

## Maintenance Innovation State of the Practice

**Maintenance Innovation:** Highway Litter Cleanup Methods

**Description:** Litter control is an ongoing road maintenance activity. Various methods include adopt-a-highway programs, the use of contractors and in-house maintenance staff. State transportation agencies strive to follow safe practices that balance cost and effectiveness of litter cleanup strategies.

**Requester Name/Agency:** David Reeves,\* Colorado Department of Transportation



(Source: South Carolina DOT.)

**Date of Request:** October 9, 2023

**Query:** What are current highway litter cleanup methods, including:

- Highway collection practices
- Highway litter quantity data
- Frequency of collection

\* David Reeves, Research Pooled Fund Manager, Colorado DOT, submitted this query on behalf of a Massachusetts Institute of Technology (MIT) team researching litter cleanup on state highways and medians.

### Summary of Responses:

State	Litter Collection Practices	Litter Quantity	Litter Collection Frequency
Colorado	<a href="#">Adopt-a-Highway Program Website</a> <a href="#">Sponsor a Highway Program Website</a> <a href="#">CDOT Rapid Debris Removal Research Project</a> (2014) explored the Gator Getter tool to pick up tire treads on smooth asphalt pavements while traveling 45 mph or faster.	Not reported.	Not reported.
Idaho	Adopt-a-Highway Program	Average 500,000 lbs/year. 2016 to date: 3,636,095.5 lbs. Estimated total for life of the program (since 2000): 6,136,095.5 lbs. There may be operational/procedural errors with these tracking numbers so actual numbers are likely higher.	Adopt-a-Highway program groups are required to pick up litter at least twice a year. Groups clean more frequently in some areas based on need.

State	Litter Collection Practices	Litter Quantity	Litter Collection Frequency
<b>Maryland</b>	<p>Four-pronged litter pickup strategy:</p> <ol style="list-style-type: none"> <li>1. Agency staff work with inmate crews, though inmate crews have decreased from over 50 to just under 20 over the years.</li> <li>2. Agency districts and shops have small contracts for spot pickup where needed. Litter pickup is also included in all mowing contracts to limit the amount of litter being cut with the grass.</li> <li>3. The Sponsor-A-Highway program allows companies and corporations to pay one of two minority-owned maintenance providers who do the litter removal in exchange for posting full-color logo signs on sponsored segments. Litter removal under this program is at no cost to the agency and providers have permission to access right of way for litter removal.</li> <li>4. The Adopt-A-Highway volunteer program provides opportunities for civic groups to help remove litter on secondary roads where the inmates are not permitted (see strategy #1). While this program does not result in significant litter removal, it benefits the relationship between the state and its citizens and provides citizens with a greater understanding of the agency's work.</li> </ol>	Not reported.	Not reported.
<b>Ohio</b>	<p>The agency is sponsoring a research project addressing litter collection that is expected to conclude in October 2025:</p> <p><a href="#"><i>Investigating Innovations in Litter Collection</i></a></p> <p>A <a href="#">2019 study</a> assessed costs of litter removal and public attitudes and behaviors toward litter removal.</p>	Not reported.	Not reported.

State	Litter Collection Practices	Litter Quantity	Litter Collection Frequency
South Carolina	<p>The agency manages 41,282 centerline miles of roadway. The miles/percentage of roadway cleaned is variable, however, everything is mowed on a semistructured schedule.</p> <p>Two litter pickup programs cover interstate roads and all other roads. The mileage of noninterstate roads is determined by nonagency local representatives who work with the agency on a cleanup budget, which varies by county.</p> <p>Litter removal is contracted out under both programs and contractors seem to do all cleanup by hand (no vehicles or equipment). Agency staff will, as needed, supplement problematic areas as requested, also by hand.</p> <p>Mowing is through a combination of agency and contract staff primarily using simple tractor mowing and cycles are based on road type:</p> <ul style="list-style-type: none"> <li>• Interstates mowed six times per year, between April and November, on specific schedules.</li> <li>• Primary roads mowed six times between April and November, but the schedule is slightly more relaxed.</li> <li>• Secondary roads (all others) are mowed four times per year between April and November.</li> </ul>	Not reported.	Litter is cleared on the 3,866 lane miles/851 center lane miles of interstate roads once per month.

### References

- [CDOT Rapid Debris Removal Research Project](#), Colorado Department of Transportation, 2014.
- [Highway Litter Study](#), Ohio Department of Transportation, 2019.
- [Research in Progress: Investigating Innovations in Litter Collection](#), Ohio Department of Transportation.