



# Industrial Air Pollution

## Outer Eastside Portland

The compiled records of five government agencies for all industrial air polluters in Outer Eastside Portland, Oregon.



The Sumner neighborhood is among the hardest hit neighborhoods for airborne industrial air pollution in Outer Eastside.

Some of the air pollution is a nuisance which subtracts from the quality of life. Septic odor from NRC Environmental Services at 8828 NE Killingsworth Road., when the wind is blowing from the direction of the plant, is a putrid odor. It forces some neighbors to keep all doors and windows closed even during hot summer days and nights. This requires the purchase of air conditioning units and higher electric bills. The air can be clean air one day, and nauseating the next. Leaving a window open means the odor can come in later. Jumping up and shutting the windows traps the odor inside the house. This creates a certain level of anxiety – just going outside can often be unpleasant.

Under current city code, waste related industries need to be a certain distance from residences unless they have a conditional use permit. NRC in Sumner has been in violation of city zoning codes since they opened, originally named Water Truck Service (WTS) in May 2010. NRC purchased WTS in April 2017. Bureau of Developmental Services made NRC apply for a Conditional Use Permit in October 2017 due to public pressure from Sumner neighbors.

To mitigate the site, sound, and smell NRC are supposed to have landscaping and sufficient distance from neighbors. This site is too small for that. A carbon system has been proposed in their current permitting process to mitigate odors. The site should also be fully enclosed and waste should be both better pretreated, and the air stream biofiltered, before release into the neighborhood.

Another foul smell affecting parts of Sumner is from auto body painting. Some of these businesses use a particulate filter built into the painting booth – the particles often contain lead and chromium. However few if any use a thermal oxidizer on their paint booth emissions stack. Thermal oxidizers remove 97 - 99% of volatile organic compounds (VOCs) such as aliphatic hydrocarbons, ketones, esters, alcohols, and glycol ethers before they go airborne. Such a device costs about \$30 k for the

amount VOCs released by a typical auto body painter. Clearly MM Auto Body at 9128 NE Killingsworth St in Sumner isn't using a thermal oxidizer – the strongly smelling fumes affect many of the neighbors.

Some of air pollution is a potent health threat to neighbors. Owens Brockway in Sumner uses no pollution control technology on its smokestack at its 9710 NE Glass Plant Road. Oregon DEQ's Level I screening of Emissions Inventories collected as part of Cleaner Air Oregon found that Owens Brockway in Sumner poses the greatest risk to human health of any factory in Portland.

In 2016, a typical year, Owens Brockway in Sumner released 463 pounds of lead and 223 pounds of hexavalent chromium into the air next a residential neighborhood of families with children.

Airborne lead gets into your body when you breathe it into your lungs. US Department of Health and Human Services Public Health Statement reports lead exposure is caused by either breathing in lead or swallowing it. According to the ATSDR, shortly after lead enters the body:

"... it travels in the blood to the "soft tissues" and organs (such as the liver, kidneys, lungs, brain, spleen, muscles, and heart). After several weeks, most of the lead moves into your bones and teeth. In adults, about 94% of the total amount of lead in the body is contained in the bones and teeth. About 73% of the lead in children's bodies is stored in their bones. Some of the lead can stay in your bones for decades; however, some lead can leave your bones and reenter your blood and organs under certain circumstances (e.g., during pregnancy and periods of breast feeding, after a bone is broken, and during advancing age)."

Low levels of lead cause major health problems. The Center for Disease Control (CDC) Adult Blood Lead Epidemiology and Surveillance program published laboratory-reported blood lead levels from Americans in 41 states from 1987 to 2013. The CDC reported that

"evidence indicates that lead exposure at low doses can lead to adverse cardiovascular and



kidney effects, cognitive dysfunction, and adverse reproductive outcomes."

The CDC includes decreased renal function and increased risk of hypertension as health problems associated with low levels of exposure.

The Center for Disease Control warns that "Children are more vulnerable to lead poisoning than adults... Even at much lower levels of exposure, lead can affect a child's mental and physical growth... Exposure to lead is more dangerous for young and unborn children. Unborn children can be exposed to lead through their mothers. Harmful effects include premature births, smaller babies, decreased mental ability in the infant, learning difficulties, and reduced growth in young children."

Owens Brockway chromium releases are more dangerous than the lead they emit. If you have seen the movie Erin Brockovich, this is the carcinogen Pacific Gas and Electric was sued for spilling the chemical into groundwater – PGE settled by paying \$333 million in 1996.

