

## **SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT**

For the Agenda of August 24, 2006

**To:** Board of Directors  
Sacramento Metropolitan Air Quality Management District

**From:** Larry Greene, Air Pollution Control Officer  
Sacramento Metropolitan Air Quality Management District

**Subject:** Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways

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### **Recommendation**

This is an informational item only.

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### **Background**

The California Air Resources Board (ARB) released the Air Quality and Land Use Handbook in 2005 in response to recent air pollution studies that have shown an association between respiratory and other cancer and non-cancer health effects and proximity to high traffic roadways. These studies have also produced important air quality information about certain types of facilities that should be considered when siting new residences, schools, day care centers, playgrounds and medical facilities (i.e., sensitive land uses).

Based on these studies, the Land Use Handbook provides recommendations on siting new sensitive land uses near sources of toxic air contaminants, such as freeways and high-traffic roads. The ARB Land Use Handbook advises against siting "sensitive receptors" (i.e. residential uses) within 500 feet of the aforementioned high-traffic freeways and roadways. This Handbook was developed as guidance for local jurisdictions and is strictly advisory.

Since the release of the Handbook, numerous residential development proposals adjacent to freeways have been submitted to local jurisdictions accompanied by health risk assessments (HRAs) since they were located within 500 feet. The methodologies and reporting formats used in these HRAs have varied widely. Local jurisdictions have requested that the air district provide guidance on a consistent and credible methodology for evaluating when a project proponent should be required to perform a HRA as part of the environmental review process. In February of 2006, the District entered into a contract with TIAX (E2005026) to develop a protocol for evaluating the location of sensitive land uses adjacent to major roadways.

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### **Protocol Development**

With the input of Air District staff and the staff of local jurisdictions, TIAX developed a Protocol that provides local land use agencies with a methodology to adequately evaluate the impact of roadway generated toxics on sensitive adjacent uses and to enable decision makers to make informed decisions on siting new

residential projects and other sensitive land uses in close proximity to freeways or other high traffic volume roadways (see Attachment #1: Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways).

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### **Methodology and Protocol**

The methodology consists of a step-by-step process which uses criteria such as traffic volumes, roadway orientation and prevailing winds to determine whether a full health risk assessment is necessary. The Protocol includes screening tables that evaluate the relative health risk posed by siting a project near a freeway and other high traffic volume roadways. If the proposed project has an incremental cancer risk of under 400/million, then the information is noted in the staff report or environmental document. If the project is above 400/million, then the need for a full health risk assessment is indicated. The evaluation cut point of 400/million is based upon the level of risk corresponding to a 70% reduction from the highest predicted risk associated with the highest average daily traffic on freeways in the Sacramento area. The 70% reduction corresponds to ARB's 500 foot threshold, considered an acceptable level of risk in the Air Quality and Land Use Handbook. The District's Protocol also provides clear guidance on how a health risk assessment is to be undertaken, what methodology is to be used, and how the results are to be reported.

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### **Outreach Efforts**

Shortly after entering into the Contract with TIAX, on March 16<sup>th</sup>, 2006 Air District staff met with Air Resources Board staff and TIAX to review the scope of work, flesh out possible approaches, share recent exchanges between ARB and California Air Pollution Control Officers' Association (CAPCOA) on modeling recommendations, and choose an appropriate air dispersion model to be used for HRA's. Air District staff and TIAX received and incorporated ARB staff recommendations on the scope of work for the project.

On April 26, 2006, District staff held a meeting with local land use planners to receive their input and ensure that the Protocol addresses their concerns. District staff has also updated local jurisdiction's staff on the Protocol's progress at ongoing staff coordination meetings.

On July 26, 2006, the final draft Protocol was released to local jurisdiction planners via email. On August 2, 2006, Air District Staff met with local planners and presented the completed Protocol. Comments were received and are being incorporated into the final version.

Air District staff has also met with representatives of the BIA and will be presenting the Protocol to local land use consultants and other interested parties.

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**Next Steps**

Staff will review comments received and return to your Board for consideration and adoption of the Protocol.

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RESPECTULLY SUBMITTED,

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Larry Greene  
Air Pollution Control Officer

Attachment