



Environmental Justice Air Quality Coalition • Immigrant Power for Environmental Health and Justice • Bay Area Clean Air Task Force • Contra Costa Asthma Coalition • Environmental Law and Justice Clinic • Regional Asthma Management and Prevention Initiative

Bay Area Environmental Health Collaborative ***Proposed Bay Area Air Pollution Reduction Protocol***

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Purpose

The following protocol presents an approach to reducing cumulative air pollution hazards in Bay Area communities exposed to disproportionate emissions of toxic and criteria air pollutants. It is intended to reduce pollution in highly impacted areas, prevent worsening conditions in other areas, and minimize disproportionate pollution burdens and impacts throughout the region.

The protocol is designed for implementation by the Bay Area Air Quality Management District (BAAQMD or District) and is limited to actions within BAAQMD's jurisdiction and under its broad authority to protect public health from the adverse impacts of air pollution. The protocol should be viewed as a key component of a comprehensive collaborative strategy to reduce adverse cumulative impacts on affected communities, involving other regulatory authorities and levels of governments as appropriate.

Under the protocol, BAAQMD would consider all forms of outdoor air pollution in assessing potential cumulative air impacts, and would place additional regulatory requirements on both new and existing point, area, and indirect sources in highly impacted areas, and in areas where residents are vulnerable to the adverse effects of pollution.

More specifically, BAAQMD would define "high," "medium" and "low" air hazard areas throughout the region, in addition to the "priority communities" the District has already identified through the Community Air Risk Evaluation (CARE) Program. BAAQMD would prohibit new point sources and air emission increases at existing sources in and affecting all CARE priority communities and other high hazard areas (commonly referred to as "highly impacted" or "hotspot" areas). In medium and low hazard areas, BAAQMD would restrict emissions increases to ensure that, in addition to protecting public health using a cumulative air impact analysis, pollution levels are prevented from deteriorating to the next level zone.

Second, BAAQMD would implement measures to influence local land use decisions beyond its authority where adverse cumulative air impacts would result from proposed projects. BAAQMD would create maps and develop appropriate guidelines for local land use permitting, in consultation with county public health and environmental health departments. BAAQMD would also participate in local land use proceedings where proposed projects could have an adverse cumulative impact on public health. In these proceedings, BAAQMD would recommend limiting or denying proposed use permits that would result in increased pollution exposures in CARE priority communities and other high hazard areas, and mitigation to avoid adverse cumulative health and environmental effects in medium hazard areas and areas with vulnerable populations.

Third, BAAQMD would develop a comprehensive pollution reduction strategy and timeline including promulgating new rules to reduce emissions from sources within its jurisdiction. The strategy would be developed with extensive public input. BAAQMD would consider a broad range of options. All feasible reduction and prevention measures would be implemented. In reducing emissions from existing sources, BAAQMD would require Best Available Control Technologies (BACT), and BACT updates would be promptly incorporated as new technologies become available.

BAEHC recognizes that in many cases, the bulk of the pollution hazard in any area may be from mobile sources. Therefore, the most appropriate regulatory response may frequently be to reduce pollution from mobile sources, including indirect sources. Given its limited direct authority over mobile sources, BAAQMD's regulatory efforts would in such cases be focused on reducing indirect source pollution.

Finally, the protocol utilizes a relative risk methodology to specifically address environmental inequities in neighborhoods that experience disproportionate emissions of air pollutants. It would require emission reductions regardless of the absolute value of health risk that is implied by these emissions. BAEHC realizes this is a departure from the typical regulatory approach of permitting air pollution exposures up to a specifically defined acceptable value of health risk. However, BAEHC points out that air pollution risks in highly impacted areas throughout the region are currently higher than acceptable levels and may already result in adverse health impacts. Therefore, the protocol could be implemented for some time without conflicting with current regulatory programs that are based on the standard risk assessment/risk management paradigm.

Definition of Terms

1. **Air pollutants or air pollution** refers to Toxic Air Contaminants, Criteria Air Pollutants, and emissions of any potentially harmful substances not currently listed as regulated pollutants.
2. **Highly impacted areas or hotspots** refers to high air pollution hazard areas as designated by this protocol – specifically areas identified as “priority communities” under the District’s CARE program and other areas classified as having high hazard potential. *Note:* The definition used in this protocol is more restrictive than the definition used in the proposed BAEHC Public Participation Protocol (March 2009).
3. **Vulnerability** means increased sensitivity or susceptibility to pollution hazards as a result of other social, economic, cultural or community factors that affect health risk and may lead to disparities, such as race/ethnicity, poverty, existing health status, level of civic engagement, etc.
4. **Indirect or magnet sources** are facilities or areas such as ports, railyards, distribution centers, freeways, large shopping centers, and heavy trucking corridors that attract a substantial number of vehicles that collectively produce significant levels of air pollution.
5. **Cumulative impacts** refers to the public health and environmental effects of the combined exposure to all types of substances, emissions and discharges in a geographic area, where people live, work, play, learn, etc. Cumulative impacts encompasses all types of health

hazards, whether single or multi-media, mobile or stationary, routinely, accidentally or otherwise released. It also includes consideration of vulnerability factors.

6. **Cumulative air impacts** refers to outdoor air pollution created by all types of air pollution sources, whether stationary, area, or indirect sources.

