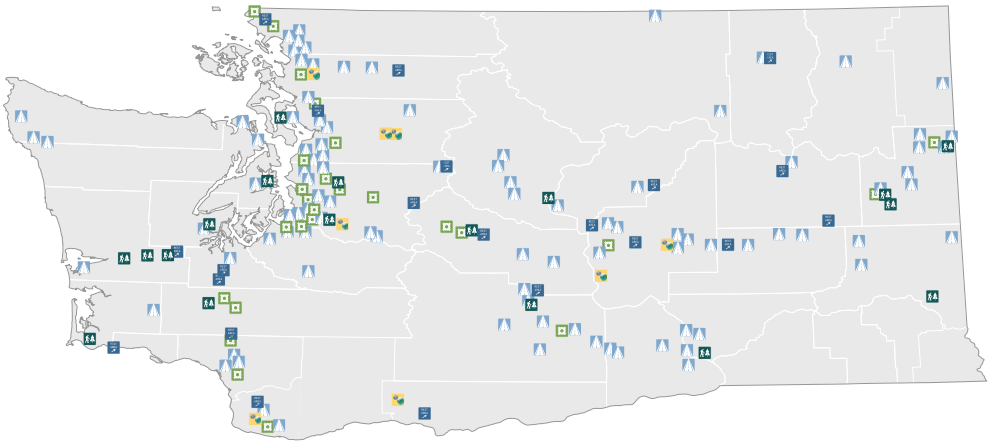
Washington State 2022 LITTER STUDY FOCUS SHEET

Why did we measure litter?

Litter impacts road safety, our environment, and the wellbeing of our communities. Washington State Departments of Transportation and Ecology (Ecology) together spend more than $12 million annually on litter cleanup efforts. Unfortunately, they can only pick up a small portion of the waste that accumulates on the ground. If we know the types and amounts of litter present, we can help develop strategies to prevent litter and littering behavior, and measure progress over time. The focus sheet and final report will be available at https://ecology.wa.gov/Waste-Toxics/Solid-waste-litter/Litter/Litter-studies.

How did we measure litter?

In this study, we collected litter from **182 randomly selected sites across Washington state**. Sites were categorized into five main groups: 1) roadways, 2) interchanges (on- and off- ramps), 3) rest areas, 4) parks, and 5) recreational areas. We sorted the litter by type (for example, glass bottles, cigarette butts, cardboard boxes, plastic film), counted the number of pieces of litter, and weighed the samples of litter. Using this data from 182 sites in Washington, we estimated the yearly average pounds and pieces of waste.



Roadways and interchanges, rest areas, parks, and state-owned lands were included in the study.

182 sites sampled

104	26	26	18	8
Roadways (Urban and Rural)	Interchanges (On- and Off- Ramps)	Rest Areas along Highways	State and County Parks	DNR and DFW Lands

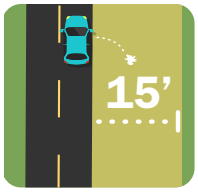
DEPARTMENT OF ECOLOGY State of Washington

Publication 23-07-009 - Litter Study Fact Sheet

Where did we measure litter?

We measured litter along roadways, interchanges, and at high-use areas of rest areas, parks, and certain public lands. Many of these sites were used in the 1999 and 2004 litter studies, and we used the Washington Environmental Health Disparities Map to ensure representation across diverse communities.

Roadways include all 81,021 miles of public roads from interstate highways to small neighborhood streets, including land areas within 15 feet of the side of the road—the approximate throwing distance from a moving vehicle. This amounts to nearly 6.4 billion square feet or 147,311 acres of litterable roadway area.



Interchanges are on-ramps and off-ramps for highways. Washington has 590 interchanges, and we measured litter in land areas falling within 15 feet of each interchange. This adds up to more than 470 million square feet, or 10,794 acres of litterable interchange area.

