one element are not inconsistent or in conflict with the goals set with respect to another element. In accordance with state law, General Plan guidelines are updated periodically. However, some jurisdictions update them more frequently or simultaneously update 1–2 elements. When the general plan is updated, the jurisdiction must provide extensive opportunities for community input from public agencies, public utility companies, and community groups.¹⁹



Jurisdictions are also required to address the following subject areas within the aforementioned elements: military facilities, air quality in San Joaquin Valley (this pertains only to jurisdictions within the geographical vicinity of San Joaquin Valley), California Native American places, flood plain hazards, complete streets, homeless shelters, disadvantaged unincorporated communities, and ground water.

Summary of Required General Plan Elements

Land use – The land use element addresses the location and intensity of land development as it relates to current and future development. This element encompasses land use designations, such as residential, industrial, commercial, and mixed use. Jurisdictions must adhere to their general plan goals when making land use decisions, such as where to site a new landfill, or whether to restrict the density of businesses within a residential and commercial mixed use zone, for example. The land use element helps to address climate change if used to reduce the vehicle miles traveled (VMT) for frequent patterns of movement within the jurisdiction. VMT can be reduced by promoting a diversity of land uses and increasing the intensity of land use, thus reducing the need to travel long distances. A land use map or diagram, which identifies zone designations according to their types of uses, building and population intensities, is also included in this element. For further information regarding the land use element requirements, please refer to Cal. Gov. Code § 65302(a).

Circulation - The circulation element identifies transportation and mobility issues and their solutions for all types of travel as well as local public utilities and facilities. By law, this element must also incorporate "complete streets" a "plan for a balanced, multimodal transportation network that meets the needs of all users or streets, roads, and highways for safe and convenient travel . . .".²⁰ It may also address environmental justice issues related to the circulation element –such as air pollution from passenger and freight vehicles and equitable access to public transportation and active transportation infrastructure. For

¹⁸ *General Plan in California*. (n.d.). Solano Press Books. Retrieved August 8, 2023, from <https://solano.com/products/the-general-plan-in-california>

¹⁹ General Plan Guidelines and Technical Advisories—Office of Planning and Research. (n.d.). Retrieved August 8, 2023, from <https://opr.ca.gov/planning/general-plan/guidelines.html>

²⁰ Cal. Gov. Code § 65302 (b)(2)(A)

further information regarding the circulation element requirements, please refer to Cal. Gov. Code § 65302(b).

Housing - The housing element is considered one of the most crucial elements of the general plan, which precipitates more regulations than the other elements, including the requirement that the housing element must be reviewed and certified, in its entirety, by a state agency.²¹ This element must be updated every 8 years and must contain specific housing stock inventory analysis and policies designed to meet projected housing needs. While state law provides that the housing element must be updated every 8 years, if a jurisdiction does not complete their update in a timely manner, that jurisdiction is subject to a requirement of updating their housing element every 4 years (See Cal. Gov. Code Section 65588(b) & (f)). For further information regarding the housing element requirements, please refer to Cal. Gov. Code § 65302(c), § 65580 - 65589.11.

Conservation - The conservation element identifies natural resources such as forests, soils, aquatic resources, fisheries, and mines. The purpose of the conservation element is to plan how to conserve, develop, and utilize these natural resources, while also controlling pollution affecting them, all in accordance with community values. The conservation element is also where the jurisdiction will identify strategies to develop, conserve, manage, and supply water resources, such as drinking water, in coordination with local, regional, and state governing bodies. For further information regarding the conservation element requirements, please refer to Cal. Gov. Code § 65302(d).

Open Space - The open space element guides the long-range preservation of open space. Open space is land that, when left in an undeveloped state, has recreational, aesthetic, economic, climate change mitigation, flood risk reduction, wildlife conservation, or other benefits to the community. This element can be used in tandem with the conservation element by identifying open space that may benefit natural resources when left undeveloped. As with all general plan elements, this element must be consistent with the other elements. For example, land devoted to open space could not be considered suitable for development in the land use or housing element. For further information regarding the open space element requirements, please refer to Cal. Gov. Code § 65302(e), § 65560 - 65570.

Noise - The noise element is used to identify and appraise noise problems within the community which then helps form the basis for land use distribution and determinations. One of the objectives of this element is to limit community exposure to noise pollution in noise-sensitive areas, such as schools, during pertinent times of day. The noise element is required to analyze and address noise impacts from highways, major roadways, railroad operations, military operations, construction, and other high noise generating areas. For further information regarding the noise element requirements, please refer to Cal. Gov. Code § 65302(f).

Safety - The safety element is used to identify potential hazards and hazard abatements for natural disasters such as fires, floods, droughts, earthquakes, and climate change, as well as any other locally relevant safety issues such as airport land designation, essential facilities (e.g. hospitals), hazardous waste management, and etc. Some jurisdictions choose to incorporate a Local Hazard Mitigation Plan (LHMP), a planning document that identifies action to mitigate the loss of life, property, and other community values from local hazards. For further information regarding the safety element requirements, please refer to Cal. Gov. Code § 65302(g).

Environmental Justice Element

Some California jurisdictions are required to enact an eighth element. An environmental justice element is required when a jurisdiction has a disadvantaged communities at the time it updates or adopts two or more general plan elements concurrently. State law defines the term “disadvantaged communities” as an area identified by the California EPA pursuant CA HSC Section 39711 or an area that is

²¹ General Plan in California.” n.d. Solano Press Books. Accessed August 10, 2023. <https://solano.com/products/the-general-plan-in-california>.

disproportionately affected by environmental pollution and health hazards that can lead to negative health effects, exposure or environmental degradation.²²

In addition to identifying disadvantaged communities within the area covered by a jurisdiction's General Plan, the Environmental Justice element must address several objectives, including any other additional unique or compounded health risks disadvantaged communities face, if they are not covered by the required objectives. Cities and counties can choose to either create a separate environmental justice element or incorporate principles of environmental justice into existing elements in the general plan. However, because state law has three slightly varying definitions regarding "disadvantaged communities" jurisdictions should engage in a careful screening analysis of their jurisdiction to see whether they are required to adopt an environmental justice element. For further guidance please consult pages 8 - 12 of the Office of Regional Planning's Environmental Justice Element Guidelines: General Plan Guidelines Chapter 4: Environmental Justice. For further information regarding the environmental justice element requirements, please refer to Cal. Gov. Code § 65302(h)(1)).

How to Use This Policy

This policy contains sample language that can be adapted to your jurisdiction's general plan. Much of the language contained within this policy can be used to satisfy state environmental justice element requirements. However, language can be added to any element of the general plan where applicable. For example, language about multi-unit housing may be appropriate in an environmental justice, housing, and/or optional air quality element, depending on the structure of the jurisdiction's general plan. *There is no need to wait for an environmental justice element update to incorporate environmental justice and commercial tobacco control policies into a general plan.*

For that reason, the toolkit is divided by subject area, not by element. Within each subject area are subsections. For example, the Fire Prevention subject area contains three subsections: Home, Waste Management Facilities, and Wildfires. Within each subsection is a succinct summary of the latest research on the issue, followed by model language. If a jurisdiction decides to adopt any of the model language below, they may also incorporate the information from these research summaries to support the reasoning for that decision if those issues are relevant to their communities. If available, jurisdictions may also add more localized data. The language can be used as is or modified to fit your community.

This model policy is not, and should not be taken, as legal advice. Jurisdictions are encouraged to consult with local attorneys when drafting any updates to their general plans. The definitions for the terms used in this model policy are consistent with the Public Health Law Center's Tobacco Retailer Licensing Ordinance. The purpose of using these definitions is to further a shared understanding of frequently used terms, such as "Electronic Smoking Device" or "Tobacco Product." General plans are long-term planning documents while new tobacco products are frequently emerging; therefore, jurisdictions may want to use language that is more likely to capture future tobacco product innovation. However, when the decision-making body is ready to adopt an ordinance, advocates and city staff should seek the advice of a qualified legal counsel to ensure they are using the most up-to-date legal definitions.

Definitions

Definitions for the terms used in this policy are consistent with the following model ordinances:

- [Public Health Law Center's Tobacco Retailer Licensing Model Ordinance](#)
- [Smokefree Multi-Unit Housing model ordinance](#)
- [Tobacco Product Waste Model Ordinance](#)
- [Smoke and Tobacco-Free Outdoor Areas Model Ordinance](#)

²² Cal. Gov. Code Section 65302(h)(4)(A)).

Note on Criminal Liability

The Sierra Club's Environmental Justice and Tobacco Control project does not recommend criminal liability be imposed on individuals suffering from nicotine addiction. Jurisdictions may choose to implement civil penalties for violations of smoke-free laws, but should ensure those are equitably implemented. The Project recommends that any penalties for policies that restrict tobacco product sales should be levied on tobacco retailers and not on consumers, and include suspension of local tobacco retailer licenses for repeat violators. The project also recognizes the importance of access to information, resources regarding cessation, and recommends providing multilingual information wherever feasible.