Protocol

1. ***Priority Categories.*** Using a cumulative air impacts approach, BAAQMD would categorize areas in the region according to air pollution hazard potential. The first classification would be areas identified as “priority communities” under the District’s Community Air Risk Evaluation (CARE) Program. Other “high,” “medium” and “low” hazard areas would be classified according to the methodology in Item 2 below. Air pollution categories would take into account mobile, stationary, area, and indirect or magnet sources, and both Toxic Air Contaminants (TACs) and Criteria Air Pollutants (CAPs).
2. ***Method of Categorization.*** Categorization of areas would be based on cumulative air pollution hazard potential, e.g., calculating the total risk-weighted air emissions in the target area. Areas would be designated to protect communities at the micro-scale (i.e., neighborhood blocks) and exposure to air pollutants would be evaluated at the street level. Both individual and population-weighted risk considerations would be used in the hazard assessment. BAAQMD would consult with county public health and environmental health departments to identify vulnerable populations and communities in need of greater protection. Vulnerability indicators would be incorporated into decision-making as effective methodology becomes available.
3. ***Limits: CARE Priority Communities and High Hazard Areas.*** In CARE priority communities and other high hazard areas, BAAQMD would limit emissions levels of all air pollutants under its authority. Any proposed additional exposures in or affecting such areas would be presumed to have a significant cumulative impact. No new pollution permits allowing new air emissions in or affecting these areas would be issued, nor would the District modify pollution permits to allow increased levels of air emissions from existing facilities. Pollution trading would not be allowed.
4. ***Limits: Medium and Low Hazard Areas.*** In medium and low hazard areas, and in areas with vulnerable populations, BAAQMD would limit new emissions of air pollution under its authority to ensure protection of the public and vulnerable populations from adverse cumulative air impacts. BAAQMD would consult with county health and environmental health departments to identify vulnerable populations and communities. In addition, BAAQMD would ensure that pollution levels are prevented from increasing to the next level zone – i.e., medium hazard areas would be prevented from deteriorating into high hazard areas, and low hazard areas would be prevented from deteriorating into medium hazard areas.
5. ***Land Use Consultation.***
 - a) ***Map and Guidelines***
 - i. ***General.*** Consistent with the classifications under the protocol, BAAQMD would publish maps designating areas with high, medium and low air pollution hazards, and identifying the CARE priority communities. The maps would identify vulnerable receptors and populations, which would be identified in consultation with county public health and environmental health departments.

The maps would be accompanied by a set of guidelines on appropriate potential land uses for each hazard category, consistent with this protocol. The maps and guidelines would be provided to local land use and planning agencies, and accompanied by educational outreach regarding their purpose and intent.

- ii. **CARE Priority Communities and High Hazard Areas.** For CARE priority communities and other high hazard areas, BAAQMD would recommend denial of any proposed project in or affecting the area that would not satisfy the requirements of Item 3 above.
- iii. **Medium and Low Hazard Areas.** For medium and low hazard areas, BAAQMD would recommend denial or mitigation of any proposed project in or affecting the area that would not satisfy the requirements of Item 4 above.

b) **Participation in Local Proceedings.** Where a project is proposed for approval by a local agency that would affect (i) a CARE priority community or other high hazard area, or (ii) a medium or low hazard area with vulnerable populations, BAAQMD would submit written comments, and where possible provide testimony, recommending denial of the use permit or mitigation where increased pollution or adverse cumulative exposures would result from the proposed project. BAAQMD would urge local entities to evaluate potential cumulative health and environmental impacts, including the effect of exacerbating existing conditions if the project is approved.

6. **Reductions.** BAAQMD would develop a cumulative air pollution reduction strategy and timeline to continually reduce emissions and eliminate disproportionate exposures in the region. Reductions in CARE priority communities and other high hazard areas and areas with vulnerable populations would be prioritized. The strategy would be developed with public input, including a series of public workshops,¹ and in consultation with local county public health and environmental health departments. The strategy would include a list of regulatory and other measures that would be taken to achieve reduction targets, including but not limited to the measures listed below. BAAQMD would consider a broad range of options. All feasible measures would be implemented. Special pollution reduction measures and/or shorter timelines would be required in highly impacted areas and areas with vulnerable populations. Measures for consideration would include:

- i. **indirect source rule** for new, modified and existing sources
- ii. **existing source rule**
- iii. **source specific rules** including more stringent production/emission limits for high risk sources
- iv. **update/revise “thresholds of significance”** to include cumulative air risk and impact criteria
- v. **require mitigation** in highly impacted areas
- vi. **require BACT for all existing sources**, including “grandfathered” sources
- vii. **update/revise BACT frequently** to incorporate less toxic alternatives and technologies as they become available

¹ This public process should include, but not be limited to, a series of public workshops and meetings in CARE “priority communities” and “high” hazard areas, as well as “medium” hazard areas with vulnerable populations. Outreach would be conducted consistent with the BAEHC Public Participation Protocol (March 2008) and Limited English Proficiency Proposal (Sept. 2008), and in consultation with relevant BAAQMD advisory bodies, committees, the CARE Task Force and CARE Cumulative Impact Working Group.

- viii. **provide incentives and technical assistance** for investment and transition to less hazardous technologies and materials
- ix. **require energy efficiency audits and reporting**
- x. **increase enforcement activity in high impact areas**, especially for repeat violators
- xi. **increase enforcement activity for potential nuisance activities**; make verification easier

7. **Updates.** Hazard potential areas and pollution reduction targets would be updated every three years.