

Air Toxics Panel

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2008

SPECIAL REPORT



The Smokestack Effect

Toxic Air and America's Schools

USA TODAY used an EPA model to track the path of industrial pollution and mapped the locations of almost 128,000 schools to determine the levels of toxic chemicals outside. The potential problems that emerged were widespread, insidious and largely unaddressed.



Photo by Garrett Hubbard, USA TODAY

Many schools in the Portland Metro area ranked in the bottom 10% of all schools in the nation in exposure to industrial sources of hazardous air pollution. Chapman Elementary in NW PDX ranked in the bottom 2%. No school ranked higher than the bottom 30%.

2009 - 2011

DEQ created and administered the Portland Air Toxics Solutions (PATS) project to work with local communities to develop air toxics reduction strategies for the Portland region, including portions of Multnomah, Washington, and Clackamas Counties.

1.4 Priority Emission Source Categories

- Residential Wood Combustion
- On Road Mobile Light Duty
- On Road Mobile Heavy Duty
- Construction
- Industrial Metals

PATSAC and DEQ developed a framework for next steps, including:

- A priority list of air toxics source categories;
- White papers that lay an initial technical foundation for future emission reduction strategies;
- Definition of key considerations;
- Future steps for technical analysis; and
- Future steps for stakeholder involvement, including representation and consideration of environmental justice issues.

Next steps never occurred

How Portland learned its air was toxic – and failed to fix it



By [Rob Davis | The Oregonian/OregonLive](#)

[Email the author](#) | [Follow on Twitter](#)

on March 11, 2016 at 7:44 PM, updated August 05, 2016 at 3:42 PM

Portland's toxic air: A timeline of events



PORTLAND'S
TOXIC AIR:

0:06 / 2:35



<https://youtu.be/LLCqybKIS48>

USDA
United States Department of Agriculture

Elemental Atmospheric Pollution Assessment Via Moss-Based Measurements in Portland, Oregon

Demetrios Gatzolis, Sarah Jovan, Geoffrey Donovan, Michael Amacher, and Vicente Monleon



Forest
Service

Pacific Northwest
Research Station

General Technical Report
PNW-GTR-408

June
2016



Deadly diesel pollution...

...causes more fatalities than traffic crashes

...puts 90% of Oregonians at risk for cancer

...damages the heart, lungs and brain

...causes up to 460 premature deaths in Oregon each year

...burdens Oregon with up to \$3.5 billion a year in health costs and lost productivity

...is at highest concentrations in neighborhoods with more low-income and people-of-color residents

...is 100X more toxic than gasoline exhaust

...is the sole source of one of Oregon's worst toxic air pollutants (diesel particulates)

...can contain many of Oregon's other toxic air pollutants: cadmium, arsenic, benzene, formaldehyde and chromium compounds