Fire Prevention

Home

Cigarettes are a well-documented cause of home fires and home fire-related fatalities. A study of home fires by the National Fire Protection Association (NFPA) has indicated that,

- Tobacco products cause one in twenty (5%) home fires.
- Tragically, tobacco products account for one in four (25%) home fire deaths and one in ten (10%) home fire injuries.²³

While no comprehensive reporting mechanism exists to capture the extent of electronic cigarette explosions and deaths, several reports document this phenomenon,

- Lithium-ion batteries are increasingly popular because they can store a large amount of energy relative to their size. This makes them prone to explode and catch on fire.²⁴
- A comprehensive review of media mentions from 2015 revealed that 15 separate electronic cigarette explosions and fires were recorded in 2015.²⁵
- An analysis done by the United States Fire Administration (USFA) has found a total of 196 reports of e-cigarette fire incidents from 2009-2016, 133 of which resulted in acute injuries.
- Data from the USFA report established a clear correlation between e-cigarette sales and the number of fire incidences and explosions.
- Despite improvement in safety standards, the report concludes that risks from manufacturer defects and damage to the lithium-ion battery cannot be eliminated.
- No current law addresses the safety of e-cigarettes or lithium-ion batteries contained in e-cigarettes.
- Underwriter Laboratories (UL) has developed standards related to lithium-ion battery safety. In 2017, UL developed Standard 8139, which evaluates the battery and electrical controls of e-cigarettes.²⁶

As e-cigarettes become increasingly popular, particularly among youth who stand to face a lifetime of addiction, it can be reasonably assumed that the fire suppression costs, number of injuries, and deaths associated with electronic cigarette use will increase.

A hookah is a metal or glass water pipe with a hose used to inhale tobacco. In addition to carrying many of the same health risks as traditional tobacco products, hookahs also carry fire risk.

²³ Ahrens, M. & Maheshwari, R. (2021). *Home structure fires*. National Fire Protection Association. <http://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Building-and-life-safety/oshomes.pdf>

²⁴ United States Environmental Protection Agency. (2021). *An analysis of lithium-ion battery fires in waste management and recycling*. https://www.epa.gov/system/files/documents/2021-08/lithium-ion-battery-report-update-7.01_508.pdf

²⁵ National Fire Protection Association. (2016). *Electronic cigarette explosions and fires: The 2015 experience*. <https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/US-Fire-Problem/Fire-causes/osecigarettes.ashx>

²⁶ U.S. Fire Administration. (2017). *Electronic cigarette fires and explosions in the United States 2009-2016*. https://www.usfa.fema.gov/downloads/pdf/publications/electronic_cigarettes.pdf

- Hot charcoal used to heat tobacco can be a fire hazard if not disposed of properly.²⁷
- There was at least one confirmed death and three reported injuries from a hookah-caused fire in 2017.²⁸ Because hookahs are used disproportionately by some communities, hookah exemptions to smokefree policies can entrench existing health disparities and environmental injustice including, potentially, disproportionate harms from fire risk.²⁹

Goal 1: Protect the health and safety of residents from home fires caused by smoking materials.

Policy 1: Consider policy interventions that would protect the health and safety of residents from home fires caused by smoking materials.

Action 1: Consider the adoption of a comprehensive smoke-free multi-unit housing policy. Consult the [Public Health Law Center’s National SF-MUH policy](#) for the most up-to-date language and definitions.

Action 2: Educate landlords and tenants about the fire hazard of improperly handled smoking materials, including electronic smoking devices (or “ESDs”), which have been known to explode and catch on fire.

Action 3: Require multilingual signage in multi-unit housing warning of the fire hazard posed by tobacco products [see definition of “tobacco product”], including ESDs [see definition of “electronic smoking devices.”]. Provide instructions on proper disposal of cigarettes and ESDs to reduce fire risk and provide multilingual cessation resources.³⁰ Enhance compliance capabilities and promote equitable enforcement by working with agencies such as health departments, fire departments, housing departments to ensure compliance. **Please note:** While the project recommends minimizing interactions between law enforcement officers and disadvantaged communities, Department of Justice (DOJ) grants can be utilized as a funding source, if needed.³¹

Action 4: Prohibit the sale of all electronic smoking devices not certified by Underwriter Laboratories (UL) Standard 8139, which promotes lithium-ion battery safety.

Action 5: Amend the zoning code or update tobacco retailer license to prohibit tobacco retailers [see definition of “tobacco retailer”] from operating within one thousand (1,000) feet of residential and mixed-use zones, which include residential areas, to mitigate the risk of accidental fire.

²⁷ Smokefree Apartment House Registry. (2016). *Facts about hookahs: Protecting your property from damage and yourself from liability.* <http://smokefreeapartments.org/wp-content/uploads/2016/07/Facts-about-Hookahs.pdf>

²⁸ Ainsworth, A. (2017, September 1). Investigation reveals fatal Sterling Heights apartment fire was caused by smoker. *Click on Detroit.* <https://www.clickondetroit.com/news/2017/09/01/investigation-reveals-fatal-sterling-heights-apartment-fire-was-caused-by-smoker/>

²⁹ Public Health Law Center. (2020). *Keeping hookah tobacco in flavored sales restrictions: Why it’s important for health equity.* <https://www.publichealthlawcenter.org/sites/default/files/resources/Hookah-Fact-Sheet.pdf>

³⁰ *Cessation Services and Resources.* (n.d.). Retrieved August 8, 2023, from <https://www.cdph.ca.gov/Programs/CCDPHP/DCDIC/CTCB/Pages/CessationServicesAndResources.aspx>

³¹ *Enforcement Areas.* (2011, February 4). State of California - Department of Justice - Office of the Attorney General. <https://oag.ca.gov/tobacco/highlights>

Businesses

An analysis of e-cigarette fire and explosion incidents by the United States Fire Administration (USFA)³² found an alarming correlation between the increasing popularity of e-cigarettes and injuries due to accidental fire and explosion events. Between the beginning of 2009 and the end of 2016, one hundred and ninety-five (195) e-cigarette explosions and fires occurred.

- Out of one hundred and ninety-five (195) incidents, one hundred and thirty-three (133) resulted in acute injuries (68%).
- Sixty (60) out of one hundred and thirty-three (133) acute injuries (45%) occurred while the device was in use.
- Per the study referenced above, sixty-one (61) out of one hundred and thirty-three (133) incidents happened while the device was in a pocket.
- Thirty-eight (38) incidents resulted in severe injury, in which the victim may have “suffered the loss of a body part, 3rd-degree burns, or facial injuries.”
- Eighty (80) victims suffered moderate injuries, defined as requiring emergency treatment for “smoke inhalation, 2nd-degree burns, or lacerations requiring stitches.”
- Fifteen (15) victims suffered minor injuries, defined as “smoke inhalation, minor laceration, and 1st-degree burns.”
- Eighteen (18) incidents required fire suppression by the local fire department.

This data raises concerns about the safety of vape shop employees and customers where on-site consumption is permitted.

Goal 1: Reduce the risk of injuries and fire department intervention from e-cigarette fires and explosions.

Policy 1: Consider policy interventions requiring businesses to adopt enhanced fire prevention practices to reduce the risk of injuries and fire department intervention from e-cigarette fires and explosions.

Action 1: Prohibit the sale of all ESDs [see definition of “electronic smoking devices”], including e-cigarettes, heated tobacco products, and hookah e-pens that are not certified by Underwriter Laboratories (UL) Standard 8139, which addresses lithium-ion battery safety.

Action 2: Develop a program to educate tobacco retailers about UL Standard 8139 certification and hazardous waste management laws.

Action 3: Work with local Certified Unified Program Agency, CUPA--local agencies tasked with implementing hazardous waste laws-- to educate tobacco retailers about hazardous waste management laws and ensure proper compliance and disposal of ESDs, which are hazardous waste.

Action 4: Post signage in tobacco retailer locations warning customers about the risk of injury from accidental ESD explosions and fires. Provide information about UL 8139 certification for ESD batteries.

³² U.S. Fire Administration. (2017). *Electronic cigarette fires and explosions in the United States 2009-2016*. https://www.usfa.fema.gov/downloads/pdf/publications/electronic_cigarettes.pdf

Action 5: Consider a comprehensive ordinance prohibiting onsite consumption of ESDs at places of employment without exemptions for hookah and vape lounges.

Waste Management and Recycling Facilities

Consumers should not dispose of lithium-ion batteries in household trash or in recycling bins. In addition to containing concentrated nicotine e-liquid, which is an acute hazardous waste, electronic cigarettes also contain lithium-ion battery e-waste, known to explode and catch on fire upon arrival in waste management facilities.

