

Soil Removal and Replacement

Tacoma Smelter Plume

July 2019

This list of frequently asked questions explains how soil removal works in the Tacoma Smelter Plume **Yard Sampling and Cleanup Program** (Yard Program). It also explains the health risks of arsenic and lead and how to protect your family.

Q: What do my sampling results mean?

A: The arsenic and lead levels in part of your yard could qualify for the state-funded soil removal or replacement program. The Department of Ecology (Ecology) is offering soil removal for yards with arsenic 100 parts per million (ppm) or higher, or lead 500 ppm or higher.

Q: While I wait for cleanup, what can I do to protect myself and my family?

A: You can still use the areas of your yard that have higher levels of arsenic or lead, but we recommend reducing contact with soil. We recommend you cover bare soil with mulch, repair bare patches of lawn, and garden in raised beds.

We also recommend healthy actions such as washing hands, taking shoes off at the door, regular vacuuming, and dusting with a damp cloth.

Q: What is the risk of arsenic and lead to human health?

A: There is no immediate danger, but long-term, daily exposure slightly raises the risk of certain health problems. Arsenic can cause cancer and lead can harm children's developing brains and nervous systems.

The health risk comes from breathing and swallowing dirt contaminated with arsenic or lead. Healthy actions like hand-washing and keeping toys clean lowers the chance of accidentally swallowing soil.

Q: Why is Ecology doing cleanup in the Ruston/North Tacoma Study Area?

A: Under the oversight of the Environmental Protection Agency (EPA), Asarco cleaned up the worst contamination—arsenic levels of 230 ppm and above. However, Ecology has a lower action level of 100 ppm. We are offering cleanup for yards where the property has average arsenic between 100 and 230 ppm.

TOPICS

- Sampling results
- Health information
- Cleanup and yard restoration
- Timeline for cleanup

MORE INFORMATION

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Ecology's website

<http://ecology.wa.gov/Tacoma-smelter>

Sampling results

<https://apps.ecology.wa.gov/dirtalert/>

HEALTH QUESTIONS



Tacoma-Pierce
County Health
Department

<http://www.tpchd.org/DirtAlert>

Public Health—Seattle & King
County

<http://www.kingcounty.gov/health/tsp>

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Yard Cleanup and Restoration

Q: What is the process for soil removal and replacement?

A: Once we reach your neighborhood:

1. Our cleanup staff will meet with you to explain cleanup and landscaping options.
2. We will gather information about your yard and draft a cleanup plan.
3. We will meet again to make any changes to the plan.
4. You will sign the plan to give us permission to move forward with the work.
5. Once you sign the plan, we will create construction documents, get necessary permits, and go out to bid for a contractor.
6. In most cases, we will dig up contaminated soils and take them to the landfill. We will bring in new soil to backfill the area.
7. We will restore the landscaping.
8. We will give you documentation of the soil removal work completed on your yard.

Q: How will you restore my landscaping?

A: We will restore the yard based on measurements and photographs taken during cleanup plan development and contractor's surveying. The options for landscaping include:

1. Restore with the same landscaping as before.
2. Replace some of the lawn with mulched beds.

Some plants can be removed, transplanted or replaced with nursery plants. The contractor will use either sod or hydro seed to replace lawn areas. They will maintain the new lawn for up to 60 days after installation.

Q: How will Ecology ensure the quality of replacement soil?

A: Soil mixes will have high organic content to keep landscaping healthy. We require test results from soil suppliers showing that the soil is free of large rocks, metals and other toxins.



We remove the top 12 to 18 inches of contaminated soil.



We bring in new soil to backfill the area.



We install sod to replace the lawn.

Q: What areas will not be included in soil removal?

A: We must work outside of the critical root zone of trees and large shrubs. We cannot remove soil under:

- Buildings with foundations.
- Low decks.
- Sidewalks, patios, or driveways with more than four inches of gravel.
- Walls, ponds, or pools.

We may place a covering of soil or other landscaping material in areas where we cannot remove soil.

Q: What are my responsibilities as the property owner?

A: We can remove soil under small sheds or other moveable structures without foundations. However, the property owner must empty the structure before work begins.

We also need you to remove any overgrown vegetation, large stumps or woody shrubs in areas you want cleaned up. Otherwise, we will remove soil as close as we can around them, leaving some contamination.

Before work starts, you must provide access to the yard, driveway and adjacent street or alley. This may include parking vehicles on the street and out of the driveway, moving lawn equipment and furniture, and picking up kids' play equipment.

Our contractor will water and care for the new landscaping for an agreed-upon length of time. After this, care for the new lawn and other plants is up to you.



The homeowner must mow, water and care for the new lawn.

Q: Are there any costs to the property owner?

A: A normal soil removal project should not cost the property owner anything. However, we will not pay to remove trees, stumps, or large woody shrubs to reach the soils beneath. After cleanup, expenses may include watering your new landscaping and paying for any extra landscaping you want. We can help you find low-cost plants, tree coupons, and free gardening advice.

Q: Am I required to participate in this program?

A: No, this is a voluntary program and you may opt out when we contact you. However, we strongly encourage you to participate because you have high levels of arsenic and lead in your yard.

Q: Should I do my own soil cleanup for the parts of my yard that do not qualify for the state-funded program?

A: We don't recommend doing your own soil cleanup unless you are planning a building project or major landscaping that involves moving soils. We cannot reimburse you for any costs, but we can provide guidance. For advice on your soil moving project, call (360) 407-7688, press 2.

Timeline for Yard Cleanup and Restoration

Q: When can Ecology start cleanup work on my yard?

A: Ecology is working neighborhood by neighborhood to complete soil removal projects. We do not know how long it will take to complete work in each neighborhood. It may be several years until we begin work in your neighborhood.

To receive email updates on the cleanup schedule in your neighborhood, contact Crescent Calimpong at (360) 407-6790 or Crescent.Calimpong@ecy.wa.gov. Or, visit our webpage to see maps of our planned cleanup work: <http://ecology.wa.gov/Tacoma-smelter>

Q: Can I get my soil replaced sooner?

A: No, we cannot start work on your property sooner or out of schedule. We estimate that over a thousand properties will require soil replacement in the Yard Program service area. To ensure we work on the most contaminated properties first, we will adjust our cleanup sequence as we complete yard sampling.

Q: Can I opt out of the program now and join later?

A: No, you cannot join after you have opted out. This program is only offered for a limited-time.

Q: How much advance notice will I receive before cleanup?

A: We will contact you one year in advance to start planning for cleanup work.

Q: How long will soil removal and yard restoration take?

A: Planning and preparation for soil removal can take up to a year. Cleanup and restoration of the yard is a long process. Contractors may need more time if there is inclement weather or holidays.

Q: I'm trying to sell my home. Should I still sign up for cleanup?

A: Yes, we can work with sellers and their real estate agents to put sampling results in context and answer questions about the process for soil removal. We can also advise on ideas for reducing contact with contamination before cleanup. Before Ecology can begin cleanup, we must have a signed agreement from the current homeowner. Please let us know if you are planning to sell your house when we contact you to start cleanup planning.

Q: Do I have to disclose my results if I sell my home?

A: The Seller's Disclosure Statement (Form 17) does ask about soil contamination on the property. We recommend consulting with a real estate professional if you have questions about disclosure. Keep in mind that all yard sampling and cleanup data will be available on the online map Dirt Alert: <https://apps.ecology.wa.gov/dirtalert/>.

To request materials in a format for the visually impaired, visit <https://ecology.wa.gov/accessibility>, call Ecology at (360) 407-6790, Relay Service 711, or TTY (877) 833-6341.