

Cleanup Underway on Residential Yards

Ecology is using the majority of a \$94.6 million settlement from Asarco to clean up residential yards in Pierce and King counties. The goal is to reduce human health risk by cleaning up the most contaminated areas of the plume—Ruston, north and west Tacoma, and southern Vashon-Maury Island.

We partner with Tacoma-Pierce County Health Department (TPCHD) to sample yards in Tacoma. Since 2013 TPCHD has sampled 3,019 yards (see page 2). Of those sampled, we found 417 that qualify for cleanup. Overall, there are 1,186 yards slated for soil replacement in the program. So far, we have replaced soil on 224 yards in the Tacoma area (see page 3). In 2018, we plan to clean up 39 more yards in Tacoma. We have replaced soil on a total of 245 yards in the Yard Program Service Area.

Protecting Children Where They Play

The Soil Safety Program provides free soil sampling and cleanup for child play areas at schools, parks, and childcares. Created through 2005 legislation, the program has addressed over 100 play areas and sampled more than 1,000.

Forty-eight of those cleanups were within the Tacoma area. In 2018, we will replace soil at three childcares in the Tacoma area.

Funding Local Health Department Outreach

TPCHD received \$1.2 million this biennium from Ecology to run the “Dirt Alert” program. The program raises awareness and promotes behaviors that reduce soil exposure, such as hand-washing, taking off shoes and covering bare patches of dirt in the yard (see page 4). TPCHD initiatives include childcare provider trainings, events, and free home soil testing.

Encouraging Voluntary Cleanup

Property development presents a good opportunity to clean up soil contamination. Ecology is working with Tacoma and Ruston city planners to educate permit applicants and encourage soil replacement during development.

In 2017, a developer cleaned up 2.05 acres during the development of the Orchard Street Property and 5 acres during development of Kindred Chi Rehabilitation Hospital. South Puget Sound Salmon Enhancement Group cleaned up 1 acre of nearshore habitat in Titlow Park during a habitat restoration project. Ecology also provided an opinion letter on the proposed cleanup during redevelopment of Tobey Jones Senior Living.

About the Tacoma Smelter Plume

Asarco's former copper smelter in north Tacoma emitted arsenic, lead, and other heavy metals. These pollutants were carried by the wind and settled on surface soils, creating the Tacoma Smelter Plume (page 6).

The Asarco Settlement: In 2009, the State of Washington received a settlement from Asarco for environmental damages. Ecology plans to use \$94.6 million over 10 years to manage risks from the Tacoma Smelter Plume through cleanup and outreach.

Federal, State, and Local Agencies Working Together

Since 1993, the U.S. Environmental Protection Agency (EPA) has overseen the Superfund cleanup of thousands of residential yards in Ruston and north Tacoma, as well as the smelter property itself.

In 2013, Ecology began cleaning up yards that did not qualify for EPA's cleanup. Remaining contamination poses a risk to residents. Ecology and the Tacoma-Pierce County Health Department took over outreach work in the community.

Cleanup database: Residents can go online to find out if their yards were part of the Superfund or Ecology soil sampling and soil replacement work.

<https://fortress.wa.gov/ecy/areispublic/>

Tacoma Smelter Plume website:

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

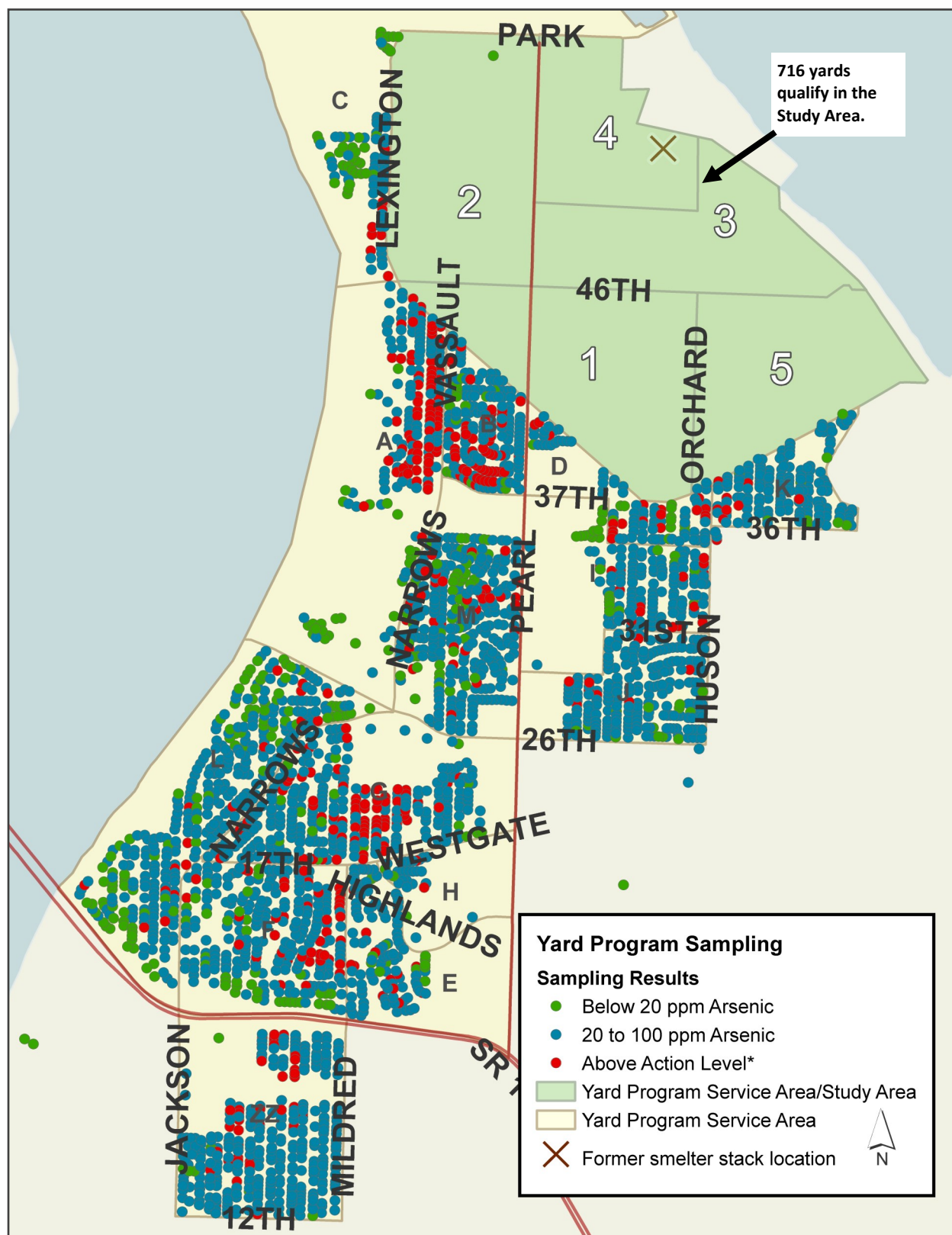
Dirt Alert Videos:

<http://youtu.be/IV4YUdCHjJE>

Contact: Marian Abbett
(360) 407-6257

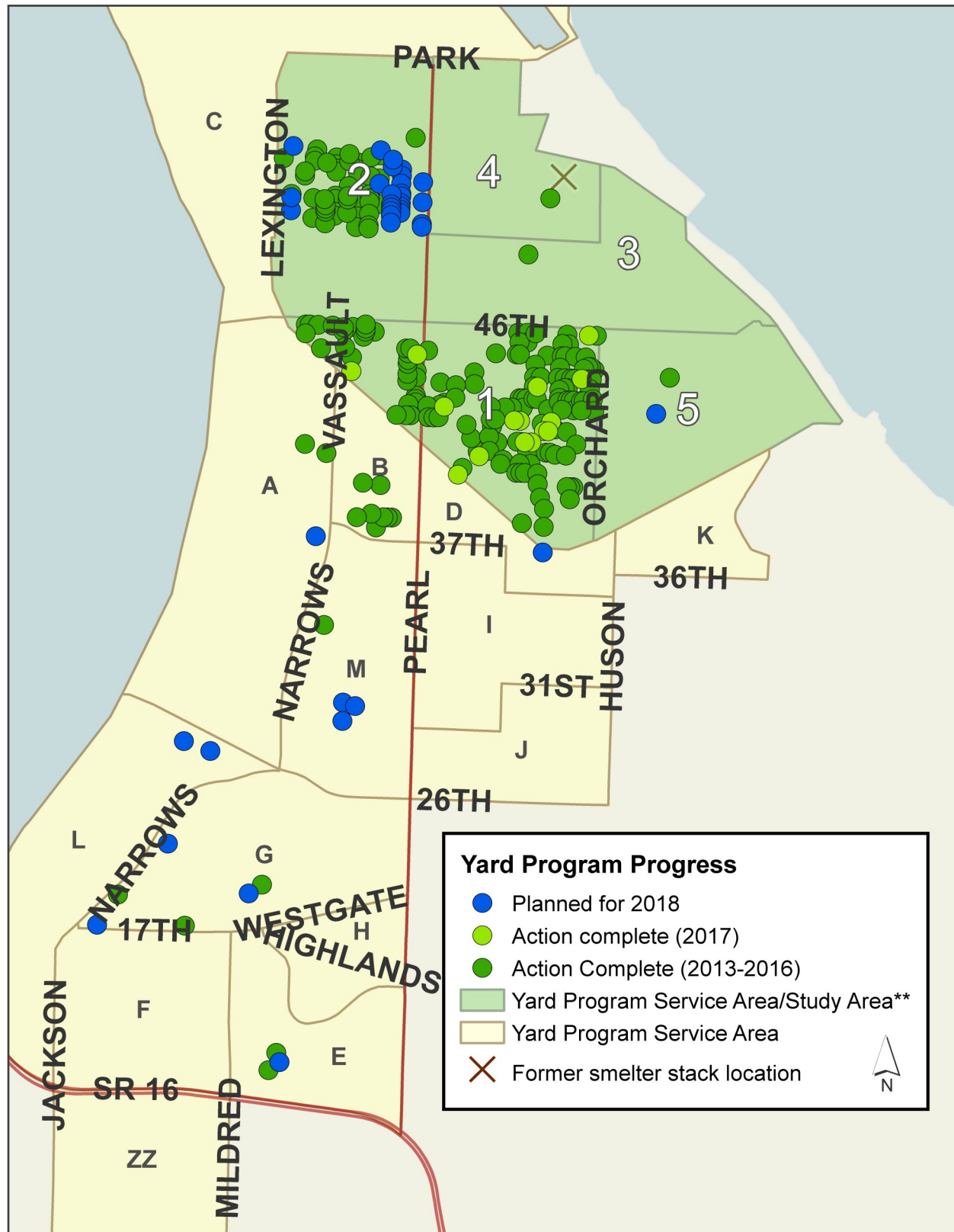
Marian.Abbett@ecy.wa.gov

Yard Program — Completed Soil Sampling in Tacoma



*Properties marked "Above Action Level" include those with average arsenic or lead above the action levels. Ecology's action level for arsenic is 100 parts per million (ppm) or above; for lead, it is 500 ppm or above. The map displays data from Yard Program Sampling efforts, and does not include EPA sampling data. This map was created in May 2018.

