#35

City of Santa Rosa

October 13, 2009

Mr. Greg Tholen, Principal Environmental Planner
Planning and Research / Air Quality Planning
1220 N. N Street, Room 221
Sacramento, CA 95814

Re: Bay Area Air Quality Management District's Draft CEQA Thresholds of Significance and Draft CEQA Guidelines

Thank you for the opportunity to review your staff recommended Draft CEQA Thresholds of Significance and Draft CEQA Guidelines. We appreciate the ability to work with you on this project and provide feedback on the Draft Thresholds and Guidelines. This bold step ahead attempting to address Climate Change and air quality is admirable. We appreciate your efforts to provide local jurisdictions with guidance on the issue. 35-1

The City of Santa Rosa has reviewed the staff recommendations and has the following comments related to the proposal:

1. Commercial and Residential projects do not seem to be differentiated in the area of thresholds. Please clearly explain your reasoning behind combining them or provide separate use types and thresholds for each. 35-2
2. Components necessary to certify a Climate Action Plan (CAP) are clear. Once these components have been achieved, what is the process for certification and who is the entity that certifies the CAP? 35-3
3. We appreciate the ability to analyze at a project by project level until our CAP is certified. Please provide standardized measurement methods for evaluating criteria air pollutants and precursors, GHGs and cancer risk per million at the project level with a standard formula that is easily calculated. 35-4
4. CEQA exemptions in relation to Air Quality are unclear. Please identify which CEQA exemptions, if any, will apply. Please provide specifics on which exemptions are feasible and give guidance on when they would be appropriate. For example, the PM^{10} control measures clearly state that for projects less than 4 acres these control measures reduce construction impacts to less-than-significant. This type of guidance is extremely helpful. 35-5
5. Are the proposed thresholds created to trigger an air quality analysis or trigger a mandatory EIR for air quality impacts? (ie. 55 units, 15,000 square feet of commercial). 35-6

6. Please provide direction regarding projects already in the approval process. Which are affected by the CEQA Guidelines and at what point in the process are they affected? For example...what about a discretionary project approved for a 60 unit subdivision that has not yet received building permits? What about a project that has been approved at Planning Commission but not City Council? What about a project that has been submitted and CEQA review is in process but no approvals have been obtained? 35-7
7. Please create a single database for existing pollutant sources (gas stations, diesel generators, high emission streets, etc) that is easily accessible and updated accurately and often. Which specific sources should be evaluated? What are the ranges of cancer risk for each source? Which roadways are identified as high level emissions producers? Set up a process for local input and training on the procedures for the risk assessment. 35-8

Thank you again for the opportunity to provide questions and feedback. Please contact me at (707) 543-4348 if you have any questions regarding the above information. We look forward to continuing to work closely with the Bay Area Air Quality Management District in the future.

Sincerely,

GILLIAN HAYES
City Planner/Environmental Coordinator

Cc: Chuck Regalia, Director Community Development
Jeff Kolin, City Manager
City Council

Comment Letter #: 35
Date: October 13, 2009
From: Gillian Hayes, City Planner/Environmental Coordinator, City of Santa Rosa

Response to Comments:

35-1 Comment noted. Air District staff encourages an open, public process to revise the BAAQMD CEQA Guidelines and develop proposed thresholds of significance and values commenter input.

35-2 Air District staff believes emissions from all sources affect the level of pollutant concentrations similarly. Emissions from commercial or residential sources, with equivalent mass emissions, contribute to increased concentrations of criteria pollutants and GHG equally. The proposed GHG thresholds were developed based on AB 32 goals and the reductions that will occur from AB 32 Scoping Plan measures for both the land use emission inventory sectors and stationary source emission inventory sectors.

35-3 Climate actions plans must be consistent with State CEQA Guidelines Section 15064(h)(3) to allow a project to be considered less than significant under the Air District's proposed threshold. The process for certifying climate action plans have not yet been fully developed. Air District staff will work closely local agencies to ensure their adopted climate action plan qualify in meeting the intent of the proposed thresholds.

35-4 The Air District's revised CEQA Guidelines provide recommended methodologies and mitigation measures to evaluate and mitigate adverse impacts to air quality and climate change.

35-5 In relation to air quality, all exemptions identified in the State CEQA Guidelines are available to proposed projects that qualify for the exemption. Also see Master Responses MR-1, MR-2 and MR-7.

35-6 The screening tables provided in the revised CEQA Guidelines are not thresholds of significance and will not, based on the screening table alone, trigger a mandatory EIR. They are just screening levels to minimize the need for full analysis in situations where BAAQMD has determined no significant air quality impact would occur because Air District staff have modeled the screening level projects under very conservative assumptions and have determined that such projects will not exceed the applicable thresholds of significance. Most projects will have characteristics, such as nearby transit and services, which will reduce estimated emissions and allow a larger project than indicated in the screening table to be less than significant.

35-7 The District's proposed thresholds of significance will not be mandatory for use by other lead agencies in the Bay Area. Lead agencies may choose to apply the District's thresholds to determine the significance of projects before them, or they may determine that some other method of analysis would be more appropriate for their particular agency or for a particular project. The District cannot therefore adopt a specific "effective date" upon which the thresholds will become mandatory. For lead agencies with projects that are already under review when the proposed thresholds are adopted, it will be up to each individual agency to determine whether and when to apply the District's revised thresholds for those projects. If the lead agency finds it appropriate to apply the District's revised thresholds in its significance analysis for such projects, it may do so. If the lead agency finds that it

would not be appropriate to apply the revised thresholds to projects already under review, it may use some other means to determine significance as long as the determination is supported by substantial evidence as required by CEQA. For these reasons, staff is not proposing an "effective date" for the proposed thresholds. For those jurisdictions choosing to use the District's recommended thresholds, the District will establish a date upon which we recommend the thresholds become effective.

35-8 Air District staff is compiling a database of existing sources of risk and hazard emissions, including roadways that identify risks levels at various distances from the source. Air District staff will be available to assist with assessing and mitigating air quality impacts.

#36

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STOPWASTE.ORG
Reducing the Waste Stream for Alameda County

StopWaste.Org is the Alameda County Waste Management Authority and the Alameda County Source Reduction and Recycling Board operating as one public agency.

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Hayward
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Environmentally Preferable Purchasing
Food Scrap Recycling
Grants to Non-Profits
Household Hazardous Waste Recycling
Multifamily Recycling
Recycling Information Hotline

October 14, 2009

David Vintze
Air Quality Planning Manager
Bay Area Air Quality Management District
939 Ellis St.
San Francisco, CA 94109

Re: BAAQMD California Environmental Quality Act Draft Air Quality Guidelines

Dear Dave:

Thank you for providing the opportunity to comment on the District's CEQA Draft Air Quality Guidelines (Guidelines). We would like to raise three issues relating specifically to odors from composting and recycling facility operations.

First, the District's Guidelines are inconsistent with the authority vested in the California Integrated Waste Management Board by the legislature for regulation of odors from composting facilities. Having two regulatory agencies with their own methods for determining significance is duplicative and confusing for an applicant. We support guidelines that will provide a clear path for an applicant to follow for determining significance.

Second, the significance analysis needs to be based on sound science and should utilize a methodology that follows standard techniques such as the ASTM methods E-253, E-544, E-679, E-1885 and E-1958. Analysis should be based on actual project parameters, rather than complaint history. Using complaint history is equivalent to comparing a proposed refinery with a H_2S recovery system to an existing one without.

Finally, at a minimum, the Guidelines should mimic/reference the Odor Impact Minimization Plan (OIMP) odor regulations promulgated by the CIWMB for impact mitigation. The OIMP odor regulations are used statewide and have a proven track record of addressing odor issues. We recommend the Guidelines be amended to accurately reflect the regulatory environment for odors as set forth in statute.

Unless amended, the Guidelines along with the 2009 Clean Air Plan Control Strategies could severely impact the region's ability to meet recently adopted statewide initiatives around climate change and organics waste reduction. We look forward to a revised version of the Guidelines. The attached provides additional background on the comments above.

Sincerely,

Brian Mathews, Senior Program Manager

cc: Greg Tholen, Principal Environmental Planner

Recycled Paper

Please find below documentation and detail in support of the above three comments.

Regulatory Setting: The California Health and Safety Code Division 26, Section 41700 outlines the standards for discharge of air contaminants and provides the basis for the District's regulatory authority. However, section 41705(a)(2) specifically exempts composting facilities from Air District regulation/oversight. The Legislature has specifically delegated to the CIWMB, under Public Resource Code 43209.1, the regulatory responsibility for odors from composting facilities, and the CIWMB has adopted comprehensive regulations that govern odor impacts from composting facilities which are implemented statewide. 36-1

Public Resource Code Div 13 section 21153 (c) states *A responsible agency or other public agency shall only make substantive comments regarding those activities involved in a project that are within an area of expertise of the agency or that are required to be carried out or approved by the agency.* Since the regulation of composting odors are not under the jurisdiction of the District, the Guidelines make it difficult for an applicant, and the reviewing public, to interpret which agency has jurisdictional preference in these matters. The Guidelines Regulatory Setting section of Appendix B.2 should be amended to reflect California regulation in this regard. 36-2

Clear Path: The Guidelines are incongruous with the Air Pollution Permit Streamlining Act of 1992, Health and Safety Code Section 42322 because they do not provide a clear path for an applicant to objectively evaluate potential odor impacts for a particular project. 36-3

The BAAQMD Significance Determination Flowchart presented in the first pages of the Guidelines omits important factors. The flowchart has the applicant first use screening criteria to determine significance. Section 2.6 – Thresholds of Significance and Screening Criteria - Odor Impacts, Table 2-8 Odor Screening Distances, lists screening distances for Compost Facilities, Green Waste and Recycling Operations, and Transfer Stations at one mile. The table further directs the readers to Appendix C for support documentation. Appendix C consists of the Summary of Emissions by Urbemis Category tables and provides URBEMIS output emissions in TPY and lb/day. The data there provide no reference to odors or distances, and there is no reference within the URBEMIS Summary to any of the types of facility listed above. 36-4

Considering the geography of the District's jurisdictional boundaries, the screening distances listed in Table 2-8, and the lack of supporting documentation to interpret the meaning of the distances in reference to a proposed project, a reasonable conclusion can be drawn that the distances are arbitrary, directing an applicant to the second tier of the Significance Determination Flowchart regardless of the type of composting/recycling technology proposed, or the setting of the facility.

An enclosed compost or recycling facility meeting all the CIWMB odor criteria would not pass the screening criterion set forth by the Districts Guidelines. Given the lack of data to support the screening distances, a more appropriate screening criteria based the actual project parameters and technology proposed should be considered and adopted.

The second tier of the Significance Determination Flowchart directs an applicant to "*perform analysis using acceptable methods*" and "*Compare project impacts with thresholds of significance*". However, the Guidelines fall short of providing objective criteria on which to base an analysis of impacts which could be compared to thresholds of significance.

Chapter 8 of the Guidelines Section 8.2 provides four steps for making a determination of significance. The four steps are Disclosure of Odor Parameters, Odor Screening Distances, Odor Complain History, and Significance Determination. The first step, Disclosure of Odor Parameters is subjective due to the lack of quantitative/qualitative data available on odor from the District. While there is substantial data in the literature, the District has not adopted any standards for the use of that data in relation to analyzing odor.

The second step is also subjective because the Guidelines do not provide documentation justifying the screening distances, and the definition of a receptor is ambiguous. The Guidelines do not define the term "sensitive receptor", and neither could we find a definition in District regulations. Without a definition for "sensitive receptor" it would be difficult for an applicant to forecast potential impacts. Since odor sensation is specific to the receptor, and it is widely accepted that odor is not a health concern, distance may not be the best sole determinant for screening. 36-5

The third step Odor Complaint History is also subjective because the conditions under which complaints are rendered (confirmed and unconfirmed) are unknown. Multiple factors must be taken into consideration for determining odor sensation including, hedonic tone, intensity, frequency, dosing, meteorological conditions, and all the variables at the source of odor generation. Without this information, complaint history is an inadequate determinant of a proposed projects potential impact.

The first three steps have no interdependent relation to each other to provide a basis for analysis. Each step must be interpreted independently of the others, resulting in an analysis that is arbitrary. Lacking a method for analysis, the fourth step, significance determination, is based solely on interpreting the applicability of confirmed and unconfirmed complaint history of similarly named facilities.

- The use of complaint history to make a significance determination does not meet the standard set forth in the California Code of Regulations, Title 14, Section 15064, under the Guidelines for the Implementation of CEQA. Section 15064 (b) states in part, *The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved,* ***based to the extent possible on scientific and factual data*** (emphasis added). 36-6

- Odor perception that results in a complaint unless thoroughly documented is not scientific evidence, and unconfirmed odor complaints are not factual data. For a confirmed complaint to be factual, all the specific conditions surrounding the odor occurrence must be accurately recorded and documented. Since the motives and bio-physiological aspects of the receptor cannot be objectively determined, use of complaint history does not meet the standard set by regulation.

- The use of complaint history does not meet the burden of determination for a Threshold of Significance under Section 15064.7 (a) of the CCR. *A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant.* Complaint history is not an identifiable quantitative or qualitative effect which can be determined prior to a projects implementation. Because complaint history cannot be determined ahead of a projects implementation, an applicant is left to make a determination that odor

impacts will be potentially significant and unavoidable by the Guidelines, requiring the applicant to adopt mitigation measures that may or may not address the issue of complaints.

Science and Mitigation: While the Guidelines appear to outline a step by step process for evaluating impacts, in practice these are not the steps BAAQMD staff has employed in the past for determining significance. In a letter to the Alameda County Waste Management Authority dated January 27, 2005, the District, commenting on a Draft Environmental Impact Report, outlined an expensive and time consuming quantitative approach which required the installation and collection of one year's worth of site specific meteorological data, air dispersion modeling of specific odorous compounds and a determination of odor detection thresholds for those compounds at potential receptor sites.

While this approach was science based, the methodology was not supported by District regulation. District regulation, procedures and guidelines do not provide the necessary structure/context to objectively interpret the results of such an analysis. The District has not established odor emission factors for composting/recycling facilities, protocols for modeling odor emissions, thresholds of detection for particular odorous compounds, and has not adopted Thresholds for Significance as they relate to the thresholds of detection.

The District should consider adopting proven methods for odor analysis and interpretation. ASTM methods E-253, E-544, E-679, E-1885 and E-1958 are well documented and have been used in many states to assess odor impacts from various types of facilities. These methods use the odor unit and dilutions to threshold method which aggregates all odorous compounds which can contribute to a sensory perception. While this method is not without some controversy, it does provide a standard process that would meet the intent of CEQA regulations. 36-7

Chapter 8.3 of the Guidelines outlines mitigation measures for Landfill, Recycling and Composting Facilities. Section 8.3.2 states, *Odors generated from landfills and composting facilities are typically associated with methane production from anaerobic decomposition of waste.* While methane is an odorless gas produced under anaerobic conditions and is an expected product of landfill operations, it is not typically associated with composting. Recent emission studies from around the state show few methane emissions from composting facilities. The Districts linkage of composting facilities to landfills is egregious, because in the eyes of the public, the District appears to have made a determination that the impacts from these two different types of facilities are similar and/or equivalent and this is not accurate. 36-8

The mitigation measures under chapter 8.3.2 for composting facilities do not meet the definition of Mitigation under Section 15370 of the CCR in that there is not a predictive cause/effect relationship between the mitigation measure and complaint history which is used to determine significance. A mitigation measure must avoid, minimize, rectify, reduce, or compensate for an impact. Since complaints are subjective and unique to a given individual, there is no assurance the mitigation measures proposed would have the desired effect. The mitigation measures should mimic/reference the Odor Impact Minimization Plan regulations as promulgated by the CIWMB. 36-9

The above suggestions, if adopted, would provide an applicant a clear path for determining thresholds of significance and a solid footing for informing the public about potential impacts.

Comment Letter #: 36
Date: October 14, 2009
From: Brian Mathews, Senior Program Manager, Stopwaste.org

Response to Comments:

36-1 The District is not aware of any generic exemption for composting facilities from the requirements of CEQA. The code provisions the commenter cites provide for a qualified exemption from the public nuisance prohibition in Health & Safety Code Section 41700 for composting facilities and for establishing procedures to handle public complaints regarding such facilities, but they do not purport to exempt composting operations from CEQA. Lead agencies approving projects involving composting facilities will therefore be required to determine the significance of such projects for all environmental impacts, including odors. Staff therefore continues to believe that providing thresholds of significance and analytical tools to help lead agencies address odor impacts is an appropriate exercise. The thresholds and guidelines the Air District is publishing are not regulations and will not intrude on any CIWMB authority to regulate these facilities; they are intended simply to help lead agencies in carrying out their responsibilities to assess environmental impacts under CEQA. Staff therefore disagrees that the adoption of odor thresholds will be inconsistent with the cited code provisions. Staff does agree, however, that lead agencies should be aware of CIWMB's regulatory efforts in this area. Staff is therefore adding a discussion of CIWMB's regulations to the Guidelines in response to this comment.

36-2 CEQA section 21153(c) applies to commenting on EIRs for specific projects, not to publishing guidelines on analyzing environmental impacts generally or to adopting thresholds of significance. Moreover, even if Section 21153(c) were to apply to publishing CEQA guidance or adopting CEQA thresholds of significance, the District is an agency that has expertise over odor-producing operations generally. Although other agencies may have additional expertise in the area of composting odors more specifically, that is not inconsistent with the District also having general expertise regarding odors. There is no reason why more than one agency cannot have expertise in a particular area, and in fact that situation is quite common among regulatory agencies. Indeed, CIWMB's own statements on this issue recognize that the requirement that a responsible agency's comments be limited to its own area of expertise "does not preclude that responsible agencies' comments will not overlap." (CIQMB CEQA webpage, available at: www.ciwmb.ca.gov/PermitToolBox/CEQA/TopTen.htm.) Staff therefore disagrees that anything in CEQA Section 21153(c) would prohibit the adoption of odor guidelines or thresholds. Staff are adding a discussion to the Guidelines, however, as discussed above, to address CIWMB's regulatory efforts in this area.

36-3 The Permit Streamlining Act does not exempt projects from the CEQA environmental review process, including the requirement to evaluate whether a project will have a significant impact on the environment. The proposed guidelines and thresholds of significance, which will help lead agencies evaluate such impacts in the area of air quality, are not inconsistent with anything in the Permit Streamlining Act. Furthermore, staff disagrees that the thresholds will not provide a "clear path" for an applicant to evaluate potential odors. CEQA provides the "clear path" in that a project must avoid "significant" odor impacts to the extent feasible. The District's thresholds only serve to clarify this requirement further by establishing presumptive indicators that will help determine whether odor issues will cause the project to be above or below a level of significance. Additionally, there is nothing in CEQA or in the Permit Streamlining Act that would prevent the District from adopting its proposed

odor significance thresholds for projects generally, even if CIWMB adopts its own methodology for assessing odor impacts from composting operations or other types of waste management operations. (And in any event, District staff is not aware of any CIWMB CEQA thresholds of significance and did not find any mention of thresholds on the CIWMB website.)

36-4 The *Proposed Thresholds of Significance* report (November 2, 2009) contains justification for the recommended criteria pollutant thresholds. The report provided substantial evidence and justification for all the District-recommended thresholds.

36-5 The updated CEQA Guidelines will provide a definition for sensitive receptors. See also comment responses 36-4 and 36-6.

36-6 The complaint history in a particular location is a factual record of the frequency with which people at the location have been affected by objectionable odors and registered a complaint about them. The complaint history is therefore factual data about past odor impacts, which can be used to draw inferences about future odor impacts associated with projects at that location. Staff therefore disagrees that complaint history is not factual data upon which a CEQA significance determination can be based. Staff agrees that a complaint history showing more than one confirmed complaint per year or three unconfirmed complaints per year over a three-year period may not necessarily be determinative of whether an odor impact will be significant or not if there is other evidence in the record to the contrary. But the thresholds of significance are not levels that are absolutely determinative as a measure of significance. They are merely a presumption that establishes a starting place for the analysis, as levels above which an impact will *normally* be considered significant and blow which an impact will *normally* be considered insignificant. (*See* CEQA Guidelines Section 15064.7.) The District's proposed thresholds will therefore allow for the lead agency to base its significance determination on all of the information in the record as required by CEQA, including complaint history and any other relevant scientific and factual data.

Furthermore, complaint history is a quantitative, qualitative or performance level regarding odor impacts within the meaning of CEQA Guidelines Section 15064.7. Offensive odor, as reflected in a history of complaints, is a qualitative and performance level in that it establishes a level at which people in the location of the project have found the impact to have risen to an objectionable level. Odors at such a level are an important indicator of significance. Moreover, the proposed thresholds are also quantitative as they would establish a specific numerical level – one confirmed complaint per year averaged over a three-year period or three unconfirmed complaints per year averaged over a three-year period – as the level at which the impact will normally be considered significant. The proposed thresholds therefore fall squarely within the definition of "threshold of significance" in Section 15064.7.