The most dangerous airborne pollution in Sumner is caused by unfiltered industrial diesel trucks. The State of California reported that currently diesel particulate is "responsible for about 70% of California's estimated known cancer risk attributable to toxic air contaminants." When California realized how dangerous diesel exhaust is, they banned unfiltered trucks statewide. Diesel particulate filters remove 90% of diesel particulate emissions. By 2015 there were virtually no unfiltered trucks left in California.

In contrast, over 75% of commercial trucks in the Portland area do not have a diesel particulate filter according to ODOT and DMV records. While diesel powered industrial trucks are less than 5% of Oregon vehicles on the road, they cause over 80% of airborne diesel particulate. Many Sumner residents live close to I205 where ODOT sensors report over 7,000 industrial truck trips per day – among the highest truck counts in the city.

DEQ reported in 2015 that diesel exhaust causes lung and bladder cancer, certain heart attacks and

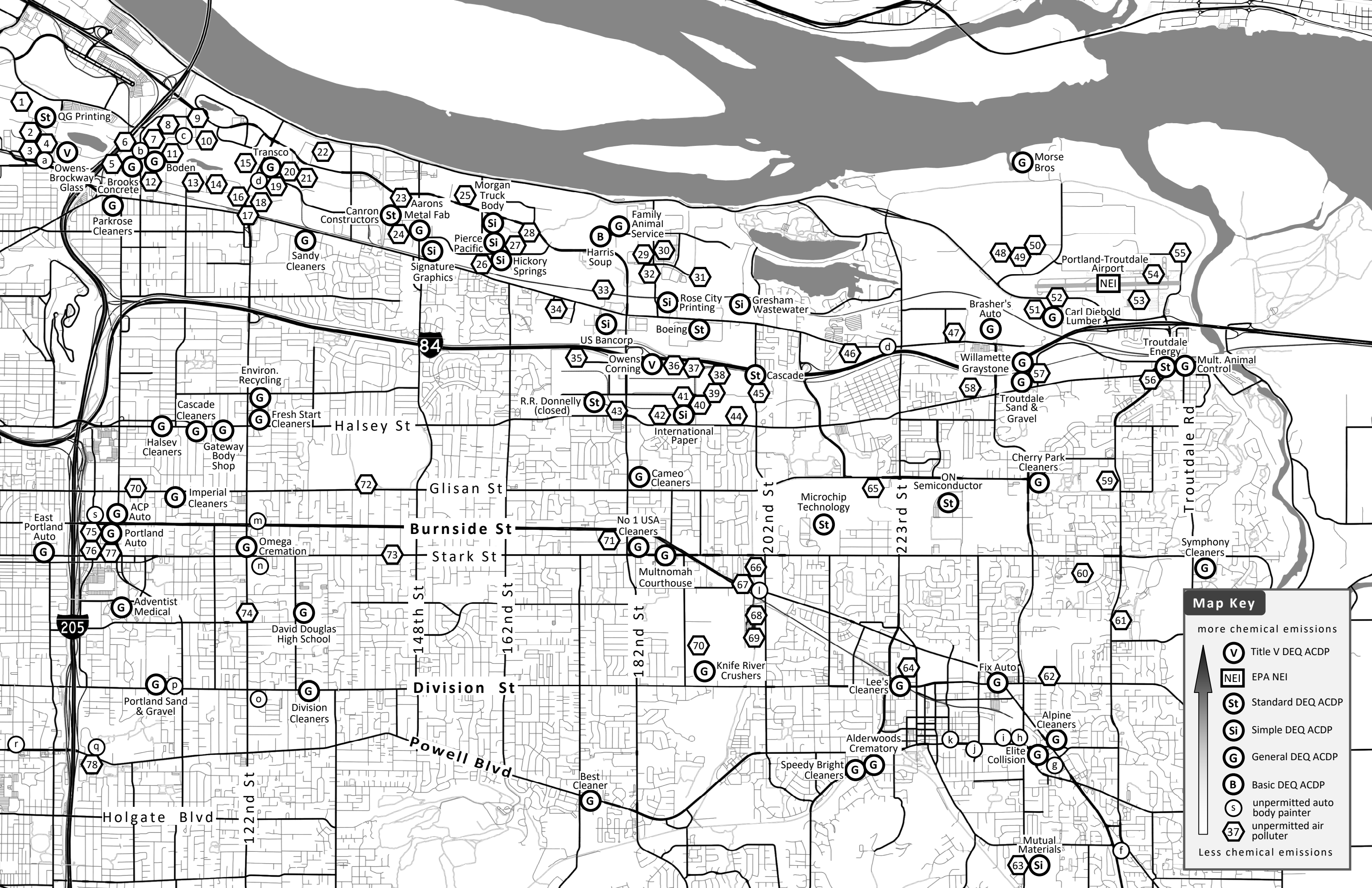
other blood clotting diseases, coronary artery disease, malignant childhood brain tumors, decreased cognitive functioning, increased incidence of Lou Gehrig's disease, acute bronchitis, and asthma. A study by Bishop et al. found diesel particulate causes dementia and Alzheimer's disease. Immediate symptoms include eye and throat irritation, coughing and phlegm, swollen airway, bronchial irritation, nausea, headache, lightheadedness, and fatigue.

