



SB 824

Senate Committee on
Environment and Natural Resources

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Oregon DEQ

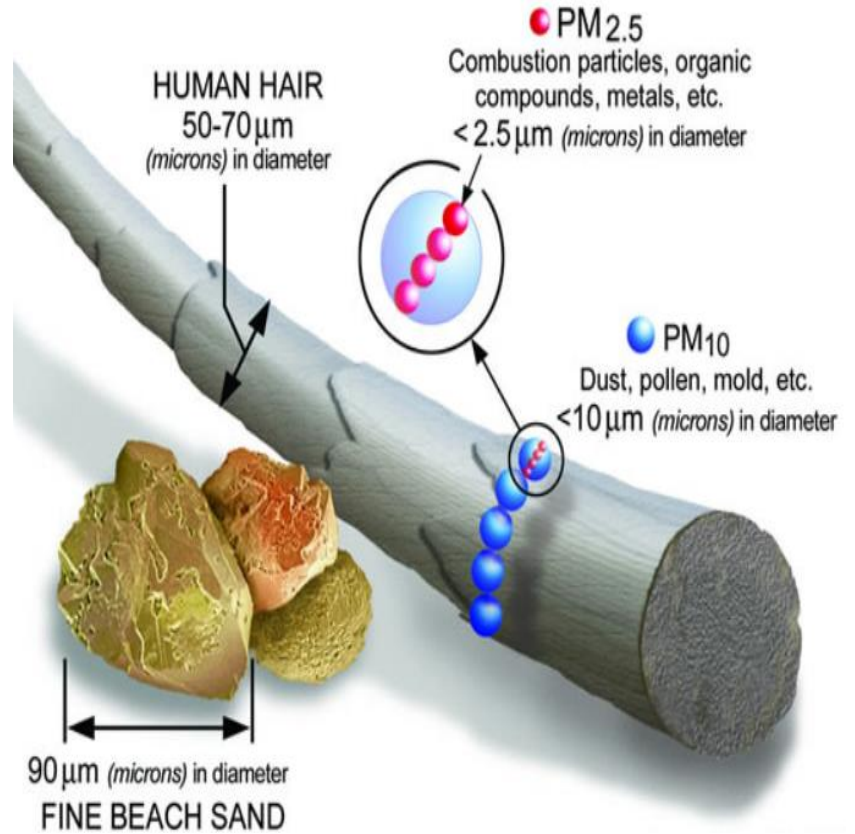
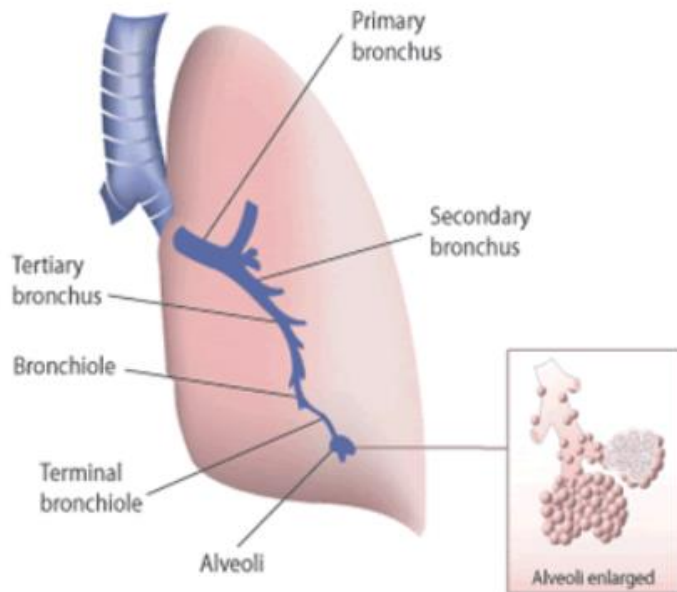
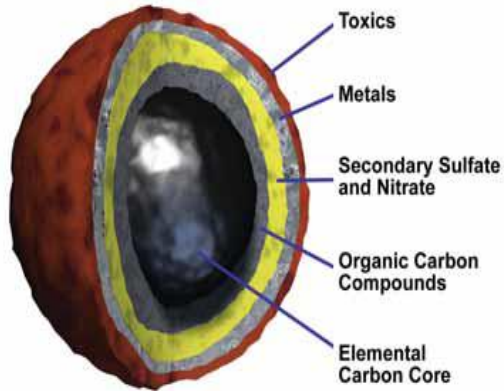
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Diesel and Air Quality





