



Residents' review of data and records of the

- Oregon Department of Transportation,
- Portland Department of Transportation,
- and the Environmental Protection Agency

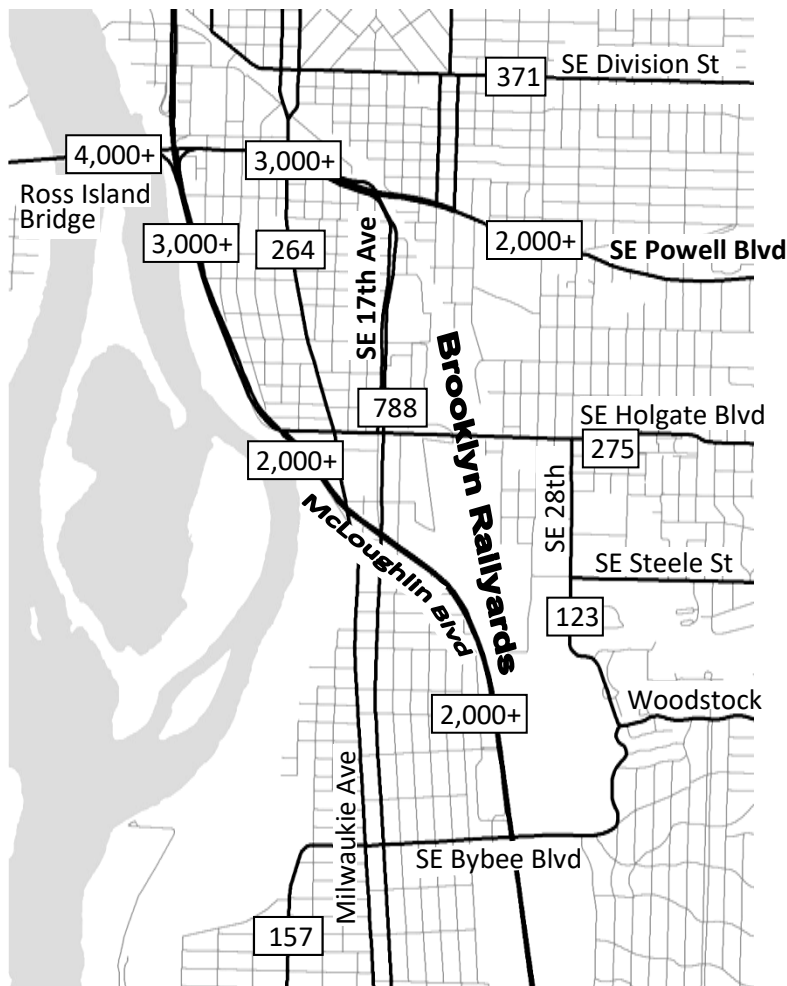
Inner SE Portland, Oregon

Union Pacific Railroad transferred their intermodal freight operations from their Albina Yard to the Brooklyn Rail Yard in 2009. As a result of this move, Creston-Kenilworth and Brooklyn residential neighborhoods experienced far more noise, traffic safety problems, and air pollution from truck traffic. Trucks using this route often do not have an emissions filter and drive faster than the designated 25 MPH.

The primary truck route to the Brooklyn Rail Yards is from the Ross Island Bridge to SE Powell Blvd, McLoughlin, 17th, and Holgate. Trucks then move empty shipping containers from the main entrance of the Rail Yard to the storage area on the other side of the rails along SE 26th Ave between Holgate and Powell. Trucks block traffic through multiple light cycles as they maneuver

Truck Counts Per 24 Hours

Oregon Bureau of Transportation,
Portland Bureau of Transportation Data



around tight corners and parked cars. Witnesses report truck drivers speeding, texting while driving, and shaking windows, including during overnight hours. Instead of using neighborhood streets, Union Pacific should construct their own thoroughfare to the storage yard.

Motor vehicle exhaust is dangerous. A 1997 study by Dr. Bert Brunekreef *et al* published in *Epidemiology* of 1,191 children in Holland attending 20 schools near freeways found traffic intensity near schools were significantly associated with chronic respiratory symptoms. Lung function testing of the children found that cough, wheeze, runny nose, and asthma were reported significantly more often for children living within 2.25 city blocks of a freeway, more so for girls than in boys.

Vehicle exhaust contains nitrogen dioxide (NO₂). According to the EPA,

"Breathing air with a high concentration of NO₂ can irritate airways in the human respiratory system. Such exposures over short periods can aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms, such as coughing, wheezing or difficulty breathing, hospital admissions and visits to emergency rooms. Longer exposures to elevated concentrations of NO₂ may contribute to the development of asthma and potentially increase susceptibility to respiratory infections."

Vehicle exhaust also include carbon monoxide which can cause headache, dizziness, and nausea. Vehicle exhaust contains polycyclic aromatic hydrocarbons, and some metals which can cause cancer.