Things are changing fast since Bullseye Glass was front page news three years ago. Top DEQ officials Dick Pederson and David Monro resigned. Brown fired the Head of the Oregon Health Authority Lynn Saxton for cause. Governor Brown Cleaner Air Oregon has vastly improved reporting of industrial chemical emissions.

Air pollution in Portland can be explained by government corruption in Oregon. Oregon allows unlimited corporate donations to politicians – this is illegal in 45 states – making the Oregon Legislature's elections the second most expensive in the nation. These corporate donations are repaid by Oregon politicians opposing air pollution legislation and enforcement.

Even in states with far better laws that protect human health, citizen participation is still required to make sure industry chooses to be a responsible neighbor. It would be nice if Oregon adopted better rules soon - we realize how important it is to develop a relationship with the industries that affect the neighborhood anyway. Since the Bullseye Glass scandal, citizen action has resulted in eight Portland factories purchasing control devices in the past three years at a cost of \$70,000 to \$20 million per industry. None of these mitigations were required by law, most were installed voluntarily after neighbors intervened with a negotiation.

Cascadia Action works with 41 Portland Neighborhood Associations and 24 Portland area churches and synagogues to help residents to directly negotiate with industrial air polluters in a city-wide effort. We encourage you to contact us if you have questions, concerns, or want to volunteer.



Map Key

more chemical emissions

↑

Less chemical emissions

V

Title V DEQ ACDP

NEI

EPA NEI

St

Standard DEQ ACDP

Si

Simple DEQ ACDP

G

General DEQ ACDP

B

Basic DEQ ACDP

s

unpermitted auto body painter

37

unpermitted air polluter

QG Printing

Owens-Brockway Glass

Parkrose Cleaners

Canron Constructors

Aarons Metal Fab

Morgan Truck Body

Family Animal Service

Harris Soup

Pierce Pacific

Signature Graphics

Hickory Springs

Rose City Printing

Gresham Wastewater

US Bancorp

Owens Corning

Cascade

R.R. Donnelly (closed)

International Paper

Cameo Cleaners

Microchip Technology

Willamette Graystone

Cherry Park Cleaners

Symphony Cleaners

Mult. Animal Control

Troutdale Energy

Carl Diebold Lumber

Brasher's Auto

Troutdale Sand & Gravel

ON Semiconductor

Cherry Park Cleaners

Alpine Cleaners

Fix Autor

Lee's Cleaners

Alderwoods Crematory

Speedy Bright Cleaners

Best Cleaner

David Douglas High School

Division Cleaners

Portland Sand & Gravel

Adventist Medical

East Portland Auto

ACP Auto

Halsev Cleaners

Gateway Body Shop

Fresh Start Cleaners

Cascade Cleaners

Environ. Recycling

Halsey St

Glisan St

Burnside St

Stark St

Division St

Powell Blvd

Holgate Blvd

Portland-Troutdale Airport

NEI

Troutdale Energy

Mult. Animal Control

Troutdale Sand & Gravel

Cherry Park Cleaners

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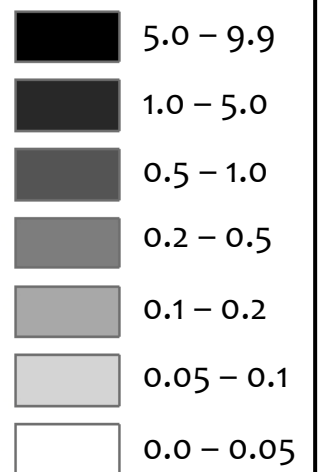
# Eastside Portland Diesel Particulate

## Unfiltered Industrial Diesel Truck Pollution

The 2014 National Air Toxics Assessment (NATA) released to public by the EPA August 2018 ranks Multnomah in the worst 1.2% of counties for airborne diesel particulate, the worst airborne carcinogen according to State of California risk assessments. This GIS map of EPA NATA on-road diesel particulate is modeled by Portland Clean Air over roads using ODOT 24 hour truck counts.