- Despite the need to handle these products with great care, fifty-one percent (51%) of e-cigarette users reported throwing e-cigarette litter in the trash, seventeen (17%) reported in regular recycling, and ten (10%) reported throwing them on the ground.³³
- E-cigarettes contain nicotine e-liquid, an acute hazardous waste under federal law, and an electronic e-waste component, making disposal particularly difficult and hazardous.
- E-waste is composed of increasingly complex technologies with less intrinsic material value, making adequate waste management challenging and expensive to fund.³⁴
- Devices marketed as disposable (e.g. Puffbar) often contain pods of nicotine e-liquid that are not designed to be separated from the device's electronic components. It is difficult and dangerous to remove the e-liquid pods or the e-waste components from the device. Users should not do so on their own.³⁵
- Nicotine e-liquid is absorbed dermally. If it comes in contact with the skin, it will irritate the contact area and can lead to nicotine poisoning.³⁶ This creates safety concerns for additional hazardous waste management workers. E-liquid also endangers communities when it, enters wastewater. Additionally, improper disposal can lead to poisoning of wildlife.³⁷
- According to a 2019 study conducted by the Truth Initiative, nearly half (46.9%) of all e-cigarette users reported that their current e-cigarette device did not come with disposal information.³⁸
- According to an EPA analysis of lithium-ion battery fires in waste management facilities, vape batteries could pose the most significant fire risk to the waste system due to consumer misconceptions that e-cigarettes and their batteries are disposable.³⁹

Goal 1: Protect waste management facilities and workers from ESD battery explosions and fires, and from nicotine e-liquid exposure.

Note: Jurisdictions that require tobacco retailer licenses are better able to enforce point-of-sale restrictions (e.g. Actions 1-3). If a jurisdiction does not already have a tobacco retailer license, consider adopting one. Please consult the Public Health Law Center's [Comprehensive Tobacco Retailer Licensing Ordinance](#) for up-to-date language and definitions.

³³Truth Initiative. (2021). A toxic, plastic problem: E-cigarette waste and the environment. <https://truthinitiative.org/research-resources/harmful-effects-tobacco/toxic-plastic-problem-e-cigarette-waste-and-environment>

³⁴CalRecycle. (2018). *Future of electronic waste management in California*. <https://www2.calrecycle.ca.gov/PublicNotices/Documents/11291>

³⁵Public Health Law Center. (2021, February 11). *What a waste! Legally disposing of e-cigarettes and nicotine products* [PowerPoint slides]. <https://www.publichealthlawcenter.org/sites/default/files/inline-files/What-a-Waste-Legally-Disposing-of-E-Cigarettes-and-Nicotine-Products.pdf>

³⁶ *Nicotine Poisoning: Symptoms, Causes, Treatment & Prevention*. (n.d.). Cleveland Clinic. Retrieved August 8, 2023, from <https://my.clevelandclinic.org/health/diseases/21582-nicotine-poisoning>

³⁷Newman, M. (2019, July 8). *Central Coast landfill managers see single-use e-cigs, batteries as growing waste problem*. KSBY. <https://www.ksby.com/news/local-news/2019/07/08/landfill-managers-see-single-use-e-cigs-batteries-as-a-growing-waste-problem>

³⁸Truth Initiative. (2021). A toxic, plastic problem: E-cigarette waste and the environment. <https://truthinitiative.org/research-resources/harmful-effects-tobacco/toxic-plastic-problem-e-cigarette-waste-and-environment>

³⁹United States Environmental Protection Agency. (2021). *An analysis of lithium-ion battery fires in waste management and recycling*. https://www.epa.gov/system/files/documents/2021-08/lithium-ion-battery-report-update-7.01_508.pdf

Action 1: Consider a comprehensive ban on the sale of all ESDs [see definition of “Electric Smoking Device”], including, but not limited to, e-cigarettes, e-hookah, e-cigars, vape pens, and any component, part, or accessory of the device.

Action 2: Work with local waste management facility and Certified Unified Program Agency (CUPA) to train tobacco retailers to handle and properly and dispose of all ESDs in compliance with all federal, state and local hazardous waste laws to mitigate the risk of accidental injury and death from fires and explosions.

Action 3: Prohibit the sale of all electronic smoking devices that are not certified by Underwriter Laboratories (UL) Standard 8139.

Action 4: Perform periodic waste characterization studies which include vape waste as a category. Collect data on quantities of vape waste collected in sampled waste streams. Sampled waste streams would include, but are not limited to, single-family residential, multi-family residential, and commercial zones.

Action 5: Post signage at tobacco retailer locations warning customers about the risk of injury from accidental electronic cigarette explosions and fires; Provide instructions on proper disposal of electronic smoking devices and provide cessation resources.

Action 6: Post signage at tobacco retailer locations warning consumers about the risk of nicotine poisoning from e-liquids and provide poison control information.

Wildfire

According to the 2022 Intergovernmental Panel on Climate Change (IPCC) report, human influence is likely increasing the risk of extreme climate events, including catastrophic wildfires.⁴⁰ Although fires caused by cigarette smoking fell after the adoption of a national requirement for less fire-prone cigarettes and after a decline in smoking rates, they still represent a significant number of wildfires.⁴¹ Worsening climate conditions mean fires caused by c still represent a significant number of fires caused by cigarette smoking and other tobacco use will continue to pose a significant danger to communities in California. Communities of color are disproportionately at risk of smoke-caused fires, due to the tobacco industry’s targeted marketing, and disparities in vulnerability. Communities of color living in the wildland-urban interface, defined as the space where human development intermingles with wildland or other vegetation,⁴² are statistically more vulnerable to wildfire.

- An analysis of the US Forest Service’s Fire Program Analysis-Fire Occurrence Database indicated that eighty-four percent (84%) of wildfires in the United States between 1992 and 2012 were human-caused.⁴³
- According to fire experts, climate change has driven wildfires by creating more combustible forests through many factors, including increased droughts, increased



Photograph taken by Sierra Club staff member Matthew Gough of the strange orange sky seen in the Bay Area due to smoke from nearby wildfires in September 2020.

⁴⁰ IPCC, 2021: Summary for Policymakers. (2021). In Masson-Delmotte, V., Zhai, P., Pirani, S., et al. (Eds.) *Climate change 2021: The physical science basis. Contribution of Working Group I to the sixth assessment report of the Intergovernmental Panel on Climate Change* (pp. 3-32) Cambridge UP. https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf

⁴¹ Butry, D. T., Prestemon, J. P., & Thomas, D. S. (2014) Investigation of the decline in reported smoking-caused wildfires in the USA from 2000 to 2011. *International Journal of Wildland Fire*, 23, 790-798. <https://www.fs.usda.gov/research/treesearch/47124>

⁴² Florida Department of Agriculture and Consumer Services.(n.d.) *Wildland urban interface*. <https://www.fdacs.gov/Forest-Wildfire/For-Communities/Firewise-USA/Wildland-Urban-Interface>

⁴³ Balch, J. K., Bradley, B. A., Abatzoglou, J. T., Nagy, R. C., Fusco, E. J., & Mahood, A. L. (2017). Human-started wildfires expand the fire niche across the United States. *Proceedings of the National Academy of Sciences*, 114(11), 2946-2951. <https://doi.org/10.1073/pnas.1617394114>

fuel buildup from dead and dying vegetation, earlier springs, and higher temperatures, increasing the likelihood of catastrophic wildfires driven by human actions.⁴⁴

- The analysis above found that human-made fires have tripled the length of the average fire season from 46 days to 154 days, costing two billion dollars per year in fire suppression costs.
- An analysis of human-caused wildfires on Forest Service lands indicates that smoking materials have caused six-hundred (600) wildfires since 2006.
- Wildfires have a disparate impact on majority Black, Hispanic, and Native American communities. While affluent White people are more likely to live in the wildland urban interface, socially vulnerable groups are less likely to have fire insurance, to be able to afford services like tree trimming and fuel removal and are more likely to occupy multi-unit housing, making evacuation more challenging.⁴⁵
- Tobacco industry targeting has led to a disproportionately high number of tobacco retailers in communities of color,⁴⁶ leading to a disproportionate likelihood of wildfires caused by cigarette smoking in communities of color.
- Declining smoking rates are correlated with a reduction in the prevalence of wildfires caused by smoking. A study published in the Independent Journal of Wildland Fire found a decline in wildfires caused by smoking was related to several factors, including: The introduction of less fire-prone cigarettes, and the reduced number of smokers. However, In California, an average of 46 wildfires a year are still caused by smoking.⁴⁷

In addition to the suggested policy actions to improve fire safety outlined below, [policies that support tobacco endgame](#) by changing the structural, political, and social dynamics that sustain tobacco use⁴⁸ will be an effective tool to reduce the prevalence of fires caused by smoking and other tobacco use.

Goal 1: Mitigate, or even eliminate, wildfire risk from discarded tobacco litter.

Policy 1: Consider policy interventions that promote fire safety by eliminating or significantly reducing the incidences of fires caused by toxic tobacco product waste litter.

