



**Bay Area Air Quality Management District
CARE Task Force Meeting
March 4, 2008**

**Local Land Use Guidance and Mitigation
Measures**

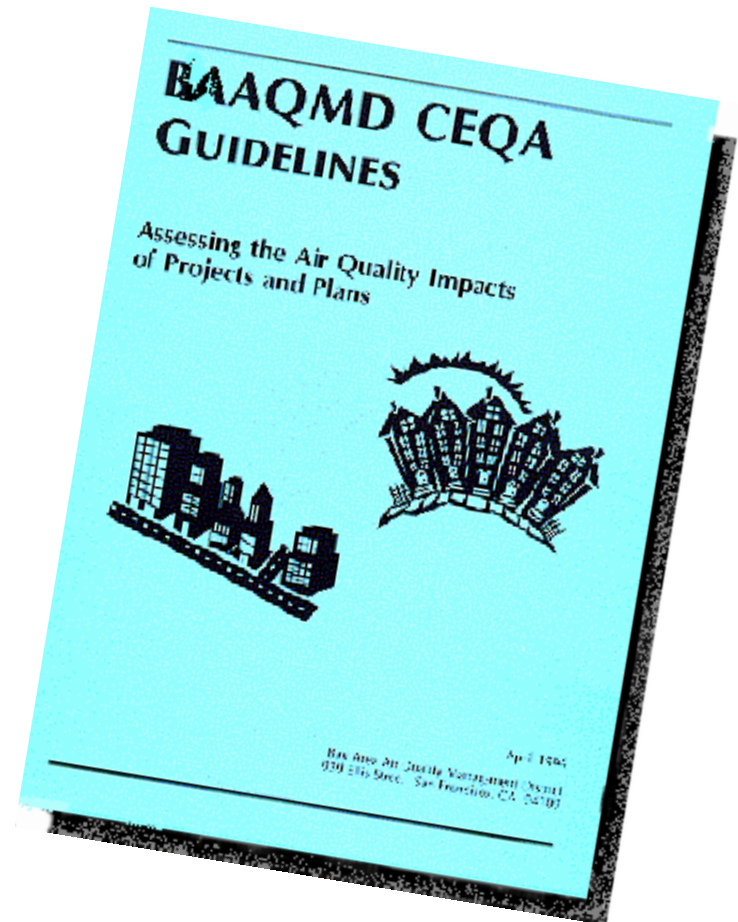
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Background

- **Existing Land Use Guidance Documents**
 - ◆ CARB's Air Quality and Land Use Handbook: A Community Health Perspective (April 2005)
- **Local Land Use Guidance**
 - ◆ South Coast's "Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning" (May 2005)
 - ◆ Sacramento Metro's "Model General Plan Air Quality Element" (May 2005)
 - ◆ San Francisco's Department of Public Health, "Assessment and Mitigation of Air Pollutant Health Effects from Intra-urban Roadways: Guidance for Land Use Planning and Environmental Review" (November 2007)
- **CAPCOA Planning Managers**
 - ◆ Developing "Health Risk Assessments for Proposed Land Use Projects"

District CEQA Guidelines and Toxic Impacts

- **Recommend guidelines for environmental review under CEQA**
- **Recommended Thresholds of Significance based on District's Risk Management Policy for stationary sources**
 - ◆ Cancer risk >10 in 1 million
 - ◆ Noncancer hazard index >1
- **Not designed to address mobile source impacts of TACs**
- **Currently revising guidelines**



Purpose

- Assist cities and counties in local land use decision making
- Assess the health impact to land use projects from existing toxic sources
- Evaluate health impact resulting from and produced by land use project
- Determine when mitigation is required and identify possible measures
- Assess the effectiveness of the measure
- Assist with general plans and project-specific analysis

Target Audience and Impacted Receptors

- **Target Audience:**
 - ◆ Local city and county planners
 - ◆ Community
 - ◆ Developers
 - ◆ Consultants
 - ◆ Local decision makers
- **Impacted Receptors:**
 - ◆ Sensitive receptors including infants, children, elderly, and people with respiratory-related illnesses
 - ◆ All people living in the vicinity of the proposed land use project
 - ◆ All people moving into the land use projects
 - ◆ Residential zones, schools, hospitals, and senior centers

General Outline

- **Screening Tools**
- **Refined Analysis**
- **Action Thresholds**
- **Mitigation Strategies**
- **Effective Mitigation Measurements**

Example of Screening Tools

Source Category	Advisory Recommendations
Freeways and High-Traffic Roads	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.
Distribution Centers	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). • Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.
Rail Yards	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. • Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.

Example of Screening Tools

Source Category	Advisory Recommendations
Ports	<ul style="list-style-type: none"> Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks.
Refineries	<ul style="list-style-type: none"> Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	<ul style="list-style-type: none"> Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloroethylene	<ul style="list-style-type: none"> Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district. Do not site new sensitive land uses in the same building with perc dry cleaning operations.
Gasoline Dispensing Facilities	<ul style="list-style-type: none"> Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.

General Approach for Refined Analysis

- **Identify mobile and stationary sources within the vicinity of the land use project**
- **Estimate emissions from each source**
- **Predict air concentrations at receptor locations using air dispersion model**
- **Calculate cancer risk and noncancer hazard index**

Action Thresholds

- **Cancer Risk**
- **Noncancer Hazard Index**
- **Other Thresholds?**

Mitigation Measures

- **Air Toxic Control Measures (ATCMs) and Upcoming Rules and Programs**
- **Source Specific Measures**
- **Land Use and Design Features**
- **Incentive Programs**

Effectiveness of Mitigation Measures

- **Comparison of pre and post development using refined analysis**
- **Monitoring**
- **Community Feedback**
- **Unquantifiable**

Comments and Suggestions?

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