

October 29, 2007

Mr. William Thomas
Development Services Department
City of Sacramento
915 I St. 3rd Floor
Sacramento, CA 95814

**SUBJECT: Greenbriar CEQA Analysis: Toxic Air Contaminants
FILE # P05-069, SAC 200400304U**

Dear Mr. Thomas:

The Sacramento Air Quality Management District (SMAQMD) supports the Greenbriar development project because it offers many air quality-friendly elements. The mixed-use design, density, and transit features are consistent with Blueprint, which is one of the key planning tools designed to limit the air quality and transportation impacts of projects in the Sacramento region.

Greenbriar will help link already urbanized areas of the City of Sacramento with the Sacramento International Airport and future industrial uses in Metro Air Park to the west. Furthermore, it is an essential step toward ensuring the Downtown-Natomas-Airport Regional Transit light rail line implementation. Finally, the project proponent has committed to implementation of a SMAQMD-endorsed operational Air Quality Mitigation Plan and mitigation of construction impacts, which will help to mitigate the project's impact on the region. All of these characteristics ultimately assist with regional air quality.

The District, however, disagrees with the analytical approach to assessing Toxic Air Contaminants in the EIR. The District developed a guidance document for addressing highway-related toxic risks: Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways, which was approved by our Board of Directors in January 2007. The Protocol was developed in response to an Air Resources Board guidance document, which recommends that residential projects not be located within 500 feet of a highway. Because that guidance was based on data specific to Los Angeles, it overstated the risk to residential projects in Sacramento. The District staff applied Sacramento-specific data to the ARB's analytic approach and devised new setback recommendations that are detailed in the Protocol. The Protocol advises agencies to prepare a site-specific health risk assessment when projects are located within a specified setback zone.

The Greenbriar residences are located outside the setback zone in which a site-specific health risk assessment is recommended under the Protocol. Consequently, the Protocol would not have recommended a site-specific health risk assessment for the project, but would have recommend disclosure of the relevant potential cancer risk established in the Protocol's screening tables.

Rather than rely upon the Protocol, however, the EIR proposed a significance threshold of 10 cases in a million for toxic risks and included a site-specific health risk assessment. The point of contention between the District and the conclusions in the EIR arises from the EIR's evaluation of the health risk assessment.

First, while the EIR risk assessment showed that the risk posed by the project was 29 cases in a million, in assessing the significance of that impact it compared the risk to regional background levels rather than the EIR 10:1 million significance threshold. It is inconsistent with standard practices to compare the risk to background, because that approach artificially minimizes the *added* risk posed by the specific project.

Second, the evaluation made several adjustments to the health risk assessment factors that lowered the 29 in a million risk estimate. This, too, is inconsistent with standard practices. Risk assessment methodologies have been developed over many years and are designed to give an accurate estimate of worst-case risk. By adjusting the accepted methodology, the EIR distorts the usefulness of the tool in weighing those risks. As a consequence, it also misstates the risk.

For example, the evaluation assumed emissions from mobile sources will go down over time, based upon regulations that are presumed to go into effect in the future. Standard health risk methodology does not allow for consideration of future reductions from laws and regulations that have not been implemented. In addition, even if some emissions go down based on new U.S. standards, it is also possible that overall emissions will increase if truck traffic increases and if there are increased numbers of higher emitting Mexican and Canadian trucks. Because these variables are unpredictable, standard procedure is to use a uniform approach to assessing future emissions.

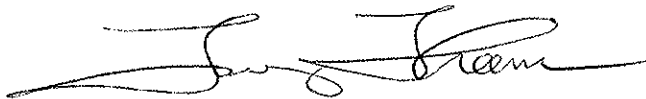
Again, the District has not taken a position on the ultimate conclusion reached in the EIR -- that the toxic risk of the project is not significant. The District disagrees with the analytic approach taken in the EIR, however, because it sets a bad precedent for performing risk assessments in the region. Quite simply, if a risk assessment is undertaken, it should comply with standard, accepted practices.

Aside from the impact analysis, we'd like to note that the Greenbriar project also includes trees and berms along roads, which is typical mitigation to reduce potential toxic impacts from roadways. To enhance the reduction potential of these measures, we recommend the use of finely-needled trees and the use of sound walls in strategic places along the boundary of the project.

In conclusion, the Air District supports this project for the reasons outlined above, but disagrees with certain technical aspects of the TAC risk evaluation methodology.

If you have any questions, please contact me at 874-4802 or LGreene@airquality.org.

Sincerely,



Larry Greene
Air Pollution Control Officer

CC:	Mr. David Kwong	City of Sacramento
	Ms. L.E Buford	City of Sacramento
	Mr. Tom Buford	City of Sacramento
	Mr. Don Lockhart	LAFCO
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	Mr. John Boyd	Planning Commissioner
	Mr. Joseph Contreras	Planning Commissioner
	Mr. Chris Givens	Planning Commissioner
	Mr. Michael Notestine	Planning Commissioner
	Ms. Jodi Samuels	Planning Commissioner
	Mr. Barry Wasserman	Planning Commissioner
	Mr. Darrel Woo	Planning Commissioner
	Mr. Joseph Yee	Planning Commissioner
	Mr. Marty Hanneman	Assistant City Manager
	Mr. Ray Trethaway	City Councilmember

Enc: Dr. George Alexeeff, Deputy Director for Scientific Affairs, Office of Environmental Health Hazard Assessment, California EPA, correspondence to Larry Greene, APCO, Sept 26, 2007, RE: Review of the Recirculated Draft EIR for Greenbriar Project.

