

# ENVIRONMENT

**Tobacco use is not only a health issue — it is also an environmental issue.**

**30-40%**



Since the 1980s, cigarette butts have consistently comprised 30 - 40% of all items collected in annual international coastal and urban cleanups.

Items removed from U.S. beaches and inland waterways during the Annual International Coastal Cleanup:



cigarette lighters



**2,089**

tobacco packages or wrappers



**33,865**

cigar tips



**58,672**

**1,030,640**

**cigarette butts**



Three-quarters of smokers report disposing of butts on the ground or out of a car window.

**267 billion**

About 267 billion cigarettes are smoked each year in the U.S. (2015)



Cigarettes are the most littered item in the country.



**1,312,796**

pounds of toxic chemicals were reported disposed of, or otherwise released, from tobacco facilities in one year.

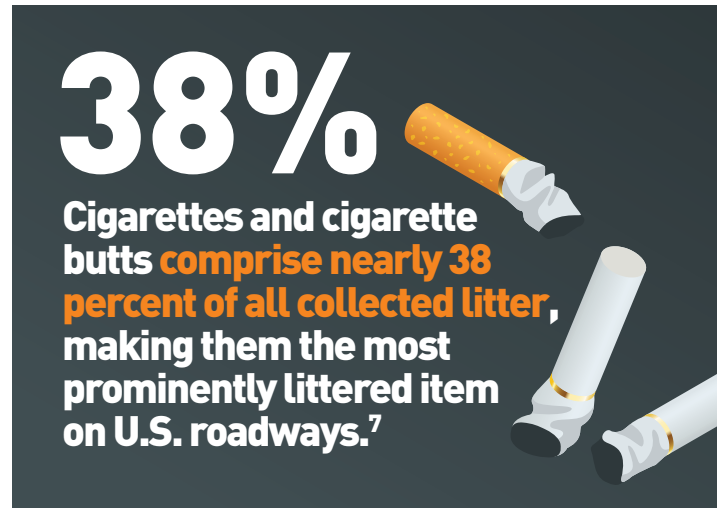
## BACKGROUND

Tobacco use is not only a health issue, it is also an environmental issue. **Billions of cigarettes — about 267 billion in 2015 — are smoked each year in the United States.**<sup>1</sup> They are the **most littered item** in the country. The waste from cigarettes can leach toxic chemicals into the environment, leading to land, water and air pollution.

## LITTER

Since the 1980s, cigarette butts have consistently comprised **30 to 40 percent of all items collected in annual international coastal and urban cleanups.**<sup>10</sup>

- When counting roadway litter on a per-item basis, **cigarettes and cigarette butts comprise nearly 38 percent of all collected litter**, making them the most prominently littered item on U.S. roadways.<sup>7</sup>
- In addition to roadway litter, cigarette butts are also the most commonly littered item collected at five of six non-roadway sites: retail areas, storm drains, loading docks, construction sites and recreational areas.<sup>7</sup>
- Data from the Ocean Conservancy shows that **1,030,640 cigarette butts** were removed from U.S. **beaches** and **inland** waterways as part of the annual International Coastal Cleanup (ICC) in 2016. This represents about 24 percent of the total debris of items collected and, by far, the **most prevalent item** found.<sup>13</sup>
- In addition to cigarettes and cigarette filters, **12,089 cigarette lighters, 58,672 cigar tips and 33,865 tobacco packages or wrappers** were removed from U.S. waterways during the ICC in 2015.<sup>14</sup>



- Although 86 percent of smokers consider cigarette butts to be litter, three-quarters of smokers report disposing of them on the ground or out of a car window.<sup>8</sup>
- Studies estimate that **smokers litter as many as 65 percent of their cigarette butts.**<sup>9</sup>

Cigarette filters are made from cellulose acetate, a plastic which, though technically biodegradable, only degrades under severe biological circumstances, such as when filters collect in sewage. In practice, **cigarette butts tossed on streets and beaches do not biodegrade.**

- Even under optimal conditions, it can take at least **nine months for a cigarette butt to degrade.**<sup>3-5</sup>
- The sun may break cigarette butts down, but only into smaller pieces of waste which dilute into water and/or soil.<sup>2,3,6</sup>

Growing concerns over the impact of tobacco waste on the environment, as well as the substantial costs of cleanup, have prompted states, municipalities and institutions to enact a variety of policy actions.<sup>2</sup> For example, **312 municipalities have prohibited smoking on their beaches**, while **1,497 prohibited smoking in parks** as of July 2017.<sup>15-16</sup>

## LAND, COASTAL AND WATER POLLUTION

Cigarette butts, plastic filters and other remnants of smoked cigarettes can pollute soil, beaches and waterways. Studies have also shown that cigarette waste is harmful to wildlife.

- > A study of the **effects of roadside waste on soil** found that patterns of hydrocarbon levels in the soil were similar to those of littered cigarette butts. This indicates that the chemicals in the soil had seeped out of cigarette butts. **Some hydrocarbons are carcinogenic.**<sup>11</sup>
- > Cigarette butts cause **pollution** by being carried, as runoff, to drains and from there to rivers, beaches and oceans.<sup>2</sup>
- > Preliminary studies show that **organic compounds** (such as nicotine, pesticide residues and metal) **seep from cigarette butts into aquatic ecosystems**, becoming acutely **toxic** to fish and microorganisms.<sup>17-19</sup>
- > In one laboratory study, the chemicals that leached from a single cigarette butt (soaked for 24 hours in a liter of water) released enough toxins to **kill 50 percent of the saltwater and freshwater fish** exposed to it for 96 hours.<sup>19</sup>
- > Another laboratory study found that cigarette butts can be a point source for **heavy metal contamination in water**, which may harm local organisms.<sup>20</sup>

**1,312,796  
pounds**



**1,312,796 pounds of toxic chemicals were reported disposed of, or otherwise released, from tobacco facilities in one year.**

## GROWING AND MANUFACTURING TOBACCO PRODUCTS

- > Research has found that tobacco cultivation contributes significantly to **deforestation** and degradation of the environment, particularly in the developing world.<sup>12</sup>
- > In 2015, **1,312,796 pounds of toxic chemicals were reported disposed of, or otherwise released, from tobacco facilities**. Some of the chemicals released are monitored by the Environmental Protection Agency's Toxic Release Inventory database because they are considered hazardous to a person's health and to the environment.<sup>21</sup> The top chemicals released were nicotine, salts, ammonia, sulfuric acid and nitrate compounds.<sup>21</sup>

## CONCLUSION

The best way to protect the environment from the effects of tobacco is to encourage smokers to quit and to promote prevention through tobacco control policies, high-impact marketing campaigns and quit-smoking services. Truth Initiative® supports efforts to expand tobacco control policies, runs the most successful youth tobacco prevention campaign in the country and helps thousands of people with its quit-smoking tools, **BecomeAnEX®** and the **EX® Program**.

For more information on tobacco and the environment, visit [truthinitiative.org](https://truthinitiative.org).

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