

Frequently Asked Questions about the Tacoma Smelter Plume

Free Soil Safety Program for public parks, camps, and public multi-family housing play areas

Working together to protect children from area-wide soil contamination

The Soil Safety Program partners are:

- Washington Department of Ecology, Toxics Cleanup Program
- Public Health - Seattle & King County
- Tacoma-Pierce County Health Department
- Washington Department of Health

More Information:

Contacts are listed on page 7.

For almost 100 years, the Asarco company operated a copper smelter in Tacoma. Air pollution from the smelter settled on parts of King, Pierce, Kitsap, and Thurston counties, creating the Tacoma Smelter Plume. Arsenic and lead are still in the soil. Some child play areas may have arsenic and lead at levels that pose a health concern.

In 2005, the legislature passed a law (Chapter 70.140 RCW) to keep children safe from polluted soil. This law resulted in the creation of the Soil Safety Program that addressed schools and childcare play areas within the program service area. As of May 2010, the Washington Department of Ecology has sampled nearly 800 schools and childcares and cleaned up 96. Starting July 1, 2010, Ecology will use money from a settlement with Asarco to sample and clean up soils in **public park, camp, and public multi-family housing play areas**, in addition to schools and childcares.

You are invited to participate in the Soil Safety Program! It assists parks, camps and public housing authorities in providing a safer and healthier setting for children. It can reduce children's contact with smelter arsenic and lead by identifying play areas where children are exposed to polluted soil. The program provides:

- ✓ Free soil testing at all parks, camps, and public multi-family housing play areas in the Soil Safety Program service area (map on page 3).
- ✓ Free design assistance, labor and materials to put soil safety actions in place – at play areas with arsenic and lead above state standards.

Ecology funds and manages the Soil Safety Program as part of cleaning up the Tacoma Smelter Plume. Public Health–Seattle & King County and the Tacoma-Pierce County Health Department are key partners because of their expertise and knowledge of the local community. You can be another important partner in protecting children where they play!



Q: Is my park, camp or public multi-family housing in the Soil Safety Program service area?

A: If you received this handout, properties you manage are probably in the service area (map on page 3). Play areas in the service area generally have a greater potential to have smelter arsenic or lead in soil above state standards. Arsenic and lead are health concerns in even low amounts and the higher the amount the greater the health concern.

Q: Am I required to participate in the Soil Safety Program?

A: No. This is a voluntary program for parks, camps and public multi-family housing. **However, Ecology strongly encourages participation in this free program while funding is available.** Many parks and camps in the service area were sampled during previous studies of the Tacoma Smelter Plume. Some had elevated arsenic or lead in soil. At the time of the initial sampling, Ecology did not have funding to pay for soil safety actions in these areas. With the expansion of the Soil Safety Program, Ecology offers **free** design assistance, labor and materials for soil safety actions. (See page 5 for more about test results and soil safety actions.)

Q: How is Ecology prioritizing sampling and cleanup?

A: Ecology is focusing first on play areas that have been sampled in the past and have elevated arsenic or lead. In general, remaining play areas will be prioritized in this order, based on the map zones shown on page 3:

1. **Zone 1** – most likely to have elevated soil arsenic.
2. **Zone 2** – likely to have elevated soil arsenic.
3. **Zone 3** – may have elevated soil arsenic depending on property location and history—will be evaluated on a case-by-case basis.

Q: Why should I care about arsenic and lead?

