

Office of Environmental Health Hazard Assessment



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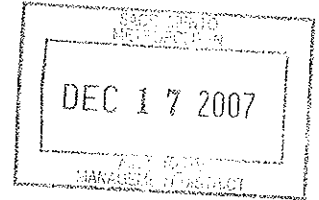
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Arnold Schwarzenegger
Governor

December 11, 2007



Mr. Larry Greene
Air Pollution Control Officer
Sacramento Metropolitan Air Quality Management District
777 12th Street, 3rd Floor
Sacramento, California 95814-1908

Subject: Review of the Recirculated Draft EIR for Greenbriar Project

Dear Mr. Greene:

In July the District requested assistance from Dr. Joan Denton, the Director of the Office of Environmental Health Hazard Assessment (OEHHA), in evaluating the Recirculated Draft Environmental Impact Report (DEIR) for the Greenbriar Farms development, which involves building 3,473 residences on 577 acres at the junction of Interstate-5 and Highway 99, north of Sacramento. The materials transmitted by the District were reviewed by OEHHA staff and a comment letter describing OEHHA's concerns was sent to the District on September 27, 2007 by Dr. George Alexeeff, Deputy Director for Scientific Affairs.

We identified several concerns about the document including: 1) Proposing the siting of residences 209 feet from the freeway instead of following the recommendation in the California Air Resources Board (CARB) April 2005 document "Air Quality and Land Use Handbook: A Community Health Perspective" that residences be located at least 500 feet from a major highway; 2) Not addressing risks for cardiovascular effects and asthma due to diesel exhaust and other emissions from the freeway; 3) Inappropriate use of yet-to-be realized emissions reductions in the health risk assessment; and 4) Inappropriate comparison of risk estimates with background risk. In addition, we were unable to reproduce the cancer risk estimates due to the lack of detailed information in the materials transmitted to us.

On October 25, 2007 Mr. Gary Rubenstein of Sierra Research sent the District a letter addressing OEHHA's concerns in a comment-response format. Unfortunately the responses to two of our comments are incomplete. In regard to our point 4, we believe that comparison of freeway risk with background is not appropriate. The freeway risk is in addition to the background risk, not part of it.

California Environmental Protection Agency

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We also stated that there is a misconception in the DEIR of the reason behind CARB's recommendation to avoid siting residences nearer to freeways than 500 feet (point 2 above). Although increasing distance from a major roadway would also reduce exposure to carcinogens in traffic-related air pollution, the recommendation is primarily based on exacerbation of cardiovascular and respiratory diseases from traffic-related air pollutants, as well as measurements made in a few studies of decreasing concentrations of traffic-related air pollutants with distance from a freeway. The wording in paragraph 2 on page 9 of the DEIR incorrectly mixes this recommendation with a statement regarding background cancer risks in the basin. The consultant's response stated: "While we understand OEHHA's comment in this regard, the only quantitative analyses presented in CARB's land use guidance document that relates distances from freeways to health risks were both focused on diesel particulate matter as toxic air contaminants." However, on page 12 of CARB's document are several examples from the peer-reviewed medical literature of non-cancer risks that should be addressed, even if not quantifiable by the proponent. These include:

- Reduced lung function in children was associated with traffic density, especially trucks, within 1,000 feet and the association was strongest within 300 feet (Brunekreef, 1997).
- Increased asthma hospitalizations were associated with living within 650 feet of heavy traffic and heavy truck volume. (Lin, 2000)
- Asthma symptoms increased with proximity to roadways and the risk was greatest within 300 feet. (Venn, 2001)
- Asthma and bronchitis symptoms in children were associated with high traffic in a San Francisco Bay Area community with good overall regional air quality (Kim, 2004).
- A San Diego study found increased medical visits in children living within 550 feet of heavy traffic (English, 1999).

OEHHA staff carried out one of the studies (Kim, 2004), which was confirmatory of studies already in the literature. There are many more studies demonstrating adverse respiratory and cardiovascular health effects resulting from exposures to traffic-related air pollutants.

As stated previously, the CARB Air Quality and Land Use Handbook is an attempt by state government to be proactive rather than reactive in protecting the public health. CARB and OEHHA used the best data available to recommend a setback for residences of 500 feet from a major highway. This recommendation was made by CARB and OEHHA staffs after review of the recent literature on particulate matter and adverse health effects, including asthma, on children and adults. Many studies now show elevated rates of asthma and asthma symptoms in children living near major roadways. Further, studies have shown increased risk of heart attack

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in adults exposed to traffic-related air pollutants. The EIR still does not address these risks from traffic-related air pollutants, including particulates; thus, the science regarding health effects of traffic-related air pollution has not been adequately considered in the EIR.

Mr. Rubenstein's letter also did not address OEHHA's comment about noise.

OEHHA is mandated by the Children's Environmental Health Protection Act of 1999 to consider the sensitivities of infants and children in its risk assessments. The recommended 500-foot setback from schools and major highways is a practical, proactive measure by public health officials to protect infants and children from vehicular air pollution. Infants and children are more susceptible to carcinogenic effects of some air pollutants, as well as to some noncancer health effects. OEHHA is revising our risk assessment guidelines to reflect this. We believe that the Greenbriar assessment has not adequately addressed this emerging public health concern.

If you should have any questions, or would like to discuss OEHHA's comments, please call Dr. Jim Collins of my staff at (510) 622-3150, or you may call me at the same number.

Sincerely,



Melanie A. Marty, Ph.D.
Chief, Air Toxicology and
Epidemiology Branch

cc: Joan E. Denton, Ph.D.
Director

George V. Alexeeff, Ph.D.
Deputy Director for Scientific Affairs