Action 1: Promote a safe multi-unit housing environment by adopting smoke- and vape-free multi-unit housing policies to prevent fires and other hazards associated with tobacco litter. Provide opportunities to share multilingual information and services to residents to assist them in quitting smoking.

Action 2: Create a wildfire buffer. Promote wildfire resiliency by considering a comprehensive ban on smoking [see definition of “smoking”] within one thousand (1,000) feet of wildland-urban interfaces (WUI), critical infrastructure, areas with poor evacuation ingress/egress, and communities identified as high risk by local Community Wildfire Protection Plans (CWPPs).

Action 3: Consider restricting the sale of tobacco products in the entire jurisdiction when the National Weather Service issues [red flag warnings](#), defined by Cal Fire as “weather

⁴⁴ “Study Shows 84% of Wildfires Caused by Humans | Smart News| Smithsonian Magazine.” n.d. Accessed August 10, 2023. <https://www.smithsonianmag.com/smart-news/study-shows-84-wildfires-caused-humans-180962315/>.

⁴⁵ Davies, I.P., Haugo, R.D., Robertson, J.C., & Levin, P.S. (2018). The unequal vulnerability of communities of color to wildfire. *PLOS ONE* 13 (11): e0205825. <https://doi.org/10.1371/journal.pone.0205825>.

⁴⁶ Bach, L. (2018). *Tobacco company marketing to African Americans*. Campaign for Tobacco-Free Kids. <https://www.tobaccofreekids.org/assets/factsheets/0208.pdf>

⁴⁷ CalFire. (2021). *2021 Wildfire activity statistics*. https://34c031f8-c9fd-4018-8c5a-4159cdf6b0d-cdn-endpoint.azureedge.net/-/media/calfire-website/our-impact/fire-statistics/2021_redbook_final.pdf

⁴⁸ Public Health Law Center. (2021). *Endgame policy platform – version 1*. <https://www.trdrp.org/about/endgame-policy-platform-version-1.pdf>

events which may result in extreme fire behavior requiring extreme caution from residents” because “a simple spark can cause a major wildfire.”

Action 4: Support education programs that raise awareness of the fire risk associated with improper disposal of tobacco products, including ESDs, which have been reported to explode and catch on fire.

Action 5: Amend zoning laws to prevent tobacco retailers from operating within at least one thousand (1,000) feet from the wildland-urban interface (WUI) to prevent the risk of catastrophic wildfire.

Air Quality and Climate Change

Outdoor Air Quality

Secondhand smoke (SHS) is smoke exhaled by the user of a combustible commercial tobacco product.

- SHS is significant when compared to other sources of poor outdoor air quality, such as automobiles. A study published in the European Respiratory Journal found that air quality was worse in areas frequented by pedestrians who smoke combustible tobacco products compared to areas with high automobile traffic.⁴⁹ Measurable impacts on ambient air quality from tobacco smoke have been observed in London and Los Angeles.⁵⁰
- SHS contains nearly seven thousand (7,000) chemicals, including arsenic, benzene (a natural component of crude oil), chromium, and formaldehyde.⁵¹
- SHS exposure causes a myriad of health concerns, including lung cancer, cardiovascular disease, and respiratory illness. According to a 2019 study published in the National Library of Medicine, commercial tobacco smoke is the number one risk factor for lung cancer, accounting for greater than eighty-five (85%) of cancer deaths.⁵²

Goal 1: Reduce exposure to outdoor secondhand smoke.

Policy 1: Consider comprehensive upstream policies that reduce exposure to outdoor secondhand smoke and vape from tobacco products.

Action 1: Consider a comprehensive ban of smoking [see definition of “smoking”] that could include, but would not be limited to, outdoor dining areas; outdoor bars and restaurants; outdoor public event areas including a farmers’ market, fair, or festival; recreational areas; transit stops; and outdoor places of employment. [see Public Health Law Center’s definition of “recreational area” and “public event area”]

Action 2: Consider prohibiting ash can receptacles anywhere where smoking or tobacco use [see definition of “smoking” and “tobacco use”] is prohibited by law, and include a buffer twenty-five (25) feet from any area in which smoking is prohibited.

⁴⁹ Ruprecht, A. A., De Marco, C., Pozzi, P., Mazza, R., Munarini, E., Di Paco, A., ... Boffi, R. (2016). Outdoor second-hand cigarette smoke significantly affects air quality. European Respiratory Society (ERS). <https://doi.org/10.1183/13993003.00064-2016>.

⁵⁰ World Health Organization (2017). *Tobacco and its environmental impact*. <https://apps.who.int/iris/bitstream/handle/10665/255574/9789241512497-eng.pdf>

⁵¹ National Cancer Institute. (2022, December 28). *Secondhand tobacco smoke (Environmental tobacco smoke)*. <https://www.cancer.gov/about-cancer/causes-prevention/risk/substances/secondhand-smoke>

⁵² Black Carbon Research and Future Strategies: Reducing Emissions, Improving Human Health, and Taking Action on Climate Change.” n.d.

Action 3: Post multilingual signage to inform that smoking is prohibited and include multilingual information on cessation resources.

Action 4: To promote environmental justice, adopt a local tobacco retail license requirement and cap the number of licenses issued in regions that meet the definition of “disadvantaged communities.” Licenses may be capped at zero (0), meaning no new license shall be issued.

Indoor Air Quality/Housing

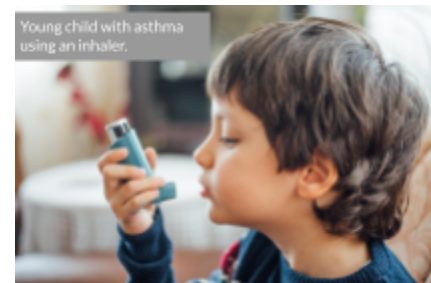
Renters in multi-unit housing are more likely to be exposed to second- and thirdhand smoke. There is no safe level of exposure to SHS, which can easily spread from one unit to another.

- There is no safe level of exposure to SHS. Most exposure to SHS occurs in residences, and nearly 1 in 4 multi-unit housing residents are exposed to SHS.⁵³
- Even if windows, doors, and other openings are closed, SHS can travel from unit to unit through walls, ventilation systems, and doorways. The majority of multiunit housing residents want smokefree housing.

Combustible commercial tobacco products can also pose a risk to the viable, affordable housing stock. Third hand smoke (THS) is contamination from tobacco smoke that lingers in a room after smoking has stopped. THS clings to clothing, furniture, carpets, walls, and other household items. THS damages building structures by seeping into any porous materials, including drywall and flooring. Remediating damage caused by THS is difficult and costly, and can even destroy multi-family units.

- THS contains toxic residue containing particulate matter and gases such as carcinogens, nicotine, and heavy metals including, but not limited to, lead, arsenic, and cyanide.
- Nicotine, a highly toxic substance classified as an acute hazardous waste by the EPA, can cling to walls and ceilings.
- Sticky, toxic residue can re-emit into the air, react with chemicals in the home, and become more hazardous over time. Nicotine can react with nitrous acid, commonly found in indoor air, to form carcinogens.⁵⁴
- Gases absorbed in dust cling to curtains, furniture, and other upholstery, damaging people's belongings. They also absorb into carpets, flooring, and walls, creating expensive repair and replacement needs.⁵⁵
- THS is absorbed by walls, windows, furniture, and flooring and cannot be removed using conventional cleaning methods such as vacuuming and wiping surfaces. Therefore, residents of multi-unit housing are forced to live in environments contaminated by tobacco toxins left by previous tenants, even years down the line.
- Because THS is hazardous to people's health, and is difficult to remove from the building structure itself, it damages, and thereby reduces the availability of, safe and viable housing stock.

Older housing stock that has not been well-maintained is more likely to expose tenants to mold, toxins, indoor air pollutants (including second- and thirdhand smoke), and vermin. Creating paths to developing new



⁵³ Centers for Disease Control and Prevention. (2022, September 14). *Going smokefree matters: Multiunit housing*. https://www.cdc.gov/tobacco/basic_information/secondhand_smoke/going-smokefree-matters/multi-unit/index.html

⁵⁴ Wu, J. X., Lau, A. T. Y., & Xu, Y. M. (2022). Indoor secondary pollutants cannot be ignored: Third-hand smoke. *Toxics*, 10(7), 363. <https://doi.org/10.3390/toxics10070363>

⁵⁵ Matt, G. E., Quintana, P. J. E., Hoh, E., Zakarian, J. M., Dodder, N. G., Record, R. A., ... Novotny, T. E. (2021). Remediating thirdhand smoke pollution in multiunit housing: Temporary reductions and the challenges of persistent reservoirs. *Nicotine & Tobacco Research*, 23(2), 364-372. <https://doi.org/10.1093/ntr/ntaa151>

affordable housing stock can help mitigate the risk of contamination from environmental health hazards, including second- and thirdhand smoke.