We measured litter in the **high-use parts of rest areas** located along highways. Examples include parking lots, picnic tables, and permanent restrooms or other buildings. Washington’s highway rest areas have 230 acres of high-use areas.

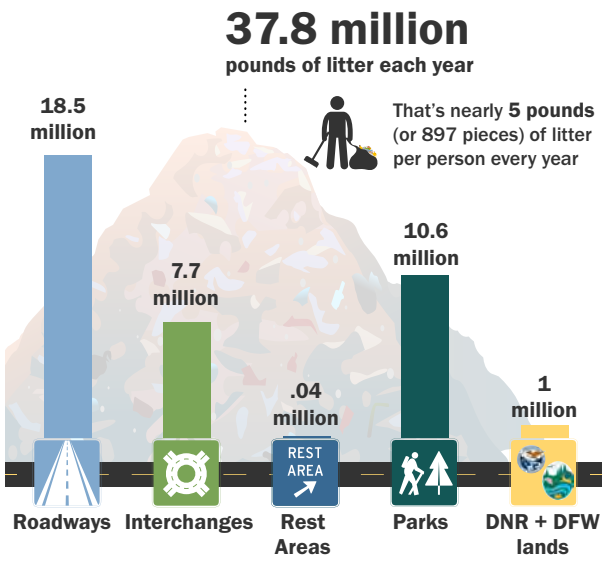
We measured litter in the **high-use areas of state and county parks**. High-use areas are places that typically have visitors every day during summer. For parks, these areas include parking areas, campsites, trails, ball fields, picnic and play areas, and permanent restrooms or other buildings. Washington’s state and county parks have 83,888 acres of high-use areas.

We measured litter on **high-use areas of land owned** by the Washington State Department of Natural Resources (**DNR**) and Department of Fish and Wildlife (**DFW**). Examples of these areas include parking areas, campsites, trails, and permanent restrooms or other buildings. DFW and DNR lands have 2,112 acres of high-use areas.

How much is littered each year in Washington? Where is it happening?

Statewide, 37.8 million pounds are littered per year, which is 4.8 pounds per person per year. These pounds are made up of 7.1 billion items per year, which is about 5 pounds (or 897 pieces) of litter per person per year.

In total, **roadways** get the most pounds per year (nearly 18.5 million pounds) and high-use areas of **state and county parks** get the most pieces per year (3.4 billion pieces). But the picture changes when we consider how large each area is. When we look at litter per acre, **interchanges** get the most pounds *and* pieces per year, and roadways get the fewest.