### Key

In micrograms  
per cubic meter



Changes were made  
by PCA to the  
highway GIS  
shading to more  
accurately to  
portray ODOT 24  
truck counts.



GIS Map by Michael Egge, PhD Student Portland State University: [megge@pdx.edu](mailto:megge@pdx.edu) & Andrea Richards, Graduate Student Portland State University: [anr2@pdx.edu](mailto:anr2@pdx.edu). Data compilation by Greg Bourget: [greg@portlandcleanair.org](mailto:greg@portlandcleanair.org) & Alissa Leavitt. All Data online at [portlandcleanair.org](http://portlandcleanair.org) in Data under Pollution Reports



Diesel particulate is the worst airborne carcinogen according to State of California risk assessments. In Portland it comes primarily from industrial unfiltered trucks making in-city deliveries. Currently Portland is ranked in the worst 1.3% of counties in the nation for airborne diesel particulate according to the most recent EPA three-year assessment.

California banned unfiltered diesel trucks statewide and by 2015 there were virtually none left. Diesel particulate filters remove 90% of diesel particulate emissions. In contrast, three quarters of the trucks in the three-county Portland area have no filter according to ODOT and DMV records.

DEQ reported diesel powered vehicles are only 6% of Oregon vehicles on the road yet emit 60 - 70% of all particulate emissions from all on-road vehicles combined. The State of California reported that currently diesel particulate is still "responsible for about 70% of California's estimated known cancer risk attributable to toxic air contaminants."

DEQ reported in 2015 that diesel exhaust causes lung and bladder cancer, certain heart attacks and other blood clotting diseases, coronary artery disease, malignant childhood brain tumors, decreased cognitive functioning, increased incidence of Lou Gehrig's disease (ALS), acute bronchitis, and asthma. A study by Bishop et al. found diesel particulate causes dementia and Alzheimer's disease. Immediate symptoms include eye and throat irritation, coughing and phlegm, swollen airway, bronchial irritation, nausea, headache, lightheadedness, and fatigue.

Cascadia Action believes negotiation with unfiltered trucking companies is the solution. The Oregon diesel bill HB 2007 which passed June 30, 2019 was gutted by industry. It allows a ten year phase out. California did a seven year phase out starting nine years ago! Numerous loopholes allow trucking companies to avoid even that deadline. The Oregon legislature accepts unlimited corporate campaign donations. This is illegal in 45 states. Since we can't count on the Oregon Legislature, neighbors have been directly negotiating with industrial polluters instead. Since the Bullseye

scandal eight Portland area industries have installed a smokestack scrubber at a cost of \$70 k to \$20 M due solely to negotiations with neighbors.

Judging by model year, XPO Logistics has 8,604 unfiltered trucks - by far the largest unfiltered truck fleet in the Portland area. XPO Logistics, Consolidated Freightways, and USF Reddaway combined have 12,036 unfiltered trucks - more than TriMet and the next largest 24 unfiltered Portland area fleets combined. As the state of Oregon barely regulates them, they require a response from us, their neighbors.



Cascadia Action is working with 41 Portland Neighborhood Association boards and 24 Portland area churches and synagogues to address airborne diesel particulate through negotiation with unfiltered industrial truck fleets. We are also looking at companies who contract with these unfiltered fleets.

Cascadia Action is deploying 15 GPS particulate monitors on bicycles and on foot to measure and map airborne particulate levels. We are saving up for a Grimm Electrometer that can accurately measure diesel particulate by counting each particle in a sample and measure its diameter.

If you live near a highway, you can install a electrostatic precipitator that charges the particles and sticks them to HEPA media. This is available both as standalone units and to insert into HVAC systems. Ultimately filters should have to be on trucks, not in our homes.

If you have questions or want to volunteer, please contact: [greg@portlandcleanair.org](mailto:greg@portlandcleanair.org)