

Background, Freeway Air Toxins

For at least 15 years, California air-quality officials have warned against building homes within 500 feet of freeways. They know that abundant scientific findings show that living within 1000 feet of freeways increases rates of Alzheimer's, asthma, autism, dementia, heart attacks, lung cancer, childhood obesity, strokes, lung cancer, and pre-term births.¹

Yet many Southern California political officials have ignored these health warnings. Every year for at least the last 5 years, they have approved construction of thousands of homes near freeways. As a result, an estimated 2.5 million Southern Californians live in high-pollution zones within 1,000 feet of a freeway and therefore are facing much more serious health harm than other Californians.²

Even worse, politicians are giving developers millions of dollars every year as incentives to build new homes in these freeway-pollution hot spots. Politicians thus are rewarding developers for building homes that threaten the health of taxpayers and residents.

Politicians are getting these monies for near-freeway developers from public funds. These are tax monies, including millions of dollars from California's cap-and-trade program that is designed to cut greenhouse gas emissions. The politicians say that near-freeway building near transportation hubs will reduce greenhouse gases because it will encourage people to use mass transit. However, the same politicians keep allowing developers to build large numbers of parking spaces for near-freeway homes, suggesting that residents are unlikely to use more mass transit.³

California obviously needs affordable housing. However, citizens don't deserve near-freeway housing that threatens their health.

Between 2000 and 2010, the most recent year for which data are available, the population within 500 feet of a Los Angeles-area freeway grew 3.9%, compared with a rate of 2.6% citywide. Similar statistics hold for other southern California areas.⁴

For more than two decades, UCLA and USC health researchers have documented the higher rates of sickness and death near LA county freeways, and they urge people never to live within 100 feet of a freeway. They say near-freeway areas should be buffer zones, filled with vegetation.⁵

Los Angeles officials now require all homes built near freeways to have air-filtration systems are at least MERV-13 on the industry's 16-point MERV scale. They say air filtration will help reduce the freeway-pollution threat.⁶

However, California health officials say these MERV-13 air filters will do little for health because they do not capture most of diesel particles that do the most health damage. Instead, they say cities should prohibit near-freeway homes and schools and use near-freeway areas as buffer zones, filled with trees, bushes, and plants, or as non-residential, non-retail areas.⁷

Health officials also say that cities should re-zone heavy-traffic areas to exclude new homes. They point out that cities could strengthen building standards, just as they have for earthquake protection, and force developers to design buildings in ways that reduce or eliminate residents' exposure to polluted air. Such designs include requiring windows that do not open and requiring powerful, whole-building, commercial-grade, air-filtration systems that give residents clean air.⁷

However, the push for near-freeway development continues. It is led by developers who want to make money, led by city officials who want new development to improve their tax base, and led by residents who desperately need affordable housing---but who don't realize the risks of living near heavy traffic.

Building near-freeway apartments where many children will live is especially dangerous. When adults and children receive the same air-pollution exposures, children face 10-times-greater health harm than adults do.⁸

Notes

1. See FAQ, Frequently Asked Questions, also in this "Freeway Air Toxins" section. See, for example, Melissa Healy, The surprising link between air pollution and Alzheimer's disease, 3/31/19, <https://www.latimes.com/science/sciencenow/la-sci-sn-air-pollution-alzheimers-20170131-story.html> and Tony Barboza, Freeway pollution travels farther than we thought. Here's how to protect yourself, 12-30-17, <https://www.latimes.com/local/california/la-me-freeway-pollution-what-you-can-do-20171230-htmistory.html> and

California Air Resources Board, Health Effects Associated with Traffic, <https://ww3.arb.ca.gov/research/health/healthup/march07>

2. See the URLs and links to [freeway_files.zip](#), [la-city-permits.xlsx](#), [pollution-testing.xlsx](#) in Tony Barboza and Jon Schleus, L.A. keeps building near freeways, even though living there makes people sick, March 2, 2017; <https://www.latimes.com/projects/la-me-freeway-pollution/>

3. Barboza and Schleus.

4. See note 2.

5. Barboza and Schleus. See Ask the Doctors – Will living near a freeway increase the risk of asthma? May 21, 2018, <https://connect.uclahealth.org/2018/05/21/ask-the-doctors-will-living-near-a-freeway-increase-the-risk-of-asthma/> and

Sarah Anderson, Air pollution from freeway extends further than previously thought: Study finds pollutants 1.5 miles from I-10 during early morning hours, June 10, 2009, <http://newsroom.ucla.edu/releases/air-pollution-from-freeway-extends-93857> and

Ritz and Wilhelm, Pollution Impacts on Infants and Children, 2008, <https://www.ioes.ucla.edu/wp-content/uploads/air-pollution-2008.pdf> and

Anderson, Air Pollution Impacts Childhood Development, <https://www.universityofcalifornia.edu/news/air-pollution-impacts-childhood-development-study-shows> and USC Keck Medicine, How the Air Quality Where You Live Affects Your Health, 2019,

<https://www.keckmedicine.org/how-the-air-quality-of-where-you-live-affects-your-health/> and USC Environmental Health Centers, Infographic: Living Near Busy Roads or Traffic Pollution, <https://envhealthcenters.usc.edu/infographics/infographic-living-near-busy-roads-or-traffic-pollution> and USC Environmental Health Centers, Increased Air Pollution Linked to Aggressive Behavior, <https://envhealthcenters.usc.edu/2017/12/air-pollution-linked-to-bad-teenage-behavior.html.pdf>

6. Barboza and Schleus.

7. See FAQ, Frequently Asked Question 3, "WON'T MERV-13 AIR FILTERS PROTECT BESIDE-FREEWAY RESIDENTS?" also in this "Freeway Air Toxins" section.

8. See FAQ, Frequently Asked Question 5, "IS IT SAFE FOR CHILDREN TO LIVE NEAR FREEWAYS?" also in this "Freeway Air Toxins" section.