Particle Size Matters










Diesel Engines and Air Quality

PATS 2017 MODELING RESULTS DIESEL PARTICULATE MATTER ALL SOURCES

-  PATS Study Area boundary
-  Benchmark contour (0.1 µg/m³)

Annual average concentration

-  < ½X benchmark
-  ½X - 1X benchmark
-  1X - 2X benchmark
-  2X - 3X benchmark
-  3X - 5X benchmark
-  5X - 10X benchmark
-  > 10X benchmark

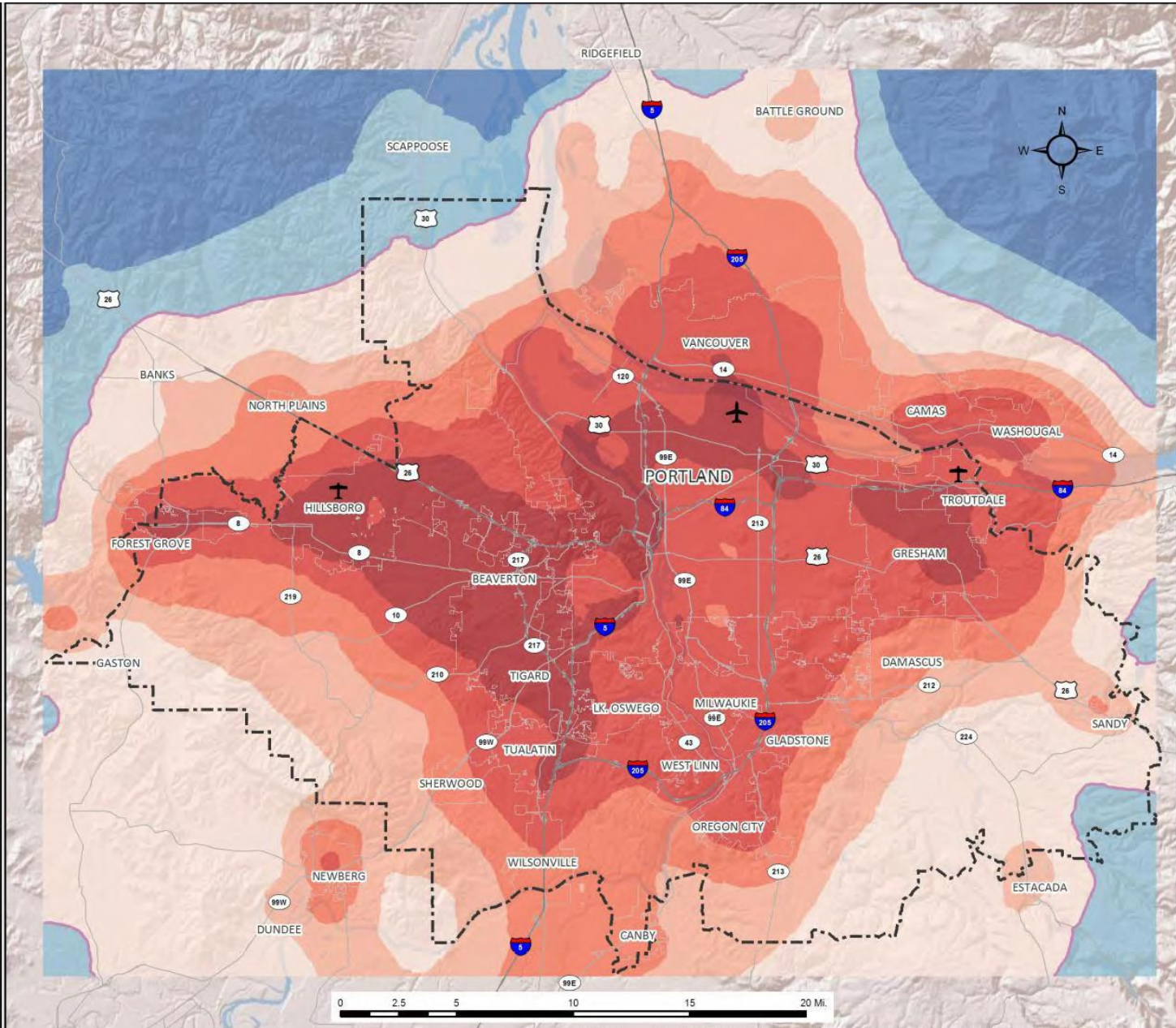


State of Oregon
Department of
Environmental
Quality

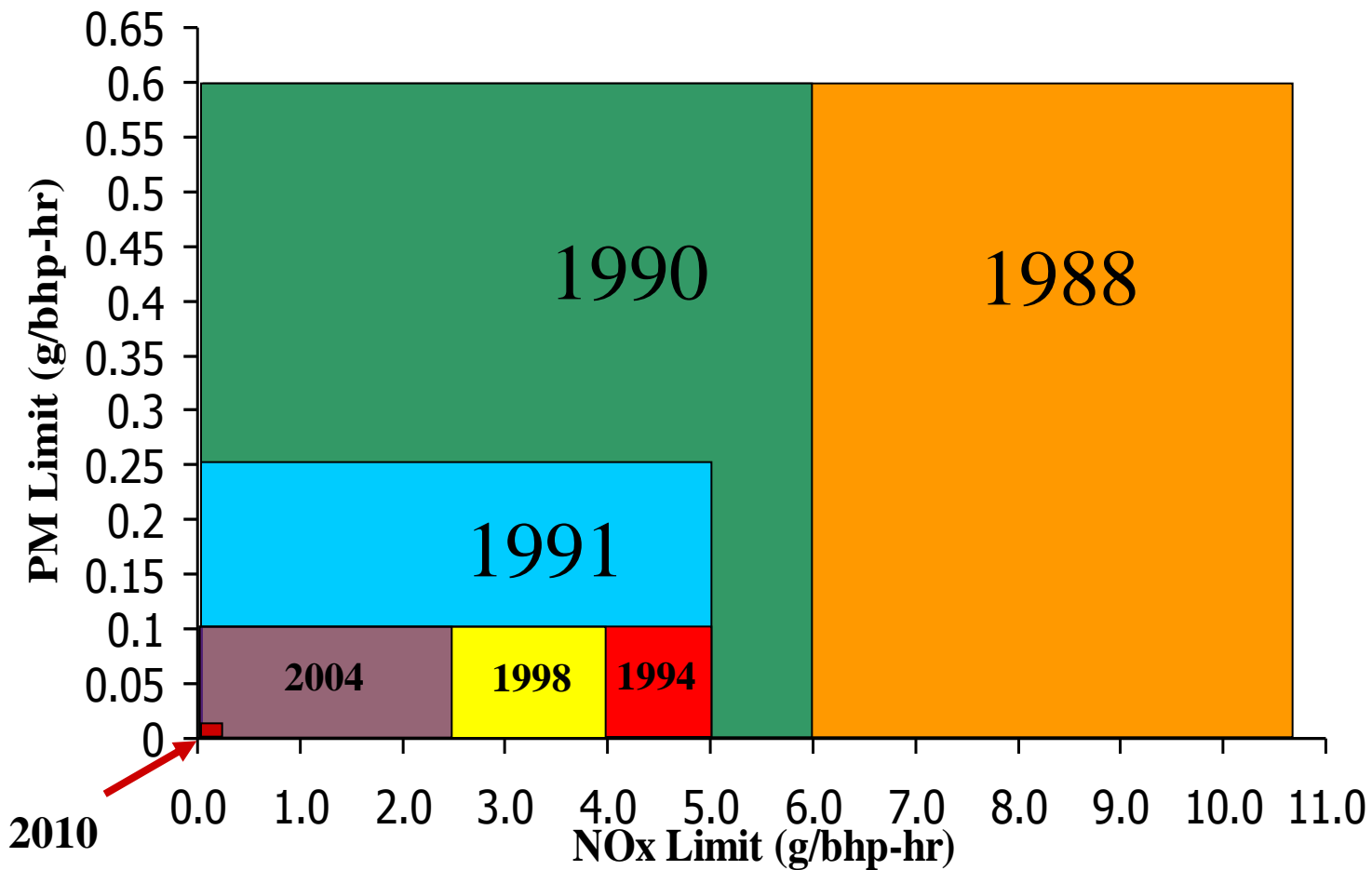
NOTE: Areas beyond the modeling domain (color-shaded region) are beyond the scope of this project.

REFERENCES:

Concentration data from DEQ Portland Air Toxics Study (PATS)
Basemap from Metro and ESRI data.