Finally, with respect to projects that will involve new sources of odors, as opposed to locating people (*e.g.*, residents in a new residential development) in an area with problematic odor levels, the revised CEQA Guidelines recommend using the complaint history of a similar existing facility as the basis for analysis and determination of significance.

36-7 Staff will study the ASTM methods noted by the commenter and consider adding a discussion on the methods in the updated CEQA guidelines.

36-8 See master response MR-7.

36-9 Although odor complaints contain an element of subjectivity, to the extent that there have been complaints from the public about odors in a particular area and that history of complaints is used as an indicator that there may be significant odor concerns there, the identified mitigation measures are effective at reduce the severity of the odor impacts and thus the frequency of the odor complaints. The mitigation measures identified, such as scrubbers, filters, and treatment systems, are clearly effective in addressing the source of odors from the various types of facilities identified, and as such will be effective in mitigating any significant odor impacts.

But in any event, the identified mitigation measures in the District's CEQA guidelines are offered as an aid to lead agencies for use in their CEQA analysis. The list is not intended to be definitive or exhaustive. The District's list would not preclude a lead agency from imposing additional or different mitigation measures in an appropriate situation, and it would not require a lead agency to impose any mitigation measure on the list where the measure would not be effective at reducing odors in the context of a particular project. Mitigation will be imposed by individual lead agencies on a case-by-case basis, and any concern that a particular mitigation measure or measures included in the District Guidelines will not be appropriate for a particular project will necessarily be addressed at the CEQA approval stage for that project.

Finally, Staff agrees with the comment that it would be worthwhile to refer lead agencies to the CIWMB Odor Impact Minimization Plan regulations as an additional source of potential mitigation measures for significant odor impacts. Staff will add an appropriate reference in the Guidelines.

#37

UNIVERSITY OF CALIFORNIA, BERKELEY

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FACILITIES SERVICES BERKELEY, CALIFORNIA 94720-1380

October 16, 2009

Greg Tholen
Senior Planner
Bay Area Air Quality Management District

Re: September 2009 Draft Air Quality Guidelines for CEQA with regard to GHGs

On behalf of staff at the University of California, Berkeley involved in sustainability, planning, project management, and construction oversight, I write to express concerns with the September 2009 draft CEQA Guidelines with regard to greenhouse gas emissions.

In general, the draft BAAQMD guidelines adopt a prescriptive approach, which may create an unreasonable and undue burden on regional development and on individual industries in the region. Because increased (or decreased) emissions of greenhouse gases in a particular region result in no detectable change in the risk or impacts of climate change in that region, there seems to be no rationale for differing regulations or "thresholds of significance" in one region versus another. In fact, prescriptive regional regulations may undermine or impede the success of AB 32, SB 375, or the pending federal legislation. 37-1

The spirit of AB 32 has been to discover the least cost method of reducing emissions, encouraging entities to accept an absolute cap on emissions with flexibility about how to achieve the needed reductions, limiting or completely avoiding regulations on what specific policies and measures should be taken by individual firms, agencies, or industries. Harnessing the power of the market has, in fact, often yielded superior results, by providing incentives for individual actors to exceed requirements or find ways to meet those requirements at a lower cost. To use an example at hand, the implementation of AB 32 may result in higher fuel costs to construction firms, who will respond to these price signals by changing practices to eliminate waste and reduce emissions without those steps being separately regulated or described.

The campus has embraced this approach, which is also enshrined in international treaties on climate change. We have voluntarily adopted a target and are in the process of implementing steps to achieve that target. These steps may be similar to what is being done by other universities or institutions, but are being determined by our particular opportunities and financial incentives. As a result, we expect to reduce our emissions, at a net benefit to the mission of the university.

Our specific comments on the CEQA Guidelines as circulated in September are these:

1. Thresholds of significance land use projects -- GHG (p. 2-2; and related to calculations for greenhouse gas emissions discussion at p. 3-8 et seq.):

Because each of these would be effectively intended to mitigate GHG emissions of land use projects we suggest that BAAQMD:

- Establish a first tier threshold that requires no additional action if a proposed project is committed to achieving LEED certification. 37-2
- Establish a first tier threshold that requires no additional action if a proposed project complies with an adopted land use plan for which a climate action plan has been established. We suggest this because lead agencies, including municipalities, counties, and universities, have adopted climate action plans in an effort to meet state mandated greenhouse gas reduction targets through comprehensive efforts. Where the focus of CEQA is commonly on the immediate, local impact of a single new development proposal, on-going pre-existing operations are often the greatest contributors of greenhouse gas emissions; the land use thresholds and screening levels should not be counterproductive to the goal of reducing land-use related GHG emissions. 37-3

2. Thresholds of significance for GHG construction (p. 2-8):

As noted at the Oakland workshop, BAAQMD is suggesting construction best management practices it believes to be "pragmatic." However we have not found these measures to be common practice or readily implemented.

- Since 2004, all University building projects are built in accordance with LEED requirements and as of 2009, will be built to achieve LEED silver at a minimum. However, each project meets green building requirements through a matrix of credits, and uses the LEED prerequisites. Our projects and our procurement practices require a variety of issues to be considered when procuring materials; we believe mandatory distance requirements must remain a project-specific decision. We believe appropriate material selection can have its own GHG benefit, reducing operational emissions from buildings or expanding the lifespan of new buildings. 37-4

- Existing University mitigation measures and contract language encourage the use of alternatives to diesel fuel in construction vehicles. Our LRDP Mitigation Measure Air-4-b states "To the extent that equipment is available and cost effective, UC Berkeley shall require contractors to use alternatives to diesel fuel, retrofit existing engines in construction equipment and employ diesel particulate matter exhaust filtration". However, we note that alternative fuel use is seldom practical, and according to a May 2009 EPA study, may not generate the greenhouse gas savings anticipated by BAAQMD (see *EPA Lifecycle Analysis of Greenhouse Gas Emissions from Renewable Fuels*, May 2009, http://www.epa.gov/otaq/renewablefuels/420f09024.htm). Campus researchers are looking to develop fuels that truly are carbon neutral, but current commercially available alternative fuels may not meet that test. Further, the use of alternatives to diesel fuel voids the warranty on equipment; the generators required to power electric equipment are an unlikely source of GHG benefit.

We draw your attention to a February 2009 report from the federal Environmental Protection Agency[1] , *Potential for Reducing Greenhouse Gas Emissions in the Construction Sector*, which notes that construction contractors influence fuel selection and equipment selection (see page 11). We object to the inclusion of the alternate fuel threshold for construction because:

37-4

1. Contractors are often not selected at the time entitlement proceeds
2. Contractors have responsibility for fuel selection and requiring this standard influences the public bidding process for public lead agencies
3. Alternative fuel use and alternative fuel construction vehicles are not yet standard among construction contractors and further, may not actually achieve significant GHG savings.

We suggest that BAAQMD could be more effective at addressing emissions from the construction sector by supporting development of statewide standards for construction, rather than burdening Bay Area development with mitigations/thresholds that are not pragmatic nor universally adopted. We might also suggest:

- Establishing a first tier threshold that requires no additional mitigation if a proposed project is committed to achieving LEED certification.
- Establishing a first tier threshold that requires no additional mitigation if a proposed project complies with an adopted land use plan for which a climate action plan has been established. We suggest this because lead agencies, including municipalities, counties, and universities, have adopted climate action plans in an effort to meet state mandated greenhouse gas reduction targets through comprehensive efforts. Where the focus of CEQA is commonly on the immediate impact of a single new development proposal, on-going pre-existing operations are often the greatest contributors of greenhouse gas emissions; the construction standard should not be counterproductive to the goal of reducing land use related GHG emissions.
- Instituting a construction certification program, that trains and certifies construction personnel in: GHG impacts of idling vehicles; choices to consider in machinery selection; construction commute planning; other areas as appropriate. The University and other public lead agencies could look to hire certified contractors.

37-5

3. Thresholds of significance – Climate Action Plan option:

At page 2-9, the draft Guidelines suggest that a Climate Action Plan "have an adopted or certified CEQA-compliant document that analyzes its environmental impacts". Yet typically a climate action plan establishes strategies implemented by means of other entitlement approvals – the climate action plan itself does not entitle projects to proceed, and its approval does not result in a direct or indirect physical change in the environment. Indeed, we suggest that if BAAQMD believes CEQA is warranted on a climate action plan, then the BAAQMD should complete CEQA review of its CEQA Guidelines, which establish policies and mitigations/thresholds for projects to implement, just as a typical Climate Action Plan would do.

37-6

We reference the CEQA document prepared by the City of Berkeley for its Climate Action Plan as illustrative. See tinyurl.com/COBclimateCEQA. There are typically not environmental impacts of a climate action plan, which in itself is intended to reduce environmental impacts.

[1] http://www.epa.gov/sectors/pdf/construction-sector-report.pdf

The City of Sacramento suggests it may amend its Master Plan EIR to incorporate its Climate Action Plan (see http://www.sacgp.org/documents/CCRpt8-18-09CAP.pdf). The following might be a more appropriate alteration of the language at page 2-9:

> The Climate Action Plan must:
>
> ....
>
> ~~2. Have an adopted or certified CEQA-compliant document that analyzes its environmental impacts;~~
>
> **2. Be incorporated into the operative land use planning document (general plan, area plan, long range development plan) and subject to CEQA review if the climate action plan meets the CEQA definition of a "project".**

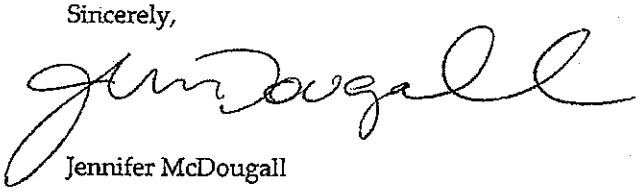
37-6

The suggestion that the Climate Action Plan requires its own standalone CEQA review becomes more onerous still when considered with item 6 on the list of items a Climate Action Plan must include:

> "6. Establish a mechanism to monitor the plans' progress toward achieving the GHG reduction target and require amendment if the plan does not meet the specified level."

The plans should be revised to meet the goals, but the suggestion that additional CEQA review is required as a matter of course for plans or their amendments simply increases actionable legal risks to this process, without adding environmental benefit. In most instances, climate action plans and their amendments will not meet the CEQA test of a project. Please consider the proposed revisions to item 2, above.

Sincerely,



Jennifer McDougall
Principal Planner, Environmental Planning
Capital Projects/Facilities Services

Cc: Assistant Director Judy Chess, Capital Projects/Facilities Services, UC Berkeley
Associate Director Greg Haet, Office of Environment, Health & Safety, UC Berkeley
Environmental Projects Manager Tom Klatt, Capital Projects/Facilities Services, UC Berkeley
Director Lisa McNeilly, Office of Sustainability, UC Berkeley

Comment Letter #: 37
Date: October 16, 2009
From: Jennifer McDougall, Principal Planner, UC Berkeley

Response to Comments:

37-1 Staff disagrees that the proposed thresholds are prescriptive regional regulations. The thresholds, once adopted by the District's Board, will be the Air District's recommendations regarding what level of GHG emissions constitutes a cumulatively considerable and thus significant air quality impact, based on substantial evidence developed with the Air District's subject matter expertise. Lead agencies may choose to follow the Air District's recommendations when considering air quality impacts of projects under their consideration, but the thresholds will not be binding on lead agencies other than the Air District.

AB 32 identifies local governments as essential partners in achieving California's goal to reduce GHG emissions. Staff does not believe that there is one "correct" threshold of significance for GHG emissions. Staff believes it is reasonable that air districts and other local and regional agencies across the state may derive differing GHG thresholds of significance that are all based on substantial evidence. Indeed, Staff is recommending that several different, alternative GHG thresholds be adopted by the Air District's Board to provide lead agencies with alternative methods of reviewing of a project. Lead agencies are free to choose any threshold that is based on substantial evidence and is best suited to its jurisdiction in general, or under the circumstances of their review of a particular project.

Staff's recommended GHG thresholds were developed in order to achieve the goals of AB 32. Staff does not believe implementation of the thresholds it is recommending will impede AB 32's success, but rather ensure that local development is carried out in a manner that is consistent with achieving AB 32 goals.

37-2 Land use projects contribute to GHG emissions mostly through their lifetime operations, including building energy use and vehicle emissions. Projects committed to achieving LEED certification may significantly reduce a building's energy use; however, LEED certification does not adequately address a project's GHG emissions from vehicle use. Vehicle emissions are the largest contributor of GHG emissions in the Bay Area and the state. Therefore, the District recommends that land use projects mitigate their operation emissions from all emission inventory sectors and that LEED certification alone does not achieve sufficient GHG reductions.

37-3 The revised threshold for GHG emissions for a project recommend that if a proposed project is consisted with a qualified climate action plan, than the proposed project's GHG emissions would be considered less than significant. This threshold is in line with the commenter's recommendations.

37-4 The GHG threshold for construction that recommended implementation of construction best management practices referred to in this comment has been omitted from the *Proposed Thresholds of Significance* report (November 2, 2009).

37-5 The revised thresholds published in November 2009 do not contain a recommended GHG threshold for construction activities. The commenter suggests three approaches to replace the previous GHG

threshold for construction recommending implementation of construction best management practices. The commenter suggests establishing a first tier approach that requires no additional construction mitigation if a project is committed to achieving LEED certification or is consistent with a land use plan that contains a climate action plan. Neither of these approaches directly mitigates emissions from construction activities and would therefore not constitute an appropriate threshold. Regarding the third suggestion to institute a construction certification program, the CEQA Guidelines contains a list of strongly recommended construction best management practices for lead agencies to implement. The California Air Resources Board would be the appropriate agency to institute a construction certification program; however, Staff will consider enhancing its outreach in educating local contractors on instituting construction best practices into their work place.

37-6 Staff believes that local agencies should conduct CEQA review of climate action plans where those plans constitute "projects" under CEQA. Staff notes that while this commenter states that most climate action plans will not meet the CEQA test of a project, the City of Berkeley did undergo CEQA review for its climate action plan and certified a Negative Declaration. A Negative Declaration would qualify as an adopted or certified CEQA-compliant document that analyzes the environmental impacts of the climate action plan.

Second, in response to comments and upon further review, Staff has amended the recommended Qualified Climate Action Plan threshold to include the alternative that, if a local jurisdiction can demonstrate that its collective set of climate action policies, ordinances and other programs are consistent with AB 32, include requirements or feasible measures to reduce GHG emissions and achieve quantifiable GHG emission reduction goals, such AB 32 consistency demonstration would be considered equivalent to a Qualified Climate Action Plan. Staff notes that lead agencies using consistency with their jurisdiction's climate action policies, ordinances and programs as a measure of significance under CEQA Guidelines section 15064(h)(3) should check to make sure that the policies, ordinances and programs satisfy all of the requirements of that subsection before relying on them in a CEQA analysis.

Staff disagrees that CEQA review is required for the District's adoption of CEQA thresholds of significance. The adoption of thresholds of significance does not constitute the "approval" of a "project" subject to CEQA review because the thresholds do not commit the Air District or any other agency to any definite course of action which may have an impact on the environment. *See, e.g., Muzzy Ranch Co. v. Solano County Airport Land Use Comm.* (2007) 41 Cal. 4th 372; *Stand Tall on Principles v. Shasta Union High Sch. Dist.* (1991) 235 Cal. App. 3d 772. The thresholds are not mandatory regulations, but rather are the District's recommendations of what constitutes a significant air quality impact, based on substantial evidence developed with the District's subject matter expertise, that lead agencies may choose to follow when considering air quality impacts of projects under their consideration. Furthermore, when the thresholds of significance are applied to individual projects in the future, they only afford a presumption of insignificance. *See* CEQA Guidelines §15064.7. For any project under consideration, should the lead agency have a fair argument based on substantial evidence before it that the project may have a significant effect on the environment even though it complies with a threshold of significance, the lead agency must prepare an EIR. *See Meija v. City of Los Angeles* (2005) 130 Cal. App. 4th 322, 332.

Staff does note that CEQA Guidelines section 15064.7 requires thresholds of significance to be adopted by ordinance, resolution, rule, or regulation, and to be developed through a public review process and

be supported by substantial evidence. The Air District has gone through an extensive public review process for the proposed thresholds here, and has published the substantial evidence upon which the recommended thresholds were developed for review and comment by the public. There is no requirement for a full CEQA environmental review for adoption of thresholds.

#38

ENVIRON

October 19, 2009

Mr. Greg Tholen
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Re: California Environmental Quality Act Draft Air Quality Guidelines September 2009

Dear Mr. Tholen:

We reviewed the Bay Area Air Quality management District's (BAAQMD) September 2009 California Environmental Quality Act Draft Air Quality Guidelines (Report). In particular, ENVIRON reviewed the Greenhouse Gas (GHG) related emissions analyses, thresholds of significance, and mitigation measures. In this letter, we briefly highlight one area where the GHG thresholds of significance might be reconsidered since they are deeply flawed in their intent to promote sustainable developments that will reduce GHG emissions.

The section addressing GHG thresholds of significance for project-level impacts presents three options for projects with emissions in excess of 1,100 metric tons per year. One option sets the threshold for mix of land use types for operational emissions at 4.6 metric tons per service population per year (MT/SP/yr) of CO_2e. The service population is defined as the population plus the number of jobs created by the land uses. The second option sets the threshold for predominately residential uses at 6.7 metric tons per capita per year (MT/capita/yr) of CO_2e from operational emissions. The third option is based on consistency with a Climate Action Plan that meets several criteria.

First, it is unclear when the 4.6 MT CO_2e /SP/yr should be used instead of the 6.7 MT/capita/yr due to the lack of definition of what is meant by "where residential uses predominate." Is there a ratio of residential versus non-residential land uses that exists before the 4.6 MT/SP/yr should be used? Where does local-serving retail fit into these definitions when associated with residential land use projects? 38-1

Second, as we illustrate below, the inclusion of local serving retail in nearly any mixed-use development makes it very difficult to reach the 4.6 MT CO_2e /SP/yr. This is due to the large number of trips associated with these land uses combined with a low employment rate. This serves to discourage the incorporation of local serving retail in mixed use projects, and goes against the notion that local serving retail is key to reducing the transportation related GHG emissions. Indeed, other parts of the BAAQMD guidelines encourage local serving retail and allow a percentage reduction in mobile source emissions estimates for increasing the diversity of land use mix. Furthermore, as shown below, the mixed-use significance threshold will drive the types of land use that a developer may include instead of encouraging land use planning to be driven by smart growth principles for the community. For example it would encourage large employment centers and housing, but discourage the necessary local retail and restaurants to service these land uses. 38-2

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Analysis

To illustrate the point on how difficult it would be for a mixed-use land use project to reach the 4.6 MT/SP/yr threshold, we will start with a well-designed residential community and add in non-residential land uses. Assume we have a 1,000 person residential community that has annual operational emissions of 5,500 metric tons CO_2e per year or 5.5 MT CO_2e /capita/yr. This residential only development would be less than significant according to the current draft of the BAAQMD guidelines since its GHG emissions are below 6.7 MT CO_2e /capita/yr. We will now explore adding in different non-residential land uses to the development and show the impact of adding non-residential uses on the significance determination.

In the scenarios we will explore adding different land use types following the methodology outlined in section 3.2.2 of the Report. The following assumptions were used in URBEMIS:

- Bay Area Air Basin was selected.
- Analysis year was 2020.
- Pass-By and Double-Counting Correction was not used as is consistent with section 3.2.2 which recommends not using unless there is data from a detailed transportation study to support the values.
- Default vehicle fleet, trip characteristics, temperature, and variable starts was used.
- 100% of land use types use natural gas.[1]

The default electricity usage factor for commercial uses of 16,750 kWhr/year per thousand square feet was used. The default carbon intensity emission factor for electricity use for California, 0.72724 lb/kWhr was used. Since default water usage rates were not provided in the Report and as commercial uses will represent a small percentage of the total, they were not considered in the scenarios. Inclusion of water usage related emissions would only increase the amount of GHG emissions estimated.

Baseline Scenario

Table 1 below illustrates the GHG emissions associated with the following non-residential land uses:

- 50,000 square foot supermarket
- 50,000 square foot office
- 400,000 square foot hospital (a large employment center)
- 50,000 square foot strip mall

This scenario does not take into account any mitigation measures.

As shown in the table below none of the non-residential land uses are below the 4.6 MT CO_2e/SP/yr threshold.

[1] This is assumed for ease of calculations and does not impact the results significantly.

Table 1
GHG Emissions: Baseline

Source Category	GHG Emissions (metric tonnes CO_2e/yr)			
	Supermarket	Office	Hospital	Strip Mall
Electricity Use	276	276	2,210	276
Natural Gas Use	96	66	530	96
Mobile Sources	5,729	680	8,441	2,406
Total (Commercial)	**6,101**	**1,023**	**11,181**	**2,778**
Total (Commercial + Residential)	**11,601**	**6,523**	**16,681**	**8,278**
Service Population				
Service Population Commercial[1]	143	181	1,449	143
Service Population[1] + Residential	1,163	1,201	2,469	1,163
GHG Emissions Intensity (metric tonnes CO_2e/SP/yr)				
Commercial Only	**43**	**5.6**	**7.7**	**19**
Commercial + Residential	**10**	**5.4**	**6.8**	**7.1**

Notes:

1. Supermarket and strip mall are assumed to have 1 employee per 350 square feet, while office and hospital are assumed to have 1 employee per 276 square feet, according to the San Francisco Transportation Impact Analysis Guidelines Table C-1.

