



# CHINATOWN INTERNATIONAL DISTRICT TOXICS STUDY COMMUNITY REPORT

---



## OVERVIEW

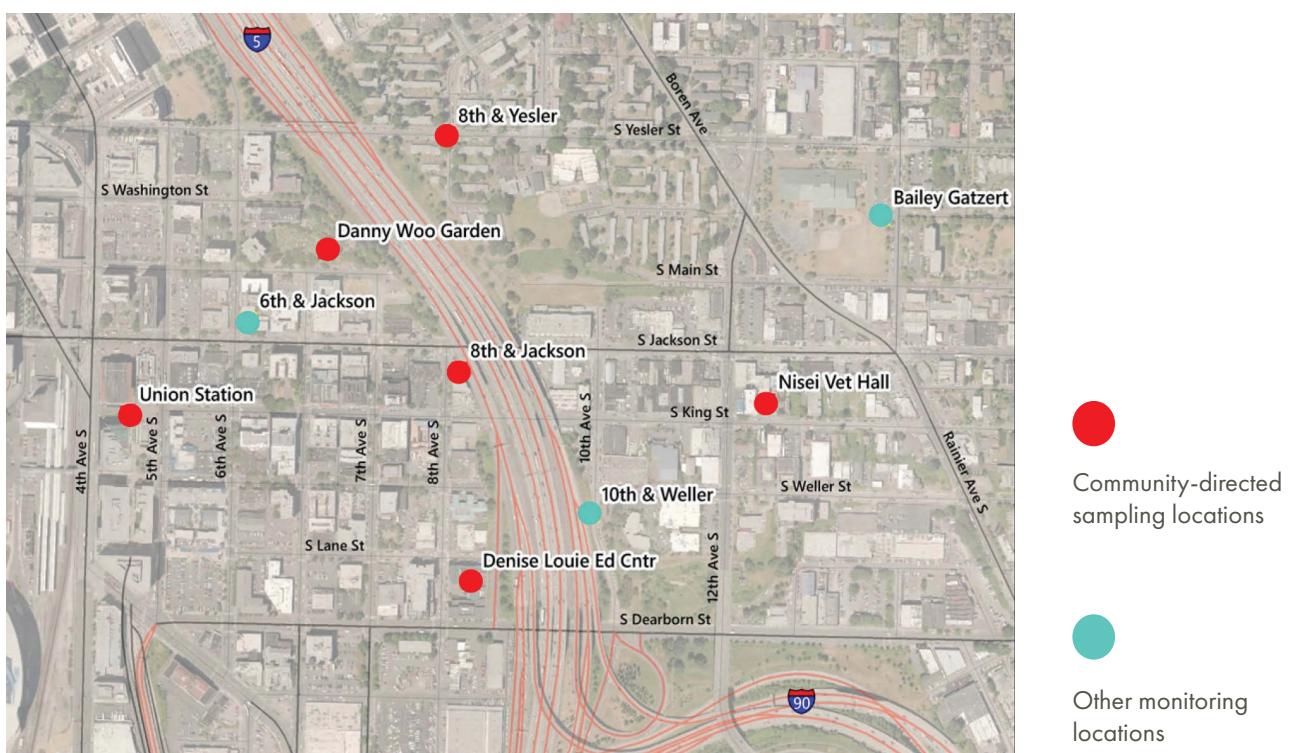
The Puget Sound Clean Air Agency (the Agency) is investing in Chinatown-International District (CID) as a focus community based on a combination of air pollution sources, health impacts, and demographic factors. We understand that the community has historically been left out of finding solutions of air quality issues. As a focus community, the Agency works with the community to create awareness of air quality and understand the community's needs and concerns around air pollution.

The Agency received funding from the US Environmental Protection Agency (EPA) to study toxic air pollutants in the CID, which gave us information about overall cancer risk. In 2017, the Agency conducted a year-long air toxic monitoring effort. The sampling included more than 100 known air toxics, including those known to have high potential health risk.

## COMMUNITY-LED SAMPLING

Throughout 2017, the Agency worked with a number of community groups and local leaders before and during the monitoring period. We participated in multiple outreach events and worked with a local newspaper, a community development association, a community health group, a youth leadership and education program, and various additional community groups. Through these interactions and a web survey, the Agency received feedback on community air concerns and where they would like us to test air quality.