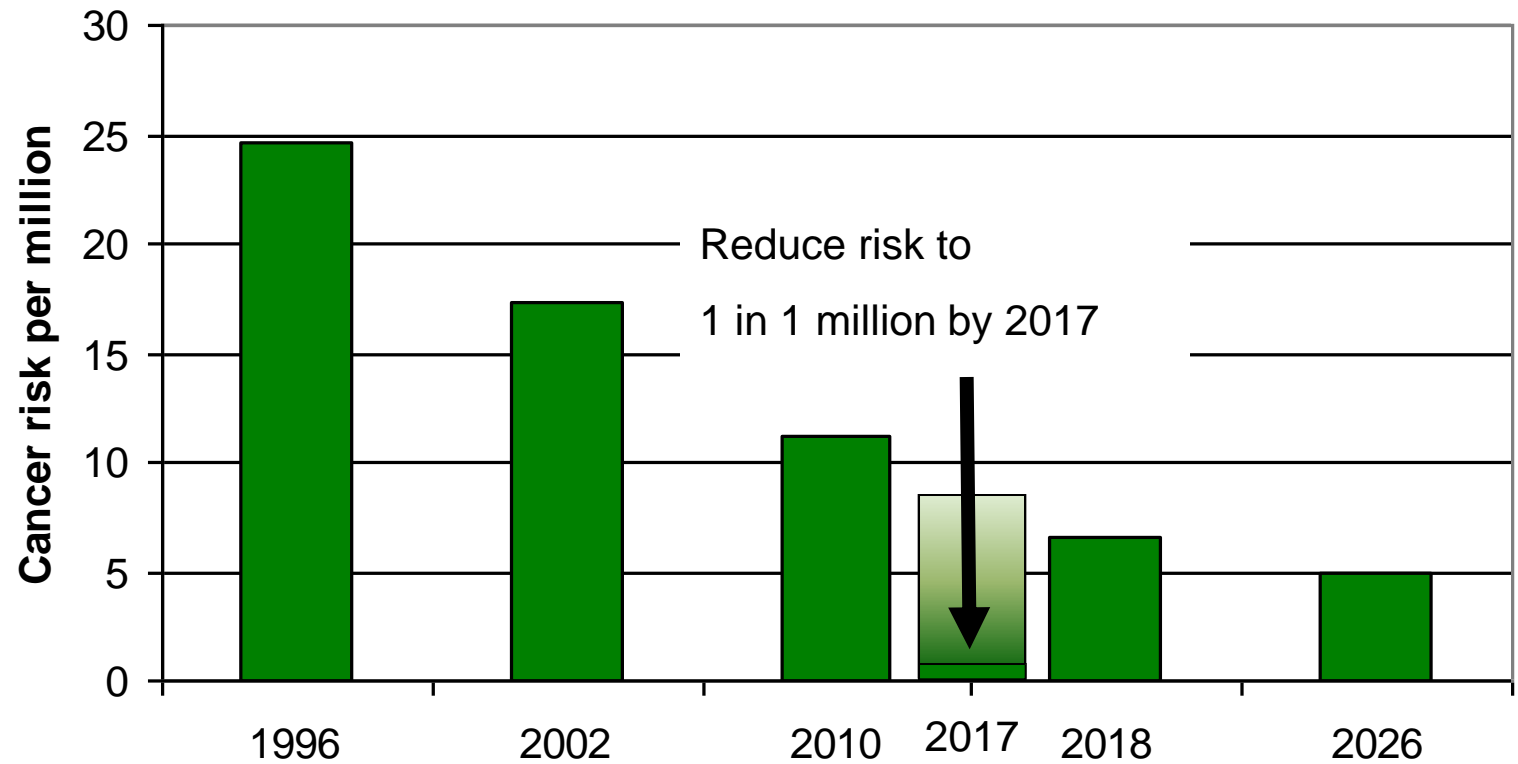
On Road Diesel Engine Emission Standards