Mitigated Scenario

Table 2 below illustrates the GHG emissions associated with the same non-residential land uses assuming the following mitigation measures:

- Meet green building code (page 3-14 of Report)
  - Natural gas usage is 17% below baseline.
  - Electricity usage is 7% less
- Mobile source reductions equivalent to 20%

This shows that an office building considered separately would come close to meeting the 4.6 MT CO_2e/SP/yr. However, as shown in Table 2, once considered with the new, lower threshold required for the residential area once it is deemed mixed use, the development would emit GHGs in excess of the draft BAAQMD thresholds.

Table 2
GHG Emissions: Green Building Code and Traffic Improvements

Source Category	GHG Emissions (metric tonnes CO_2e/yr)			
	Supermarket	Office	Hospital	Strip Mall
Electricity Use	257	257	2,055	257
Natural Gas Use	80	55	440	80
Mobile Sources	4,583	544	6,753	1,925
Total (Commercial)	**4,920**	**856**	**9,248**	**2,261**
Total (Commercial + Residential)	**10,420**	**6,356**	**14,748**	**7,761**
Service Population				
Service Population Commercial[1]	143	181	1,449	143
Service Population[1] + Residential	1,163	1,201	2,469	1,163
GHG Emissions Intensity (metric tonnes CO_2e/SP/yr)				
Commercial Only	**34**	**4.7**	**6.4**	**16**
Commercial + Residential	**9.0**	**5.3**	**6.0**	**6.7**

Notes:

1. Supermarket and strip mall are assumed to have 1 employee per 350 square feet, while office and hospital are assumed to have 1 employee per 276 square feet, according to the San Francisco Transportation Impact Analysis Guidelines Table C-1.

"New" Traffic Scenario

Tables 3 and 4 below illustrate the operational GHG emissions associated with the same non-residential land uses considering the "new" traffic emissions associated with growth. From a GHG emission perspective the location of release is not important, but rather if the emission is new in the global sense and responsible for generating new GHG emissions that weren't previously released anywhere else. Thus adding residential land uses is considered growth, while adding commercial land uses which serve existing and new residents will only displace where people make trips. Therefore, the only "new" trips for commercial land uses are associated with the delivery trips. Table 3 shows the GHG emissions assuming the baseline building characteristics. Table 4 shows the GHG emissions assuming the implementation of green building codes, but not any additional transportation mitigation.

The "new" traffic estimates are taken as the commercial non-work percentages from URBEMIS. We used emission factors from a 2020 EMFAC run for San Francisco County, weighted all vehicle categories at 30 miles per hour for running emissions (428 g/mile), and conservatively assumed a twelve hour period between starts for the starting emission factor (223 g/start). Tables 3 and 4 indicate that all of the non-residential land uses, when considered on there own and with only the "new" portion of GHG emissions considered from buildings and delivery vehicles, are below the 4.6 MT CO_2e/SP/yr threshold. This allows one to consider using this type of analysis for the commercial portion of mixed use developments. Since both the baseline and mitigated land uses are below the 4.6 MT CO_2e per year, this threshold value may want to be reconsidered if this type of analysis is used. When residential development is added, the values are equal to or exceed the proposed significance threshold of 4.6 MT CO_2e. This further highlights the concept that the ratio and type of mixed-use will influence the result.

Table 3
GHG Emissions: Baseline Energy Use and Commercial Non-work Traffic

Source Category	GHG Emissions (metric tonnes/yr)			
	Supermarket	Office	Hospital	Strip Mall
Electricity Use	276	276	2,210	276
Natural Gas Use	96	66	530	96
Mobile Sources (Commercial Non-work Traffic)[2]	182	104	3,135	77
Total (Commercial)	**555**	**446**	**5,875**	**449**
Total (Commercial + Residential)	**6,055**	**5,946**	**11,375**	**5,949**
Service Population				
Service Population Commercial[1]	143	181	1,449	143
Service Population[1] + Residential	1,163	1,201	2,469	1,163
GHG Emissions Intensity (metric tonnes CO_2e/SP/yr)				
Commercial Only	**3.9**	**2.5**	**4.1**	**3.1**
Commercial + Residential	**5.2**	**5.0**	**4.6**	**5.1**

Notes:

1. Supermarket and strip mall are assumed to have 1 employee per 350 square feet, while office and hospital are assumed to have 1 employee per 276 square feet, according to the San Francisco Transportation Impact Analysis Guidelines Table C-1.

2. The mobile sources include only the commercial non-work trips associated with each land use. These have been quantified according to the URBEMIS default methodology. The emission factor used was 428 g/mile for running and 223 g/start based on all vehicles in San Francisco County driving at 30mph and 12 hours between starts.

Table 4
GHG Emissions: Green Building Code and Commercial Non-work Traffic

Source Category	GHG Emissions (metric tonnes/yr)			
	Supermarket	Office	Hospital	Strip Mall
Electricity Use	257	257	2,055	257
Natural Gas Use	80	55	440	80
Mobile Sources (Commercial Non-work Traffic)[2]	182	104	3,135	77
Total (Commercial)	**519**	**416**	**5,630**	**413**
Total (Commercial + Residential)	**6,019**	**5,916**	**11,130**	**5,913**
Service Population				
Service Population Commercial[1]	143	181	1,449	143
Service Population[1] + Residential	1,163	1,201	2,469	1,163
GHG Emissions Intensity (metric tonnes CO_2e/SP/yr)				
Commercial Only	**3.6**	**2.3**	**3.9**	**2.9**
Commercial + Residential	**5.2**	**4.9**	**4.5**	**5.1**

Notes:

1. Supermarket and strip mall are assumed to have 1 employee per 350 square feet, while office and hospital are assumed to have 1 employee per 276 square feet, according to the San Francisco Transportation Impact Analysis Guidelines Table C-1.

2. The mobile sources include only the commercial non-work trips associated with each land use. These have been quantified according to the URBEMIS default methodology. The emission factor used was 428 g/mile for running and 223 g/start based on all vehicles in San Francisco County driving at 30mph and 12 hours between starts.

Alternative Methodology

ENVIRON evaluated the same land use types using a refined estimate for building energy use. ENVIRON used the California Commercial End-Use Survey (CEUS) database which is a survey of the energy used in various California commercial buildings in 2002.[2] ENVIRON used climate zone 5, which covers the majority of the BAAQMD region. ENVIRON adjusted the end-uses to

[2] California Energy Commission. 2006. California Commercial End-Use Survey. Prepared by Itron Inc. Available at: Available at: http://www.energy.ca.gov/ceus/

reflect improvements in Title 24 building codes since 2002, based on CEC reports.[3] This gives the baseline estimate of building electricity and natural gas usage. Table 5 presents the results of the non-residential land use GHG emissions. When compared to the methodology presented in the Report, the values are different especially for the office building and hospital. Not only is the difference seen in the total GHG emissions from energy use, but also the ratio between electricity and natural gas is quite different. It might be useful for the District to define more specific electricity usage numbers by land use type to more accurately reflect those land uses that are more energy intensive, such as restaurants, supermarkets, and hospitals. 38-3

Table 5
GHG Emissions: Alternative Methodology

Source Category	GHG Emissions (metric tonnes/yr)			
	Supermarket	Office	Hospital	Strip Mall
Electricity Use	641	229	2,216	192
Natural Gas Use	102	54	2,147	13
Mobile Sources	5,729	680	8,441	2,406
Total (Commercial)	**6,472**	**964**	**12,804**	**2,611**
Total (Commercial + Residential)	**11,972**	**6,464**	**18,304**	**8,111**
Service Population				
Service Population Commercial[1]	143	181	1,449	143
Service Population[1] + Residential	1,163	1,201	2,469	1,163
GHG Emissions Intensity (metric tonnes CO_2e/SP/yr)				
Commercial Only	**45**	**5.3**	**8.8**	**18**
Commercial + Residential Commercial Only	**10**	**5.4**	**7.4**	**7.0**

Notes:

1. Supermarket and strip mall are assumed to have 1 employee per 350 square feet, while office and hospital are assumed to have 1 employee per 276 square feet, according to the San Francisco Transportation Impact Analysis Guidelines Table C-1.

[3] California Energy Commission. 2003. Impact Analysis: 2005 Update to the California Energy Efficiency Standards for Residential and Nonresidential Buildings.
Available at: http://www.energy.ca.gov/title24/2005standards/archive/rulemaking/documents/2003-07-11_400-03-014.PDF
California Energy Commission. 2007. Impact Analysis: 2008 Update to the California Energy Efficiency Standards for Residential and Nonresidential Buildings.
Available at: http://www.energy.ca.gov/title24/2008standards/rulemaking/documents/2007-11-07_IMPACT_ANALYSIS.PDF

ENVIRON assumed the same improvements as before (meet green building code and mobile source reductions). Table 6 presents the results of the non-residential land use using the alternative energy use estimates.

Table 6
GHG Emissions with Mitigation: Alternative Methodology

Source Category	GHG Emissions (metric tonnes/yr)			
	Supermarket	Office	Hospital	Strip Mall
Electricity Use	597	213	2,061	178
Natural Gas Use	85	45	1,782	11
Mobile Sources	4,583	544	6,753	1,925
Total (Commercial)	**5,264**	**802**	**10,596**	**2,114**
Total (Commercial + Residential)	**10,764**	**6,302**	**16,096**	**7,614**
Service Population				
Service Population Commercial[1]	143	181	1,449	143
Service Population[1] + Residential	1,163	1,201	2,469	1,163
GHG Emissions Intensity (metric tonnes CO_2e/SP/yr)				
Commercial Only	**37**	**4.4**	**7.3**	**15**
Commercial + Residential Commercial Only	**9.3**	**5.2**	**6.5**	**6.5**

Notes:

1. Supermarket and strip mall are assumed to have 1 employee per 350 square feet, while office and hospital are assumed to have 1 employee per 276 square feet, according to the San Francisco Transportation Impact Analysis Guidelines Table C-1.

Recommendations

ENVIRON recommends that BAAQMD to revisit their recommendations for significance thresholds for mixed-use developments. At a minimum, it may be worthwhile to segregate the analysis for the residential and non-residential portions of a mixed use development. In addition, it would be useful to address the issue of ratios land uses so that they will not drive results. With respect to the non-residential portions, it may also make sense to have different thresholds for different types of non-residential uses. As shown above, non-residential uses have far more variability in GHG emissions per service population than do residential uses per resident, even if traffic isn't considered. Along that line, it may also be useful to consider alternative methodologies for determining energy use for different land uses since this can vary considerably. Finally, it may also be worthwhile to consider only the "new" portion of non-residential mobile source GHG emissions as another alternative methodology to consider in your revisions. 38-4

We appreciate the time that you have taken with us. If you have any questions or comments regarding the information presented in this letter, please feel free to contact Shari Libicki or Jen Schulte at ENVIRON.

Sincerely,

Shari Libicki, Ph.D.
Principal and Air Quality Practice Leader

Comment Letter #: 38
Date: October 19, 2009
From: Shari Libicki, Ph.D., Principal, Environ

Response to Comments:

38-1 The proposed GHG thresholds in the *Proposed Thresholds of Significance* report (November 2, 2009) have been modified to recommend a GHG efficiency metric of 4.6 MT/CO2E/SP/yr for land use projects.

38-2 Air District staff will provide methodology for calculating mobile emissions for mixed use projects in the updated CEQA Guidelines that account for vehicle trip reduction benefits. The modified methodology will recommend lead agencies to reduce the trip rate for mixed uses up to fifty percent, a substantial decrease in mobile emissions. See also Master Response M-2.

38-3 See Master Response MR-7.

38-4 The modified GHG efficiency metric of 4.6 MT/CO2E/SP/yr for land use projects and the new recommended methodology that will be in the updated CEQA Guidelines addresses some of the commenter's concerns and suggestions. See responses above.

#39

October 20, 2009

Mayor Pamela Torliatt, Chair, and
Members of the Board of Directors
Bay Area Air Quality Management District
939 Ellis Street
San Francisco CA 94109

Re: **Extension of Comment Period and Delay in Board's Consideration of the District's Revised Draft CEQA Thresholds Options and Justification Report Dated October 7, 2009**

Dear Mayor Torliatt and Members of the Board of Directors:

The California Building Industry Association (CBIA) and the Home Builders Association of Northern California (HBANC) respectfully request that the District substantially extend the time for public comment on the District's Revised Draft CEQA Thresholds Options and Justification Report dated October 7, 2009. The current deadline of October 26, 2009, is insufficient to allow the public adequate time to review and develop comments on the recent substantial revisions made by District staff. We also respectfully request that consideration of these District proposals by the Board be postponed beyond the November 18th meeting to allow District staff and Board Members sufficient time for meaningful review of public comments and revision of the report, as appropriate.

1. The Public Comment Period Should Be Substantially Extended. The October 7th District report both contains several significant revisions to the District-recommended thresholds of significance and provides, for the first time, backup information and analysis relied upon by Staff for all of the District-recommended thresholds. This was the first time the public and regulated community had seen the newly revised thresholds and the scientific and factual information that provides the basis for the entire policy proposal, so the public has not yet had any opportunity to comment on any of this important new information. The District is nonetheless proposing to provide the public and regulated community barely two weeks to review and draft comments on this significant new data and revised proposals. This time period is insufficient to allow for meaningful public input and should be extended. 39-1

CBIA and HBANC anticipate providing additional comments on the District's Revised Draft CEQA Thresholds Options and Justification Report, but as a first step, the District should provide additional time. As we stated in our previous comments, one of the most critical elements in formulating the proposed thresholds of significance is the District's justification for those thresholds. This is the all-important factual basis for these requirements, which the District suggests are to be minimum requirements that lead agencies must follow. The public and the regulated community must be given a sincere and legitimate opportunity to review and comment on this justification before the District uses it to adopt what it characterizes as binding CEQA Guidelines. 39-1

Therefore we strongly urge you to extend the public comment period on this new information to allow a full period for public review.

2. Consideration of the Proposed CEQA Threshold Proposals by the Board should be postponed beyond the November 18th meeting. The District proposes to close the comment period on the Revised Draft CEQA Thresholds Options and Justification Report on Monday, October 26th. District staff then intends to evaluate comments received, make appropriate revisions, and propose CEQA thresholds of significance to the Board of Directors at the November 18, 2009 meeting. This schedule assumes that District staff will be able to review all public comments received and make necessary and appropriate changes to the staff proposal in less than one month—and, that Board Members will be able to review and deliberate on these highly technical and complex issues within that truncated period. Such a schedule may be reasonable when receiving comments on a previously circulated draft with minor revisions. But as noted above, this will be the first time the District has received comments on the evidence and information justifying its threshold proposals. To proceed along this accelerated timetable calls into question the legitimacy of the public comment process itself. 39-2

We request that the District Board direct staff to thoroughly evaluate the comments received on their revised draft thresholds and justification report and postpone consideration of a final report until staff has adequate time to review and revise the report accordingly.

Richard Lyon
Senior Legislative Advocate
California Building Industry Association

Paul Campos
Senior V.P. & General Counsel
Home Builders Association of Northern California

Cc: BAAQMD
Board Members
Jack Broadbent, Executive Officer/APCO
Greg Tholen, Principal Environmental Planner
David Vintze, Air Quality Planning Manager

ABAG
Rose Jacobs Gibson, President

Henry Gardner, Executive Director

BCDC
R. Sean Randolph, Chair
Will Travis, Executive Director

MTC
Scott Haggerty, Chair
Steve Heminger, Executive Director

Joint Planning Committee
Bill Dodd, Chair
Ted Droettboom, Regional Planning Program Director

Comment Letter #: 39
Date: October 20, 2009
From: Richard Lyon, Senior Legislative Advocate, California Building Industry Association and Paul Campos, Senior Vice President, Home Builders Association of Northern California

Response to Comments:

39-1 See Master Response MR-8.

39-2 The public hearing for the Proposed CEQA Thresholds of Significance will start on Wednesday November 18th and will be continued on Wednesday, December 2nd at which time the Board of Directors will consider adoption of the proposed amendments to the Air District's CEQA Guidelines.

#40

40_Annette Walton_10_22_09

From: Gregory Tholen
Sent: Thursday, October 22, 2009 3:54 PM
To: Sigalle Michael
Cc: David Vintze
Subject: FW: BAAQMD CEQA Guideline

Importance: High

Greg Tholen

(415) 749-4954

From: Annette Walton [mailto:nettie@stanford.edu]
Sent: Thursday, October 22, 2009 3:40 PM
To: Gregory Tholen
Cc: Annette Walton; Jim Inglis
Subject: BAAQMD CEQA Guideline
Importance: High

Mr. Tholen,

Below is a list of questions related to the CEQA Thresholds of Significance based upon my review of the Draft Air Quality Guidelines, prepared by EDAW, September 2009. We would appreciate it if you could provide written responses to the questions below to help assist us in evaluating and understanding the guidance document.

Communities of High Concerns:

1.. Please confirm that BAAQMD will be the sole entity to calculate the human health risks within a CARE community when a permit to operate is applied for, for any new source(s). If this agency will not be doing the risk calculations, is their a list of recommended consultants that are qualified to perform the risk assessment? 40-1

2.. How long will it take for the agency to calculate the human health risk and report their findings? Within a CARE Community? Within any community? 30, 60, 90 days? 40-2

3.. Other Areas: For areas outside of CARE city or boundary, will BAAQMD calculate the human health risks and particulate matter contributions for the "cumulative effects" for installing any single source and evaluate impacts on that community as a whole? 40-3

4.. If threshold values are exceeded "in other areas" or outside of CARE boundary, 40-4

will T-BACT and/or TBPs be required? 40-4

5.. In citing a new receptor within a CARE community, if the human health risk or hazard index are exceeded, when will the agency grant the permit for a source or provide a recommendation on how to address human health? To clarify, will it be after mitigations are in place for a Project or Plan or will the agency provide a conditional permit with a schedule to install T-BACT or TBPs? 40-5

Plan-Level Impacts:

1.. Mitigation measures identified through the environmental review process must be made into binding and enforceable policies and implementation programs within the long range plan. Please clarify what is meant by the underlined " Binding" in this sentence. Is the BAAQMD suggesting using deed restrictions or covenants be placed on a development to ensure/enforce compliance with a mitigation measure? 40-6

Project Impacts:

1.. Is the URBEMIS model/database a public tool for permit applicants, consultants or Lead Agencies to use? Or, will these individuals/entities need to supply the input parameters for the database to BAAQMD to calculate? 40-7

2.. Is there or will there be a fee or permit required to use the URBEMIS model?

General comment:

1.. Does BAAQMD plan to impose or require any permits for construction related projects similar to the Regional Water Quality Control Board fees and plans for storm water construction permits? 40-8

2.. Will the agency put out a simple fact sheet that is clear and easy to use for the screening criteria for each individual impact: operational, construction, local community risks and hazard impacts, plan level, odor and local carbon monoxide? 40-9

Thank you in advance for your cooperation. We may have additional questions to follow. Respectfully,

Annette Walton

Environmental Manager

Stanford Real Estate Office

2755 Sand Hill Road, Suite 100

Menlo Park, CA 94025

Comment Letter #: 40
Date: October 22, 2009
From: Annette Walton, Environmental Manager, Stanford Real Estate Office

Response to Comments:

40-1 The Air District will be providing screening tables containing estimated calculations of community risk and hazards (cancer risk, non-cancer risk, and $PM_{2.5}$ risk) from permitted sources and roadways. However, a lead agency may choose to use a consultant to calculate human health risks from new sources. The Air District does not endorse particular consultants and therefore does not have a list of recommended consultants to offer.

40-2 Staff does not understand that intent of this question. The Air District endeavors to review and or prepare health risk assessments in a timely manner.

40-3 The Air District will be providing tables with estimated calculations of community risk and hazards from all permitted sources and major roadways in the Bay Area. It will be the lead agencies responsibility to calculate the cumulative impact of sources within a 1,000 foot radius from the fence line of the new source or receptor.

40-4 The community risk and hazard thresholds have been modified in the *Proposed Thresholds of Significance* report (November 2, 2009) to recommend the same thresholds for projects in all areas, including impacted communities. Toxic best practices have been omitted from the threshold, however the updated CEQA Guidelines will strongly recommend that Lead Agencies consider TBPs as conditions of project approval.

40-5 It is in the purview of the lead agency to decide on whether mitigation measure will be a condition of permit approval.

40-6 Mitigation measures could be made binding as development agreements and conditions of approval for permit or project approval by the lead agency.

40-7 URBEMIS is a free modeling tool available to any interested users. URBEMIS contains geographic specific data and input defaults. Users may also change the input defaults to reflect specific project conditions.

40-8 No, the Air District does not plan to impose permits for construction projects through the CEQA process.

40-9 The updated CEQA Guidelines will contain a summary threshold table for quick reference. The CEQA Guidelines will also include screening criteria for thresholds.

