

DIESEL AND AIR QUALITY

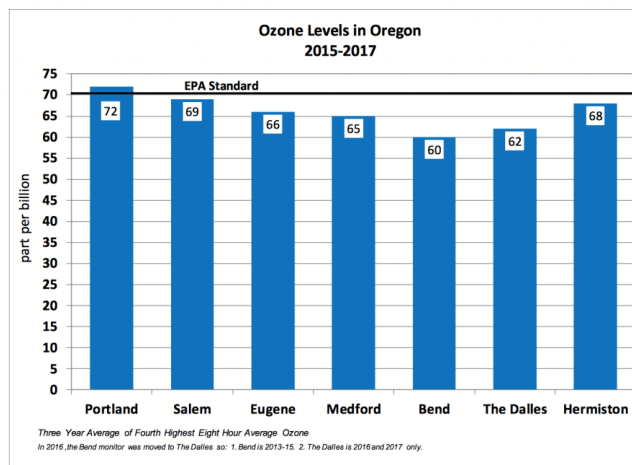
[JEN COLEMAN](#)

([HTTPS://OEONLINE.ORG/AUTHOR/JENC/](https://oeonline.org/author/jenc/))

FEBRUARY 7, 2019

[NO COMMENTS](#)

Why do we need to act now to reduce diesel pollution from heavy-duty engines? Because it's not only one of Oregon's biggest air quality problems—it contributes to all of them. According to the Oregon Department of Environmental Quality's , Oregon's "air pollutants of greatest concern" are:



Ground-level ozone (smog):

Diesel engines are responsible for 49% of NO_x (a smog-forming pollutant) from transportation. Heavy duty vehicles are the largest source of NO_x emissions in Oregon. Ozone is created when NO_x and VOC pollutants meet high temperatures and sunlight. According to Diesel Technology Forum, one diesel

truck from 1988 can emit as much NO_x pollution as 50 trucks that meet 2017 standards.

Air toxics: In addition to toxic diesel particles, exhaust contains toxic gases. Diesel is a source of both benzene and acetaldehyde, which are near or above health benchmarks in Oregon.

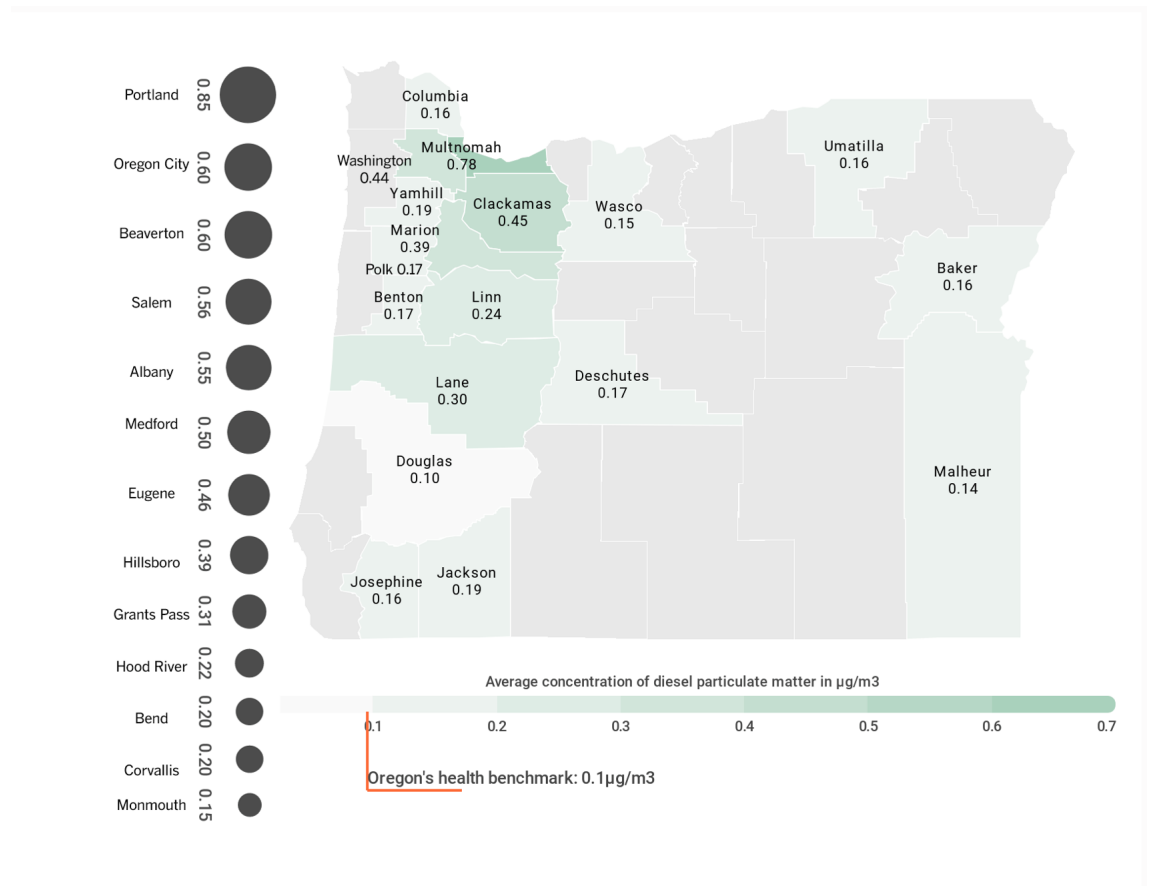
Climate pollution: Diesel engines emit carbon dioxide, which contributes to global climate change. In addition, about 70% of diesel particles are black carbon, which has immediate effects on the local climate. Black carbon changes the quality of clouds (altering precipitation), causes faster snow and ice melt, and contributes to warmer temperatures (absorbing solar radiation and emitting it as heat).

Fine particulate matter (PM 2.5)

Fine (microscopic, 2.5 micron) sooty particles (PM 2.5) come from all sources of burning materials—but old diesel engines are responsible for 60% of them. Diesel particulate matter

(DPM) is both part of the bigger soot problem and also considered its own uniquely toxic pollutant with its own health benchmark. Oregon’s health benchmark for diesel particulates in ambient air is set at 0.1 µg/m3 to protect people from excess cancer risk over a lifetime.

Today, 19 counties (where most Oregonians live) exceed that benchmark.



These Average ambient concentrations are based on 2014 data reported by the state of Oregon to the 2018 National Air Toxics Assessment (NATA). County averages are calculated by NATA. City averages are based on an average from census blocks, as calculated by NATA, that fall largely within city limits. <https://www.epa.gov/national-air-toxics-assessment>.

Related Posts



Salem Diesel Awareness Project
 (<https://oeonline.org/diesel-in-salem/>)

November 14, 2018, 11:38 pm
 mcadmin