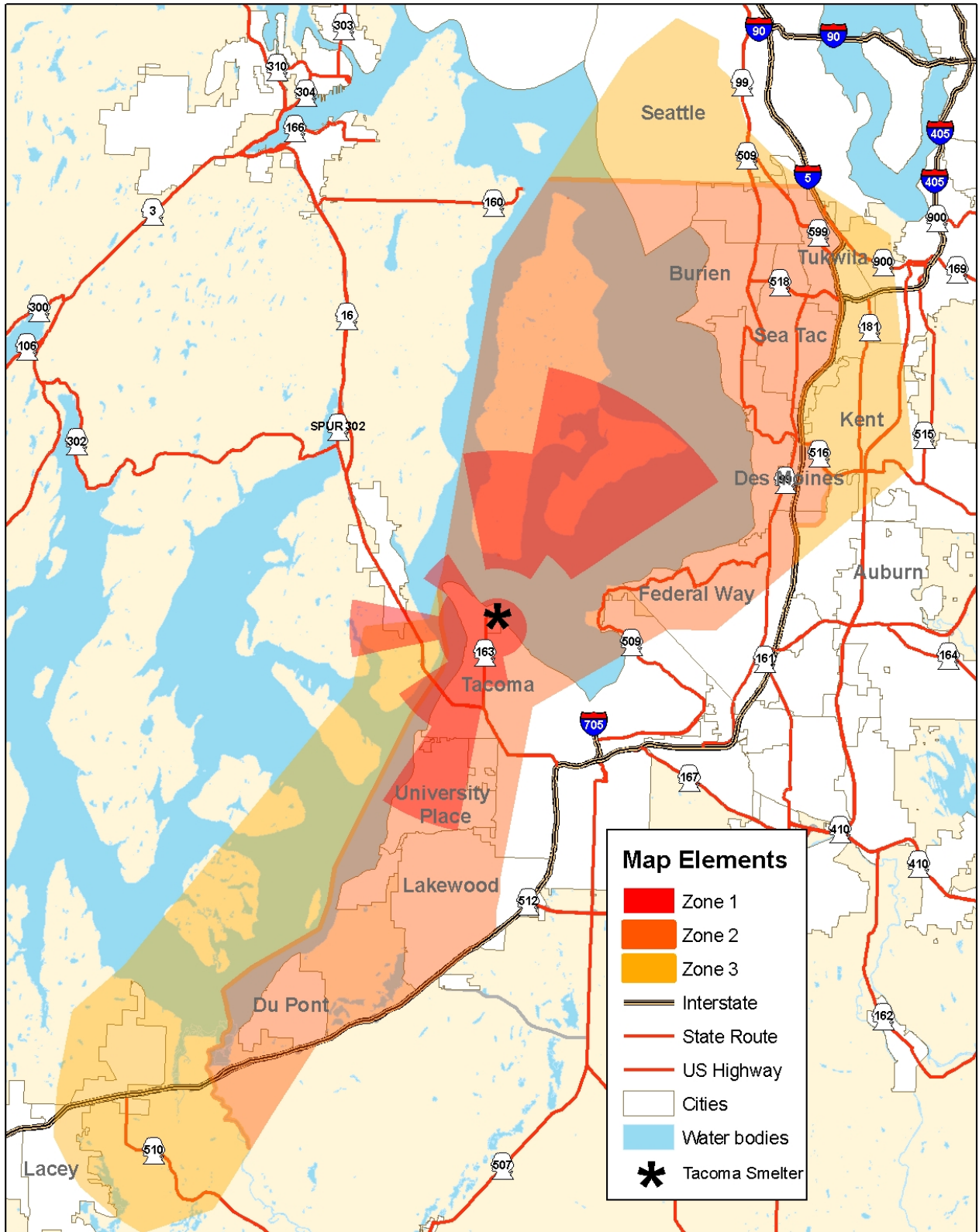
A: Arsenic and lead cause several health problems in people. Whether someone is affected depends on the amount of arsenic and lead taken into his or her body over time. Young children are more vulnerable because they tend to put dirty fingers and toys into their mouths. Their hands and toys may have arsenic and lead on them.

Scientists have linked arsenic to a variety of health problems including heart disease, diabetes, and cancer of the bladder, lung, skin, kidney, liver, and prostate. Lead can cause behavioral problems, permanent learning difficulties, and reduced physical growth.

For more information on health effects of arsenic and lead, contact your local health department (page 7).



2010 Soil Safety Program (SSP) Service Area



Q: What funding and resources are available?

A: Ecology expects to have enough funding for soil testing and soil safety actions at parks, camps and public multi-family housing play areas in the service area. We expect to offer free testing and soil safety actions at least through December 2012.

Q: Who will test my soil?

A: Your local health department or a contractor hired by Ecology will evaluate your play areas and, if needed, test your soil. These services will be **free**.

Q: Where will the samples be taken and when?

A: The sampler will take soil samples from play areas on the property. Play areas include play structures, fields and other areas Ecology determines to be high use (gathering or activity areas, picnic benches). The service area is big—almost 315 square miles. We estimate it will take six months to a year to sample all the parks, camps and multi-family housing in the area. This partly depends on how quickly park districts, camps, and housing authorities can provide signed access agreements.

Q: What if my soil was already tested for smelter arsenic and lead?

A: If the health department or Ecology's contractor has already sampled your play area soils and arsenic or lead levels were elevated, Ecology will be in contact with you. Ecology will ask questions about how the play areas have changed since the initial sampling and may request permission to take more samples to get more information about the soil in your play areas. If levels at your park or camp were not elevated, Ecology may still contact you to retest the soils.

Q: What can I do to create a healthier environment for children while I am waiting to get my play area soil tested?

A: Please contact your local health department for educational resources and tips, and see the suggested soil safety actions below. Contact information for Pierce and King counties is on the last page of this handout.