#41

WILLIAM B. WALKER, M.D.
HEALTH SERVICES DIRECTOR

WENDEL BRUNNER, M.D.
DIRECTOR OF PUBLIC HEALTH

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October 23, 2009

Greg Tholen, Principal Planner
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

RE: Proposed Changes to CEQA Guidelines

Dear Mr. Tholen:

I am writing to offer my partial support for the approach the Bay Area Air Quality Management District is proposing to update its guidelines for determining air quality impacts as part of environmental reviews done under the California Environmental Quality Act (CEQA). Air pollutants such as particulate matter, ozone, oxides of nitrogen and oxides of sulfur are a significant portion of the environmental threats to public health. Most of the proposed updates will enable local decision makers to focus their mitigation efforts more effectively to protect public health, balance the competing public health interests of infilling new development and providing safety buffers, and address Environmental Justice concerns in disproportionately impacted communities. 41-1

In particular, I am supportive of:

1) The proposed new concentration-based PM2.5 guidelines for construction, operations and plans that acknowledge that Diesel Particulate Matter (DPM) and other fine particulates can have a significant impact on human health beyond just their cancer risk, such as triggering asthma attacks.

And

2) The proposed new cumulative impact guidelines that take into account the already existing burden of pollution in communities where new sources of pollution are being considered. 41-2

Identifying proposed projects that are sources of pollution that meet these new significance thresholds will enable local decision makers to identify mitigation measures that may have otherwise been overlooked, and will more effectively reduce the public health impacts of these new projects.

3) The proposed new thresholds for siting new receptors, from impacts from single sources and cumulative sources, that strike a reasonable balance between the need to limit exposure to harmful pollutants and the need to encourage infill in urban settings. 41-3

New concepts for building healthy communities recognize the health benefits from building housing, schools, transportation hubs, amenities and workplaces near to each other. This allows for less reliance 41-4

on the automobile, encourages the use of alternative forms of transportation, promotes more exercise, enhances community cohesiveness, and improves community safety. However, new concepts for building healthy communities also recognize that infilling homes, schools, and other places where people spend significant time near transportation hubs, commercial centers and industrial facilities can also expose some people to more pollution. This is especially true for exposure to diesel particulate matter associated with transportation and goods movement because of the localized health impacts caused by this type of pollution. The proposed thresholds of significance for receptors reasonably differentiates the most at-risk projects from all others by limiting the calculated impacts to those from nearby sources and by not establishing a "no net increase" threshold. This provides the most useful methodology for identifying the healthiest projects and alternatives. 41-4

However, I disagree with your decision to withdraw your earlier proposal to establish more stringent CEQA significance thresholds for sources in high priority areas to fairly address Environmental Justice concerns. Disproportionate exposure to environmental pollution contributes to disproportionate health disparities. The Air District's CARE Program has made excellent strides in identifying high priority areas within its jurisdiction where the highest levels of toxic emissions overlap with sensitive populations. In Contra Costa County, parts of Richmond and Concord are two of the six high priority areas identified by the Air District. These disproportionate impacts are an Environmental Injustice, and in accordance with State and County Environmental Justice policies, must be fairly accounted for with respect to the development, adoption, implementation, and enforcement of environmental laws and policies. To develop a CEQA policy that would acknowledge these disproportionate impacts, but that would not take affirmative steps to reduce these impacts, would have to be considered an unfair policy. 41-5

Establishing more stringent CEQA significance thresholds for sources in these priority areas is a fair and reasonable approach to addressing this Environmental Injustice. Requiring more stringent CEQA thresholds in the high priority areas allows for additional mitigation measures that will reduce the disproportionate exposure between people living in these areas and people living in the rest of the Bay Area. Therefore, I encourage you to reinstate your earlier proposed thresholds for siting new sources in high priority areas.

Thank you for the opportunity to comment on these proposed CEQA guidelines.

Sincerely,

Wendel Brunner MD

Wendel Brunner, PhD, MD, MPH
Director of Public Health
Contra Costa Health Services

WB:jds

Comment Letter #: 41
Date: October 23, 2009
From: Wendel Brunner, PhD, MD, MPH, Director of Public Health, Contra Costa Health Services

Response to Comments:

41-1 Comment noted. The Air District strives to balance public health concerns with the competing interests of infill development, which is often beneficial to air quality.

41-2 The Air District appreciates the commenter's support for proposing additional risk and hazard thresholds for $PM_{2.5}$ and the new cumulative thresholds for risks and hazards.

41-3 The Air District appreciates the commenter's support for proposing additional risk and hazard thresholds for siting new receptors that allow decision makers to identify mitigation measures to reduce exposure.

41-4 The Air district agrees with the commenter that the proposed thresholds of significance provide the most useful methodology for identifying the healthiest projects and alternatives while encouraging infill.

41-5 The Proposed Thresholds of Significance report (November 2, 2009), recommends a single community risk and hazards threshold for all areas in the Bay Area, including impacted communities. Staff agrees with several commenters that the problem of certain areas being disproportionately adversely impacted should be addressed as a cumulative impacts problem. Staff has revised the proposed thresholds to do so. Under staff's current proposal, areas that are disproportionately burdened with TAC emissions sources in the local vicinity will benefit from a cumulative analysis threshold that will require projects to evaluate the cumulative impact of all such sources within a 1,000 foot radius of the proposed project. This revised approach will provide a tool for lead agencies to carefully consider whether to site new sources or receptors in disproportionately burdened areas, without establishing different health risk standards for different segments of the population. In addition, the Air District believes that withdrawing the earlier, more stringent threshold, is also appropriate in light of using OEHHA's more conservative risk factors (substantially increasing estimated risk levels) and the addition of community risk reduction plans. Risk reduction plans provide a programmatic approach to the overall problem and can also address existing sources of risks and hazards and can require design standards of new development not always available through the CEQA process.

#42

42_Belinda Smith Comments_10_26_09

From: Gregory Tholen
Sent: Monday, October 26, 2009 12:32 PM
To: Sigalle Michael
Subject: FW: Comments on CEQA Guidelines with contact information

Greg Tholen

(415) 749-4954

From: Belinda Smith [mailto:bsmitgo@hotmail.com]
Sent: Monday, October 26, 2009 11:35 AM
To: Gregory Tholen
Subject: FW: Comments on CEQA Guidelines with contact information

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From: bsmitgo@hotmail.com
To: gtholen@baaqmd.gov
Subject: Comments on CEQA Guidelines
Date: Mon, 26 Oct 2009 04:41:51 -0700

These comments address Toxic Air Contaminants (TACs).

The guidelines have the most stringent requirements for "Impacted Communities" identified in the CARE program. There are other neighborhoods that would be impacted by TACs that should be treated as "Impacted Communities." Such neighborhoods already have heavy industry adjacent to sensitive receptors and have meteorology that may be as significant as an "Impacted Community." The guidelines should advise that, in addition to Impacted Communties, health risk assessments may be warranted for other neighborhoods that have existing conditions that create the potential to expose sensitive receptors to TACs. 42-1

The guidelines flag the need to evaluate sensitive receptors that may be in an overlay zone within 500 feet of a freeway or high volume road. What is a high volume road? What if the sensitive receptor is within two roads that individually are not high volume, but combined are high volume? 42-2

State law requires health risk assessments for potential school sites that are within a certain distance of high volume roads. The guidelines should address a circumstance where existing sensitive receptors become exposed to TACs from roads that may become high volume from potential traffic generated by nearby development projects. 42-3

The guidelines should help determine affected intersections where CO analysis should be performed. Should a CO analysis select the highest volumes intersections or the intersections closest to sensitive receptors? 42-4

The guidelines identify certain measures that, if implemented, would fully mitigate the impacts of emissions from construction equipment. The guidelines should require consideration of project alternatives that minimize the use of construction equipment as a means of reducing exposure to TACs (e.g. a project alternative may minimize grading and therefore result in a reduction of emissions from grading equipment). 42-5

Sincerely,

Belinda Smith

347 Goldenslopes Court

Benicia, CA 94510

Windows 7: It works the way you want. Learn more.

New Windows 7: Find the right PC for you. Learn more.

Comment Letter #: 42
Date: October 26, 2009
From: Belinda Smith

Response to Comments:

42-1 The Proposed Thresholds of Significance report (November 2, 2009), recommends a single community risk and hazards threshold for all areas in the Bay Area, including impacted communities. Staff agrees with several commenters that the problem of certain areas being disproportionately adversely impacted should be addressed as a cumulative impacts problem. Staff has revised the proposed thresholds to do so. Under staff's current proposal, areas that are disproportionately burdened with TAC emissions sources in the local vicinity will benefit from a cumulative analysis threshold that will require projects to evaluate the cumulative impact of all such sources within a 1,000 foot radius of the proposed project. This revised approach will provide a tool for lead agencies to carefully consider whether to site new sources or receptors in disproportionately burdened areas, without establishing different health risk standards for different segments of the population. In addition, the Air District believes that withdrawing the earlier, more stringent threshold, is also appropriate in light of using OEHHA's more conservative risk factors (substantially increasing estimated risk levels) and the addition of community risk reduction plans. Risk reduction plans provide a programmatic approach to the overall problem and can also address existing sources of risks and hazards and can require design standards of new development not always available through the CEQA process.

42-2 The proposed risk and hazard thresholds have been modified to allow overlay zone distances other than 500 feet along freeways and high- volume roadways. The modified distance must be based on district-approved modeling for the locations being considered for distances other than 500 feet. In addition, the Air District will provide screening tables with estimated calculations of risks from major roadways. The updated CEQA Guidelines will define high volume roads.

42-3 The cumulative threshold for community risks and hazards in the *Proposed Thresholds of Significance* recommends that lead agencies consider all sources within a 1,000 foot radius from the fence line of a receptor, including roadways. Local governments are encouraged to develop risk reduction plans for areas that experience high levels of toxic air contaminants and $PM_{2.5}$ concentrations. Risk reduction plans could be used to protect existing sensitive receptors from becoming exposed to risks due to increased traffic from future development projects.

42-4 The updated CEQA Guidelines will provide screening criteria to help identify roadway intersections that could warrant a CO analysis.

42-5 Air District staff will consider the including the commenter's recommendation as a recommended mitigation measure to reduce construction emissions.

#43

CITY OF EMERYVILLE

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October 26, 2009

Greg Tholen, Principal Environmental Planner
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109
gtholen@baaqmd.gov

RE: COMMENTS ON PROPOSED CEQA GUIDELINES

Dear Mr. Tholen:

Thank you for the opportunity to comment on the September Draft CEQA Guidelines. The City of Emeryville understands the difficulty in meeting the new greenhouse gas emission standards. We agree with the City of Berkeley that the way to encourage the kind and location of development that will meet these standards is to make it easy for them to develop dense, - and we would add mixed-use – projects with transit demand management features near transit and services. Use of the infill exemption is an important way to do that. The CEQA guidelines need to include location, density, use mix, and TDM factors in the screening criteria, so that projects meeting those criteria can use the infill exemption. We need project screening criteria that bring the screening levels to the number of dwelling units and square feet for dense, well located, TDM-rich projects close to the numbers set for all projects for criteria pollutants. That will enable us to approve those projects without requiring their developers to hire traffic consultants to override the URBEMIS model to fit their projects and then use the TDM features as mitigation measures in a Mitigated Negative Declaration. 43-1

As the City of Berkeley has said, the state of the art on Climate Action Plans is not to the point where we can adopt CAPs with measurable, enforceable measures that meet the GHG goals. We are also a few years away from a regional Sustainable Communities Strategy. So we need project screening criteria that encourage developers to do the right thing. The mortgage crisis is disproportionately affecting developers of the kind of dense housing projects we need to meet the greenhouse gas emission standards. Let's not make it even harder for developers to build these projects. 43-2

Sincerely,

Charles S. Bryant

Charles S. Bryant, AICP
Director of Planning and Building

Comment Letter #: 43
Date: October 26, 2009
From: Charles S. Bryant, AICP, Director of Planning and Building, City of Emeryville

Response to Comments:

43-1 See Master Responses MR-1 and MR-2.

43-2 The revised CEQA Guidelines provide several mitigation measures to reduce GHG emissions that can be included in local climate action plans and required of projects consistent with the plan. See comment response 35-6 and Master Response MR-5.

#44

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October 26, 2009

Mr. Greg Tholen
Principal Environmental Planner
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Dear Mr. Greg Tholen,

The City and County of San Francisco's Planning Department is submitting additional comments regarding the proposed *BAAQMD Guidelines* that supplement our previous comment letters dated October 2, 2009, and October 8, 2009. We are specifically focusing our comments on the additional voluminous materials, *Thresholds of Significance* and *Appendices A-G*, that BAAQMD released on October 9, 2009, after we submitted our earlier comments.

At the outset, we want to reiterate two key points:

- The scheduled hearing to consider adoption of the proposed *BAAQMD Guidelines* should be postponed, and BAAQMD needs to immediately establish a technical working group comprised of environmental practitioners from Bay Area cities and counties to develop revisions to correct the methodological flaws and unintended consequences that we and other commentors have identified. 44-1

- We strongly support BAAQMD's leadership in advancing updates to its outdated *1999 BAAQMD Guidelines* and look forward to working closely with you to incorporate substantial revisions. Unfortunately, as proposed, the *BAAQMD Guidelines* in many respects represent a step backward rather than forward in terms of changing land use patterns and affecting mobile sources so that greenhouse gas (GHG) and other harmful emissions can be reduced.

Climate Action Plans

With respect to BAAQMD's *Thresholds of Significance* supplemental materials, our comments primarily concern how GHG thresholds and emissions are calculated. We recognize BAAQMD's efforts to fashion an alternative in Section 1.2.3 whereby a qualified Climate Action Plan could be used. In the protracted vacuum that will exist as the regional framework defined by SB 375 is developed, BAAQMD's Climate Action Plan approach has little practical value as proposed. We continue to recommend provisions whereby local jurisdictions could satisfy qualified Climate Action Plan requirements based on documentation of ordinances and established practices which effectively advance SB 375 objectives. 44-2

Incomplete and Distorted Land Use Database

In Sections 2.4 and 2.5 of the *Thresholds of Significance* document, BAAQMD outlines assumptions whereby it believes that a project capture ratio sufficient to achieve GHG reduction targets would be achieved. Unfortunately, the empirical basis for these assumptions is fundamentally flawed and undermines the validity of the approaches advocated throughout the *BAAQMD Guidelines*. A serious flaw in the methodology used to determine GHG thresholds, as well as the Criteria Air Pollutant thresholds, is the use of BAAQMD's database of projects that passed through the CEQA process from 2001-2008. There are serious empirical gaps in this database as well as in BAAQMD's interpretation and modeling of emissions based on this database.

Based on the documentation provided, this database includes only projects filed with the State Clearinghouse (SCH). We believe this methodology significantly underestimates the number of projects that went through the CEQA process during this period, but without access to the referenced database, we cannot confirm this. However, based on the assumption that the database only considers projects filed with the SCH, this method substantially underestimates the number of projects that went through CEQA review during this time period. Pursuant to *CEQA Guidelines* Sections 15206, 15072 and 15094, projects that do not meet the definition of a project of "statewide, regional or area wide significance" do not need to submit their negative declaration or mitigated negative declaration to the SCH and only a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration needs to be submitted to the local county clerk. Given these parameters, unless the database includes information from local County Clerk's offices, it is very likely that this database is largely incomplete. It is very common for development projects that would be affected by the size limitations proposed in the GHG screening levels to never have been submitted to the SCH. 44-3

The BAAQMD acknowledges that its database is incomplete but solely because it lacks information on projects that proceeded with a Notice of Exemption (NOE). Nevertheless, BAAQMD continues to presume that development from NOE's would not be considerable. However, BAAQMD's conclusions about project capture ratios and the methodology layered on this error are seriously flawed because the aforementioned omission of a vast majority of negative declarations and mitigated negative declarations are also not included in BAAQMD's database. BAAQMD's presumption that NOEs would have at some point been captured, through a previously prepared EIR, is also faulty.

Another likely distortion in BAAQMD's database that is also not considered is the circumstance under which a specific project may have been required to prepare an EIR or a negative declaration. Often, an EIR is not required based solely on project size, but instead because of the project's specific proximity and impact to/on other resources (for example, historic resources, archeological resources, biological resources and hazardous materials). These factors could considerably affect how representative the project size distributions that were used to forecast anticipated GHG reductions from new development over the next 10 years are. Considering the information provided, we conclude that the database of CEQA projects is a very poor foundation on which to base subsequent analysis.

Construction Emissions

BAAQMD recommends that a carbon monoxide (CO) analysis only be prepared for the "largest of construction projects." Please provide examples concerning what BAAQMD would consider a large construction project and include those examples in the *BAAQMD Guidelines Update*. Contrary to what's stated on page 14, supporting *Appendix A* does not include supporting documentation for non-New Source Review derived thresholds developed by SMAQMD and VCAPCD. BAAQMD's *Revised Draft Options and Justification Report* also states that TAC indices are based on behavior of stationary sources, yet these indices are applied to mobile sources without any evidence having been presented to support that this is appropriate. 44-4

Local Carbon Monoxide Operational Emissions

The guidance in the *BAAQMD Guidelines* and its supporting *Thresholds of Significance* document is ambiguous. The *BAAQMD Guidelines* propose reliance on traffic volumes instead of the existing congestion-based proxy thresholds, but no documentation for the proposed new proxies is provided in the *Thresholds of Significance*. Instead, BAAQMD's *Thresholds of Significance* document suggests use of health-based ambient standards. These ambient standards are clear, but BAAQMD's guidance is vague and confusing concerning the basis for the circumstances that would trigger project-specific analysis. As we have previously indicated, our experience has been that these analyses represent substantial sources of cost and delay without tangible value in San Francisco. Our recommendation remains that the *BAAQMD Guidelines* should allow local jurisdictions to use documentation of a sustained record showing a lack of CO violations as the basis for exercising discretion about the circumstances under which project-specific CO analyses should be undertaken. 44-5

GHG Operational Emissions

We have previously commented extensively concerning the need for substantial revisions to BAAQMD's proposed approaches to reducing GHG emissions. As summarized above, the land use database that underlies BAAQMD's approach is seriously incomplete and distorted. Furthermore, as summarized in our comments below on BAAQMD's *Appendices A-G*, many aspects of BAAQMD's proposed methodologies for calculating emissions are also flawed. Clearly, substantial progress is needed in reducing regional emissions from mobile sources, but BAAQMD's analytical approach is not grounded in an understanding of practical means by which to encourage compact, transit-oriented infill development that can achieve meaningful reductions in GHG emissions. 44-6

In particular, we are not convinced that many of San Francisco's land uses are adequately represented using the URBEMIS categories. A common dilemma is how retail uses should be categorized. For mixed use projects in established neighborhoods, URBEMIS typically defaults to categorize ground floor retail as "strip mall," which generates results that grossly misrepresent the character and types of trip-making associated with our many neighborhood commercial districts. Similar issues arise in the use the URBEMIS residential land use categories. The Planning Department further believes that the mitigation measures that are incorporated into the URBEMIS program calculate inaccurate reductions. For example, it is possible to yield negative vehicle trip emissions, for projects located in high density areas, along transit corridors, with reduced (or sometimes no) parking and with pedestrian and bicycle amenities. It is unclear how BAAQMD's proposed thresholds, based on the regional SFBAAB, includes, if at all, regional land

use choices. To what extent do the proposed thresholds take into consideration the Association of Bay Area Government's FOCUS process, and subsequent decisions in allocating the Regional Housing Need to reduce regional Greenhouse Gas Emissions (and overall regional VMTs)? 44-6

The Planning Department believes that the URBEMIS model does not accurately model natural gas emissions. URBEMIS consistently underestimates a project's natural gas emissions by between 30 to 50 percent. We urge the BAAQMD to look into this issue further.

BAAQMD's proposed approach to reducing GHG emissions from stationary sources is also flawed. We do not agree that a stationary source should be allowed to emit ten times more GHG emissions than a land use project. We urge the BAAQMD to develop a much more aggressive approach for reducing stationary source emissions.

Cumulative Toxic Air Contaminates Impacts

BAAQMD is proposing that the siting of projects that constitute new receptors or sources should assess the cumulative impacts to those receptors within 1,000 feet of the receptor, taking into account the proposed project plus existing or foreseeable projects. The Planning Department is concerned about how BAAQMD proposes that local governments would identify these existing sources. A variety of uses would emit TACs, and it is not clear that all of these uses have a permit on file with the BAAQMD, either because they are not required to, or because they are operating illegally without a permit. Therefore, comprehensive information concerning existing emissions may not be available to local jurisdictions to model the cumulative setting. Furthermore, it would be extremely onerous to model all potential sources of TACs within 1,000 feet of a proposed receptor for which complete information for existing emissions is lacking. BAAQMD needs to provide detailed clarification about how cumulative TAC modeling would be conducted (recommended methodologies, tools, etc.) as well as access to relevant inventories for existing emission sources and receptors. 44-7

The BAAQMD is proposing a cumulative threshold for toxic air contaminates of 0.8 $\mu g/m^3$ for $PM_{2.5}$, citing to EPA's proposed rule for prevention of significant deterioration. Because this threshold is being introduced now for the first time and is not consistent with the approach proposed in BAAQMD's prior iterations, the Planning Department is requesting additional time to review the background material and adequacy of applying this threshold to the *BAAQMD Guidelines Update*. We specifically have not had appropriate time to review EPA's supporting documentation regarding the Southern California Particle Center study.