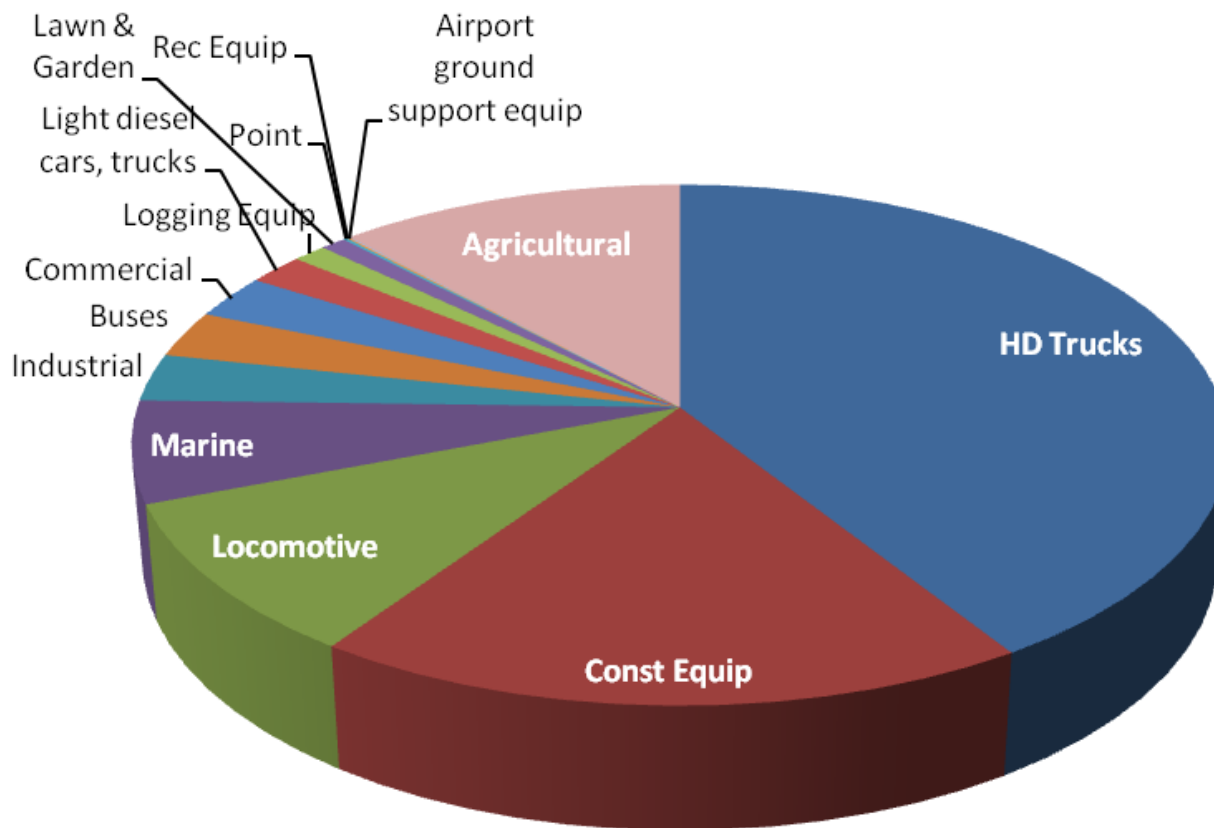
Clean Diesel Projects



Projected Diesel PM Risk in Oregon



Oregon Sources of Diesel PM - 2011

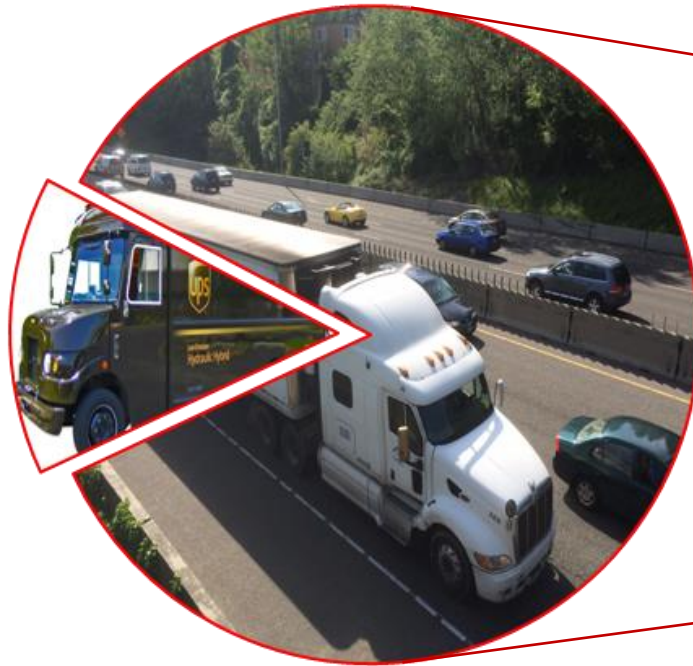


DEQ 2011 Emission Inventory

Oregon Heavy Duty Truck Fleet



Oregon based
54,952



Multi state
320,090

2008 and newer

209,607

110,483

2007 and older

Oregon Heavy Duty Truck Fleet



Multi-
state
320,090



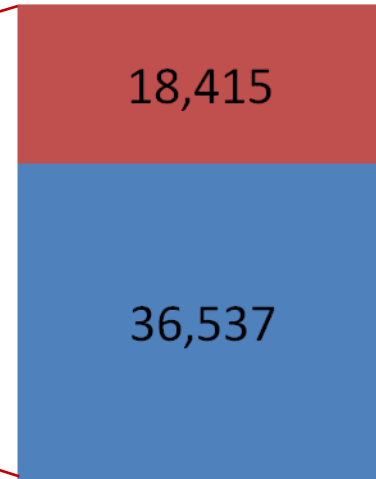
Oregon
based
54,952

2008 and newer

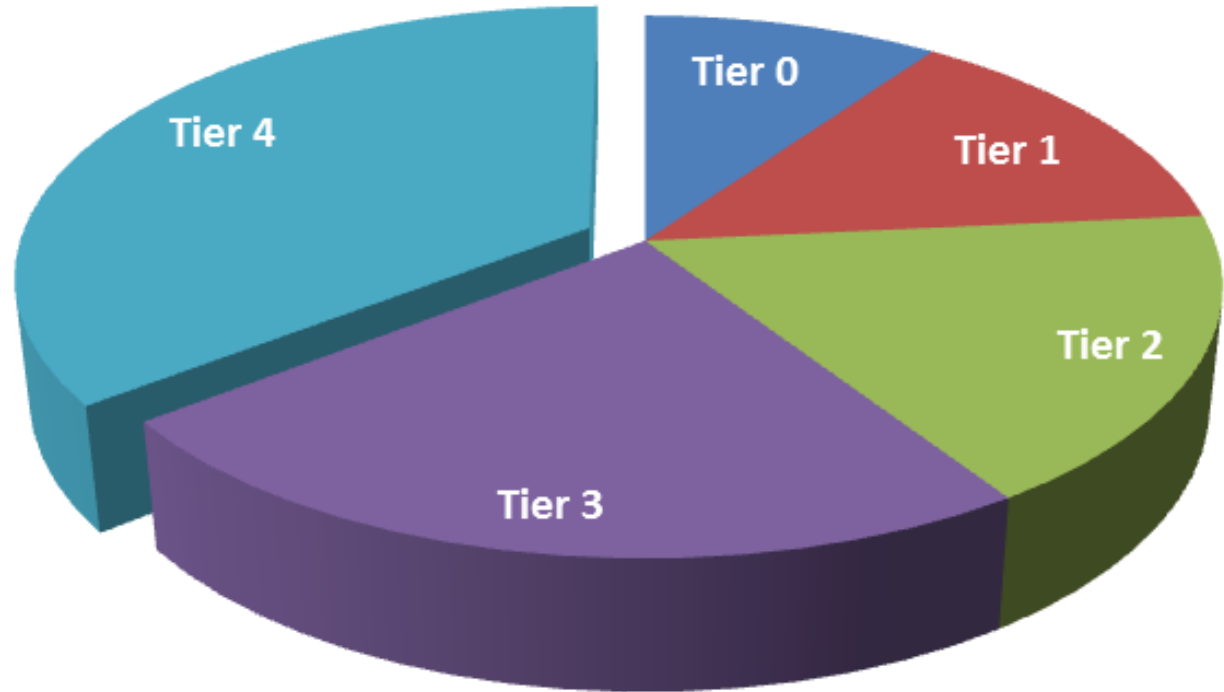
18,415

36,537

2007 and older



Oregon Non-road Diesel \geq 25 HP



By Emission Tier