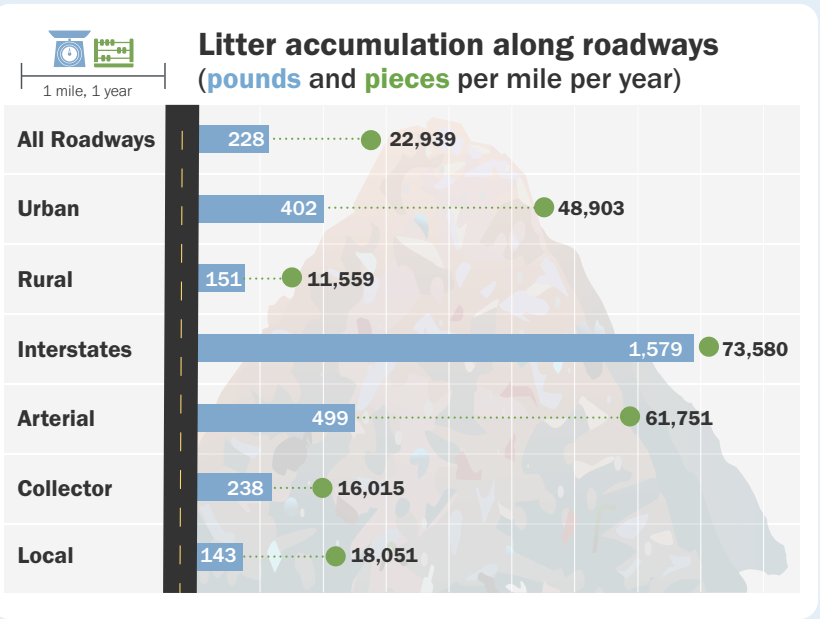


Site type	Total pounds per year	Total pieces per year	Pounds per acre per year	Pieces per acre per year
Roadways	18,496,200	1,858,555,848	126	12,617
Interchanges	7,695,600	1,630,078,616	713	151,017
Highway Rest Areas	38,000	17,860,849	165	77,656
State & County Parks	10,618,000	3,404,009,782	127	40,578
DNR & DFW Lands	946,000	141,717,935	448	67,101
TOTAL LITTER	**37,793,800**	**7,052,223,030**	**155**	**28,863**

Which types of roadways get the most and least litter per mile per year?

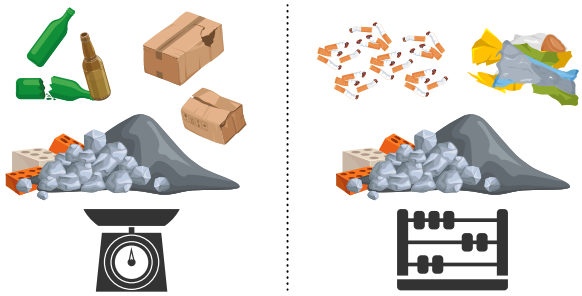
Interstates get the most litter (1,579 pounds and 73,580 pieces per mile per year). They get almost as much litter as all other roadways combined and are also the most difficult and dangerous roadways to clean. **Local roads** get the least (143 pounds and 18,051 pieces per mile per year).

Urban roads get two to four times more litter than **rural roads**. Urban roads get 402 pounds and 48,903 pieces while rural roads get 151 pounds and 11,559 pieces of litter per mile per year.



What items are littered the most?

The most littered items vary by site type and by whether we're measuring pounds or pieces. The **top three littered items** across site types by pounds are glass beer bottles, construction and demolition debris, and cardboard boxes. The top three littered items across site types by pieces are cigarette butts, construction and demolition debris, and food wrappers and snack bags.



Site type	Top three litter items by pounds	Top three litter items by pieces
Roadways	• Glass beer bottles • Construction and demolition debris • Miscellaneous materials *(Example: small and hard to identify items)*	• Cigarette butts • Other plastic *(Example: packing insulation, zip ties, and other hard to identify plastic litter pieces)* • Other paper *(Example: sticky notes, books, envelopes)*
Interchanges	• Miscellaneous materials • Other plastic • Cigarette butts	• Cigarette butts • Other plastic • Other foam *(Example: egg cartons and packing peanuts)*
Rest Areas	• Miscellaneous materials • Cigarette butts • Other metal *(Example: hard to identify metal objects)*	• Cigarette butts • Other metal • Other paper
State and County Parks	• Non-food plastic packaging • Auto rubber products *(Example: tire shards or treads)* • Vehicle debris	• Cigarette butts • Other paper • Other plastic
DNR & DFW Lands	• Glass beer bottles • Miscellaneous materials • Construction and demolition debris	• Cigarette butts • Bottle caps and tabs • Construction and demolition debris

How much of Washington's litter is taxable?

Washington's Litter Tax was established in 1971 to help meet the costs of litter cleanup statewide. The tax rate and 13 covered items have not changed in over 50 years. Current revenues do not cover what it costs to clean up the amounts or types of litter we find today.

Today, **69-76 percent of littered pieces** are covered by the litter tax, while only **42-62 percent of littered pounds** are covered. The difference is because many of the items covered by the tax—such as cigarette butts, food wrappers, and snack bags—are lightweight, while many of the heavier littered items are not covered. *See a full list of items at dor.wa.gov/taxes-rates/other-taxes/litter-tax.*