Overlay Zones for Local Plan Impacts Associated with Risks and Hazards

As you are aware, San Francisco already has adopted a local ordinance that requires evaluations of health risks for sensitive receptors located within 500 feet of busy roadways. This approach was developed by the San Francisco Department of Public Health (SFDPH) and corresponds to BAAQMD's recommended approach for siting projects that would be sensitive new receptors. SFDPH has mapped broad zones of potential exposure, analytical protocols have been developed, and feasible measures to alleviate risks are mandated. For local plans, however, BAAQMD's *Thresholds of Significance* proposes buffer zones wherein particular types of land uses apparently would not be allowed. This approach would be counterproductive because many opportunities in San Francisco and other cities with infrastructure that can support infill development are situated in these zones. Instead of mandating wasteland buffers, we strongly 44-8

recommend that BAAQMD's proposal for local plans be modified to parallel its recommended approach for projects so that mapping, risk assessments within affected zones, and appropriate protective measures are required.

Methodologies for Calculating Emissions in *Appendices A-G*

BAAQMD Appendices A-G include a myriad of spreadsheets that supposedly justify BAAQMD's technical approaches. BAAQMD's appendices, however, do not include basic assumptions underlying the results shown. Pages and pages of spreadsheet outputs do not establish the validity of BAAQMD's methodological approach. For example, BAAQMD moves from a table that identifies its projected totals for different types of land use development to its detailed itemizations for various pollutants, including GHG effects, without providing explanations about what assumptions are embedded in the linkages between these tables.

Closer examination of some of BAAQMD's calculations for pollutant levels associated with specific types of land use development show results that don't make sense. For example, is it credible that calculations in *Appendix A* show that future development of sit-down restaurants will generate ten times as many pollutants as the combined effects for light and heavy industry? Is it credible that other retail uses will quadruple industrial pollutant loads or that comparable amounts of mid-rise vs. high-rise residential apartments will produce twice the pollutant loads for the former? BAAQMD fails to clearly show how its calculations were derived, but it appears that its multiple incongruous findings originate in inappropriate use of ITE trip rates without any sensitivity to different settings. For most land use types, BAAQMD appears to mandate calculations that treat small and mid-size projects as relatively more impactful than larger projects. This may be a reasonable finding for sprawling, low-density development but is not sensitive to locational differences and is not a reasonable finding for dense, infill development on small urban parcels. 44-9

Sensitivity Analyses in *Appendices C and E*

BAAQMD's "sensitivity" analyses in *Appendices C and E* focus on different combinations of land use development without coming to terms with the serious limitations embedded in its unexplained methodology. The linear, one-size-fits-all metrics utilized by BAAQMD do not appear to be capable of illustrating important differences within land use types based on location, density, access to transit, viability of walking and bicycling, incorporation of Green Building requirements, and other characteristics of urban-centered, infill development. Further, it is unclear how mixed use projects were treated in BAAQMD's database. For example, were mixed-use projects disaggregated into respective land uses? As stated in BAAQMD's *Revised Draft Options and Justification Report*, this database was required to evaluate the sensitivity of the threshold for each pollutant. Proceeding based on flawed database and a methodology that is insensitive to smart growth development practices, BAAQMD presents random exercises in number-crunching in the guise of sensitivity analysis. Genuinely useful sensitivity analysis would show how locational and density choices linked to practices that make alternative ways of travelling viable can affect results such that emissions would actually be significantly reduced. 44-10

Documentation for Emission Inventories

BAAQMD's inventories of existing and forecasted emissions in *Appendix D* are similarly flawed in that the embedded assumptions are not detailed. As we noted in our previous broader comments dated October 8, 2009, there are many inconsistencies in how different jurisdictions have compiled these inventories. BAAQMD needs to provide clear guidance so that these inconsistencies can be resolved and everyone can understand how BAAQMD wants baseline conditions and progress to be measured.

One striking characteristic in its inventories and throughout BAAQMD's appendices is the virtual invisibility of emissions associated with light and heavy industry and an almost exclusive reliance on reduction of mobile source emissions. BAAQMD has a considerably better understanding of and regulatory control over stationary source emissions than for mobile source emissions. Obviously, emissions from mobile sources need to be substantially reduced but integrated and comprehensive approaches implemented at thousands of work and non-work sites will be much more challenging than increased emphasis on reducing emissions at facilities that BAAQMD can more readily regulate. As we have previously commented, BAAQMD's litany of potential mobile source mitigations reflect a lack of understanding about what is required to make these effective. 44-11

BAAQMD's *Appendix C* examples of emission reductions highlight its misplaced emphasis on using assumptions that rely on arbitrary numerical exercises to show "mitigation" but are insensitive to a project's contextual setting Instead, we recommend a focus on setting thresholds that recognize and reward projects that are placed in settings and designed to include features that curtail avoidable emissions. Moreover, our testing of BAAQMD's proposed approaches indicate that real-world projects that incorporate higher densities with green building techniques as well as mixed uses in infill settings favorable to non-auto travel routinely exceed BAAQMD's proposed thresholds. Thresholds and methodologies that penalize development that incorporates measures that BAAQMD advocates as mitigation further demonstrate that there are fundamental flaws in BAAQMD's proposed approach.

Conclusion

Among the likely practical effects of the *BAAQMD Guidelines* and its belatedly released, supporting *Thresholds of Significance* and *Appendices A-G* documents is that project sponsors will not propose projects that integrate multiple uses (i.e. retail, restaurants, cafés, etc) into one development, as this integration would almost always push a project's GHG calculations over the proposed numerical thresholds. What is not considered in these *Guidelines* are the effects of <u>not</u> integrating such land uses. What are the effects of not incorporating retail, restaurants and other commercial uses along the ground floor of a residential project, and what behaviors from residents would result in terms of increased auto use and GHG emissions? Would residents be more apt to drive to various activities or walk, bicycle or take transit, if development occurred with mixed uses with appropriate densities in urban infill locations? Integration of ground floor uses is not only desirable for project residents, but for the region as a whole. A standard single use development, as is modeled in BAAQMD's *Appendices C and E* and specifically in its sensitivity analyses, would otherwise be discouraged in San Francisco because this would not activate the ground floor to the extent that retail, restaurants and other commercial uses do. But single use development would become attractive everywhere to developers who would have unintended, 44-12

new incentives to design projects that would avoid the regulatory straightjacket that the *BAAQMD Guidelines* would impose.

The *Revised Draft Options and Justification Report*, released for public review on October 9, states that the reason for updates to the *BAAQMD Guidelines* is to "further the goals of other District programs, such as transit-oriented and infill development." BAAQMD'S proposed mitigation measures are supposed to reduce GHG emissions, increase neighborhood vitality and overall safety in the community. Our review of the proposed thresholds, as concluded in this letter and in a previous letter sent to BAAQMD on October 8, 2009, shows that the proposed thresholds would not further transit-oriented and infill development. The *Guidelines* do not consider adaptive reuse, nor do they adequately account for different settings throughout the Bay Area. 44-12

BAAQMD prescribes inflexible and reactive analytical approaches that would likely have the effect of penalizing rather than crediting proactive smart development. There are fundamental disconnects in the application of BAAQMD's proposed procedures to exactly the types of dense, mixed-use, green, infill development projects that its mitigation measures set forth as aspirations. For mobile source impacts associated with land use development, BAAQMD presents a menagerie of mitigation measures that fail to provide practical guidance about the combinations of measures that can be effective. We strongly recommend that the *BAAQMD Guidelines* be modified so that projects that are situated and designed to incorporate features that reduce GHGs are not unnecessarily subjected to inappropriate thresholds and burdensome analytical techniques that presume impacts based on flawed assumptions.

Because of the breadth of revisions that are needed, the most effective way to modify the proposed *BAAQMD Guidelines* would be for BAAQMD staff to immediately establish a technical working group with local environmental practitioners. We again strongly urge BAAQMD to engage in a collaborative effort that would be more constructive than proceeding with contentious hearings and further critiques of hurriedly released documents. Please do not hesitate to contact me at 415-575-9048 or Jessica Range at 415-575-9018 to discuss these matters further. 44-13

Sincerely,

Bill Wycko

Environmental Review Officer

San Francisco Planning Department

44_Billy Wycko Email_10_26_09

From: Gregory Tholen
Sent: Monday, October 26, 2009 4:04 PM
To: Sigalle Michael
Subject: FW: Supplemental Letter on BAAQMD Technical Documents

Attachments: BAAQMD Guidelines Supplemental Technical Comments.PDF

Greg Tholen
(415) 749-4954

-----Original Message-----
From: Bill Wycko [mailto:Bill.Wycko@sfgov.org]
Sent: Monday, October 26, 2009 12:51 PM
To: Gregory Tholen; dvintos@baaqmd.gov
Cc: John Rahaim; Larry Badiner; Jessica Range; Elaine Warren; eangstadt@oaklandnet.com; susanwalsh@sanjose.gov; Michael Cohen; Michael Yarne; Calla Ostrander; Johanna Partin; dranelletti@oaklandnet.com; Nancy Kirshner-Rodriguez
Subject: Supplemental Letter on BAAQMD Technical Documents

Attached are our additional comments regarding the supplemental materials, Thresholds of Significance and Appendices A-G, that BAAQMD released after we submitted our prior comment letters on October 2 and 8, 2009. We would welcome the opportunity to work with BAAQMD to modify your proposals to more effectively achieve your objectives through a collaborative technical working group comprised of environmental practitioners from Bay Area cities and counties.

(See attached file: BAAQMD Guidelines Supplemental Technical Comments.PDF)

Comment Letter #: 44
Date: October 26, 2009
From: Bill Wycko, Environmental Review Officer, San Francisco Planning Department

Response to Comments:

44-1 See master response MR-8.

44-2 See master response MR-3 and MR-5.

44-3 The Air District acknowledges that the CEQA projects database is incomplete. The CEQA projects database was used to develop a representative distribution of the types and sizes of land use development projects in the Air District's jurisdiction that are accompanied by preparation of an EIR or a IS/MND. It is acknowledged that a large number of small projects in the Air District's jurisdiction would be accompanied by an initial study or NOE and would not be accompanied by environmental documents that would be filed at the State Clearinghouse. The Air District determined in its research of a sample of such projects, that these projects would represent a small subset of total emissions compared to projects that would have environmental documents filed with the State Clearinghouse. Thus, it was determined that the CEQA projects database (which contained over 1,600 records) would provide a meaningful sample of the types of projects that would be subject to CEQA and the Air District's proposed Draft Air Quality Guidelines in order to develop a distribution of project types and sizes in the Air District's jurisdiction.

44-4 The substantial evidence and justification for adopting the Air District's proposed thresholds are included in the *Proposed Thresholds of Significance* report (November 2, 2009). Air District will assist Lead Agencies in developing CO analyses for construction projects.

44-5 The updated CEQA Guidelines will clarify the screening criteria for the carbon monoxide threshold. The screening criteria will be made less stringent to reflect the fact that a CO analysis is rarely necessary in the Bay Area.

44-6 See master response MR-3 and MR-7.

44-7 The updated CEQA Guidelines provides detailed instructions on local community risk and hazard impacts. See also master response MR-7.

44-8 See comment response 44-7.

44-9 See Master Response MR-3.

44-10 The *Proposed Thresholds of Significance* report (November 2, 2009) provides an explanation of the sensitivity analysis used to develop the proposed thresholds. See also master response MR-7.

44-11 See master response MR-6.

44-12 See master response MR-2 and MR-5.

44-13 See master response MR-8.

#45

CITY OF BERKELEY
Planning and Development
Office of the Director

October 26, 2009

Greg Tholen, Principal Environmental Planner
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109
gtholen@baaqmd.gov

RE: COMMENTS ON CEQA GUIDELINES

Dear Mr. Tholen:

Thank you for the opportunity to comment on the September Draft CEQA Guidelines. As a city that has taken a leadership role in its Climate Action Planning and in its commitment to reducing its greenhouse gas (GHG) emissions, we applaud BAAQMD's efforts to place the Bay Area in the forefront of California regions and the nation in addressing the climate crisis. It is therefore with surprise and concern that we find the proposed Guidelines to fall far short of achieving that goal. Moreover, if adopted without significant modification, the Guidelines would have unintended consequences that would set the region back from the goal we are all trying to achieve. In summary, our most significant concerns include: 45-1

1. The Guidelines would not promote regional smart growth which is fundamental to achieving GHG reduction goals related to land use and transportation.
2. The Guidelines would essentially eliminate the "infill-exemption" for many multi-family infill projects (projects over roughly 80 – 90 units). This exemption is one valuable way to encourage appropriate regional development patterns.
3. The Guidelines place too much and too narrow reliance on jurisdictions adopting enforceable Climate Action Plans for promoting overall policies to reduce GHG at a time when there are no clear metrics or standards for developing and measuring/modeling the efficacy of such plans.

Each of these issues is addressed below, with additional comments following.

Promotion of Regional Smart Growth

Clearly, regional development patterns are the critical issue we must address if we are to accommodate the Bay Area's projected growth in a way that is consistent with achieving GHG reduction goals. The draft BAAQMD guidelines take a myopic approach to the issue of how CEQA should be applied in regard to GHG emissions for land use and transportation. 45-2

Instead of recognizing at the beginning of the process the importance a project's location has on VMT and associated emissions, the draft Guidelines treat all projects as if they had the same impact and then seek to mitigate it. This is backwards and, as discussed below in regard to the Infill CEQA exemption, may set the region back. Rather than treat all projects the same, the Guidelines should begin with the premise that the CEQA process should be minimized for projects consistent with achieving the region's smart growth goals. Under this approach, the Guidelines would define the locational and development criteria that would limit or eliminate any need for air quality impact assessment, especially for GHG emissions. At minimum, applying such criteria would allow for much higher thresholds of significance for a project compliant with smart growth standards than one that is not. 45-2

A similar policy should apply to Climate Action Plans and General Plans meeting criteria for promoting smart growth. Regional Sustainability Plans under SB 375 will not be available for several years. Until the Regional Sustainability plan is prepared, local governments will have no way to account for the regional air quality benefits of a local smart growth strategy when undertaking local plans and development. The draft Guidelines have no measures for how a plan promoting appropriate smart growth infill development can "take credit" for the location of that growth in the region. Meanwhile, each project and each plan, no matter how transit friendly and no matter how "green," will have localized impacts. Those localized impacts may be significant on a local level, while providing significant regional benefits by efficiently accommodating growth with minimum air quality impacts. The Guidelines do not yet account for such regional benefit. While the Guidelines indicate how each project and plan can reduce its impacts with specific measures, the most important benefit of smart growth is not localized or even limited to a few jurisdictions - it is regional. The BAAQMD Guidelines should provide new metrics for determining the regional air quality benefits of specific smart growth strategies. As is discussed below, it will otherwise be several years before Climate Action Plans or the Regional Sustainability Plan will have the data necessary to provide such information for local plans and projects. 45-3

We recommend that BAAQMD establish appropriate GHG metrics and thresholds for projects and plans based on regional location and other smart-growth criteria. As an incentive to appropriate development patterns, BAAQMD should evaluate how its Guidelines can minimize the necessity of undertaking air quality assessments for projects and plans that further appropriate development patterns, and perhaps even provide "GHG Credits" for certain types of projects. 45-4

<u>Elimination of the Infill Exemption for Larger Infill Projects</u>

The thresholds established for when a project may have a significant impact on GHG emissions are the same whether a project is in some residential suburb distant from transit, or Downtown Berkeley. Because locational benefits are only applied as "mitigations" to impacts, the thresholds in the Guidelines becomes the *de facto* standard for determining whether the infill exemption permitted under Section 15332 of the CEQA Guidelines can be used. That exemption is an important incentive for encouraging appropriate development patterns. 45-5

Under the proposed BAAQMD Guidelines, the infill exemption could not be used for a mid-rise project with more than 90 units. For this project under the Draft Guidelines, at least a Negative Declaration would have to be prepared, with higher costs and added time for project review, and more risk for the developer. This is one of the ways in which the Guidelines not only fail to actively encourage development patterns essential to meeting GHG goals, but would make things worse. 45-5

The proposed methodology for determining the level of significance for project-level operational impacts excludes VMT reduction measures included in the project from being considered in the threshold determination. As noted above, the methodology also does not allow for adjustments for project location or local attribute, except as mitigation measures. For example, a large mixed use project on a major transit artery in Berkeley with 100 dwelling units, no parking, free transit passes, and an on-site car sharing pod would generate the same volume of GHG as the same 100-unit building with 100k parking spaces, no transit subsidies, proposed for a low-density spacious suburban subdivision. Both of these projects would have the same threshold level of significance. Given the proposed screening thresholds, neither project could use the infill categorical exemption. The approach in the Draft BAAQMD Guidelines (1) runs counter to the standard CEQA approach used for other types of environmental impacts, (2) will reduce local government's ability to use categorical exemptions, (3) will thereby increase costs of sustainable development, (4) will make future project modifications more costly and time-consuming, and (5) will increase the public's ability to stop high-density projects. BAAQMD could avoid this outcome simply by including the benefits of a project's emission reduction measures and locational benefits in the analysis before deriving a level of significance for GHG emissions. 45-6

We recommend that BAAQMD set forth specific measures for how thresholds should be modified based on smart growth location criteria, and for projects that incorporate specific GHG reduction measures in the project description. 45-7

In addition to allowing the use of location and various project-based measures as part of the thresholds analysis, BAAMD could provide much clearer guidance on the metrics that should be applied when evaluating specific measures. As presented in the Operational Mitigations table for Section 3.3, the vast majority of potential mitigations have a range of potential benefit; and in some instances, the range is itself very large (e.g., 0 – 100 percent, in at least one instance). The Guidelines leave it up to the jurisdiction to figure out and justify the use of any particular factor. Unfortunately, in our experience, the very large range shown for many benefits in this table reflects the state-of-the-art of our understanding of GHG reduction measures. The science of determining quantifiable GHG benefits of specific measures is, in many ways, still in its infancy. Firm metrics are very hard to find, and even harder to justify. 45-8

We recommend that BAAQMD take a leadership role in better defining GHG reduction metrics and do so prior to adopting revised Guidelines.

45-8

The Guidelines also assume that to apply many of these reduction factors, the UREBMIS model will first need to be run. This assumes that an exemption is not available (see previous comments). However, the use of the model itself can significantly raise the cost of a project and increase the amount of time it takes to process it. Few local jurisdictions, if any, have the ability to run this model on their own. That means jurisdictions will be required to establish contracts with consultants and be dependent on their work, timing and costs. This is another instance where rather than require local jurisdictions to raise the costs of appropriate smart growth development, BAAQMD could provide jurisdictions with metrics that can be applied without running a model for each project.

Over-Reliance on Climate Action Plans

The Guidelines' solution to the high cost and increased risk to development of project-by-project CEQA assessment of GHG impacts is for cities to prepare detailed Climate Actions Plans with clear, enforceable mitigations that can achieve specific measurable reductions. This is a laudable goal, but not a realistic one.

45-9

First, the Guidelines make assumptions about the state of local government's ability to produce community inventories and measurable (and enforceable) benefits of specific reduction measures that, based on our work on our CAP, are not achievable at this time, or at least not achievable without a level of time and at a cost that is unrealistic for virtually any local government. Models do exist for quantifying some emissions and emissions reductions, but they are not yet widespread, often expensive, not standardized, and the validity of such models is not fully established.

45-10

Second, there is no standardized protocol for community-level climate planning and emissions accounting. Section 5.2.2.: Guidelines recommend using ARB protocols for community-wide GHG emissions inventories; such protocols do not exist. Jurisdictions employ different methodologies in accounting for the emissions that result from things such as inter-regional trips and solid-waste related emissions. In the absence of a protocol for measuring community-wide emissions and for quantifying emissions reductions, it will be difficult for lead agencies to adhere to the criteria BAAQMD proposes for a Climate Action Plan. Local governments' ability to demonstrate future reductions from specific mitigation efforts is hampered by the lack of a standardized methodology and tools for doing so. This is not reflected in BAAQMD's assumptions.

45-11

Third, CEQA review is generally not possible on municipal or county Climate Action Plans since these plans rarely contain prescriptive policies, but rather have acted as a guidance document or a visionary policy statement. Berkeley has prepared what is considered to be one of the most specific and far reaching Climate Action Plans in the country, and yet that plan would not meet the standards set forth in the BAAQMD document – not only because we did

not prepare an EIR (as the Guidelines would require), but because we found that enforceable strategies for reducing GHG emissions are difficult to define, and measures for determining each strategy's effectiveness, are lacking. In preparing the City of Berkeley's CAP, we reviewed CAPs from all over the country and did not find one that would meet BAAQMD's proposed requirements. The City is working very hard to develop and implement specific GHG reduction strategies and to find and develop better measures of effectiveness for those strategies. Those measures are under development, but are generally not readily available and not standardized. 45-11

We recommend that prior to setting forth standards to be achieved by Climate Action Plans, that the District work directly with a few Bay Area cities to prepare a model CAP, showing how the various inventories and mitigations would fit together to achieve AB 32 goals. We believe the District would thereby become more familiar with the limits of current Climate Action Planning, and help focus it on establishing appropriate metrics for mitigations. Once a model Plan is developed, it would provide invaluable assistance to local jurisdictions and help standardize the approach to Climate Action Planning so that there can be greater accountability. The City of Berkeley would be happy to share with the District our experience in developing a CAP and in developing GHG strategies and measures. 45-12

Metrics are also essential in establishing specific requirements. If we wish to impose a new requirement on development (or on an existing homeowner), it is essential (both politically and legally) to establish a clear nexus between the impact and the requirements imposed to reduce that impact. Until there are clear metrics, new requirements are difficult to justify.