- Older housing stock that has not been well-maintained is more likely to suffer from mold, pest intrusion, poor insulation, and exposure to second- and thirdhand smoke.⁵⁶
- Adoption of inclusionary zoning policies, which encourage developers to build affordable housing stock, can increase access to housing for renters. Exclusionary zoning practices effectively limit the ability to create new, affordable multi-family housing units, particularly for persons of color.
- Increased availability of affordable housing stock means that families living on fixed incomes can afford to spend income on basic necessities such as healthy food and healthcare and allow more time to pursue health behaviors such as recreation. This, in turn, can reduce smoking and vaping rates since food insecurity and stress are known to contribute to nicotine dependency.⁵⁷

Goal 1: Protect the health of renters, preserve existing affordable housing stock, and improve the quality of shared outdoor spaces by preventing pollution from and exposure to second- and thirdhand smoke in single and multi-unit rentals.

Policy 1: Consider adopting policies that assess and preserve existing housing stock.

Action 1: Consider the adoption of a comprehensive smoke-free multi-unit housing policy. Consult the [Public Health Law Center's National SF-MUH policy](#) for the most up-to-date language and definitions.

Action 2: Prohibit ash receptacles within twenty-five (25) feet of areas in which smoking [see definition of "smoking"] is prohibited.

Action 3: Share multilingual information and services with residents to assist them in quitting smoking. Require multilingual cessation resources to be posted in all multi-unit housing.

Action 4: Work with affordable housing advocates and community leaders to identify and remediate issues and environmental health hazards of existing housing stock.

Policy 2: Consider policies that will encourage building new, quality, affordable housing stock to prevent exposure to second- and thirdhand.

Action 1: Amend the zoning code or update tobacco retailer license to prohibit tobacco retailers within one thousand (1,000) feet of new affordable housing stock.

Action 2: Promote inclusive zoning practices, such as mixed-used development, which blends multiple residential and commercial uses.

Action 3: Conduct an inventory analysis of the age and quality of existing housing stock to inform the planning of future housing development.

⁵⁶ Governor's Office of Planning and Research. (2020) 4.8 Environmental justice element. In *State of California general plan guidelines*. https://opr.ca.gov/docs/20200706-GPG_Chapter_4_EJ.pdf

⁵⁷ Kim-Mozeleski, J. E., Shaw, S. J., Yen, I. H., & Tsoh, J. Y. (2022). A Qualitative Investigation of the Experiences of Tobacco Use among U.S. Adults with Food Insecurity. *International journal of environmental research and public health*, 19(12), 7424. <https://doi.org/10.3390/ijerph19127424>

Action 4: Work with affordable housing advocates and community leaders to identify and address affordable housing needs.

Climate Change

Tobacco cultivation, curing, manufacturing, transport, and distribution contribute significantly to global greenhouse gas (GHG) emissions. Annually the tobacco industry is responsible for emitting nearly 0.2% of global greenhouse gas emissions, almost eighty-four (84) million metric tons of carbon dioxide (CO_2).⁵⁸ Removing tobacco products from the market could mitigate at least 0.2% of global GHG emissions.



- All commercial tobacco products, including combustible tobacco products such as cigarettes, cigars, little cigars, hookah/shisha tobacco, pipe tobacco; smokeless tobacco products such as chew, snuff, snus, dissolvables; electronic smoking devices such as vapes, e-liquids, and e-hookah; and heated tobacco products contribute to greenhouse gas emissions.

- Deforestation accounts for nearly twenty percent (20%) of global greenhouse gas emissions. Commercial tobacco cultivation requires clearing land to make room for tobacco plantations, making it a direct contributor to deforestation. The tobacco industry emits the equivalent of five percent (5%) of global greenhouse gas emissions due to

deforestation.

- A typical smoked cigarette stick was shown to have a water footprint of 3.7 liters,, a fossil fuel use equivalent to 3.5 grams of oil, and a climate change equivalent to 14 grams of carbon dioxide (CO_2). Over a lifetime, a person smoking a pack a day for 50 years has a carbon footprint equivalent to 5.1 tonnes of (CO_2), which would require one-hundred and thirty two (132) tree seedlings grown for ten (10) years to offset. The water footprint is equivalent to almost sixty-two (62) years' supply for any three people's basic hygiene and food hygiene needs, and the lifetime fossil fuel depletion equivalent to 1.3 tonnes of oil is comparable to the electricity use of an average household in India for almost fifteen (15) years.⁵⁹⁶⁰
- An additional eleven (11) million tons of wood are used to cure tobacco leaves, further contributing to deforestation.⁶¹

Transportation and consumption of finished tobacco products are also major local contributors to greenhouse gas emissions. Tobacco use generates unnecessary vehicle trips. As of 2019, emissions from the transportation sector represented the largest contributor to climate-driving greenhouse gas emissions in the state of California.⁶²

- Diesel emissions from transporting finished commercial tobacco products contain black carbon. Black carbon can darken the surface of the snow, reducing albedo and leading to accelerated

⁵⁸ Zafeiridou, M., Hopkinson, N. S., & Voulvoulis, N. (2018). Cigarette smoking: An assessment of tobacco's global environmental footprint across its entire supply chain. *Environmental Science & Technology*, 52(15), 8087–8094. <https://doi.org/10.1021/acs.est.8b01533>.

⁵⁹ Zafeiridou, Maria, Nicholas S Hopkinson, and Nikolaos Voulvoulis. "Cigarette Smoking: An Assessment of Tobacco's Global Environmental Footprint Across Its Entire Supply Chain." *Environmental Science & Technology* 52, no. 15 (August 7, 2018): 8087–94. <https://doi.org/10.1021/acs.est.8b01533>.

⁶⁰ Zafeiridou, M., Hopkinson, N. S., & Voulvoulis, N. (2018). Cigarette smoking: An assessment of tobacco's global environmental footprint across its entire supply chain. *Environmental Science & Technology*, 52(15), 8087–8094. <https://doi.org/10.1021/acs.est.8b01533>

⁶¹ World Health Organization (2017). *Tobacco and its environmental impact*. <https://apps.who.int/iris/bitstream/handle/10665/255574/9789241512497-eng.pdf>

⁶² California Air Resources Board. (2022). *California greenhouse gas emissions for 2000 to 2020: Trends of emissions and other indicators*. <https://ww2.arb.ca.gov/ghg-inventory-data>

melting of snowpack.⁶³ Snowpack supplies are responsible for approximately thirty (30) percent of California's water needs.⁶⁴ In California, black carbon depositions darken snow and ice, significantly contributing to the rapid disappearance of the Sierra Nevada snowpack.⁶⁵

- The industry continues to use greenwashing practices, claiming to use “green transport” after minor improvements in transportation practices.⁶⁶

Goal 1: Reduce global and local greenhouse gas emissions from upstream commercial tobacco cultivation, curing, manufacturing, transport, and distribution.

Policy 1: Consider policy options that would reduce demand for all commercial tobacco products to mitigate local and global greenhouse gas emissions from the commercial manufacture and distribution of tobacco.

Action 1: Consider a comprehensive ban on the sale of all tobacco products. Replace tobacco products with healthier options, such as local produce.

Action 2: Divest jurisdiction [city/county] retirement plans from tobacco. Consider taking the [Tobacco-Free Finance Pledge](#).

Policy 2: Consider policies that reduce diesel emissions from point-of-sale transport of finished commercial tobacco products.

Action 1: Develop systems for tracking emissions of greenhouse gases from the transportation of finished commercial tobacco products as part of your Climate Action Plan's (CAP) baseline emissions tracking.

Action 2: Include actionable steps for planned emission reduction targets and/or local carbon offsets (not preferable to emission reductions) to mitigate greenhouse gas emissions from unnecessary transport of finished commercial tobacco products in the Climate Action Plan (CAP).

Policy 3: Focus on housing and growth in existing urban areas, giving people greater access to jobs, high-quality transit, and active transportation to reduce greenhouse gas emissions.

Action 1: Reduce greenhouse gas emissions, improve outdoor air quality, and promote healthier stress relief (as compared to tobacco use) by creating safe, clean, and equitable access to transit and active transportation options.

Action 2: Expand active transportation infrastructure and access to safe, clean parks and recreational facilities in disadvantaged communities to reduce greenhouse gas emissions.

⁶³ Cordero, R. R., Sepúlveda, E., Feron, S., Wang, C., Damiani, A., Fernandez, F., ... Casassa, G. (2022). Black carbon in the Southern Andean snowpack. *Environmental Research Letters*, 17, 044042... <https://doi.org/10.1088/1748-9326/ac5df0>

⁶⁴ California Department of Water Resources. (2021, December 30). *Early winter storms provide much-needed Sierra snowpack*. <https://water.ca.gov/News/News-Releases/2021/Dec-21/DWR-12-30-21-Snow-Survey>.

⁶⁵ California Air Resources Board. (n.d.). *Overview: Diesel exhaust & health*. <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health>.