The map below shows the locations of the sampling and monitoring sites.



## KEY FINDINGS

We were able to measure over 100 air toxics in the community. We found 14 that were over one-in-a-million potential cancer risk. These toxics and their concentrations were similar to other sites across the country, and are consistent with previous air toxics levels in Seattle and Tacoma.

The greatest potential cancer risk is from diesel particles, which is consistent with previous studies. At the near-road monitoring site on 10th Avenue S and S Weller Street, more than 75% of the potential cancer risk is from diesel particulate matter. The major sources are I-5 and I-90 where trucks travel, which are the biggest emitters of fine particles, black carbon, nitrogen oxides, and a range of toxics. At the 10th Avenue and Weller St. monitoring site, the total potential cancer risk from diesel particulate matter is approximately 400 per million people.

Other pollution sources from the study include restaurant emissions, dry cleaner emissions, and wood smoke. Currently the Chinatown-International District meets all national air quality standards. When compared to Washington Ecology's Beacon Hill National Air Toxics Trends Station and to previous 2001 and 2009 regional air toxics studies, results from this study confirm that most air toxics levels continue to improve.

### Pollution Sources



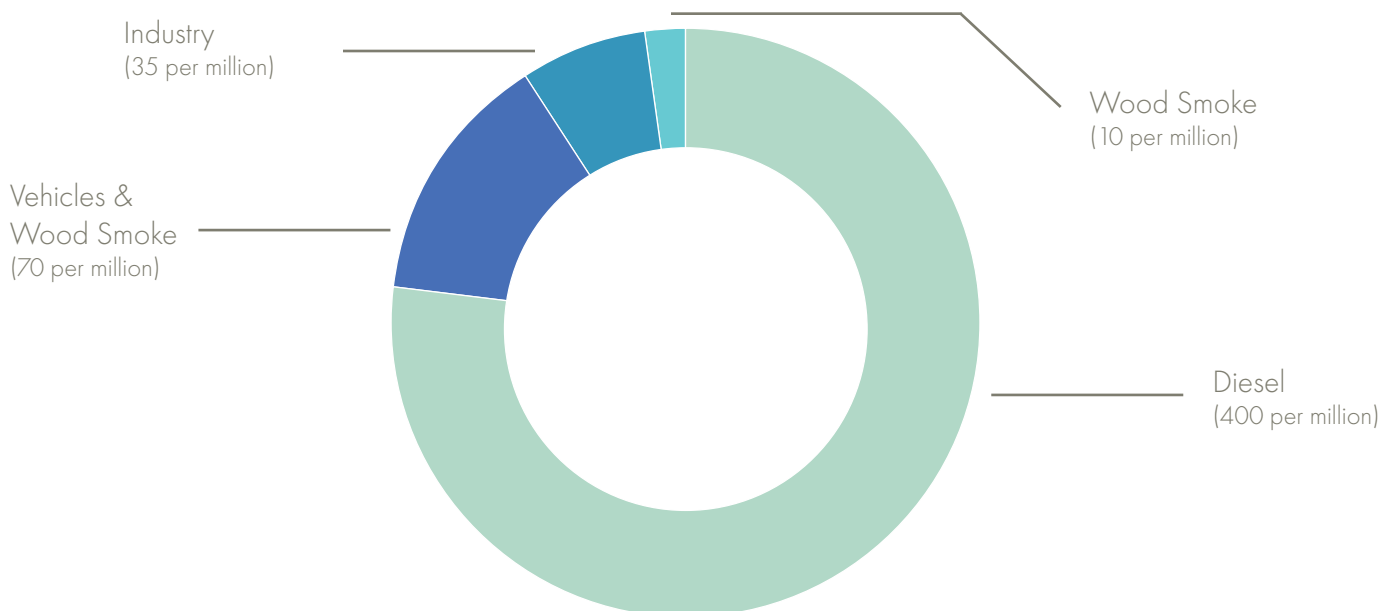
Diesel



Industry



Wood Smoke

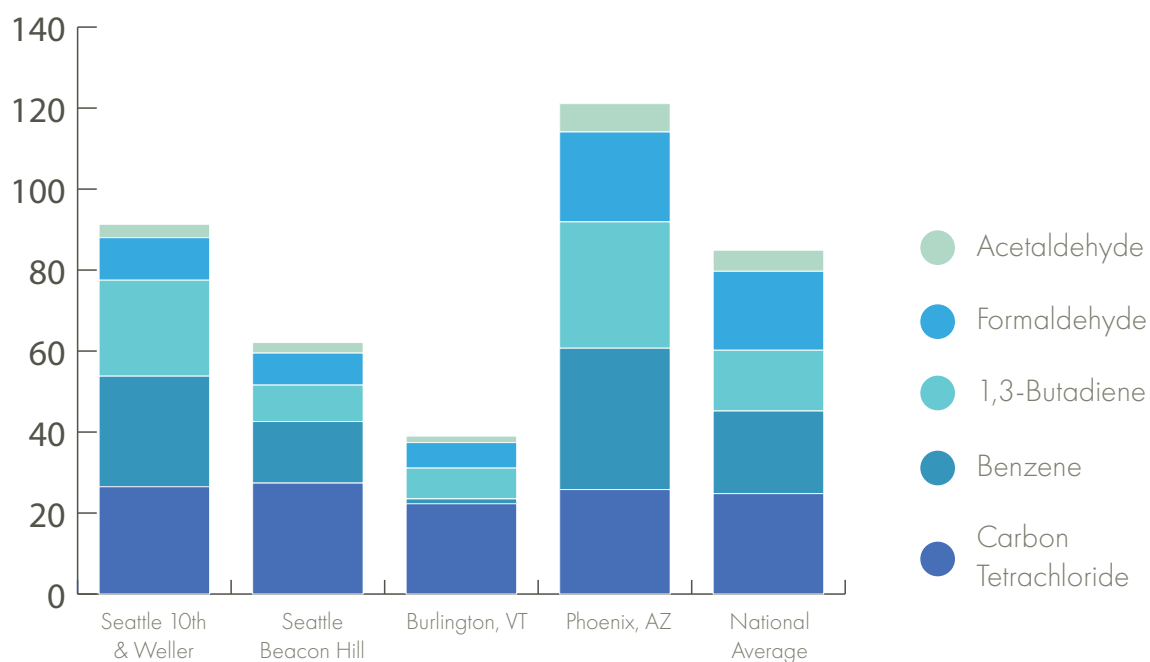


Results from the 10th & Weller monitoring site.

\* It is important to note that the screening was done for a period of one year so this does not represent full exposure.

## KEY FINDINGS

The graph below shows the top five air toxics, without diesel exhaust included, that were monitored at the 10th and Weller site and averages the potential cancer risk per million people.



