



Machinery used to recover lead from impact berms. Recovered lead can be recycled.

Minimizing Lead Contamination at Shooting Ranges

Well-managed shooting ranges provide valuable recreation and training opportunities. Effective range management prevents pollution while protecting range property, users, staff, local residents, and the surrounding environment from lead contamination.

The following requirements and best practices can reduce lead pollution at your range.

Know the laws for dangerous waste and pollution prevention

Lead is a toxic metal commonly found in ammunition. Lead from unrecovered spent bullets and shot at ranges can build up in the soil and move off the property in stormwater or groundwater, which can pollute nearby creeks, streams, lakes, properties, and water supplies.

Spent lead bullets and shot become **waste** once **abandoned**—that is, left on the ground instead of cleaned up and recycled. Once it becomes waste, it is subject to Washington's [dangerous waste regulations](#).¹

Manage your range to prevent pollution

Recycled lead is **scrap metal** and is excluded from dangerous waste regulations.² Recovering lead from soil reduces environmental contamination. Selling recovered lead to a recycler can offset your removal costs.

1 ecology.wa.gov/DWGuidance

2 See **Resource Conservation and Recovery Act** (<https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-261>), **173-303-071(3)(ff) WAC**, and **40 CFR 261.6(a)(3)(ii)L** (<https://apps.leg.wa.gov/WAC/default.aspx?cite=173-303-071>).

Range managers may meet the requirements to be excluded from the state Dangerous Waste Regulations by regularly:

- Collecting lead from target berms and fall zones.
- Recycling collected lead.

Collecting spent bullets and shot usually involves removing soil from the berm or fall zone, then screening the lead out of the soil. After removing lead and debris, the soil may go back on the range.

Improve your range to maximize pollution prevention

Range designs that maximize pollution prevention also prevent costly cleanups and protect range users, neighbors, and wildlife in nearby waterways. Effective range design:

- Controls spent bullet, fragment, or shot location.
- Contains spent bullets, bullet fragments, and shot, in known areas for removal.
- Prevents lead from migrating to surface water and groundwater.

The EPA's guide to [Best Management Practices for Lead at Outdoor Shooting Ranges](https://www.epa.gov/lead/best-management-practices-lead-outdoor-shooting-ranges)³ has more information on range design and recycling programs.

3 [epa.gov/lead/best-management-practices-lead-outdoor-shooting-ranges-0](https://www.epa.gov/lead/best-management-practices-lead-outdoor-shooting-ranges-0)

More information

Visit Ecology's [lead waste webpage](#)⁴ for more information. Contact a dangerous waste specialist in your region to learn more about dangerous waste regulations or request a technical assistance visit.

- Northwest Region: 206-594-0000
- Central Region: 509-575-2490
- Eastern Region: 509-329-3400
- Southwest Region: 360-407-6300

ADA information

To request an ADA accommodation, contact Ecology by phone at 360-407-6700 or email at hwtrpubs@ecy.wa.gov, or visit ecology.wa.gov/accessibility. For Relay Service or TTY call 711 or 877-833-6341.



4 ecology.wa.gov/programs/hwtr/dangermat/lead.html



Drums of lead from sifting berms.