Finally, it would be inefficient for jurisdictions to prepare a climate action plan in the near future, in advance of preparation of the regional Sustainability Plans required by SB 375. Those plans will hopefully provide the regional context for land use and transportation decisions that is currently missing. Since Sustainability Plans are at least 3 – 4 years away, Climate Action Plans meeting the standards set by the draft BAAQMD Guidelines are likely to be unavailable for at least 5 – 7 years. In the interim, cities will be forced to use project-by-project Guidelines. It is therefore critical that those project-by-project guidelines be structured in a way that promotes the regional development goals outlined earlier in these comments. 45-13

Process of CEQA Guidelines Review

We appreciate that the District has done considerable outreach on the Guidelines. However, the recent release of the "Revised Draft Options and Justifications Report, California Environmental Quality Act Thresholds of Significance" has led to considerable confusion. The relationship of this new document to the Guidelines is difficult to easily determine, although the two are clearly related and your website indicates that the "Justifications" report modifies the "Guidelines". Perhaps we have failed to find it, but a clear statement as to exactly how these two relate, and how the "Options" report "modified" the Guidelines report would have been most appreciated. After speaking to BAAQMD staff, the relationship of the two is still not entirely clear to us, and having these two documents released at different times has led to the 45-14

feeling that there is a "moving target" for our comments. It is difficult to absorb and address significant and complex new information late in the process and having only a little over two weeks to do so (the "Justifications" report was only made available on October 8) is impractical. 45-14

We know that many other jurisdictions have been voicing significant concerns over the Guidelines. We respectfully request that BAAQMD not adopt new Guidelines without first responding to comments, revising the Guidelines, and then allowing for another round of review.

In developing revised Guidelines, perhaps a more focused technical advisory group directly involving staff from local jurisdictions might be an effective means of addressing the issues raised. Staff from the City of Berkeley would be happy to participate in such a process.

In conclusion, while we applaud the District's efforts to be a leader on the issue of GHG reduction, we believe that the Draft Guidelines are fundamentally flawed. We urge the district to carefully consider its underlying goals, and devise Guidelines that can better meet those goals. We look forward to being a partner with BAAQMD in moving forward toward achieving our mutual climate action goals.

Sincerely,

Dan Marks, Director of Planning and Development

cc: City Manager
Neal DeSnoo
Timothy Burroughs
Debra Sanderson

Sigalle Michael

From: Gregory Tholen
Sent: Monday, October 26, 2009 5:15 PM
To: Sigalle Michael
Cc: David Vintze
Subject: FW: Additoinal comments on the Guidelines

Greg Tholen
(415) 749-4954

From: Marks, Daniel S. [mailto:DMarks@ci.berkeley.ca.us]
Sent: Monday, October 26, 2009 5:12 PM
To: Gregory Tholen
Cc: Sanderson, Debra
Subject: Additoinal comments on the Guidelines

Greg: as you will note, our formal comment letter focused almost entirely on GHG emissions. We have not had much time to focus on the other Guidlines, but have had issues with the old Guidelines and hope that these issues have been addressed in the new Guidelines. In particular, when we prepared our Downtown Area Plan EIR, we found two issues that may prevent cities from promoting appropriate smart growth development: odor impacts and conformance with the Clean Air Plan. In mixed-use environments, odor impacts from restaurants are often going to occur, and according to the old BAAQMD guidelines, the only mitigation is providing a buffer – which, in high density mixed use transit-oriented environments is clearly counter to the overall intention. We hope that you've identified other means of addressing the odor issue. Second, lack of conformance with the Clean Air Plan is also considered a significant impact. This is a serious problem when cities are proposing to accommodate more growth in smart locations than the Clean Air Plan may have previously anticipated. Because the Clean Air Plan can occasionally lag behind, required conformance with the growth set forth in the plan can prevent cities from "doing the right thing," or require an EIR on a plan that would otherwise be beneficial. Again, I don't know if these two issues have been addressed in the proposed new Guidelines. 45-15 45-16

We also have other questions and concerns with some definitions in the proposed Guidelines, and in regard to other issues (e.g., how to address particulates near freeways), but do not have time to lay them out coherently at this time. As noted in our letter, in our view these Guidelines need additional work and especially more engagement with local government CEQA practitioners who may have struggled with the old Guidelines. Establishing a technical advisory committee including local government CEQA planners, along with some of the stronger regional air quality consultants, might lead to some insights and improvements. 45-17

Comment Letter #: 45
Date: October 26, 2009
From: Dan Marks, Director of Planning and Development, City of Berkeley

Response to Comments:

45-1 Comment noted. Air District staff believes the proposed thresholds of significance for GHG are appropriate given the serious consequences of climate change if left unchecked. The proposed thresholds encourage the type of land use development needed to help reduce the significant adverse effects we now experience from existing sources of GHG.

45-2 The screening tables provided in the revised CEQA Guidelines are not thresholds of significance and will not, based on the screening table alone, trigger a mandatory EIR. They are just screening levels to minimize the need for full analysis in situations where BAAQMD has determined no significant air quality impact would occur because Air District staff have modeled the screening level projects under very conservative assumptions and have determined that such projects will not exceed the applicable thresholds of significance. Most projects will have characteristics, such as nearby transit and services, which will reduce estimated emissions and allow a larger project than indicated in the screening table to be less than significant. Also see Master Response MR-2.

45-3 See Master Response MR-5. The revised CEQA Guidelines provide recommended methodologies that allow well-designed, efficient projects to "take credit" for reducing emissions compared to less efficient projects. In addition, projects located near transit and support services may be able to achieve even lower emission levels and possibly an impact finding of less than significant impacts to air quality.

45-4 See Master Response MR-2.

45-5 See Master Response MR-2.

45-6 See Comment Response 45-2. Well designed projects that incorporate recommended measures in the project proposal are not considered mitigated projects and may still be found less than significant and qualify for a categorical exemption. Also see Master Response MR-1.

45-7 The revised CEQA Guidelines include specific measures that serve to reduce project-related emissions. Project emission estimates consider design and location characteristics in the baseline analysis.

45-8 In response to this and similar comments, Air District staff has worked to improve guidance on applying estimates of mitigation effectiveness. Air District staff will continue to refine the guidance. Air District staff is available to assist with estimating emissions and mitigation efficiency. Air District staff are also developing off-model tools to use in conjunction with the URBEMIS model.

45-9 The Air District acknowledges that many communities will not be able to develop climate action plans in the near future. Many communities have adopted climate-friendly ordinances, such as green building codes, that can be included in climate action plans. Development of climate action should demonstrate consistency with AB 32 at a minimum, and use the best available data.

45-10 The reference to ARB's community-wide protocol has been removed from the Draft Guidelines. The new draft recognizes the absence of protocols/standardized methodologies for GHG quantification, and provides some guidance for quantifying community emissions. The new draft emphasizes the Air District's leadership position in working with ARB to develop a protocol or standard methodology for measuring community-wide GHG emissions as quickly as possible. In the absence of such a protocol/methodology, the Draft Guidelines recommend a variety of models that local governments can use that provide estimates of future GHG reductions from mitigation measures that satisfy the Air District's criteria for qualified climate action plans. Some of these models are inexpensive, well-established, and in wide use by consulting firms and local governments (EPA WARM, ICLEI Clean Air Climate Protection Software). In the interim period between release of these Guidelines and ARB's development of a community-wide GHG protocol, the Air District considers use of established models recommended in the Guidelines as credible sources for GHG estimations in local climate action plans.

45-11 The proposed Air District recommendation does not include climate action plans being analyzed in an EIR, only that a CEQA document and environmental review take place. A negative declaration is a sufficient level of environmental review. In fact, some communities in the Bay Area have proposed adoption of a negative declaration in the review of a climate action plan.

45-12 The Air District is continually working to enhance existing metrics to quantify community GHG emissions and climate action plan recommendations. Air District staff are prepared to assist local agencies prepare climate action plans.

45-13 See Master Response MR-5.

45-14 See Master Response MR-8.

45-15 The revised CEQA Guidelines do not address assessing odor impacts from restaurants. Air District staff will consider this comment when revising odor methodologies in the future.

45-16 Based on this and similar comments, the proposed thresholds of significance for plan consistency with air quality plans have been revised.

45-17 Comment noted. Air District staff believes the revised CEQA Guidelines are much improved over the existing Guidelines.

#46

California Council for Environmental and Economic Balance
100 Spear Street, Suite 805, San Francisco, California 94105
415-512-7890 phone, 415-512-7897 fax, www.cceeb.org

October 26, 2009

Mr. Greg Tholen
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Dear Mr. Tholen:

RE: Proposed California Environmental Quality Act (CEQA) Draft Air Quality Guidelines[1]

The California Council for Environmental and Economic Balance (CCEEB) is a coalition of business, labor and public leaders, which strives to advance collaborative strategies for a strong economy and a healthy environment.

We have numerous members who operate many different kinds of facilities under the jurisdiction of the Bay Area Air Quality Management District. We wish to take this opportunity to convey some of our interests regarding the District's CEQA Draft Air Quality Guidelines ("Draft" or "CEQA Guide").

CCEEB has four overarching interests in the CEQA Guide:

1. The CEQA Guide should harmonize with the SB 375 RTAC Report and soon-to-be-adopted State CEQA Guidelines; 46-1
2. The CEQA Guide should support a clear path for the review and approval of projects necessary to achieving the goals of AB 32; 46-2
3. The GHG threshold of significance should be considered interim in anticipation of action by the state Air Resources Board to recommend a statewide and consistent threshold of significance; and 46-3
4. Given the importance of the recently introduced "Community Risk Reduction Plans," we believe the concept should be further defined and developed. 46-4

Harmonizing the CEQA Guide with SB 375 and the State CEQA Guidelines

A principle interest of ours is to ensure that the District's guidance to local lead agencies and project applicants in evaluating air quality impacts under CEQA harmonize with the State's CEQA Guidelines and the recommendations of the SB 375 Regional Targets

[1] We subsume under this title the companion paper titled "Revised Draft Options and Justification Report California Environmental Quality Act Thresholds of Significance."

Advisory Committee. The final SB 375 RTAC recommendations are scheduled for consideration by the California Air Resources Board on November 19, 2009. The Secretary for Natural Resources is expected to certify and publish by December 31, 2009 a final set of amendments to the State CEQA Guidelines. Considering the potential benefits of harmonizing the District's work with these two important and related state efforts, CCEEB respectfully requests that the District allow additional time for public to review the BAAQMD CEQA Guide in the context of the Air Resources Board's directions with respect to the RTAC report and the Secretary's approval of the State CEQA Guidelines amendments.

- The SB 375 RTAC report lays out a planning process that brings together regional and local interests in reducing greenhouse gas emissions through "Sustainable Communities Strategies" that align planning efforts for regional and local transportation, land use and housing needs. The District's CEQA Guide misses the opportunity to offer lead agencies and project applicants guidance with respect to air quality and Sustainable Communities Strategies.
- The State Guidelines introduce some very important changes to the administration of CEQA with respect to GHG emissions, especially with regard to "overriding considerations," mitigation (including off-site mitigation), "tiering" and CEQA review "streamlining." The District's CEQA Guide could provide valuable assistance to lead agencies and project applicants with respect to the application of these important changes to projects and plans in the Bay Area.

A Clear Path for GHG Emissions Impact Analysis

One area of considerable interest to CCEEB is how to improve the CEQA review process for projects with GHG impacts and, in particular, projects necessary to the implementation of AB 32 ("AB 32 projects").

CCEEB appreciates the District's approach to developing thresholds of significance for GHG emissions that will effectively eliminate unnecessary analysis of GHG impacts from countless small projects subject to CEQA. CCEEB urges the District to expand this concept beyond the current Draft by including:

- Appropriate screening information to identify large projects for which GHG analysis may be unnecessary due to the project's compliance with regulations implementing the Air Resources Board's AB 32 Scoping Plan; 46-5
- Guidance concerning the means for mitigating significant GHG emissions impacts to less-than-significant, including off-site measures; and 46-6
- Directives necessary to expedite the CEQA review of AB 32 projects under existing law. 46-7

CCEEB believes that large projects resulting in net societal GHG emissions reduction benefits (e.g., refinery retrofit to produce low carbon fuels) deserve assurances that the 46-8

contributions of such projects to AB 32 goals will be realized in an expeditious manner. In order to accomplish this goal, the District's Guide should be carefully aligned with provisions of the proposed State CEQA Guidelines addressing "overriding considerations," "tiering" and "streamlining" for GHG impacts analysis. 46-8

Work towards a Statewide Threshold of Significance for Greenhouse Gases

CCEEB believes that the state Air Resources Board (ARB) has the authority under AB 32, as the state agency responsible for regulating GHG emissions, and authority under the CEQA statute to provide statewide guidance on the application of CEQA to projects. We encourage the District to adopt an interim threshold as part of its own CEQA Guide and to work with CCEEB and other stakeholders to urge the ARB to act and develop statewide guidance. 46-9

Better Define and Develop the "Community Risk Reduction Plan" (CRRP)

An earlier draft of the CEQA Guide was predicated on CEQA thresholds of significance differentiated between "impacted communities" and non-impacted communities. In the current Draft, district staff proposes to replace the use of differential thresholds of significance with the application of CRRPs. As we understand it, a qualified CRRP adopted by a local jurisdiction that includes enforceable measures to reduce community risks to acceptable levels would serve as a platform for the CEQA review of proposed development projects. This proposal appears to be a step in the right direction. 46-10

CCEEB is nevertheless concerned that the CRRP concept as presented is untested. CCEEB believes that a more thorough development of the concept should be available to the public before the Board is asked to adopt it. Among other things, the CRRP concept:

- Blurs the distinction between who adopts a plan (e.g., a city) and who enforces it (the city through land use controls or the District through emission controls?).
- How is "acceptable risk" determined? And by which entity or agency?
- How would the boundaries of a CRRP be determined?
- What happens if a community at risk spans more than one political subdivision?
- What happens when the emission sources that contribute to a community's health risk are located in a different political jurisdiction?
- What is the relationship between a CRRP and a local General Plan?
- How might a CRRP be funded?
- How might proposed development projects be evaluated before a CRRP is CEQA-certified? etc.

CCEEB wishes to offer its support in further developing this concept. The potential for such plans to encompass a broad range of factors contributing to public health risks holds the promise of being better suited to addressing cumulative impacts from multiple emission sources. As such, we encourage the District to engage Cal/EPA and U.S. EPA to determine whether the CRRPs might be able to leverage existing and future work on

cross-media and cumulative impacts by these agencies. Furthermore, Cal/EPA and U.S. EPA might be able to provide partial funding and other resources for any pilot.. For example, Cal/EPA administers a small grant program that could help underwrite community organizations' participation in developing a CRRP. Likewise, U.S. EPA provides grants through its Community Action for Renewed Environment program for community-based partnerships to develop local environmental priorities.

46-10

One clear advantage of the CRRP approach is that, depending on how it is designed and its scope, it could begin to address *existing* problems in impacted communities. This has been a major hurdle for other approaches that place the regulatory burden on "last one in," i.e., new sources and new development projects, which tend to be more efficient and "greener" than existing facilities. The CRRP approach could also be designed to address both environmental impacts *and* factors that influence individual susceptibility, a much more comprehensive and integrative approach to improving public health.

46-11

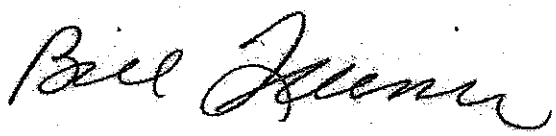
Beyond the substantive issues noted above, CCEEB respectfully suggests that the CEQA Guide should be organized and presented in a manner that supports the implementation of not only CEQA but also the State's CEQA Guidelines. State CEQA Guidelines are very closely tied to current statute and case law and each section of the State CEQA Guidelines is supported by explicit statutory and case law references. CCEEB urges the District to consider formatting its CEQA Guide consistent with the State CEQA Guidelines by providing:

- An explanation of how provisions of the Guide and the State CEQA Guidelines work together;
- Appropriate citations of statutory authority and case law for each interpretation or application of CEQA in the Guide; and
- A discussion of the necessity for changes proposed in the District's CEQA Guide.

Clearly, we have many questions about the proposal. We would sincerely like the opportunity to meet with you and your colleagues to review these concerns.

Thank you.

Sincerely,



William J. Quinn
Vice President and Chief Operating Officer

cc: Mr. Henry Hilken
Members, CCEEB's Bay Area Partnership

Comment Letter #: 46
Date: October 26, 2009
From: William Quinn, Vice President, California Council for Environmental and Economic Balance

Response to Comments:

46-1 See Master Response MR-5.

46-2 The proposed GHG thresholds in the *Proposed Thresholds of Significance* report (November 2, 2009) are based on achieving the goals of AB 32 and actions included in ARB's Scoping Plan. See Master Response MR-3

46-3 Early on the Air District worked closely with the California Air Resources Board (CARB) to develop a statewide GHG threshold. However, it is our understanding that CARB's work on developing a statewide GHG threshold has been delayed or suspended. Given the increasing urgency to address the impacts of climate change, repeated calls for assistance from local Bay Area agencies on how to address climate change in CEQA analyses and the absence of direction from state agencies, the Air District feels it is appropriate and necessary to move forward with an interim CEQA threshold for GHG emissions. As stated in the *Proposed Thresholds of Significance* report (November 2, 2009), the proposed GHG thresholds are interim thresholds and will be revisited when CARB develops a statewide GHG threshold.

46-4 The updated CEQA Guidelines will provide a broad view of what Staff anticipates will be required in a Community Risk Reduction Plan (CRRP). Understanding that no such plans yet exist in the Bay Area, the Air District will initiate a public process to engage stakeholders in identifying steps and defining criteria for a CRRP. The public engagement process will work to answer the CCRP questions raised by the commenter. Staff will consider the commenter's suggestion to include Cal/EPA and US EPA in the engagement process.

46-5 The updated CEQA Guidelines will provide screening criteria for the GHG threshold. However, it is likely that very large projects would surpass the screening criteria, and without any implemented mitigation measures, may be found to have a significant impact on air quality. Compliance with existing regulations would not be considered mitigation for a project.

46-6 The updated CEQA Guidelines will contain numerous recommended mitigation measures to assist lead agencies in mitigating their project emissions to be less than significant.

46-7 The plan-level GHG threshold in the *Proposed Thresholds of Significance* report recommends that proposed projects be assumed to have a less than significant impact if they are consistent with: a an agency's qualified climate action plan; or consistent with similar criteria in an agency's general plans; or are consistent with a collective set of climate action policies, ordinances, and other projects that are consistent with AB 32. If a proposed project is consistent with any of the terms noted above, than its CEQA review would be expedited. This threshold is in line with the commenter's suggestion.

46-8 See Master Response MR-5.

46-9 See comment response 46-3.

46-10 See comment response 46-4.

46-11 The State CEQA Guidelines are California administrative law. The Air District endeavors to make the BAAQMD CEQA Guidelines consistent with the State CEQA Guidelines. In instances where BAAQMD CEQA Guidelines conflict with the State CEQA Guidelines, the State CEQA Guidelines prevail. The CEQA Guidelines and its appendices will provide citations of statutory authority and case law applications as appropriate. The *Proposed Thresholds of Significance* report (November 2, 2009), to be included as Appendix C in the updated CEQA Guidelines, contains a discussion of the necessity for the changes proposed in the CEQA Guidelines.

#47

CITY OF NEWARK, CALIFORNIA

37101 Newark Boulevard • Newark, California 94560-3796 • (510) 578-4000 • FAX (510) 578-4306

October 26, 2009

Greg Tholen, Principal Environmental Planner
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109
gtholen@baaqmd.gov

RE: COMMENTS ON DRAFT CEQA GUIDELINES

Dear Mr. Tholen:

We appreciate the opportunity to comment on the September Draft CEQA Guidelines. The City of Newark has serious concerns that these proposed guidelines would have the unintended consequences of undermining the regions efforts to develop in a more sustainable way. The location and density of development is critical in reducing not only green house gas emissions but other environmental and social impacts. The location of housing near job centers, in areas with developed public transit networks, at a density that promotes alternative transportation, is THE key factor is reducing greenhouse gas emissions. The proposed guidelines unfortunately do not effectively incorporate this important fact, and actually undermine the City of Newark's and the Region's efforts to address this important issue. 47-1

The proposed Guidelines:

- would not promote regional smart growth which is critical to achieving GHG reduction goals related to land use and transportation.
- would curtail the "infill-exemption" for many multi-family infill projects. This exemption is an important way to encourage regional development patterns that will lead to reduced per capita green house gas emissions.
- rely far too much on jurisdictions adopting enforceable Climate Action Plans for promoting overall policies to reduce GHG at a time when there are no resources available or clear metrics or standards for developing and measuring/modeling the efficacy of such plans.