## SOLUTIONS + ACTIONS

In response to the findings of this study, we will continue to work with the community to reduce emissions and limit exposure and impacts. The next steps for reducing emissions and exposure will be to work with the community, discuss potential actions and strategies, and develop a path forward.

### What Individuals Can Do Now To Limit Their Exposure:

- When possible, limit time spent near highways when traffic is highest, such as during morning and afternoon commute times.
- Recirculate the air in your car when driving.
- Continue to open windows regularly to prevent mold and other indoor air pollutants, etc. (unless outdoor air quality is poor or unhealthy)
- Review air quality forecasts before outdoor strenuous activities.
  - Continue to exercise outdoors if the air quality is good, especially in the evening when traffic levels are usually lower.

## SOLUTIONS + ACTIONS

- Support clean transportation policies including cleaner vehicles and transportation systems.
- Use alternative transportation options when possible (e.g. walking, biking, bus, carpool, electric vehicles).
- Reduce overall impacts from air pollution:
  - o Limit exposure to second-hand smoke, and to other sources of smoke (incense, candles, idling trucks or buses, etc.),
  - o Ensure that home indoor air is also clean,
  - o Consider purchasing or making an indoor air filter, and replace filters as needed. For more information on building your own air filter, visit the Agency's website at [www.pscleanair.org/filterfan](http://www.pscleanair.org/filterfan)

### What We Are Doing to Reduce Potential Cancer Risk from Air Toxics:

#### Diesel Solutions:

The Agency helped retrofit a number of diesel engines that traveled through the Port of Seattle. The goal was to exchange older, dirty engines and replace them with cleaner, more efficient technologies.

#### Cars and Trucks:

Through the Western Washington Clean Cities Coalition, the Agency helps public and private vehicle fleets use cleaner and more sustainable transportation; such as increasing the use of electric vehicles and alternative fuels.