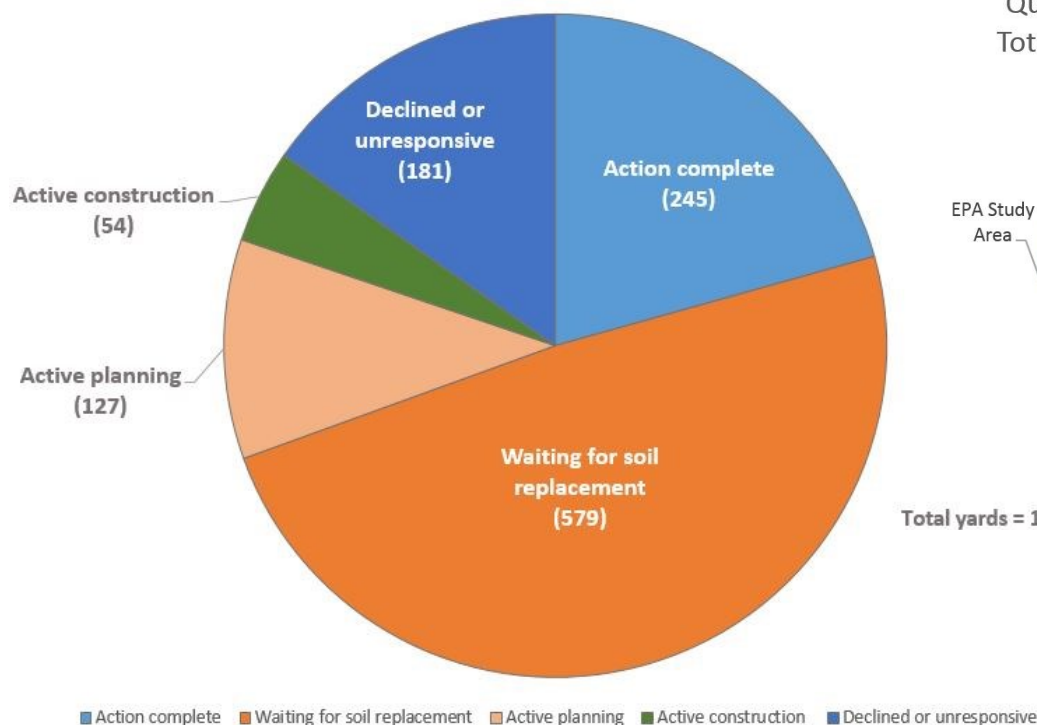
Yard Program – Soil Replacement Progress in Tacoma



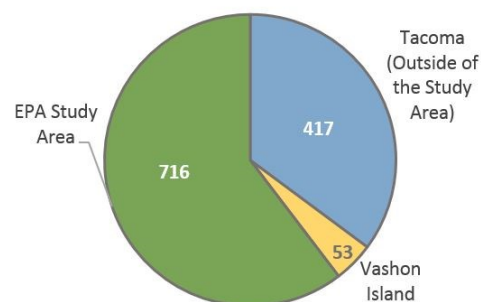
**The Study Area is where the Environmental Protection Agency oversaw the Superfund cleanup of thousands of residential yards in Ruston and north Tacoma (green area on map). Ecology is continuing the work that was started by the EPA over 20 years ago. This map was created in May 2018.

Yard Program — Soil Replacement Progress

Soil Replacement Progress (Yards)



Qualify for Soil Replacement
Total = 1,186 residential yards



Total yards = 1,186

Tacoma-Pierce County Outreach & Education efforts

Education and Outreach: The Tacoma Pierce-County Health Department (Health Department) educates the public about reducing soil contact and encourages the community to take healthy actions to manage risk. Their efforts include hand-washing demonstrations in schools and childcares, outreach at community events, and one on one outreach during knock and talks and soil testing.

In 2016 the Health Department started a program to deliver outreach packets to new residents in the EPA Study Area. The packets include information on the Tacoma Smelter Plume, past sampling and soil replacement records, and healthy actions.

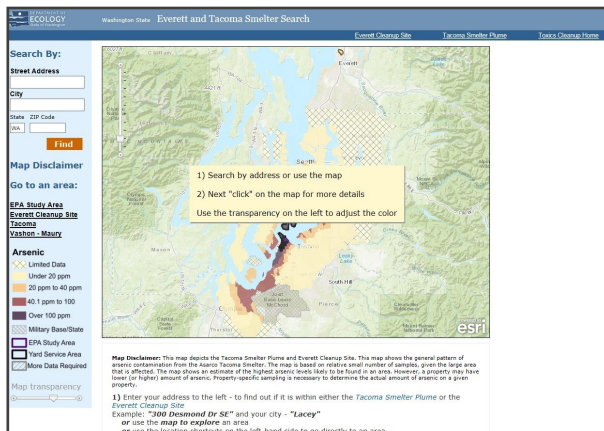
Upper photo: Kids play outside in the dirt.

Lower photo: Washing hands with soap — one of many healthy actions that helps decrease contact with arsenic and lead that may be in the dirt.