⁶⁶ World Health Organization (2017). *Tobacco and its environmental impact*. <https://apps.who.int/iris/bitstream/handle/10665/255574/9789241512497-eng.pdf>

Action 3: Consider prohibiting the use of tobacco products within fifty (50) feet of transit stops (to encourage transit ridership), sidewalks, bike lanes, benches, recreational facilities, and parks as part of an **outdoor smoke- and tobacco-free ordinance**.

Water Quality

As mentioned earlier in this publication, the most significant source of pollution from tobacco products is cigarette butts. Annually, of the six trillion cigarettes consumed, nearly 4.5 trillion are littered.⁶⁷ Cigarette butts consistently rank as one of the most littered items on the planet. Each of these trillions of cigarette butts leach four thousand (4,000) chemical compounds, over sixty (60) of which are known carcinogens.⁶⁸ Cigarette butts are composed of a plastic called cellulose acetate which can take between eighteen (18) months and ten (10) years to decompose. As each tiny strand of cellulose acetate degrades, it breaks down into microplastics and leach toxic chemicals into aquatic environments and drinking water.



- A study of littered roadside waste has shown that cigarette butts leach toxic chemicals such as arsenic, nicotine, polycyclic aromatic hydrocarbons (PAHs), and heavy metals such as lead, copper, cadmium, and chromium into the environment.
- Ninety-eight percent (98%) of cigarette butts are made of a non-biodegradable plastic called cellulose acetate.⁶⁹
- Cigarette butts are not only one of the most common sources of plastic pollution in the environment but also contain approximately fifteen thousand (15,000) individual detachable plastic strands that break down into microplastics and leach into the environment.⁷⁰
- Urban tobacco litter is washed by rain or street cleaning from urban sidewalks or streets into storm drains, entering the aquatic environment in rivers and streams, and eventually entering the ocean.⁷¹
- For many reasons listed above, cigarette butts are acutely toxic to aquatic life. Research shows that the chemicals leached from cigarette butts can be fatal to saltwater and freshwater fish.
- In addition, the presence of microfibers increases the acute aquatic toxicity of cigarette butts.⁷² The [California Ocean Protection Council's Statewide Microplastics Strategy](#) lists prohibiting the sale and distribution of cigarette 'filters' as one of its key pollution prevention strategies.

Ash receptacles are not an effective tool to prevent tobacco litter from polluting aquatic environments, and litter campaigns alone will not completely eliminate the presence of cigarette butt litter. The presence of ash receptacles can also "normalize" the accumulation of toxic tobacco product waste.

- Eighty-five (86) percent of persons who smoke surveyed consider cigarette butts to be litter.⁷³

⁶⁷ Araújo, M. C. B., & Costa, M. F. (2019). A critical review of the issue of cigarette butt pollution in coastal environments. *Environmental Research*, 172, 137–149. <https://doi.org/10.1016/j.envres.2019.02.005>

⁶⁸ Torkashvand, J., Farzadkia, M., Sobhi, H. R., & Esrafil, A. (2020). Littered cigarette butt as a well-known hazardous waste: A comprehensive systematic review. *Journal of Hazardous Materials*, 383, 121242. <https://doi.org/10.1016/j.jhazmat.2019.121242>

⁶⁹ Truth Initiative. (2017, April 21). *5 way cigarette litter impacts the environment*. <https://truthinitiative.org/research-resources/harmful-effects-tobacco/5-ways-cigarette-litter-impacts-environment>

⁷⁰ Shen, M., Li, Y., Song, B., Zhou, C., Gong, J., & Zeng, G. (2021). Smoked cigarette butts: Unignorable source for environmental microplastic fibers. *Science of The Total Environment*, 791, 148384. <https://doi.org/10.1016/j.scitotenv.2021.148384>

⁷¹ Novotny, Thomas E., and Elli Slaughter. (2014). Tobacco product waste: An environmental approach to reduce tobacco consumption. *Current Environmental Health Reports*, 1(3), 208–216. <https://doi.org/10.1007/s40572-014-0016->

⁷² Belzagui, F., Buscio, V., Gutiérrez-Bouzán, C., & Vilaseca, M. (2021). Cigarette butts as a microfiber source with a microplastic level of concern. *The Science of The Total Environment*, 762, 144165. <https://doi.org/10.1016/j.scitotenv.2020.144165>

⁷³ Truth Initiative. (2023). *Tobacco and the environment*. https://truthinitiative.org/sites/default/files/media/files/2023/04/Truth_Environment%20FactSheet%20Update%202023_v3_FINAL.pdf

- However, nearly seventy percent (70%) of butts from used cigarettes are littered annually. Observational studies have shown that even in the presence of appropriate waste receptacles, the behavior of littering cigarette butts is the norm among smokers.⁷⁴ In other words, littering the cigarette butt is a part of the ritual of smoking.
- In addition, even cigarette butts that are properly disposed of in ash can receptacles can be swept away by wind, water, and other unfavorable environmental conditions.

E-cigarettes contain many of the same toxic chemicals as combustible cigarettes. While not as commonly found in beach clean-ups, disposable e-cigarettes are becoming more popular and are likely to become a greater environmental problem in the future.

- Recent trends show an increase in youth consumption of disposable products from 2.4% in 2019 to 26.5% in 2020.⁷⁵
- Cartridges and refills that have been improperly discarded can leach acutely hazardous nicotine salts and e-liquids into aquatic ecosystems and soil, where they are consumed by wildlife, fish, pets, and even children.⁷⁶
- Rinsing nicotine e-liquid down the drain contaminates groundwater. Nicotine e-liquid, including nicotine salt, is an acute hazardous waste and should be handled with extreme care by specialized hazardous waste management facilities.
- Many vape retailers do not provide guidance on the proper disposal of excess or unwanted nicotine e-liquids, leaving consumers unaware of their hazardous nature.

Goal 1: To keep all aquatic ecosystems free from toxic tobacco product waste, including, but not limited to, drinking water, streams, lakes, rivers, and oceans.

Policy 1: Consider implementing upstream policies to prevent the accumulation of all commercial tobacco products in waters, streams, lakes, rivers, oceans, and other important waterways.

Action 1: Consider a comprehensive ban on the sale of all tobacco products [see definition of “tobacco products”].

Action 2: Alternatively, consider eliminating the sale of tobacco products generally recognized as single use, such as ‘filtered’ cigarettes, little cigars, cigarillos, and cigars with tips, snus in oral pouches, and tips, mouthpieces, or “filters” for tobacco products sold separately. Consult the Public Health Law Center’s [TPW toolkit](#) for up-to-date language and definitions.

Action 3: Alternatively, or in addition, consider adopting a [comprehensive smoke- and tobacco-free places ordinance](#). As part of a comprehensive smoke- and tobacco-free place ordinance, prohibit ash receptacles in areas in which smoking and tobacco use is prohibited and prohibit disposal of toxic tobacco product waste within the boundaries of the smoke- and tobacco-free places ordinance.

Policy 2: Identify sources of pollution in aquatic ecosystems.

⁷⁴ Novotny, Thomas E., and Elli Slaughter. (2014). Tobacco product waste: An environmental approach to reduce tobacco consumption. *Current Environmental Health Reports*, 1(3), 208–216. <https://doi.org/10.1007/s40572-014-0016-x>.

⁷⁵ Woodcock, J. (2021, June 23). *An epidemic continues: Youth vaping in America*. U.S. Food & Drug Administration.

⁷⁶ Truth Initiative. (2023). *Tobacco and the environment*. https://truthinitiative.org/sites/default/files/media/files/2023/04/Truth_Environment%20FactSheet%20Update%202023_v3_FINAL.pdf.

Action 1: Identify potential funding sources not affiliated with the tobacco industry and/or partnerships to host (annual/biannual) beach and/or riverbank cleanups. *Tobacco industry-sponsored cleanups unfortunately serve as additional advertising or promotion for the tobacco industry and lead to greenwashing, which which undermines the goal of reducing tobacco use and tobacco litter.

Action 2: Standardize data collection. Ensure different sources of toxic tobacco product waste are identified in data collection by including categories for cigarette butts, plastic cigar/cigarillo tips, plastic tobacco packaging/wrap, electronic smoking devices, and other toxic tobacco product waste.

Policy 3: Raise awareness about the harms of toxic tobacco product waste on aquatic resources.

Action 1: Consider hosting a tobacco litter awareness day. Work with environmental partners to host educational workshops in conjunction with litter cleanup activities and data collection campaigns (see Policy 2, Action 1).

Action 2: Consider posting signage on public beaches and recreational areas stating: “Discarded cigarette butts contain nicotine (a substance defined as an acute hazardous waste under federal law), arsenic, heavy metals such as lead and cadmium, and 69 known carcinogens. Discarded cigarette butts are carried as runoff into rivers, streams, and oceans, where they poison wildlife. We thank you for keeping our water clean and our wildlife safe by refraining from using tobacco products in this area.”

