



CIGARETTE BUTTS: A TOXIC THREAT TO CREEKS AND THE BAY

Cigarette butts have been the most commonly collected items on Coastal Cleanup Day for the last 20 years, amounting to almost 40% of total litter by item.ⁱ This should not be surprising, because over 300 billion cigarettes are consumed in the U.S. every yearⁱⁱ, and data show that two-thirds are littered onto our streets and then wash into waterways.ⁱⁱⁱ While the human health impacts of cigarettes are common knowledge, the widespread environmental impacts are less well known. Cigarette litter costs cities millions of dollars to clean up^{iv}, is toxic to Bay wildlife, and spoils water quality. Cigarette butts along our shorelines are also a quality of life issue, where they create visual blight, and can be picked up and ingested by small children and pets.

Plastic cigarette butts are littered in staggering amounts

- 65% of cigarettes on average are littered^v
- Smoking by Californians averages out to 34 packs a year for every person in the state^{vi}
- 7.15 million people live in the Bay Area^{vii}

**** Over 3 billion cigarettes butts are littered in the Bay Area each year ****

- In the Bay Area, on Coastal Cleanup Day 2012, Alameda County cleanups topped the list with almost 17,000 cigarette butts collected. Not far behind were Marin County locations, tallying more than 13,000. San Francisco locations alone accounted for more than 12,500 cigarette butts.

Cigarette butts are plastic, and not biodegradable, as is commonly assumed

- Filters are composed of a type of plastic called cellulose acetate; like other plastics, they do not biodegrade and instead persist as litter in the environment.
- Cigarette filters were introduced in the 1950s in an unsuccessful effort to address health concerns associated with smoking; although they reduce tar and nicotine yields, they do not effectively protect smokers from disease.^{viii}

Cigarette butts are toxic to wildlife and spoil water quality

- Cigarette butts contain a variety of hazardous chemicals and heavy metals, including lead, chromium, and arsenic, which leach into water when they are littered.^{ix}
- These chemicals are acutely toxic to fish – a 2009 study found that the chemicals in a single filtered cigarette butt have the ability to kill half the fish living in a 1-liter container of water.^x
- Birds, fish, and other wildlife can mistake filters for food, leading to death by choking or malnutrition.

Tobacco litter is costly to cities

- Before it passed its Cigarette Litter Abatement Fee in 2009, the City of San Francisco documented that it spends close to \$6 million per year on cigarette litter removal.^{xi}

ⁱ California Coastal Commission. "Countdown to Trash Extinction Campaign." Available at <http://www.coastal.ca.gov/publiced/ccd/extinct.html>

ⁱⁱ "Consumption of Cigarettes and Combustible Tobacco — United States, 2000–2011." 3 August 2012. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6130a1.htm>

ⁱⁱⁱ Keep America Beautiful. "Key Findings: Cigarette Butt Litter." available at http://www.kab.org/site/DocServer/LitterFactSheet_CIGARETTE.pdf?docID=5182

^{iv} J Schneider et al. 22 June 2009. "Estimates of the Costs of Tobacco Litter in San Francisco and Calculations of Maximum Permissible Per-Pack Fees." Health Economics Consulting Group LLC. Available at: http://www.sfdpw.org/ftp/uploadedfiles/sfdpw/director/annual_reports/tobacco_litter_study_hecg_062209%5B1%5D.pdf

^v Action Research for Keep America Beautiful. January 2009. "Littering Behavior in America: Results of a National Study." Action Research, San Marcos, CA. Available at: http://www.kab.org/site/DocServer/KAB_Report_Final_2.pdf?docID=4581

^{vi} R Chapman. 24 September 2013. "California Tobacco Control Program." (PowerPoint slides) Available at: <http://sbud.senate.ca.gov/sites/sbud.senate.ca.gov/files/SUB3/CDPH%20-%20Tobacco%20Control%20Program.pptx>

^{vii} Bay Area Census. "San Francisco Bay Area." Available at: <http://www.bayareacensus.ca.gov/bayarea.htm>

^{viii} B Harris. 2011. "The intractable cigarette 'filter problem.'" Tobacco Control Vol 20 (Supplemental Issue 1) p.i10

^{ix} American Legacy Foundation. (Infographic.) Available at: <http://legacyforhealth.org/issues/toxic-waste.php>

^x E Slaughter et al. 2011. "Toxicity of cigarette butts, and their chemical components, to marine and freshwater fish." Tobacco Control Vol 20 (Supplemental Issue 1) p. i25–i29. Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3088407/>

^{xi} J Schneider et al. 2011. "Tobacco litter costs and public policy: a framework and methodology for considering the use of fees to offset abatement costs." Tobacco Control Vol 20 (Supplemental Issue 1) p.i36