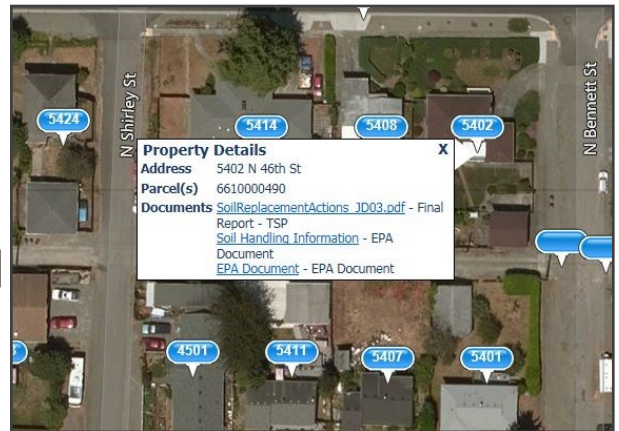


Web Map Application: Transforming and consolidating our data

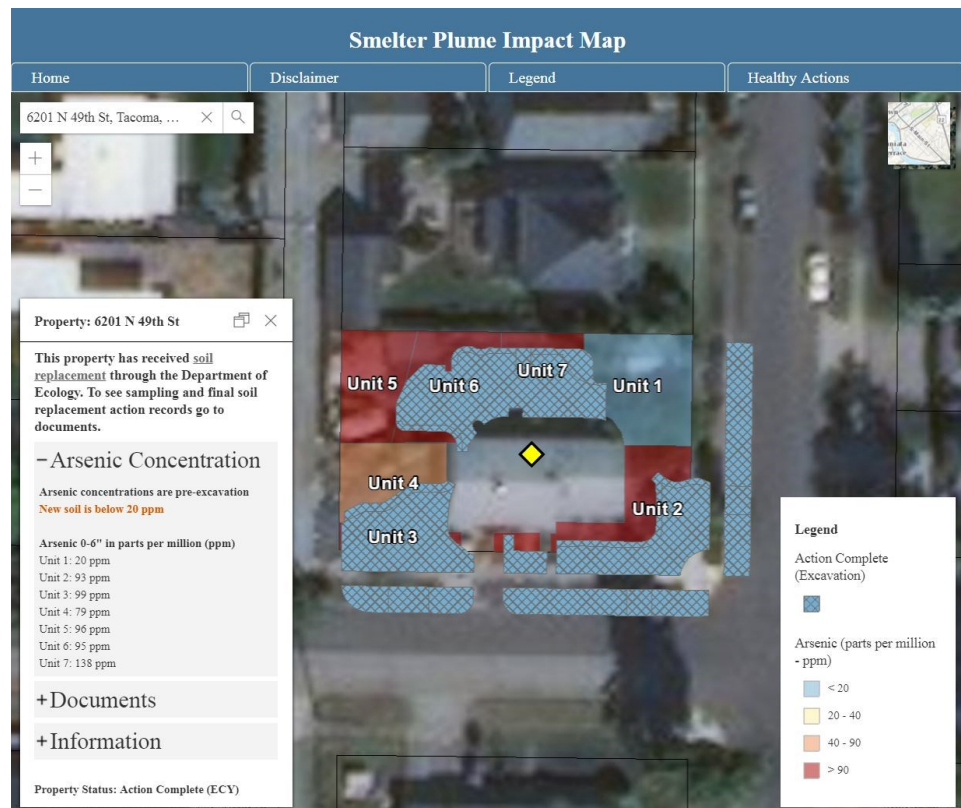
The new web application takes our two existing map services and combines them into one. By putting both our programmatic information and data in one place, our goal is to make it easier for residents, community members, and interested parties to find Tacoma Smelter Plume related information for their property.