Office of Environmental Health Hazard Assessment



Linda S. Adams
Secretary for Environmental Protection

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Arnold Schwarzenegger
Governor

September 26, 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:

I am replying to the District's letter dated July 17, 2007 to Dr. Joan E. Denton, the Director of the Office of Environmental Health Hazard Assessment (OEHHA), which requested assistance in addressing deficiencies in the Recirculated Draft Environmental Impact Report (DEIR) for the Greenbriar Farms development. The project 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 have been reviewed by OEHHA staff, including the 13 page Draft Health Risk Assessment for the Proposed Greenbriar Farms Development dated October 4, 2005. We identified several concerns about the document including: 1) Proposing the citing 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.

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 at the time 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 in adults exposed to traffic-related air pollutants. The EIR does not address these risks from traffic-related

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air pollutants, including particulates; thus, the science regarding health effects of traffic-related air pollution has not been adequately considered in the EIR.

The project proposes to build some residences 209 feet from the highway edge. In the present case, one highway bordering the proposed development is Interstate 5, the main car and truck route from the Mexican to the Canadian border. Although per-vehicle emissions in California vehicles are expected to decrease, this will be partially offset by an increased total number of vehicles in the future. As a result of the North American Free Trade Agreement, the possible presence on Interstate 5 of trucks registered in Mexico, where emissions are unregulated, may offset any reductions in emissions of vehicles registered in the United States. Whenever possible, State law requires a setback from major highways of 500 feet for schools to protect children and school workers from the adverse effects of vehicle exhaust pollution. Building residences 200 feet from the freeway will result in some children in this development being exposed to a greater risk at home, where they spend more time, than at school, due to the shorter setback.

There are a number of conceptual errors in the presentation of the material. In addition some of the information included needs clarification or correction.

1. Estimate of the cancer risk from exposure to the 21 Toxic Air Contaminants in Table 1 on page 4 does not address risks for cardiovascular effects and for asthma due to diesel exhaust and other combustion particulate emissions emanating from the freeway.
2. Also on page 4, the EMFAC model addresses particulate matter less than 10 microns in diameter, not greater than 10 microns in diameter, as stated in the report.
3. On page 5, footnote 6 states that no health risk factors were available for furans. This is incorrect. OEHHA has developed Toxic Equivalency Factors for furans. These can be found in Appendix C of our Air Toxics Hot Spots Program Technical Support Document for Describing Available Cancer Potency Factors at http://www.oehha.ca.gov/air/hot_spots/pdf/May2005Hotspots.pdf
4. On page 8, the assessment states that the cancer and non-cancer risks from vehicle sources tend to decrease with time. We assume that this refers to per-vehicle emissions, and includes yet-to-be implemented emissions reductions. As indicated above, this will be offset by an increased number of vehicles and possibly by out-of-country vehicles subject to more lax regulations. Further, it is inappropriate to include these yet-to-be realized emissions reductions in a health risk assessment.

5. On page 9, the highest acute and chronic non-cancer hazard indices are given as 0.63 and 0.26 per million. Unlike cancer risks, hazard indices are not expressed per million (unless the values are actually 0.00000063 and 0.00000026). It is also usual to state which chemicals contribute to the non-cancer hazard indices.
6. On page 9, the brief discussion about cancer risk and relative cancer risk is not clear. It appears that the risk assessment (paragraphs 2 and 3) is devaluing the cancer risks estimated from 21 air toxics emanating from the freeway because the estimated cancer risk is lower than the average background for the Sacramento Valley air basin. The risk estimates from the freeway are additive to the background risk, and it is not appropriate to dismiss cancer risks on the order of 100 in a million (based on an interpretation of figures 3 and 4) because they are lower than overall background. The risk assessment does not present the numerical value of the cancer risk estimates from freeway emissions in the brief discussion, but rather presents them as a percent of total background risk from air toxics in the Sacramento air basin. The risk estimates should be presented in this report in tabular form rather than requiring the reader to interpolate from graphs.
7. Further, there is a misconception of the reason behind CARB's recommendation to avoid siting residences nearer to freeways than 500 feet. 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 incorrectly mixes this recommendation with a statement regarding background cancer risks in the basin.
8. It is not clear that the report considered that the southbound Highway 99 interchange with I-5 is elevated and thus that vehicular emissions from that portion of the highway should probably be modeled differently from emissions that occur at the same ground level as the proposed residences.

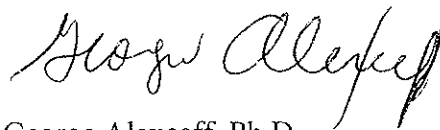
Although not covered in the materials reviewed by OEHHA, an environmental nuisance associated with vehicle traffic is noise. Vehicular noise from I-5 and Highway 99 will occur around the clock and will likely increase with time. Even the nearby Sacramento Airport has a quiet time from midnight to 6 am. The noise can be a continual reminder of the vehicle pollution and 209 feet is quite close to the noise from the freeway, even with mitigation. Sound walls and trees planted in tiers are likely to mitigate both noise pollution and particulate pollution.

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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 measure 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, but it should be noted that the Greenbriar assessment has not taken this into account.

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

Sincerely,

A handwritten signature in cursive script, appearing to read "George Alexeeff".

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

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