Each of these issues is addressed below.

Regional Smart Growth

Regional development patterns are THE critical issue we must address if we are to accommodate the Bay Area's projected growth in a way that is consistent with achieving 47-2

GHG reduction goals. The draft BAAQMD guidelines, instead of recognizing at the beginning of the process the importance a project's location has on VMT and associated emissions, the draft guidelines treat all projects as if they had the same impact and then seek to mitigate it. The guidelines should define the location and development criteria that would limit or eliminate any need for air quality impact assessment, especially for GHG emissions. The guidelines should support and encourage, not undermine the efforts to locate development in the "right" places. 47-2

Each project and each plan, no matter how "green", will have local impacts. Those impacts may be significant on a local level, while at the same time providing significant regional benefits by efficiently accommodating growth with minimum air quality impacts. The proposed guidelines ignore such regional benefit. While the proposed guidelines indicate how each project and plan can reduce its impacts with specific measures, the most important benefit of smart growth is not localized or even limited to a few jurisdictions - it is regional.

Elimination of the Infill Exemption

In the proposed guidelines, the thresholds established for when a project may have a significant impact on green house gas emissions are identical whether a project is in a suburb distant from jobs and transit or next to thousands of jobs and well served by transit. Because, in the proposed guidelines, benefits derived from the location of projects are only applied as "mitigations", the thresholds in the guidelines become the standard for determining whether the infill exemption permitted under Section 15332 of the CEQA Guidelines can be used. That exemption is an important incentive for encouraging appropriate development patterns and this tool to reduce green house gas emissions should be should be utilized, not gutted. 47-3

Reliance on Climate Action Plans

The preparation of detailed Climate Actions Plans with clear, enforceable mitigations that can achieve specific measurable reductions is a laudable goal, but not a realistic one in the short to medium term.. Thus the reliance of the guidelines on Climate Actions Plans to reduce the high cost of CEQA assessments of greenhouse gas emissions is an hollow promise. The proposed guidelines make assumptions about the state of local government's ability to produce community inventories and measurable (and enforceable) benefits of specific reduction measures that are not achievable without an unrealistic level of time and at a cost. 47-4

In addition local governments' ability to demonstrate future reductions from specific mitigation efforts is hampered by the lack of a standardized methodology and tools for doing so.

Conclusion

We respectfully request that BAAQMD not adopt new guidelines without first responding to comments, revising the guidelines, and then allowing for another round of review.

47-5

We applaud the District's efforts to be a leader on the issue of GHG reduction; however we believe that the draft guidelines are an unfortunate step backwards. We urge the district to carefully consider its underlying goals, and devise guidelines that can better meet those goals. In revising the guidelines, a focused technical advisory group directly involving staff from local jurisdictions might be an effective means of addressing the issues raised. City of Newark staff would be pleased to participate in such a process. We look forward to working with BAAQMD in revising the guidelines to address our mutual goals.

Sincerely,

Terrence Grindall

Terrence Grindall
Community Development Director
City of Newark

Comment Letter #: 47
Date: October 26, 2009
From: Terrence Grindall, Community Development Director, City of Newark

Response to Comments:

47-1 Comment noted. Air District staff believes the proposed thresholds of significance for GHG are appropriate given the serious consequences of climate change if left unchecked. The proposed thresholds encourage the type of land use development needed to help reduce the significant adverse effects we now experience from existing sources of GHG.

47-2 The screening tables provided in the revised CEQA Guidelines are not thresholds of significance and will not, based on the screening table alone, trigger a mandatory EIR. Rather, they are just screening levels to minimize the need for full analysis in situations where BAAQMD has determined no significant air quality impact would occur because Air District staff have modeled the screening level projects under very conservative assumptions and have determined that such projects will not exceed the applicable thresholds of significance. Most projects will have characteristics, such as nearby transit and services, which will reduce estimated emissions and allow a larger project than indicated in the screening table to be less than significant. Also see Master Response MR-2.

47-3 See Master Response MR-2.

47-4 The Air District acknowledges that many communities will not be able to develop climate action plans in the near future. Many communities have adopted climate-friendly ordinances, such as green building codes, that can be included in climate action plans. Development of climate action should demonstrate consistency with AB 32 at a minimum, and use the best available data.

47-5 Comment noted. Air District staff believes the proposed thresholds of significance effectively identify levels of development that should be considered significant for each impact area. The Air District has developed the proposed threshold and revised CEQA Guidelines through a long public review process. We encourage and welcome input from local agencies and the public.

#48

CENTER *for* BIOLOGICAL DIVERSITY

October 26, 2009

Via Electronic Mail

Greg Tholen
Principal Environmental Planner
Bay Area Air Quality Management District
gtholen@baaqmd.gov

Re: Comments on October 2009 Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance

Thank you for the opportunity to comment on the Bay Area Air Quality Management District's ("BAAQMD") Revised Draft Options and Justification Report on California Environmental Quality Act Thresholds of Significance ("Thresholds Report"). The Center for Biological Diversity ("Center") is a non-profit conservation organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center's Climate Law Institute works to reduce greenhouse gas emissions to protect biological diversity, our environment, and public health. The Center has over 42,000 members, many of whom reside in the Bay Area.

The Center appreciates BAAQMD's work in developing thresholds of significance for greenhouse gas impacts. As noted by the Air Resources Board in its Draft Proposal for a greenhouse gas threshold, any non-zero threshold "must be sufficiently stringent to make substantial contributions to reducing the State's GHG emissions peak, to causing that peak to occur sooner, and to putting California on track to meet its interim (2020) and long-term (2050) emissions reduction targets." (ARB, Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under CEQA at 4 (Oct. 24, 2008).) As recognized by ARB, achieving the deep emission reductions necessary to avert the worst impacts of global warming will be all the more difficult if new projects continue to release additional greenhouse gas pollution into an already oversaturated atmosphere.

A stringent significance threshold for greenhouse gases is not only called for by the scientific and factual data on global warming,[1] but also serves to minimize litigation

[1] Attached are comments submitted by the Center to SCAQMD as part of its threshold development process detailing some of the scientific and factual data on global warming. In addition to the scientific studies referred to in these comments, the IPCC has estimated that to stabilize atmospheric greenhouse gas concentrations at 450 ppm CO_2eq, a level that is increasingly viewed as posing unacceptable risks of catastrophic climate impacts, developed countries would need to reduce greenhouse gas emissions to 25-40% below 1990 levels by 2020 and to 80 to 95% below 1990 levels by 2050. S. Gupta et al., *Policies, Instruments and Co-operative Arrangements, in* CLIMATE CHANGE 2007: MITIGATION, CONTRIBUTION OF

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risk for lead agencies. CEQA requires that a lead agency must "still consider any fair argument that a certain environmental effect may be significant" even where a project complies with a regulatory threshold. *Protect the Historic Amador Waterways v. Amador Water Agency*, 116 Cal. App. 4th 1099, 1109 (2004). Because application of a threshold with limited effectiveness at reducing emissions would still result in significant environmental effects, reliance on a threshold that is not highly effective at reducing greenhouse gas emissions or is inconsistent with an emission reduction trajectory necessary to minimize the risk of dangerous climate change leaves projects open to legal challenge.

The Threshold Report appears to be a thoughtful effort to develop an appropriately stringent greenhouse gas threshold that would also provide additional certainty to lead agencies. We support the use of a stringent quantitative threshold of significance for greenhouse gases. We do, however, have serious concerns with the currently proposed use of a per capita metric to determine significance at the project level.

1. Application of a per capita standard at the general plan or climate action plan level

With regard to a plan level GHG Threshold option, the Threshold Report proposes a per capita metric for residential and mixed use development that is a tailored to a per capita target under AB 32 for 2020 from the land use sector.[2] Use of a per capita approach makes sense in the context of a climate action plan or general plan, which looks at the emissions collectively resulting from existing and planned development. As recognized in the Threshold Report, a per capita approach to determining significance at the plan level may be more appropriate than measuring emissions against 1990 levels, which may improperly relieve cities that have not grown since 1990 from their obligation to reduce emissions and unduly burden cities that have experienced rapid growth since that time. Were a general plan or climate action plan to demonstrate it meets this per capita level (with addition reductions occurring after 2020) and complies with the other requirements set forth in proposed CEQA Guideline § 15183.5, projects complying with the general plan or climate action plan could take advantage of CEQA's streamlining provisions with regard to the analysis of greenhouse gas impacts. 48-1

2. Application of a per capita standard at the project level

The per capita metric used for general plans reflects average per capita emissions when both existing and new development is taken into account. Because older development tends to be less efficient per capita due to less stringent regulations and available technologies at the time of construction and siting that may not have prioritized proximity to jobs and public transit, new development must be more efficient and better

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WORKING GROUP III TO THE FOURTH ASSESSMENT REPORT OF THE INTERNATIONAL PANEL ON CLIMATE CHANGE 776 (2007).

[2] The scaled-down per capita number appears to be derived from land use driven emissions discussed in Step 2 on page 41 of the Threshold Report. It would be helpful if the method by which this number was derived was more clearly articulated in Section 4.3.2.1 of the Threshold Report.

located than the community average in order for the community as a whole to achieve its overall per capita objectives. *Therefore, in the project-level context, there is no legitimate basis to apply the same per capita standard used to determine significance for a general plan as currently proposed in the Threshold Report.* If a per capita metric is to be used to determine significance at the project-level, it must be more stringent than that used to determine significance for a general plan or climate action plan. 48-2

The basis for a per capita project-level threshold seems to be to avoid additional barriers to highly efficient, well designed, and well located projects that are consistent with a low-carbon future. As described in the Threshold Report:

> [A] large high-density infill project located in an urban core nearby to public transit and other alternative transportation options, and built using state-of-the-art energy efficiency methods and improvements such as solar panels, as well as all other feasible mitigation measures, would not become significant for greenhouse gas purposes (and thus require a statement of overriding considerations in order to be approved) simply because it happened to be a large project. Projects such as this hypothetical development with low greenhouse-gas emissions per capita are what California will need in the future in order to do its part in achieving a solution to the problem of global climate change.

(Threshold Report at 53.) Per capita emissions from the type of project described above would be much less than the per capita average for the community. For example, the EIR for the Sonoma Mountain Village Project, a proposed 200-acre mixed use, LEED-ND, solar powered, zero waste community, estimates per capita emissions at 2.7 tons (with total emissions under 10,000 tons). (DEIR, Sonoma Mountain Village, SCH # 2007052116 at 3.5-18, available at http://www.ci.rohnertpark.ca.us/Modules/ShowDocument.aspx?documentid=2330#page=532).

By failing to scale down the community wide per capita number for a project-level analysis, the Proposed Thresholds do not effectuate the intent of letting only well situated and well designed projects reach a less than significant determination if emissions are above the proposed 1,100 tons quantitative threshold. By applying the general plan per capita number as currently proposed, projects that do not have these attributes, are inconsistent with a low-carbon future, and perhaps not the type of project envisioned by BAAQMD as those properly taking advantage of this threshold can make a less-than-significant finding because they comply with community-wide per capita objectives consistent with near-term 2020 emission reduction targets. For example, Newhall Ranch, a massive proposed development on open space located on the fringe of Los Angeles County, far from jobs and public transit, calculated per capita emissions at 5.4 tons (with total project emissions over 340,000 tons). (Newhall Ranch DEIR/S at 8.0-58, available at http://www.dfg.ca.gov/regions/5/newhall/docs/.) If a per capita threshold is to be used at the project level, it should be set at a level no higher than one that captures the attributes of a very well-designed and well-located infill project so that it

does not inadvertently let projects without these characteristics claim that their greenhouse gas impacts are less than significant.

An additional concern with the per capita project-level threshold is that it has no upper bound on total project emissions. Thus, any project, regardless of its actual emissions, could be considered less than significant. Absent a programmatic analysis through a climate action plan or similar document, the notion that any quantity of emissions from a project is less than significant provided the project meets certain performance criteria is not supportable. Depending on community needs, a large project resulting in significant greenhouse gas emissions, though efficient on a per capita basis, may undermine community-wide emission reduction objectives. Were a large project consistent with qualified climate action plan as described under proposed Guideline § 15183.5, it could tier off this document and determine its greenhouse gas impacts are less than significant. However, because greenhouse gas emissions must be significantly reduced from existing levels to reduce the risk of severe climate impacts, there is no scientific basis to conclude that large new sources of emissions, when viewed in isolation without the support of a programmatic document, are not cumulatively considerable. Therefore, the proposed per capita threshold would be more defensible if it acknowledged that even if a project met a per capita objective, at a certain level of emissions, it could not legitimately conclude that its greenhouse gas emissions were not cumulatively considerable absent a demonstration of consistency with a qualified climate action plan.

An upper boundary on a per capita project-level threshold would presumably relate to the stringency of the per capita number. While it might be helpful to look at the most forward-thinking and sustainable developments in the Bay Area to formulate a per capita project-level threshold and upper limit to its application, the Sonoma Mountain Village Project would suggest that a per capita emission under 3 tons per person with an upper boundary of 10,000 tons of emissions may be appropriate.

3. Use of the phrase "fair share" in the Threshold Report creates needless ambiguity

Section 4.2.3.8 repeatedly uses the phrase "fair share" to describe the expectations of reductions from the land use sector under AB 32. As recognized in the Scoping Plan for AB 32, because local governments are "essential partners in achieving California's goals to reduce greenhouse gas emissions" they should do their part in ensuring that greenhouse gas pollution is reduced. (AB 32 Scoping Plan at 26.) However, characterizing the expectations for the land-use sector and the contribution of local governments as a "fair share" in the CEQA context is confusing and misleading. In CEQA "fair share" typically refers to a monetary contribution to a mitigation fund that is proportionate to the project's impact. *See, e.g., Anderson First Coalition v. City of Anderson*, 140 Cal. App. 4th 1173, 1187-88 (2005). While the concept of "fair share" is part of the consideration of the mitigation of project impacts, it has nothing to do with the determination of significance. In the context of a resource that is near or at capacity, the relevant question for the purposes of determining significance is the extent to which the

48-3

project contributes to the cumulative problem, not whether what the project is doing can be viewed as equitable in light of expectations for existing projects that also impact that resource. *See Kings County Farm Bureau v. City of Hanford*, 221 Cal.App.3d 692, 718-21 (1990) (relevant question in determining cumulative impacts of project on ozone "to be addressed in the EIR is not the relative amount of precursors emitted by the project when compared with preexisting emissions, but whether any additional amount of precursor emissions should be considered significant in light of the serious nature of the ozone problems in this air basin.") To avoid ambiguity, references to "fair share" in regards to reaching a determination of significance under CEQA should be removed from the Thresholds Report. 48-3

Thank you for your consideration of these comments. Please do not hesitate to contact Matthew Vespa at (415) 436-9682 x309 or mvespa@biologicaldiversity.org if you have any questions or concerns.

Sincerely,

Matthew Vespa

Matthew Vespa
Senior Attorney

Attachment: Letter dated April 15, 2009 from the Center for Biological Diversity to South Coast Air Quality Management District re: Comments on Survey of CEQA Documents on Greenhouse Gas Emissions Draft Work Plan and Development of GHG Threshold of Significance for Residential and Commercial Projects.

cc: David Vintze
Sandy Crockett

CENTER *for* BIOLOGICAL DIVERSITY

April 15, 2009

Via Electronic Mail

Elaine Chang
Deputy Executive Officer
Planning, Rule Development, and Area Sources
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4182
echang@aqmd.gov

Re: Comments on Survey of CEQA Documents on Greenhouse Gas Emissions Draft Work Plan and Development of GHG Threshold of Significance for Residential and Commercial Projects

This letter provides comments from the Center for Biological Diversity ("the Center") on the "Survey of CEQA Documents on Greenhouse Gas Emissions Draft Work Plan" as well as SCAQMD's continuing efforts to develop a greenhouse gas (GHG) threshold of significance for residential and commercial projects.

SCAQMD's survey of the GHG emissions from residential, commercial, and mixed-use projects should yield valuable data on the range of emissions resulting from these types of Projects in the South Coast air basin. Under the Work Plan, SCAQMD will use this data "to determine the level of GHG emissions for residential and commercial projects that constitute the 90th percentile ... or other percentile desired." (Work Plan at 1.) According to SCAQMD, a threshold based on the 90% capture of sector emissions is consistent with the long-term emission reduction objectives set by Executive Order S-3-05, which calls for emission reductions to 80% below 1990 levels by 2050, or 90% below current levels. (SCAQMD Interim GHG Significance Threshold Staff Proposal (revised), at 3-2.) Compliance with Executive Order S-3-05 targets is presumed to be sufficient "to contribute to worldwide efforts to cap GHG concentrations at 450 ppm, thus, stabilizing the climate." (*Id.*)

While the Center appreciates SCAQMD's recognition that a GHG threshold must be based on long-term climate stabilization objectives, the best available scientific data now indicates that the threats posed by even small increases in temperature are far greater than previously thought. Stabilization of greenhouse gas emissions at 450 ppm as contemplated under Executive Order S-3-05 is insufficient to minimize the risk of catastrophic outcomes. Therefore, the capture of 90% of emissions from the residential and commercial sectors, which is based on compliance with Executive Order S-3-05, is

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not a sufficiently stringent capture rate to sufficiently contribute to preventing dangerous climate change.

Importantly, while the emission reduction targets embodied in AB 32 and Executive Order S-3-05 can inform a significance determination, it is only to the extent that these targets accurately reflect scientific data on needed emissions reductions. Under CEQA, regulatory standards can serve as proxies for significance where they accurately reflect the level at which an impact can be said to be less than significant. *See, e.g., Protect the Historic Amador Waterways v. Amador Water Agency,* 116 Cal. App. 4th 1099, 1109 (2004).

To ensure that an adopted threshold of significant is an accurate reflection of scientific and factual data, this letter sets for the best available science on climate change. As set forth below, the best available science most strongly support a threshold of zero. The further a threshold is from zero, the more tenuous the evidence to support a determination that the threshold is effective at meeting the environmental objective of avoiding dangerous climate change. Framed in the context of SCAQMD's methodology, the future a threshold is from a 100% capture rate, the more tenuous the evidence to support a determination that the threshold is effective. Accordingly, in the event SCAQMD is unwilling to set a zero threshold, SCAQMD should consider increasing the capture rate beyond 90% and also require projects with emissions less than this threshold to adopt measures to reduce their GHG emissions before reaching a determination that project impacts are less-than-significant. A non-zero quantitative threshold – assuming it is sufficiently stringent – coupled with performance standards that projects under this threshold must adopt recognizes that all projects must be part of the solution to global warming and would seem to be more equitable and defensible than a bright-line non-zero threshold alone.[1]

Finally, with regard to the Work Plan itself, it would be helpful to included data on emissions from categorically exempt projects. In the debate over an appropriate threshold of significance for GHGs, arguments have been forwarded that a low threshold would eliminate the application of categorical exemptions. Whether or not this is the case, actual data on the emissions typically resulting from projects invoking a categorical exemption would better inform this discussion.

1. A GHG Threshold That Purports to Be Consistent with Executive Order S-3-05 Emission Reduction Targets Is Insufficient to Prevent Dangerous Climate Change

CEQA calls for the identification of "any critical thresholds for the health and safety of the people of the state." Pub. Res. Code § 21000(d). With regard to GHGs, this

[1] Were the District to adopt a non-zero threshold, a quantitative threshold that does not require projects under this threshold to take any action to reduce GHGs may also create an improper *de minimis* exception. *See, e.g., Communities for Better Env't v. California Resources Agency,* 103 Cal. App. 4th 98, 121 (2002) ("Focusing on the de minimis effect in absolute terms isolates the effect individually, and this runs counter to the combined approach that CEQA cumulative impact law requires.").

critical threshold is avoiding dangerous anthropogenic interference (DAI) with the climate system. Article 2 of the United Nations Framework Convention on Climate Change (UNFCCC) calls for "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference (DAI) with the climate system."[2] With the United States and over 180 other countries as signatories, the UNFCCC's objective of avoiding DAI with the climate is widely viewed as the international regulatory standard for protecting the global climate. The environmental objective of avoiding DAI is recognized in ARB's Draft GHG Threshold Guidance. (ARB Preliminary Draft Staff Proposal, Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the CEQA ("ARB Draft GHG Threshold"), Oct. 24, 2008 at 3.) In its Policy Objective for the Interim GHG Threshold for Industrial Projects, SCAQMD seems to set a roughly analogous objective of "reducing GHG emissions to stabilize climate change." (SCAQMD Interim GHG Significance Threshold Staff Proposal (revised), at 3-2.)