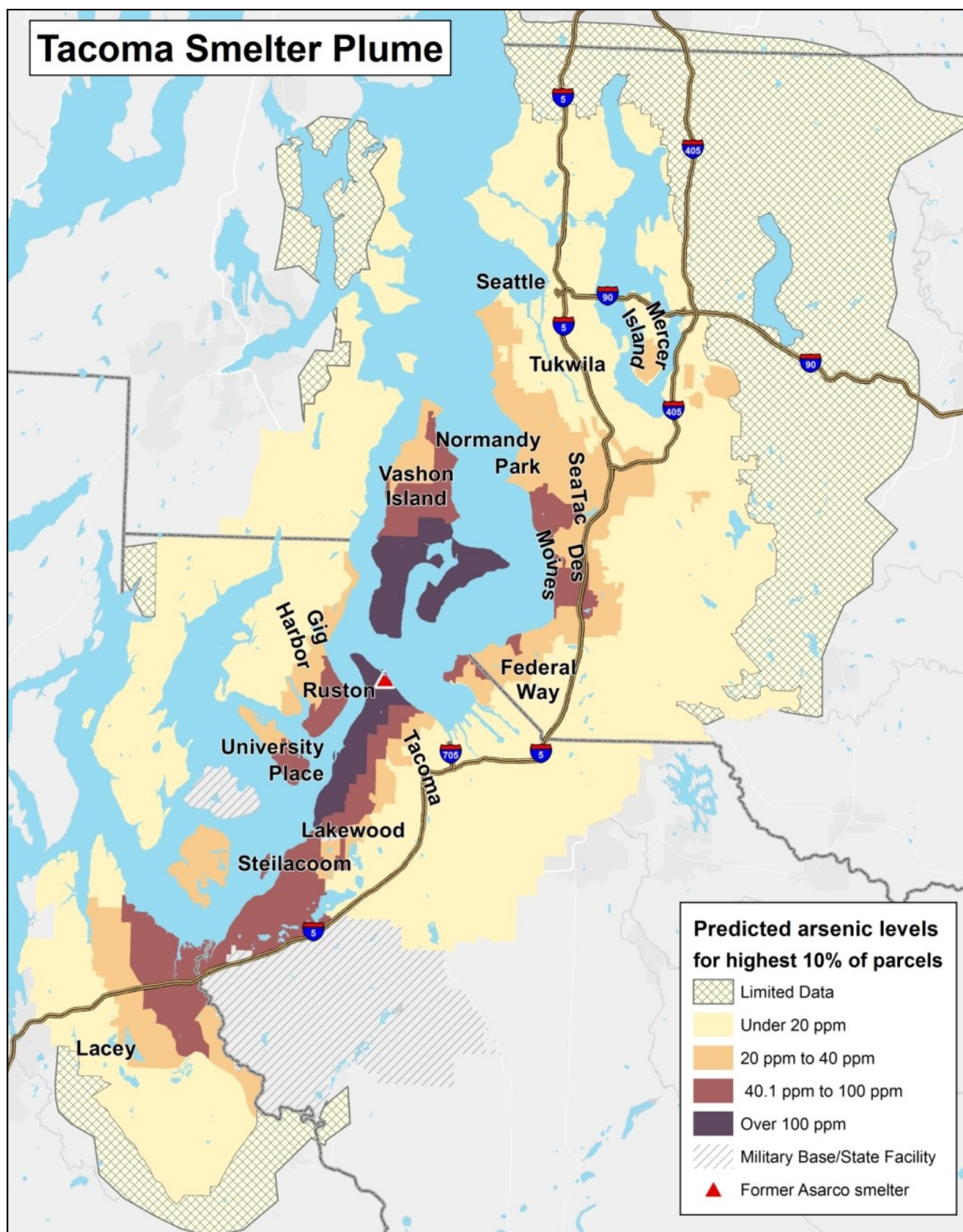
<https://fortress.wa.gov/ecy/smeltersearch/>



<https://fortress.wa.gov/ecy/areispublic/>



Next steps: Over the summer we will begin user- testing. We plan on taking the application to community members, tester groups and interested parties, with a plan to launch in late 2018. The new application will be mobile friendly.



With 90% certainty, at least 1 in 10 parcels will have arsenic in soil at or above levels shown. Predictions are based on distance and direction from the former Asarco smelter, and on sampling data from forested and other soils undisturbed by development. Actual arsenic levels may vary greatly from parcel to parcel. Arsenic levels are shown in parts per million (ppm).