#### Filter-fans:

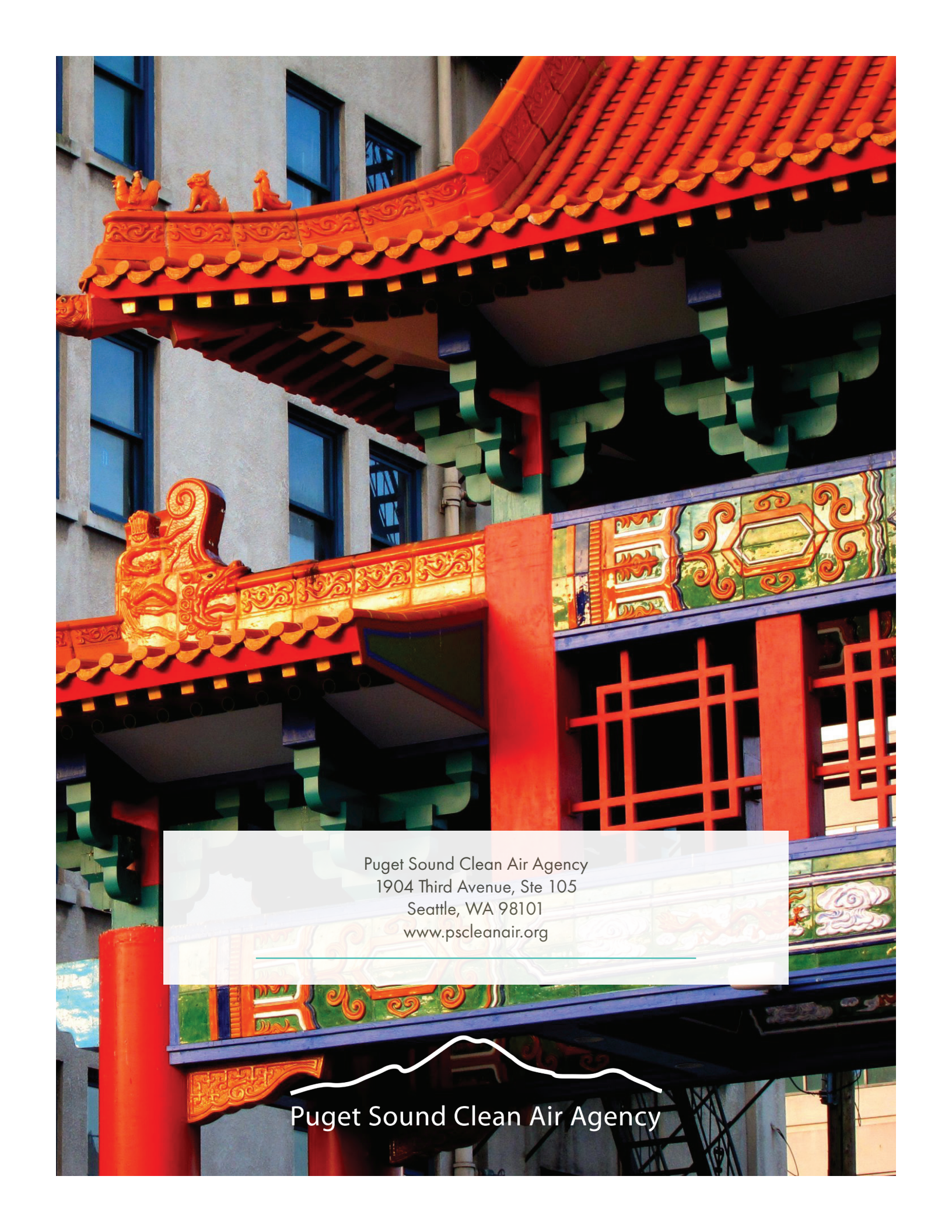
The Agency has partnered with community organizations and student leadership groups to teach people how to build their own low-cost air filters that help clean indoor air.

**PLEASE CONTACT US**  
FOR QUESTIONS,  
CONCERNS, AND  
SUGGESTIONS.

---

[ej@pscleanair.org](mailto:ej@pscleanair.org)





Puget Sound Clean Air Agency  
1904 Third Avenue, Ste 105  
Seattle, WA 98101  
[www.pscleanair.org](http://www.pscleanair.org)

Puget Sound Clean Air Agency