EPA NONROAD Model

SB 824 - Funding for Clean Diesel

1 % for clean diesel in public improvement contracts

CMAQ funded contracts
2016

State and local contracts
2018

Nonroad diesel engine registration

Registration, fee and clean diesel funding
2017

General fund incentive program

Funding for school buses, small businesses and trucks in high impact areas
2015

SB 824 - Diesel Emission Requirements

Repeal state
preemption of
local regulation of
idling

Effective 2015

Emission standards
for on road
engines

Develop
requirements
and schedule

On road emission
standards effective
2022

Emission standards
for non road
engines allowed
under Clean Air Act

Develop
schedule

Non road emission
standards effective
2022

Economics of Clean Diesel

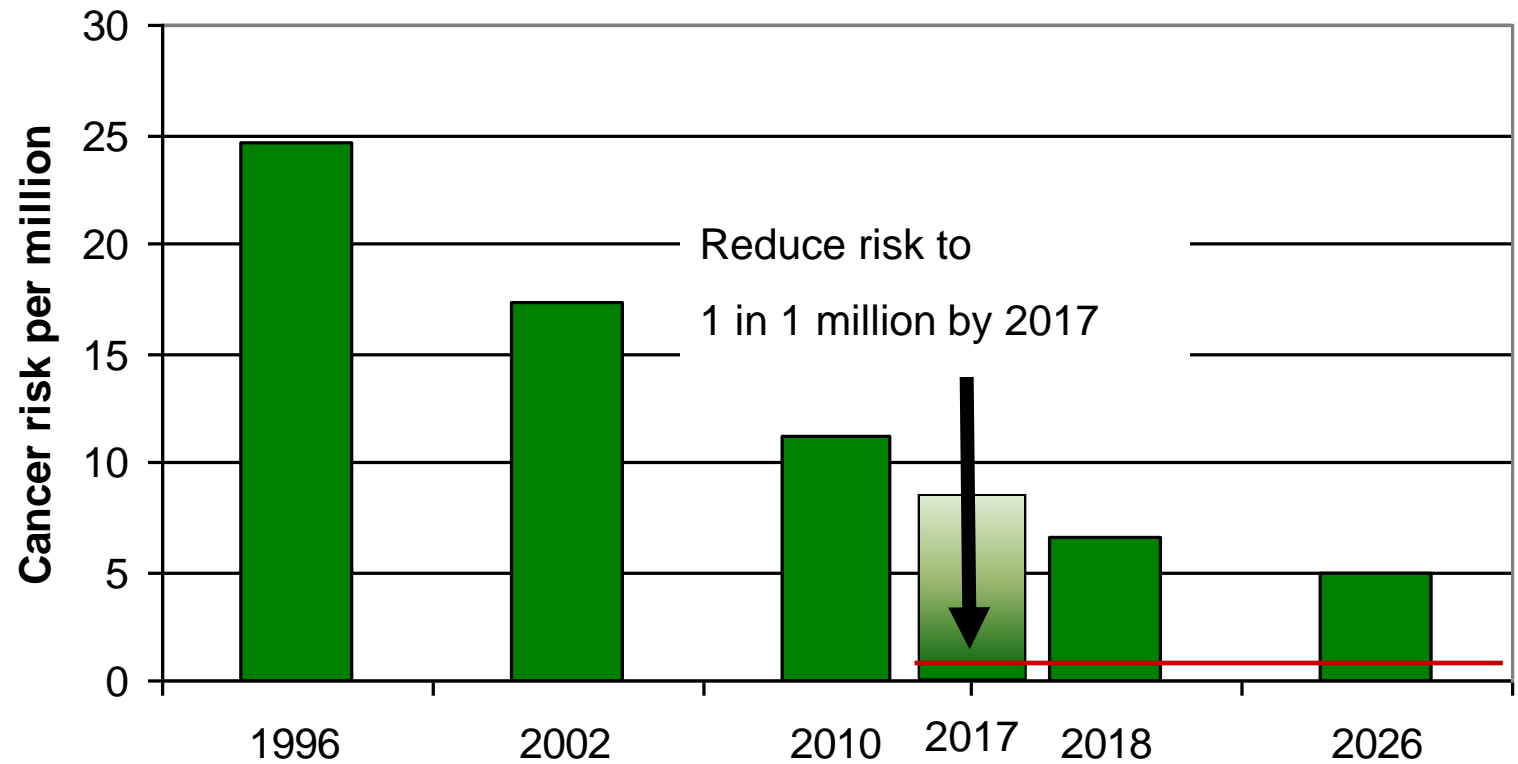


Annual health/environmental impacts associated with highway, nonroad, marine and locomotive diesel vehicles

National \$ 296 billion

Oregon \$ 3.5 billion

Projected Diesel PM Risk in Oregon





Reducing diesel PM emissions has multiple benefits:

- Cancer risk
- Other toxics, e.g., formaldehyde
- Asthma induction and incidence
- Global warming
- Visibility, regional haze
- PM_{2.5} attainment