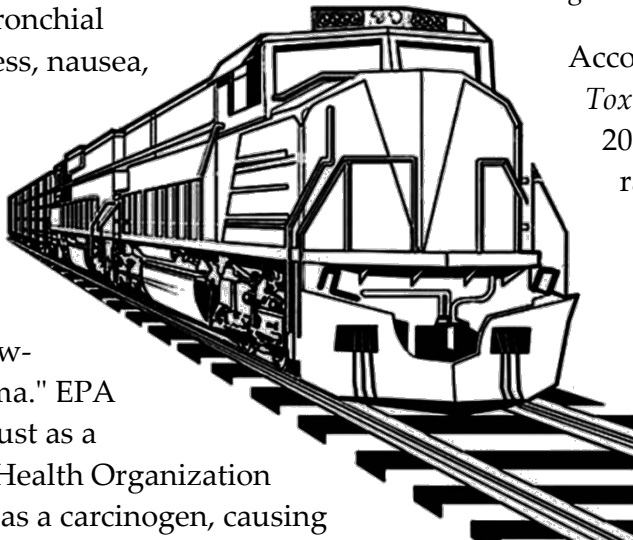
Black smoke, also called diesel particulate, is the most dangerous pollutant from roadways. California required nearly all diesel trucks and busses to have filters by 2015. Oregon failed to regulate unfiltered trucks giving us some of the highest cancer risk from air pollution in the nation in Portland. This risk is caused primarily by unfiltered short-haul, in-city trucks.

Portland Industrial Diesel

While diesel powered vehicles are only 6% of vehicles on the road, they emit 60-70% of all particulate emissions from all vehicles, according to Oregon DEQ. A 2008 study by Irina Krivoshto *et al* in *Journal of the American Board of Family Medicine* found that diesel exhaust is 100 times more toxic than gasoline engine exhaust. In 2015 DEQ reported that 80-95% of diesel exhaust is ultra-fine particulate "easily inhaled and left in the lower area of the lungs... capable of entering the bloodstream, allowing them to be circulated to all parts of the body." Clean Air Task Force in Boston calculated diesel exposure using Environmental Protection Agency (EPA) data and State of California risk modeling and found diesel emissions in Portland cause more than five times as many cancers as all other inhaled carcinogens combined.



The EPA reported that diesel exhaust can cause eye, throat, and bronchial irritation, lightheadedness, nausea, as well as coughing and phlegm. In 2015 the *Oregonian* reported that other health effects of diesel exhaust include "heart attacks, pre-term and low-weight births, and asthma." EPA does not list diesel exhaust as a carcinogen. The World Health Organization classifies diesel exhaust as a carcinogen, causing lung and bladder cancer. Oregon Environmental Quality Commission also recognizes diesel exhaust as a carcinogen. A 2012 study by Susan Peters *et al* of 1,256 families published in *International Journal of Cancer* reported an association between childhood brain tumors and prenatal exposure to diesel exhaust.



The *Portland Tribune* reported in 2014 that: "California led the nation by branding diesel a carcinogen back in 1998... Oregon's Environmental Quality Commission, the volunteer board that guides the DEQ and sets state policies, declared diesel emissions a carcinogen in 2006. But the board adopted a more lenient state standard for diesel pollution — allowing concentrations 33 times higher than California or Washington before it's deemed a health concern."

The 2015 *Oregonian* diesel investigation found that "Oregon has become a dumping ground for California's old, polluting big diesel rigs." The *Oregonian* reported that California is phasing out 350,000 trucks with stricter diesel standards and these trucks end up in Oregon where they are still legal. "Newer trucks emit 90% less diesel soot" according to the *Oregonian*.

According to the EPA 2015 *National Air Toxics Assessment* (NATA), which used 2011 data, Multnomah County ranked 32nd worst for diesel particulate matter (PM) concentrations out of 3279 Counties nationwide. The highest concentration of diesel PM in Multnomah County was 1.8 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). This is expected to cause 600 cancers per million people according to the cancer risk assessment for

California. At $0.8 \mu\text{g}/\text{m}^3$, the average for Multnomah County, this is expected to cause 270 cancers per million. The 2015 NATA ranked Portland as the worst city in the US for respiratory distress from air pollution.

The Brooklyn Rail Yards has an unusually high concentration of trucks operating in a residential area, even for Portland. A study by Dr. Matthew Mavko *et al* of Portland State University using nitrogen dioxide sensors and computer modeling identified the Brooklyn Rail Yards as the highest concentration of airborne nitrogen dioxide for any location in Portland.

Using residential neighborhoods as a major freight route is reducing safety and quality of life for residents in the area. Many diverse people and new families with children are renting and purchasing homes in the Creston Kenilworth and Brooklyn neighborhoods. Union Pacific must mitigate their impact including no longer allow unfiltered diesel trucks to operate near people's homes.

What You Can Do

The Creston-Kenilworth Neighborhood Association and Brooklyn Action Corps are participating in some of the first diesel particulate monitoring for Portland. This rooftop monitor takes two weeks to measure micrograms per cubic meter of diesel particulate in the air. We are seeking rooftops in proximity to truck routes and the Rail Yard. Please contact us to offer your rooftop for diesel particulate testing.

You are invited to attend a meeting to meet your neighbors and discuss legal, media, and negotiation options for making the air safer in our neighborhoods. We are working together with 25 other Portland groups to address air pollution here.

Please contact Joe Hovey with **questions about meeting times, location, monitoring, and volunteering:** joho@joehovey.com

More Information available at:
creston-kenilworth.org/report

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The Creston-Kenilworth Neighborhood Association (CKNA) and Brooklyn Action Corps (BAC) are recognized by the City of Portland Oregon as the official organizations for their neighborhoods, containing 8,227 people and 3,485 people respectively at the 2010 Census.

Every resident, property owner, and business owner within our boundaries is a voting member of our Associations.