Q: What are soil safety actions?

A: Soil safety actions are actions we can take to protect children from soil arsenic and lead. These actions also help protect adults working at these facilities. You are probably already



taking actions that are positive and helpful. Many soil safety actions are common sense and easy to do and have health benefits beyond reducing contact with arsenic and lead. You can educate staff, parents, and children about simple soil safety actions such as:

- Keeping children from putting dirt in their mouths.
- Washing hands and faces after playing outside and before eating.
- Washing toys and pacifiers often.
- Keeping dirt out of indoor child use areas using a door mat or shoes off policy.

Other soil safety actions, which Ecology will assist with, include:

- Covering soil with sod or wood chips, or other material approved for child play areas.
- Mixing the soil.
- Removing the soil and taking it to a landfill.

Q: How will Ecology help me with soil safety actions?

A: As soon as we have your test results, Ecology will see if they meet state cleanup levels for arsenic and lead in soil. If your soil test results exceed these levels (table below), Ecology will contact you to set up a meeting. Ecology will explain the test results, and talk about different soil safety actions that will help protect the public that uses your play areas. Together, we will make a Soil Safety Action Plan for your play area. Ecology and the health departments will then provide the funding, labor and educational resources to carry out these actions.

State Cleanup Levels for Soil Arsenic and Lead

Measure	Arsenic parts per million (ppm)	Lead parts per million (ppm)
Average of Soil Test Results	Over 20 ppm	Over 250 ppm
Maximum Amount Found	Over 40 ppm	Over 500 ppm

Q: What will my test results show?

A: Soil testing will provide a general picture of soil arsenic and lead in your play areas. Samplers will take multiple samples depending on the size of your play area and its location within the service area. Those parks, camps and housing in Zone 1 will have more samples taken. Ecology will average the results, and look at the maximum amount of arsenic and lead. Ecology will then compare the results with state cleanup levels (see table above).

Once you have the test results, you can make an informed decision on what to do next. If arsenic and lead in your soil are above cleanup levels, Ecology will work with you to develop a Soil Safety Action Plan for your play areas. The Soil Safety Program Design describes the reasoning behind the state standards and arsenic and lead levels chosen for the program. You can find a copy on Ecology’s [website](#) or by calling the Soil Safety Program Coordinator (see page 7).



Q: What do I need to do as the operator of a park, camp or public multi-family housing to take advantage of this program?

A: Here is what you should do as an important partner in the Soil Safety Program:

1. Soil Testing – All parks, camps and public multi-family housing play areas should have their soil tested. This will involve:

- Signing a property access form.** This gives permission for local health department staff or an Ecology contractor to take soil from your play areas.
- Providing a simple drawing of your property and buildings, if you have one.
- Answering questions about the history and use of your property, including where children play.
- Reviewing your soil test results and learning what they mean.** If soils are below state cleanup standards (page 5), no action is required. Ecology will send a certification of participation.

2. Soil Safety Action Plan – Ecology strongly encourages Soil Safety Actions for facilities with arsenic and lead in soil above state cleanup levels. To take advantage of free design assistance, labor and materials:

- Work with Ecology to create a Soil Safety Action Plan for your play area.** Ecology will design a plan for your setting and situation. Actions usually require covering or removing polluted soil, and restoring play areas. Ecology will work with administrators and operators to coordinate work with other priorities at your facility.
- Sign a Soil Safety Action Plan agreement.**
- Maintain the soil safety actions.** Ecology can help get soil safety actions started but you will need to make sure they continue into the future. Upkeep of soil safety actions such as landscaping, and play area groundcovers will be your responsibility. Ecology will work with you to estimate maintenance costs before asking for your signature on the Soil Safety Action Plan agreement.
- File or post the certification and description of your Soil Safety Action Plan.**
- Allow Ecology staff to visit your park, camp or public multi-family housing to ensure soil safety actions are still working well for your facility.**

Ecology and your local health department can also provide advice if you want to use your own funding to put actions in place. We invite you to call or email the Soil Safety Program Coordinator with any questions, ideas or suggestions you may have. Please see the next page for how to reach the coordinator and where to learn more about the Soil Safety Program.

Thank you!

We look forward to working with you to make parks, camps, and public housing a healthier and safer place for children.



Where to Learn More about the Soil Safety Program

Please contact Department of Ecology for general program information.

Ecology's website has more program details:

http://www.ecy.wa.gov/programs/tcp/sites/dirt_alert/soilSafety/SoilSafety.htm

Ecology's Soil Safety Program Coordinator is ready to answer your questions:

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You are encouraged to contact your local health department for health related information.

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