



Frequently Asked Questions

More information

Dirt Alert Program:

<https://ecology.wa.gov/DirtAlert>

Former Orchard Lands:

<https://ecology.wa.gov/FormerOrchards>

Seller Disclosure Statement, Form 17:

<http://apps.leg.wa.gov/rcw/default.aspx?cite=64.06.020>

Contact information

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Special accommodations

To request Americans with Disabilities Act (ADA) accommodation, or printed materials in a format for the visually impaired, contact the Ecology Rhonda Luke at 509-454-7838 or Rhonda.Luke@ecy.wa.gov, or visit <https://ecology.wa.gov/accessibility>. People with impaired hearing may call Washington Relay Service at 711. People with speech disability may call TTY at 877-833-6341.

Legacy pesticides in soils are a concern developers, homeowners, communities and schools should consider in areas where former orchard lands are or have been redeveloped. Here are some answers to commonly asked questions related to risks and resources to prevent and manage exposure, sample and/or to clean up contaminated soil.

Health effects and preventing exposure

How can lead and arsenic affect someone's health?

Some people are more susceptible to health risks associated with lead and arsenic contamination. Children are a primary concern given their likelihood to come in regular contact with dirt and that health effects increase with repeated exposure.

In children, lead can cause behavioral problems like hyperactivity, permanent learning difficulties, and reduced physical growth. In adults, lead can increase blood pressure, affect memory, and contribute to other health problems.

Long-term exposure to arsenic is linked to a variety of health problems, including heart disease, diabetes, and cancer of the bladder, lung, skin, kidney, liver, and prostate.

Learn more on Ecology's Dirt Alert – Health Effects web page that includes links to more information from the Washington State Department of Health, the Agency for Toxic Substances and Disease Registry, and other agencies.

What activities increase the risk of exposure?

Risks increase when anyone encounters contaminated soil, especially with repeated exposure. This can include children playing in dirt or people with jobs working in or around historical orchards and construction sites, or any job that requires coming into direct contact with contaminated soil.

Other high-exposure activities include in-ground gardening, mowing, or any sort of activity that kicks up dirt and dust, and any activity involving interaction with bare ground that may be contaminated.

What can people do to reduce exposures to soil contamination?

We encourage you to visit Ecology's Dirt Alert – Healthy Actions web page to learn simple things you and your family can do to decrease contact with lead and arsenic in soil and suggest contacting your physician if you have continued concerns.

Some examples include planting gardens in above-ground structures or containers, using clean imported soils, having your soil tested, practicing good hygiene, removing soiled shoes or clothing before entering the house, and keeping children away from bare ground.

Sampling for local government and developers

What are the environmental requirements for new developments?

When former orchard lands transition to new uses, it is important for these lands to be tested for legacy pesticides. If soil contamination is not addressed during redevelopment, people who live and work in these areas may come into regular contact with contaminated soil.

To advance this effort, Ecology is requiring soil sampling before new development occurs, a service we provide at no cost.

As part of the State Environmental Policy Act process, Ecology reviews project proposals to verify they will not adversely affect human health or the environment. Our goal is to help local governments and developers address the potential health and environmental risks during the planning phase of redevelopment. This protects construction workers and prospective homeowners, especially children, from exposure to lead and arsenic.

Do state laws require sampling and cleanup?

Under Washington law¹ (70.105D.040 Revised Code of Washington [RCW]), developers are responsible for potential contamination on properties they purchase, develop, and resell. Redevelopment is contingent upon cleaning up a site to standards that protect human health and the environment.

Sampling for homeowners

What can homeowners who live on former orchard lands do?

Current homeowners are not required to sample their soil. At your request, Ecology will sample your soil for free, based on staff availability. We will help you understand the results and associated health risks, if any. If lead and arsenic levels are elevated, we will not require you to take action; however, we can help you plan to reduce your family's exposure potential. Ultimately, removing or covering contaminated soil are the best solutions.

Can I sample soil myself?

Yes. Visit Ecology's Dirt Alert – How to Sample Your Soil web page² for a quick overview of the process. From there, you can download our Soil Sampling Guidance³ (Ecology Publication 06-09-099) for step-by-step instructions on planning, gathering, and submitting samples for laboratory analysis.

Real estate transaction requirements

What is required of sellers?

Sellers and realtors must comply with real estate disclosure law. Chapter 64.06 RCW⁴ creates seller disclosure forms with questions about the property being sold. Real estate transactions include a seller disclosure statement, known as Form 17. You can get this form from your real estate agent or copy the questions from RCW 64.06.020⁵.

Form 17 asks if the seller knows of any soil contamination. If you live on former orchard land and soil sampling has confirmed lead and arsenic contamination, you must disclose that on Form 17. Sellers also are required to disclose "adverse material defects," which could include soil contamination. The disclosure requirements apply to both improved and unimproved properties, with some exceptions. If you have questions about Form 17, please seek legal advice.

¹ <https://app.leg.wa.gov/RCW/default.aspx?cite=70.105D.040>

² <https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Dirt-Alert-program/Soil-sampling>

³ <https://apps.ecology.wa.gov/publications/SummaryPages/0609099.html>

⁴ <https://app.leg.wa.gov/rcw/default.aspx?cite=64.06>

⁵ <https://apps.leg.wa.gov/rcw/default.aspx?cite=64.06.020>

What should prospective buyers do?

Check the seller disclosure form. Unless the buyer expressly waives the right to receive the disclosure statement, the seller must provide Form 17 (RCW 64.06.020⁶).

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Sellers also are required to disclose “adverse material defects,” which could include soil contamination. The disclosure requirements apply to both improved and unimproved properties, with some exceptions. If you have questions about Form 17, please seek legal advice.

What should prospective buyers do?

Check the seller disclosure form. Unless the buyer expressly waives the right to receive the disclosure statement, the seller must provide Form 17 (RCW 64.06.020).

A buyer cannot waive the right to Form 17 if the answer to any of the questions in the Environment section are “yes.” The buyer can ask the seller and realtor if they are aware of any soil testing on or near the property.

If soil sampling has not been done, ask the seller if you may test the soil. Ecology’s Dirt Alert website⁷ has guidance⁸ about sampling soil, or you can contact us to request free soil sampling, based on staff availability. If you buy a contaminated property, you become liable for cleaning up that contamination. Sampling soil before purchasing property protects you from liability as well as health impacts.

Historic lead-arsenate pesticide use

How did lead and arsenic get in the soil?

From about 1905 until around 1950, lead-arsenate pesticide was commonly used in central Washington orchards. That pesticide settled into the soil, leading to large areas of contamination (known as “area-wide” contamination). Lead- and arsenic-based pesticides remain in soil for a long time without breaking down into less harmful compounds.

Where are these former orchard lands?

Ecology’s Former Orchard Lands⁹ webpage includes maps of likely affected areas based on land use and based on aerial photographs from the late 1940s. You can also review property records to identify if your land is in an area of potential contamination.

As we gather sampling data, we will update our Dirt Alert map application¹⁰ (***Please note: Use Google Chrome for your browser***) with property-specific details, including whether a property was sampled, the results, and if it was cleaned up.

⁶ <https://apps.leg.wa.gov/rcw/default.aspx?cite=64.06.020>

⁷ <https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Dirt-Alert-program>

⁸ <https://apps.ecology.wa.gov/publications/documents/0609099.pdf>

⁹ <https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Cleanup-sites/Former-orchard-lands>

¹⁰ <https://apps.ecology.wa.gov/dirtalert/> (***Please note: Use Google Chrome for your browser***)