Agriculture Resources

Commercial tobacco growing, curing, and manufacturing strains global agriculture resources, particularly in low- and middle-income countries.

- Commercial tobacco is typically grown without rotation as a monocrop.⁷⁷ Modern commercial tobacco growing is land-intensive, necessitates extensive pesticides, fertilizer, and growth inhibitors (pest control), and rapidly depletes soil of the nutrients phosphorus, nitrogen, and potassium.⁷⁸
- Monocropping significantly contributes to soil erosion by leaving soil vulnerable to wind and water, leading to desertification, which is the process by which previously fertile land becomes arid.⁷⁹
- A significant portion of arable land in low- and middle-income countries is diverted to grow tobacco.⁸⁰ Many of these countries lack the economic and political power to fight investments from large multinational corporations.⁸¹

Toxic tobacco product waste contains a laundry list of hazardous chemicals that can leach into soil and aquatic environments.

⁷⁷ World Health Organization (2017). *Tobacco and its environmental impact*. <https://apps.who.int/iris/bitstream/handle/10665/255574/9789241512497-eng.pdf>.

⁷⁸ Novotny, T. E., Bialous, S. A., Burt, L., Curtis, C., da Costa, V. L., Iqtidar, S. U., Liu, Y., Pujari, S., & Tursan d'Espaignet, E. (2015). The environmental and health impacts of tobacco agriculture, cigarette manufacture and consumption. *Bulletin of the World Health Organization*, 93(12), 877–880. <https://doi.org/10.2471/BLT.15.152744>.

⁷⁹ World Health Organization (2017). *Tobacco and its environmental impact*. <https://apps.who.int/iris/bitstream/handle/10665/255574/9789241512497-eng.pdf>.

⁸⁰ World Health Organization. (2022, May 24). *Tobacco*. <https://www.who.int/news-room/fact-sheets/detail/tobacco>.

⁸¹ Novotny, Thomas E, Stella Aguinaga Bialous, Lindsay Burt, Clifton Curtis, Vera Luiza da Costa, Silvae Usman Iqtidar, Yuchen Liu, Sameer Pujari, and Edouard Tursan d'Espaignet. “The Environmental and Health Impacts of Tobacco Agriculture, Cigarette Manufacture and Consumption.” *Bulletin of the World Health Organization* 93, no. 12 (December 1, 2015): 877–80. <https://doi.org/10.2471/BLT.15.152744>.

- Post-consumer toxic tobacco product waste contains nicotine, arsenic, lead, polycyclic aromatic hydrocarbons (a class of toxic “forever chemicals”), and heavy metals. Nicotine and cotinine, a metabolite of nicotine, enter groundwater used for crop irrigation through contaminated wastewater and landfills. Through these means, nicotine and nicotine metabolites pollute aquatic resources, including drinking water and soils.
- Nicotine and nicotine metabolites have been detected in soil samples from fields irrigated with contaminated groundwater.
- Nicotine absorbed by plants produces a bitter taste, meaning consumers likely disfavor crops grown on nicotine-contaminated soils. The presence of thirdhand tobacco pollution in soils may deplete crucial agricultural resources.⁸²

Goal 1: Protect agricultural lands by preventing soil contamination from post-consumer tobacco waste (tobacco litter).

Policy 1: Consider comprehensive upstream policies that would prevent soil contamination from toxic tobacco product waste.

Action 1: Update tobacco retailer license requirements to prohibit locating tobacco retailers within one thousand (1,000) feet of open space, including agricultural land, community gardens, farms, and natural resources.

Action 2: Consider the adoption of [smoke- and tobacco-free outdoor spaces](#) within one thousand (1,000) feet of open space, including agricultural land, community gardens, farms, and other natural resources.

Action 3: Collaborating with environmental and public health organizations, develop and disseminate tobacco litter surveys. Include questions about the location of toxic tobacco product waste in relation to agricultural lands.

Action 4: Update tobacco retailer license requirements to require that tobacco retailers keep records of all toxic tobacco product waste disposed from their unsold inventory, whether due to expiration or compliance with other tobacco control laws. The records should provide sufficient information to determine whether the retailer has complied with the federal Resource Conservation and Recovery Act (RCRA) and state law requirements for hazardous waste generators and related state regulation.

Policy 2: Discourage premature and unnecessary degradation of valuable agricultural lands by enacting policies discouraging commercial tobacco farming.

Action 1: Consider the prohibition of commercial tobacco farming on prime farmland, unique farmland, and farmland of significant statewide importance.

⁸² Cheng, Y. D., Bai, Y. X., Jia, M., Chen, Y., Wang, D., Wu, T., Wang, G., & Yang, H. W. (2021). Potential risks of nicotine on the germination, growth, and nutritional properties of broad bean. *Ecotoxicology and Environmental Safety*, 209, 111797. <https://doi.org/10.1016/j.ecoenv.2020.111797>.

Community Health

Schools

Vaping has become an epidemic among youth in the United States. The FDA collaborates with the Centers for Disease Control (CDC) to administer the National Youth Tobacco Survey annually. Disposable e-cigarette products are especially common among youth.

- State Attorneys General have charged e-cigarette companies with marketing products as cessation devices despite not having FDA approval.⁸³
- To date, no e-cigarette, vape, or electronic nicotine delivery system (ENDS) products have been approved by the FDA as cessation devices or have been authorized to make a modified risk claim.⁸⁴ E-cigarettes, vapes, or ENDS are not harmless to consume.
- E-cigarettes are used by an alarming percentage of middle and high school students and that usage rate is increasing. Recent trends show an increase in consumption of disposable electronic smoking devices from 2.4% in 2019 to 26.5% in 2020.⁸⁵

Federal and state law classifies the nicotine found in e-cigarettes as an acute hazardous waste. Schools that confiscate e-cigarette paraphernalia incur the regulatory and administrative burden of hazardous waste disposal under federal law.⁸⁶

- The Los Angeles County Unified School District has filed a class action lawsuit against Juul for targeting targeting youth with their products and and creating a public nuisance.
- Local school districts have to divert critical funds to address the student vaping epidemic, which includes investing in the prevention of smoking and vaping initiation, the enforcement against the use of these products, and the cost disposal of these products.⁸⁷

Goal 1: Prevent youth and young adult initiation to tobacco product use.

Policy 1: Consider adoption of a tobacco endgame policy. *Engame policy, which aims to significantly reduce or eliminate the public's propensity to use commercial tobacco products, such as smoke-free policies and comprehensive sales restrictions.

Policy 2: Consider policy interventions that would prevent youth and young adult initiation into tobacco product use, reducing the financial and administrative burden under federal, state, and local law.

Action 1: Consider adoption of a local comprehensive tobacco retailer license requirement. Consult the Public Health Law Center's [Comprehensive Tobacco Retailer Ordinance](#) for up-to-date language and definitions.

- Prohibit stores from placing alcohol and tobacco products near candy, toys, or other products primarily marketed to children.

⁸³ National Association of Attorneys General. (n.d.) *E-cigarettes*. <https://www.naag.org/issues/tobacco/e-cigarettes/>

⁸⁴ U.S. Food & Drug Administration. (2022). *E-cigarettes, vapes, and other electronic nicotine delivery systems (ENDS)*. <https://www.fda.gov/tobacco-products/products-ingredients-components/e-cigarettes-vapes-and-other-electronic-nicotine-delivery-systems-ends>.

⁸⁵ Woodcock, J. (2021, June 23). *An epidemic continues: Youth vaping in America*. U.S. Food & Drug Administration. <https://www.fda.gov/news-events/congressional-testimony/epidemic-continues-youth-vaping-america-06232021>.

⁸⁶ Public Health Law Center. (2022). *Tobacco product waste: A public health and environmental toolkit*. <https://www.publichealthlawcenter.org/sites/default/files/resources/Tobacco-Product-Waste-Toolkit.pdf>.

⁸⁷ Los Angeles Unified School District. (2019, October 29). *Los Angeles Unified Files Class Action Lawsuit against JUUL for Targeting Youth, Creating Public Nuisance*. <https://achieve.lausd.net/site/Default.aspx?PageType=3&DomainID=4&PageID=1&ViewID=6446ee88-d30c-497e-9316-3f8874b3e108&FlexDataID=83519>.

- Prohibit placement of tobacco advertisements on exterior signage and on interior signs placed below four feet in height (child’s eye level).
- Prohibit the sale of all flavored tobacco products. [see definition of “flavored tobacco product”]
- Prohibit tobacco retailers from being located within one thousand (1,000) feet of “youth-oriented facilities” to prevent youth initiation.
- To prevent tobacco product saturation, prohibit tobacco retailers from being located within one thousand (1,000) feet of another tobacco retailer. The proliferation of tobacco retailers in an area, increases the actual and perceived accessibility of these products and normalizes tobacco use, particularly for youth.⁸⁸
- To promote environmental justice, cap the number of licenses issued in regions that meet the definition of “disadvantaged communities.” Licenses may be capped at zero (0), meaning no new license shall be issued.



