



Digging Up Trouble: Construction Pollution in the San Diego Area

Clean Vehicles California

A Fact Sheet of the Union of Concerned Scientists

Pollution from diesel construction equipment is taking a toll on the health and economic well-being of San Diego area residents. Construction equipment contributes to particulate matter (PM) and ozone pollution that can cause severe cardiovascular and respiratory illnesses, asthma attacks, acute bronchitis, and even premature death. Lagging emission standards and very old equipment have made construction equipment one of the largest sources of toxic diesel PM pollution in the state.

This loss of life and productivity cost San Diego residents an estimated \$718 million.

Construction Risk Zones

Construction activity varies from city to city and, therefore, so does potential exposure to harmful diesel exhaust. Areas with high population density and construction activity are a particular concern because construction equipment emissions are more likely to be occurring in close proximity to people; however, evaluation of active construction projects finds areas outside major population centers also face risks since large-scale construction projects accompany regional population growth.

Within the air basin, 25 cities and towns had active construction permits during 2005 that accounted for more than 22,500 acres of land under construction. San Diego, by far the most populated and largest city in the air basin, falls in the top 10 percent of Construction Risk Zones along with Chula Vista and Oceanside, which both have a population density similar to San Diego and more than 1,000 acres under construction permit in 2005 (see the accompanying map).

San Diego Air Basin Construction Pollution Damage

Health Endpoint	Mean Annual Incidences	Annual Costs (in thousands of 2005 dollars)
Premature Deaths	89	703,222
Respiratory Hospitalizations	50	1,703
Cardiovascular Hospitalizations	33	1,357
Asthma and Other Lower Respiratory Symptoms	2,127	40
Acute Bronchitis	177	75
Lost Work Days	14,014	2,523
Minor Restricted Activity Days	113,280	6,797
School Absences	24,689	2,173
Total Annual Cost		717,890

Health Damage from Construction Pollution

The San Diego air basin ranks third behind the South Coast and San Francisco Bay Area for statewide damage from construction equipment pollution. For 2005, this includes estimates of:

- nearly 90 premature deaths
- more than 80 hospitalizations for respiratory and cardiovascular disease
- more than 170 cases of acute bronchitis
- more than 2,000 incidences of asthma attack and other lower respiratory symptoms
- 38,500 days of lost work and school absences
- more than 100,000 days of restricted activity

Evaluation of Construction Risk Zones suggests where higher risks of exposure to construction pollution exist today. But the transient nature of construction equipment means that while construction equipment may not be in a given community today, it could easily pose a greater threat to that community in the future.

Construction equipment will continue to be a significant source of pollution over the next two to three decades unless California acts now. The state can reduce the economic burden and public health threat from construction equipment by requiring the use of cost-effective solutions that are available today.

San Diego Construction Risk Zones