PATS 2017 MODELING RESULTS

TOTAL RISK FROM ON-ROAD VEHICLE EMISSIONS



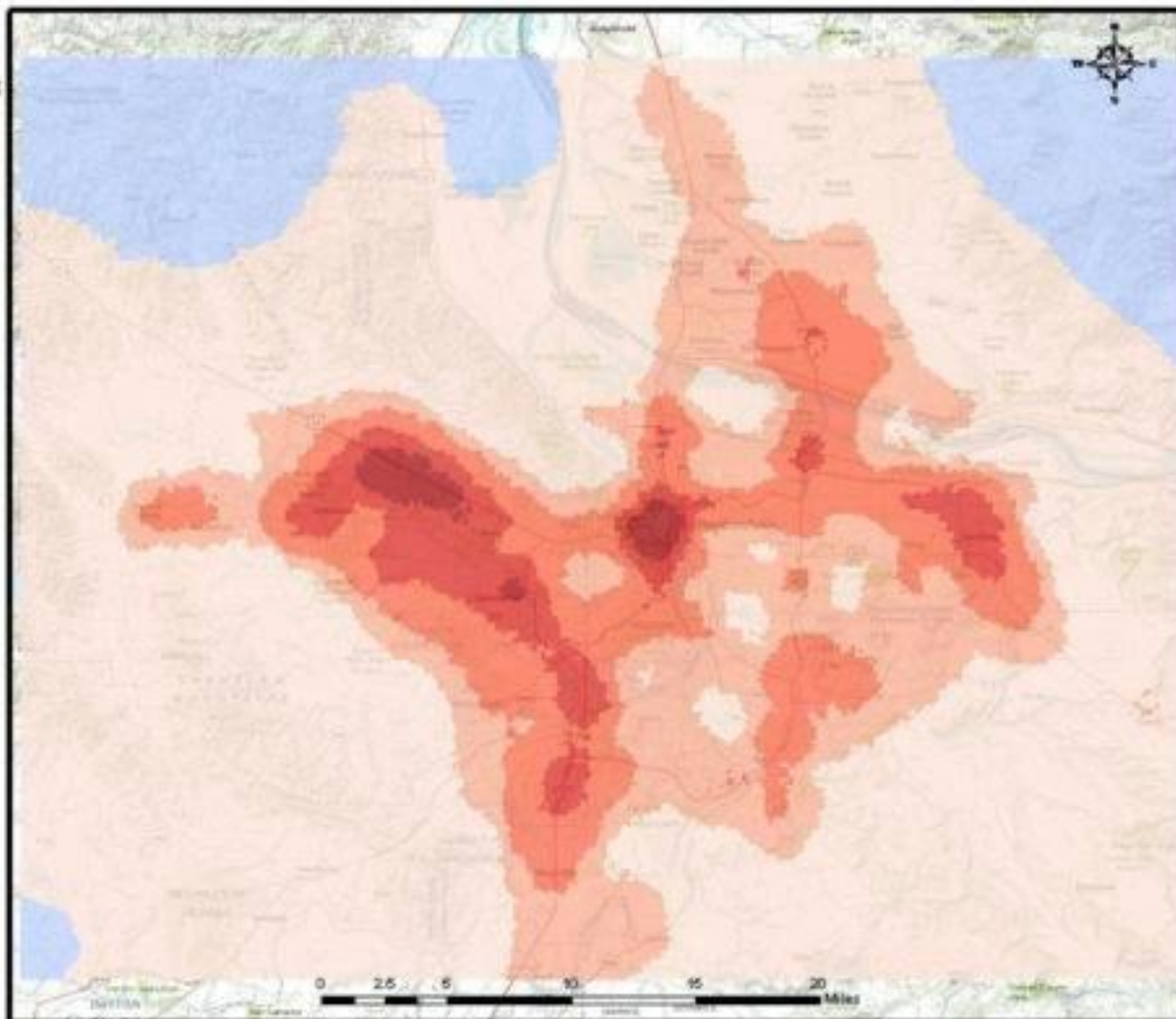
DEQ

State of Oregon
Department of
Environmental
Quality

Total Risk (Cumulative times above ABC)



References:
Concentration data from DEQ
Portland Air Toxics Solution
(PATs) study
Basemaps from Metro and ESRI



Date: 03-10-2011

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Current System - Concerns

- Not enough monitoring
- Ambient benchmark concentrations are not binding standards
- No coherent strategy for cumulative impacts of hazardous air pollutants
- No coherent strategy for addressing disproportionate impacts of hazardous air pollutants on vulnerable communities and populations
- PATSAC recommendations have not been implemented (referred to as “ongoing” in a recent DEQ forum)
- Poor transparency and public communication

Gov. Kate Brown directs cease and desist order to Bullseye Glass



By [The Oregonian/OregonLive](#)

[Follow on Twitter](#)

on May 19, 2016 at 9:50 PM, updated May 19, 2016 at 10:25 PM

Readings from May 9 which were analyzed Wednesday night showed the elevated lead levels and prompted officials from DEQ and the Oregon Health Authority to ask for the governor's order, according to DEQ official Brian Boling.

The wind was blowing from the company toward the daycare at the time of the data collection, he said.

David Farrer, a toxicologist with the Oregon Health Authority, said the findings made officials concerned for the health of the children in the daycare center because lead can affect brain development, especially in children under the age of 6.

ORS § 468.115 – Enforcement in Cases of Emergency

- “Whenever it appears to the Department of Environmental Quality that water pollution or air pollution or air contamination is presenting an imminent and substantial endangerment to the health of persons, at the direction of the Governor the department shall, without the necessity of prior administrative procedures or hearing, enter an order against the person or persons responsible for the pollution or contamination requiring the person or persons to cease and desist from the action causing the pollution or contamination. Such order shall be effective for a period not to exceed 10 days and may be renewed thereafter by order of the Governor.”

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Portland-Area Leaders Say They'll Create Local Air Agency, If DEQ Doesn't Act

by **Rob Manning** [Follow](#) OPB | Feb. 18, 2016 9:23 p.m. | Updated: March 15, 2016 9:14 a.m. | Portland

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Wyden: Loophole 'The Size Of A Lunar Crater' Allowed Portland Pollution

by **Cassandra Profita** [Follow](#) OPB | Feb. 18, 2016 4:18 p.m. | Updated: Feb. 18, 2016 5:41 p.m.

Regional Air Quality Control Authority

- ORS § 468A.105 allows the for creation of a regional air quality control authority in an contiguous area with a population of “at least 130,000 and consisting of two or more counties or parts of counties, two or more cities, or any combination thereof, or any county and a city or cities within the county.”

Environmental Justice & Disparate Impacts

- Title VI of the Civil Rights Act
 - “[n]o person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” 42 U.S.C. § 2000d.
- Environmental Protection Agency
 - “[n]o person shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving EPA assistance on the basis of race, color [or] national origin. 40 C.F.R. § 7.30.

Solutions: Public Health and Environmental Advocacy

Perspective

- Incorporate health-based standards into every permit decision with enforceable limitations on the emissions of toxic chemicals.
- Design a system that accounts for the real effects of air pollution on real human bodies.
- Utilize a precautionary approach – i.e. don't make the public bear the risks of uncertainty.

Solutions, cont'd

(1) create **enforceable air quality standards** based on protecting human health that consider the cumulative impacts of hazardous air pollutants on vulnerable populations (i.e. children, communities of color, and low-income communities), taking into account the disproportional impacts of air-pollution on these populations;

(2) collaborate with leading researchers, scientists and public health officials to conduct **widespread and effective monitoring** that tells us what is in the ambient air & prioritizes the major risks to human health from toxic air pollution;

(3) create **effective, data-driven strategies** to protect people from the sources of harmful pollution; there should be a clear understanding that violating standards, and causing a risk to human health has consequences.

- + Transparency & accountability
- + Environmental justice focused implementation
- + Publicly accessible online database with accurate, real-time emissions information
- + Accurate emissions inventories