Action 2: Form partnerships with local organizations and health agencies to provide youth and young adults with education, cessation services, and mental health resources.

Action 3: Support and increase the number of programs, clinics, and social service agencies implementing evidence-based tobacco cessation treatment services.

Action 4: Seek the advice of qualified legal counsel on how to best [form a partnerships with the local household hazardous waste facilities](#) to facilitate the safe storage and pick-up of confiscated electronic smoking devices. Assist schools by identifying potential partnerships and funding sources.

Action 5: Work with local Certified Unified Program Agency, CUPA--local agencies tasked with implementing hazardous waste law– to develop educational programs to inform schools of their responsibilities under any applicable federal, state, and local law for proper storage and disposal of confiscated electronic smoking devices. Coordinate with CUPAs and local health departments to provide information and resources to schools and parents about the youth e-cigarette epidemic.

Action 6: Enhance youth and young adult toxic tobacco product waste education and civic engagement programs by partnering with community organizations such as the Sierra Club, California Health Collaborative, and other organizations local to your area. Develop a youth and/or young adult advisory committee to address toxic tobacco product waste concerns in the community.

Healthy Food

A comprehensive approach can be taken to address tobacco, alcohol, and processed foods and eliminate barriers to healthy food options in the retail environment. Holistic policies can work together to improve walkability and aesthetics, encourage active transportation infrastructure use, eliminate exterior tobacco advertising, and require healthy food options.

⁸⁸ Licensing, Zoning, and Retailer Density – Counter Tobacco. (n.d.). Retrieved August 8, 2023, from <https://countertobacco.org/policy/licensing-and-zoning/>

- Dietary behavior is linked to the built environment. Living in a neighborhood with limited availability of healthy food options is linked with poor dietary behavior.⁸⁹
- Smoking is associated with lower consumption rates of fruits and vegetables and higher rates of food insecurity.⁹⁰ A few explanations for this correlation presented by the study are: (a) spending on tobacco products represents a sizable portion of income (up to twenty-four percent [24%]), leaving less budget for food; and (b) food insecurity can contribute to stress, leading to greater dependence on nicotine as a coping mechanism.
- Improved neighborhood access to healthy food options can eliminate factors contributing to chronic hunger, stress, and anxiety—factors that lead to a higher likelihood of nicotine dependency.
- Simultaneously minimizing a pro-tobacco retail environment by eliminating or significantly reducing interior and exterior tobacco advertising, adopting smokefree outdoor policies near places where tobacco products are sold and consumed, adopting comprehensive tobacco retail licensing schemes, and providing cessation information can lower nicotine dependency.

Goal 1: Protect community health by minimizing the “pro-tobacco retail environment” while increasing access to healthy food options like fresh fruits and vegetables.

Policy 1: Consider adoption of a comprehensive tobacco retailer license. Consult the Public Health Law Center’s [Comprehensive Tobacco Retailer Ordinance](#) for up-to-date language and definitions.

- To promote environmental justice, cap the number of licenses issued in regions that meet the definition of “disadvantaged communities.” Licenses may be capped at zero (0), meaning no new license shall be issued.
- Prohibit tobacco retailers from being located within one thousand (1,000) feet from one another.
- Prohibit tobacco retailers from being located within one thousand (1,000) feet from youth-oriented areas such as schools, parks, and/or childcare.

Policy 2: Eliminate barriers to access fresh fruits and vegetables, particularly in ‘disadvantaged communities’ as defined by state law.

Action 1: Develop and conduct healthy food surveys to identify potential barriers stemming from land use that limit access to fresh fruits and vegetables, such as walking and active transportation feasibility, proximity to healthy food retailers, safety concerns, air quality concerns (i.e., smoking, car exhaust), aesthetics, and income spent on tobacco and alcohol products.

Action 2: Update the zoning code to permit the sale of fresh produce and establish community gardens in residential communities, particularly those designated as disadvantaged, as defined by state law.

Action 3: Consider prohibiting smoking and tobacco use (see definition of “smoking”) within fifty (50) feet of tobacco retailers (see definition of “tobacco retailer”), corner stores, markets, grocery stores, farmers markets, community gardens, and other sources of fresh fruits and vegetables for the community.

⁸⁹ Vilar-Compte, M., Burrola-Méndez, S., Lozano-Marrufo, A., Ferré-Eguiluz, I., Flores, D., Gaitán-Rossi, P., Teruel, G., & Pérez-Escamilla, R. (2021). Urban poverty and nutrition challenges associated with accessibility to a healthy diet: a global systematic literature review. *International Journal For Equity In Health*, 20(1), 40. <https://doi.org/10.1186/s12939-020-01330-0>.

⁹⁰ Hosler, A. S., & Michaels, I. H. (2017). Association Between Food Distress and Smoking Among Racially and Ethnically Diverse Adults, Schenectady, New York, 2013-2014. *Preventing chronic disease*, 14, E71. <https://doi.org/10.5888/pcd14.160548>.

Parks

Most Americans agree that access to high-quality parks and recreation facilities is extremely or very important.⁹¹ Parks and recreation facilities provide key community benefits, including increased physical activity, improved mental health, and strengthened community bonds.⁹² Access to high-quality parks and recreation facilities is not always equitable.

- The California Department of Parks and Recreation recommends three acres of parkland per one thousand (1,000) residents, yet nearly two-thirds of residents lack this access.⁹³
- Various California assessments have shown inequity in park acreage between low-income neighborhoods and more affluent counterparts. In Los Angeles, nearly fifty percent of residents do not have a park within walking distance. Of those residents, almost ninety percent are in communities of color. In Fresno, low-income communities have access to an average of one acre of parkland per one thousand (1,000) residents, compared to four acres per one thousand (1,000) residents in affluent communities.
- In addition to being inaccessible, parks in low-income and communities of color are typically lower quality, contain fewer features, and lack traffic safety infrastructure.
- Tobacco litter accumulates where it is sold and consumed. Because tobacco retailers are more likely to be sited in low-income and communities of color, it can be reasonably assumed that tobacco litter is more prevalent in these parks and recreation facilities.⁹⁴

Goal 1: Ensure equitable access to water, parks, schools, and air free from toxic tobacco product waste pollution.

Policy 1: Consider policy interventions that significantly reduce or eliminate the demand for tobacco products to reduce the prevalence of toxic tobacco product waste, particularly in low-income and disadvantaged communities.

Action 1: Consider prohibiting the sale of all tobacco products [see definition of “tobacco products”].

Action 2: Alternatively, consider prohibiting the sale of tobacco products generally recognized as single use, such as ‘filtered’ cigarettes, little cigars, cigarillos, and cigars with tips, snus in oral pouches, and tips, mouthpieces, or “filters” for tobacco products that are sold separately.

Action 3: Consider adoption of a comprehensive tobacco retailer license. Consult the Public Health Law Center’s [Comprehensive Tobacco Retailer Ordinance](#) for up-to-date language and definitions.

- To promote environmental justice, cap the number of licenses issued in regions that meet the definition of “disadvantaged communities.” Licenses may be capped at zero (0), meaning no new license shall be issued.

⁹¹ National Recreation and Park Association. (2020). *Equitable access to parks and recreation*. <https://www.nrpa.org/publications-research/park-pulse/Equitable-Access/>.

⁹² Banner, R., Mummert, J., & Mendoza, C. (2019, October 1). Improving systems to achieve equitable park access. *Parks & Recreation: NRPA's Monthly Magazine*. <https://www.nrpa.org/parks-recreation-magazine/2019/october/improving-systems-to-achieve-equitable-park-access/>.

⁹³ Santana, A. & Munoz Flegal, C.L. (2021). *Advancing park equity in California*. PolicyLink. https://www.policylink.org/sites/default/files/pl_brief_ca-parks-equity.pdf.

⁹⁴ Marah, M., & Novotny, T.E. (2011). Geographic patterns of cigarette butt waste in the urban environment. *Tobacco Control*, 20(Suppl_1), i42–44. <https://doi.org/10.1136/tc.2010.042424>.

- Prohibit tobacco retailers from being located within one thousand (1,000) feet from one another. Limit the proximity of tobacco retailers to other tobacco retailers.
- Limit tobacco retailers within one thousand (1,000) feet of youth-populated areas such as schools, parks, and/or childcare. Prohibit tobacco retailers from being located within one thousand (1,000) feet from youth-oriented areas such as schools, parks, and/or childcare.

Action 4: Consider adoption of a [Comprehensive Outdoor Smoke- and Tobacco-free policy](#) to ensure equitable access to smoke and tobacco-free parks.

Action 5: Support education programs highlighting the environmental effects of toxic tobacco product waste). Education topics may include but are not limited to impacts to water quality, air quality, climate change, soil contamination, fire prevention, health, and environmental justice.

Action 6: Partner with local health agencies and environmental groups to create and administer a community needs assessment, making sure to address the equity concerns of low-income residents.