The policy objectives of both ARB and SCAQMD's threshold proposals both state that reaching the emission reduction targets set forth by Executive Order S-3-05, whereby emissions are reduced to 80% below 1990 levels by 2050, would contribute to avoiding dangerous climate change because these reductions are consistent with a pathway to the stabilization of atmospheric concentrations of GHG emissions at 450 ppm. (ARB Draft GHG Threshold at 3; SCAQMD Interim Threshold Proposal at 3-2.) Stabilization of GHGs at 450 ppm provides a 50/50 chance of limiting mean temperature rise to 2°C above pre-industrial levels.[3]

A pathway toward stabilization of GHGs at 450 ppm presents two serious concerns. First, the best available scientific evidence now indicates that a warming of 2°C is not "safe" and would not prevent dangerous interference with the climate system. Second, because the consequences of overshooting a 2°C threshold could include the displacement of millions due to sea level rise, irreversible loss of entire ecosystems, and the triggering of multiple climactic "tipping points" wherein climate change begins to feed on itself and spin rapidly out of control, the risk tolerance for overshooting a 2°C temperature rise should be extremely low. Yet a stabilization target of 450 ppm seems content to, at best, flip a coin in the hopes that future generations are not left with few choices beyond mere survival. While the emission reduction targets set forth under Executive Order S-3-05 is a significant improvement from business-as-usual, because these targets are insufficient to adequately minimize the risk of DAI, compliance with Executive Order S-3-05 is not a sufficiently stringent objective from which to develop a threshold of significance.

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[2] United Nations Framework Convention on Climate Change, art. 2, May 9, 1992, *available at* http://unfccc.int/essential_background/convention/background/items/1349.php.

[3] Union of Concerned Scientists, *How to Avoid Dangerous Climate Change: A Target for U.S. Emissions* 3 (Sept. 2007); Malte Meinshausen, *What Does a 2°C Target Mean for Greenhouse Gas Concentrations? A Brief Analysis Based on Multi-Gas Emission Pathways and Several Climate Sensitivity Uncertainty Estimates* in AVOIDING DANGEROUS CLIMATE CHANGE 268 (Cambridge Univ. Press 2006).

Projected risks and damages from global warming are more serious than believed even a few years ago. In 2001, the Intergovernmental Panel on Climate Change (IPCC) used five Reasons For Concern (RFCs) in its Third Assessment Report (TAR) to illustrate the temperature range at which impacts may be considered dangerous.[4] Relationships between the impacts reflected in each RFC and increases in global mean temperature were portrayed in a "burning embers" diagram, which reflected the severity of risk from rising temperature through gradations in color from white (no or little risk) to yellow (moderately significant risk) to red (substantial or severe risk).[5] Depending on the RFC, substantial impacts or risks (transition from yellow to red) occurred with a temperature rise from 1°C to 4°C from current levels.[6]

Since the release of the TAR, scientific understanding of the vulnerability of the climate to temperature rise has evolved considerably.[7] Based on new findings in the growing scientific literature since the TAR was released, the burning embers diagram was revised in 2008 to reflect the dangerous risks posed by smaller increases in temperature than originally identified in the TAR.[8] In the updated burning embers diagram, substantial impacts or risks now occur at or near current temperature levels for a number of RFCs.[9] As reflected in the updated RFCs, a 2°C temperature increase from pre-industrial levels (or 1.4°C increase from 1990 levels) is well past the point where severe and irreversible impacts will occur.[10]

It is now estimated that a mean global temperature increase of 1.5°C above pre-industrial levels has the potential to trigger irreversible melting of the Greenland ice sheet, a process that would result in an eventual 7m sea level rise over and above that caused by thermal expansion of the oceans, and potentially causing an additional sea level rise of 0.75m, as soon as 2100.[11] Specific consequences of a 2°C temperature rise from pre-industrial levels include the loss of 97% of the world's coral reefs and the transformation of 16% of global ecosystems.[12] At a 2°C temperature rise, approximately one to three

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[4] IPCC, CLIMATE CHANGE 2001: SYNTHESIS REPORT, SUMMARY FOR POLICYMAKERS 11 (2001). The five RFCs identified in the TAR are: 1) Risks to Unique and Threatened Systems; 2) Risks of Extreme Weather Events; 3) Distribution of Impacts; 4) Aggregate Impacts; and 5) Risks of Large Scale Discontinuities. *Id.*

[5] *Id.*; Joel B. Smith et al., *Assessing Dangerous Climate Change Though an Update of the Intergovernmental Panel on Climate Change (IPCC) "Reasons for Concern,"* PNAS- PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA EARLY EDITION 1 (2008), *available at* http://www.pnas.org/cgi/doi/10/1073/pnas/0812355106.

[6] IPCC, *supra* note 4, at 11. The RFC's assessed impacts from a baseline of 1990 temperature levels rather than pre-industrial levels. Because pre-industrial warming until 1990 was 0.6°C, an impact resulting from a temperature rise of 1°C equates to a 1.6°C rise from pre-industrial levels.

[7] Smith, *supra* note 5, at 1, 5.

[8] *Id.*

[9] *Id.* at 5.

[10] *Id.* 3.

[11] Rachel Warren, *Impacts of Global Climate Change at Different Annual Mean Global Temperature Increases* in AVOIDING DANGEROUS CLIMATE CHANGE 95 (Cambridge Univ. Press, 2006). Unlike the IPCC's RFC, Warren assessed impacts from temperature rise from pre-industrial levels, not 1990 levels.

[12] *Id.* Indeed, given increased confidence that 1°C to 2°C increase poses significant risks to many unique and threatened systems, including many biodiversity hotspots, the updated burning embers diagram indicates substantial impacts and/or moderate risks from warming that has already occurred. Smith, *supra* note 5, at 5.

billion people would experience an increase in water stress, sea level rise and cyclones would displace millions from the world's coastlines and agricultural yields would fall in the developed world.[13] In the Arctic, ecosystem disruption is predicted upon expectations of a complete loss of summer sea ice, with only 42% of the tundra remaining stable. This would destroy the Inuit hunting culture, cause the extinction of the polar bear and result in large losses in global bird populations. Moreover, because Arctic ice functions to reflect heat back into the atmosphere, its loss would allow more sunlight to heat the Arctic Ocean and further accelerate the buildup of heat and the melting of the Greenland ice sheet. As the devastating and irreversible impacts resulting from a 2°C mean global temperature rise are far in excess of any reasonable definition of DAI, limiting mean temperature rise to 2°C above pre-industrial levels is not a sufficient environmental objective for the purposes of developing a GHG significance threshold.

Specific impacts to California are also more dire than previously estimated. For example, in its most recent report, the Climate Action Team determined that the latest scientific findings indicate that "prior estimates [of sea-level rise] likely have been too low."[14] Based on two recent models, "[b]y 2050, sea-level rise could range from 30-45 cm (11 to 18 inches) higher than in 2000, and by 2100, sea–level rise could be 60 to 140 cm (23 to 55 inches) higher than in 2000. As sea level rises, there will be an increased rate of extreme high sea-level events, which can occur when high tides coincide with winter storms and there are associated high wind wave and beach run-up conditions."[15] Moreover, the rise in sea-level may be much higher than even these models predict because they do not account for the ice-melt contributions from the Greenland and Antarctic ice sheets and assume medium to medium high emissions scenarios.[16]

Not only are the climate impacts expected from a 2°C temperature increase far in excess of what should be considered "safe", but policies which propose greenhouse gas stabilization levels of 450 ppm CO_2eq present substantial risks of overshooting this target, thus exacerbating the problem. Equating a particular atmospheric concentration of greenhouse gases with a specific temperature increase involves a significant degree of uncertainty. This is because climate sensitivity – the extent to which temperatures will rise as a result of increasing concentrations of heat-trapping gases – depends on Earth's response to certain physical processes that are not fully understood.[17] Thus, due to uncertainty in climate sensitivity, scientists estimate that the mean probability of exceeding 2°C where stabilizing greenhouse gases at a CO_2eq level of 450 ppm is 54% with a 30% probability that global average temperature would rise more than 3°C.[18] At

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[13] Warren, *supra* note 11 at 98.
[14] California Action Team, Draft Biennial Report (Mar. 2009) at 1.9.
[15] *Id.* at 1.10.
[16] California Climate Change Center, The Impacts of Sea-Level Rise on the California Coast, CEC-500-2009-024D (March, 2009) at 1.
[17] *See, e.g.*, Luers, Amy, Cayan Daniel, Franco Guido, Hanemann Michael, Croes Bart, California Climate Change Center, *Our Changing Climate: Assessing the Risks to California* at 4 (2006) CEC-500-2006-077.
[18] Malte Meinshausen, *What Does a 2°C Target Mean for Greenhouse Gas Concentrations? A Brief Analysis Based on Multi-Gas Emission Pathways and Several Climate Sensitivity Uncertainty Estimates* in AVOIDING DANGEROUS CLIMATE CHANGE (Cambridge Univ. Press) (2006) at 268-69. Meinshausen operates under assumptions that do not roughly equate CO_2 eq with CO2 concentrations. In *What Does a*

400 ppm CO_2eq, the mean probability of exceeding 2°C is 28%.[19] If greenhouse gas emissions were stabilized at 350 ppm CO_2eq, the mean probability of exceeding 2°C would be reduced to 7%.[20]

Properly accounting for climate sensitivity in climate policy is critical because, as dire as the projected impacts resulting from a 2°C mean temperature increase, increases above 2°C would result in impacts of apocalyptic proportions. If a 2-3°C increase in mean global temperature occurred, feedbacks in the climate system would cause a shift in the terrestrial carbon cycle. Currently, land-based carbon acts as a sink for CO_2, buffering the effects of anthropogenic climate change. If CO_2 concentrations continue to rise, this sink will become a source, owing to increased soil respiration, further exacerbating climate change. The most dramatic impacts will be a widespread loss of forests and grassland, including the Amazon rainforest, which would undergo a transition to savannah, triggering wide spread implications for local population, global biodiversity, and the global carbon cycle.[21] At a global increase in temperature of 3°C above pre-industrial levels, many additional impacts in human and natural systems would occur in ways exponentially more devastating that those predicted for a 2°C temperature increase. Few ecosystems can adapt to such a large temperature rise: 22% would be transformed losing 7% to 74% of their extent.[22] An additional 25 to 40 million people would be displaced from coasts due to sea level rise, an additional 1200 to 3000 million would suffer an increase in water stress and 65 countries would lose 16% of their agricultural GDP.[23]

Based on the severe impacts already observed as well as future impacts and risks posed by additional warming to which we are committed due to inertia in the climate system, climatologists are increasingly concluded that current climate conditions already constitute DAI and that greenhouse gas emissions ultimately must be drawn down to net negative levels through the rapid phase-out of coal and improved forest and agricultural management.[24] Atmospheric concentrations of CO_2 have risen from a pre-industrial

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2°C Target Mean for Greenhouse Gas Concentrations?, Meinshausen notes that 550 $CO_{2\ eq}$ roughly corresponds to a stabilization of 475 ppm CO_2 only. *Id.* at 269. In a second paper that appears to utilize the same assumptions, Meinshausen notes that 500 $CO_{2\ eq}$ is approximately equivalent to 450 ppm CO_2 stabilization, 450 $CO_{2\ eq}$ is approximately equivalent to 400 ppm CO_2 stabilization, and 400 $CO_{2\ eq}$ is approximately equivalent to 350-375 ppm CO_2 stabilization; Union of Concerned Scientists, *How to Avoid Dangerous Climate Change: A Target for U.S. Emissions* (Sept. 2007) at 3.

[19] Malte Meinshausen, *What Does a 2°C Target Mean for Greenhouse Gas Concentrations? A Brief Analysis Based on Multi-Gas Emission Pathways and Several Climate Sensitivity Uncertainty Estimates* in AVOIDING DANGEROUS CLIMATE CHANGE (Cambridge Univ. Press) (2006) at 270.

[20] *Id.*

[21] Rachel Warren, *Impacts of Global Climate Change at Different Annual Mean Global Temperature Increases* in AVOIDING DANGEROUS CLIMATE CHANGE (Cambridge Univ. Press) (2006) at 98-99.

[22] *Id.* at 99.

[23] *Id.* at 96-97.

[24] James Hansen et al., *Target Atmospheric CO_2: Where Should Humanity Aim?* 2 OPEN ATMOSPHERIC SCIENCE J. 217, 226-27 (2008); *see also* Matthews H.D. & Caldeira, K., *Stabilizing the Climate Requires Near-Zero Emissions*, 35 GEOPHYSICAL RESEARCH LETTERS L04705 (2008) ("future anthropogenic emissions would need to be eliminated in order to stabilize global-mean temperature.").

concentration of 280 ppm to 383 ppm in 2007.[25] Annual mean global temperature has increased by 0.76°C relative to pre-industrial times and is increasing at a rate of 0.17°C/decade.[26] Impacts from this anthropogenic interference with the climate has already resulted in tens of thousands of climate-related deaths, species extinction, ocean acidification and loss of coral reefs, and the significant retreat of glaciers and sea ice. In addition to the impacts already observed, additional warming "in the pipeline" due to inertia in the climate system and their feedback loops will result in further increases in temperature posing significant risks of severe and irreversible impacts.[27] The climate is locked into anywhere from 0.3 to 0.7°C additional warming relative to late 20th century levels due to the eventual impacts of past historical emissions.[28] On account of additional warming to which we are committed, Ramanathan and Feng found that there is a "high probability that the DAI threshold is already in our rearview mirror."[29] Similarly, on the basis of paleoclimate evidence and ongoing climate change, James Hansen and other leading climate scientists concluded the present CO_2 levels of 385 ppm are "already in the dangerous zone" and that "[i]f humanity wishes to preserve a planet similar to that on which civilization developed and to which life on Earth is adapted, paleoclimate evidence and ongoing climate change suggest that CO_2 will need to be reduced from its current 385 ppm to at most 350 ppm, but likely less than that."[30] In looking at dangerous climate change though the lens of risk tolerance, Harvey concluded that, at a 10% risk tolerance, atmospheric CO_2 concentrations close to present levels "violates the UNFCCC" for a range of assumptions of climate sensitivity.[31] Accordingly, as the climate change to which we are committed is already dangerous, there is little scientific basis to conclude that any new source of emissions is innocuous.

2. Conclusion

The Center appreciates SCAQMD's continued work to develop a threshold of significance for GHGs. The Center urges SCAQMD to apply the data derived from the Work Plan in a manner that is consistent with the scientific and factual data on the emission reductions necessary to avoid DAI. *See* Guidelines § 15064(h). Given the

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[25] Global Carbon Project, *Carbon Budget and Trends 2007* (2008), *available at:* http://www.globalcarbonproject.org/carbontrends/index.htm.

[26] Kevin E. Trenberth et al., *2007: Observations: Surface and Atmospheric Climate Change in* CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS, CONTRIBUTION OF WORKING GROUP I TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 252 (Susan Solomon et al. eds., Cambridge Univ. Press 2007).

[27] V. Ramanathan & Y. Feng, *On Avoiding Dangerous Anthropogenic Interference With the Climate System: Formidable Challenges Ahead*, 105 PNAS 14245, 14249 (Sept. 23, 2008); James Hansen et al., *Target Atmospheric CO_2: Where Should Humanity Aim?* 2 OPEN ATMOSPHERIC SCIENCE J. 217, 226 (2008).

[28] Michael E. Mann, *Defining Dangerous Anthropogenic Interference*, 106 PNAS 4065, 4066 (Mar. 17, 2009).

[29] V. Ramanathan & Y. Feng, *On Avoiding Dangerous Anthropogenic Interference With the Climate System: Formidable Challenges Ahead*, 105 PNAS 14245, 14249 (Sept. 23, 2008).

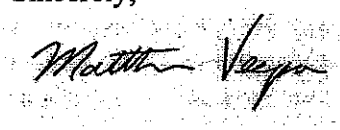
[30] James Hansen et al., *Target Atmospheric CO_2: Where Should Humanity Aim?* 2 OPEN ATMOSPHERIC SCIENCE J. 217, 217-18 (2008).

[31] Danny Harvey, *Dangerous Anthropogenic Interference, Dangerous Climatic Change, and Harmful Climatic Change: Non-Trivial Distinctions With Significant Policy Implications*, 82 CLIMATE CHANGE 1, 20 (2007).

severe and irreversible impacts resulting from a 2°C mean global temperature rise and the significant risk that this temperature would increase beyond 2°C at GHG levels of 450 ppm, a stabilization objective of 450 ppm CO_2eq is far in excess of what can be considered safe. Accordingly, setting a threshold based on consistency with a 450 ppm stabilization target is inconsistent with CEQA's purpose to "identify any critical thresholds for the healthy and safety of people of the state." Pub. Res. Code § 21000(d). Because the 90% capture rate is based on the outdated presumption that compliance with Executive Order S-3-05 targets is sufficient to avoid dangerous climate change, SCAQMD should adopt a threshold for residential and commercial projects that captures a higher percentage of emissions and requires projects with emissions below this threshold to comply with performance standards.[32]

Thank you for your consideration. Please do not hesitate to contact Matthew Vespa at (415) 436-9682 x309 mvespa@biologicaldiversity.org if you have any questions or concerns.

Sincerely,



Matthew Vespa
Senior Attorney

cc: Steve Smith
Michael Krause

[32] The 90% capture rate used for SCAQMD's industrial threshold purportedly reflected the practical concern that minimal mitigation was available for the types of projects (such as boilers) that fell under this threshold. These concerns do not apply to residential and commercial structures, where any number of mitigation measures are available for all sizes of projects to reduce GHG emissions.

Comment Letter #: 48
Date: October 26, 2009
From: Matthew Vespa, Center for Biological Diversity

Response to Comments:

48-1 Staff appreciates the positive comment.

48-2 Staff agrees that the project level efficiency-based threshold should not be the same as the plan level efficiency-based threshold. A review of an individual land use project only must consider the project's new land-use based GHG emissions, while a review of a general plan must consider GHG emissions from all sources covered under the plan, including existing sources and new sources from all sectors, including stationary sources. In response to this and similar comments and upon further review, Staff has re-analyzed the bases of the efficiency metrics for both plan-level and individual project review. Rather than calculate both efficiency metrics based on land-use sector GHG emissions only, Staff has calculated the plan level efficiency-based threshold based on all GHG emissions from all sectors allowable in 2020 to be consistent with AB 32 goals.

The revised plan level efficiency-based threshold is thus based on the mass of GHG emissions that is allowable in 2020 under AB 32 goals (1990 levels of emissions), divided by the total expected population and employment levels in 2020. The individual project efficiency-based threshold remains based on only land-use emissions allowable in 2020 under AB 32 goals (1990 levels of emissions), divided by the total expected population and employment levels in 2020.

This new analysis results in increasing the GHG efficiency threshold for plan-level review, thus rendering the individual project efficiency threshold more stringent than Staff's recommended efficiency threshold for plan level review. Staff proposes a GHG efficiency threshold of 4.6 MT CO2e/SP, while for plan level review, Staff recommends a GHG efficiency threshold of 6.6 MT CO2e/SP. Projects consistent with these efficiency metrics will be consistent with achieving AB 32 goals. Only the most well designed, GHG-efficient projects will meet the threshold and be considered insignificant.

Finally, Staff has included a recommendation that the proposed efficiency-based threshold for individual projects be applied with caution. Lead agencies may determine that the efficiency-based GHG thresholds for individual land use projects may not be appropriate for very large projects. If there is a fair argument that the project's emissions on a mass level will have a cumulatively considerable impact on the region's GHG emissions, the insignificance presumption afforded to a project that meets an efficiency-based GHG threshold would be overcome.

48-3 Staff disagrees that it is inappropriate to use the term "fair share" in the analysis and justification of the proposed greenhouse gas thresholds. The commenter is correct that the term is often used in the context providing mitigation by contributing to a mitigation fund, but it can be used equally well in describing actual measures that the project itself will implement on the ground to reduce its emissions to a level that is less than cumulatively considerable and therefore not significant. This conclusion is clear from the language of CEQA Guidelines Section 15130(a)(3), which states that "a project's contribution is less than cumulatively considerable if the project is required *to implement or fund* its fair share of a mitigation measure or measures designed to alleviate the cumulative impact" (emphasis

added). This passage indicates that the Guidelines intended the "fair share" analysis – that is, whether a project is doing its part to resolve the cumulative environmental issue – to apply both in the context of a project *funding* a mitigation measure by contributing to a fund and in the context of a project actually *implementing* a mitigation measure by incorporating concrete measures into the project to reduce its emissions.

But regardless of the semantic issue of whether the term "fair share" is used in the analysis or not, the issue of whether a project will be significant or not ultimately turns on whether the project's incremental contribution to the overall problem is cumulatively considerable. Where a project is being built consistent with achieving the AB32 goals and is therefore contributing to the solution instead of being part of the problem, that project can be considered less than "cumulatively considerable" regardless of whether the "fair share" terminology is used or not. "Fair share" provides a useful shorthand term to encompass the substantial amount of data and analysis that the District has incorporated into its proposed thresholds approach, as detailed in the documentation that that District has published, but ultimately it is the data and analysis that support the thresholds, not the terminology used to describe it. That data and analysis show that projects built consistent with the proposed thresholds will accommodate projected growth in the land use sector within the Bay Area between now and 2020 and still allow the sector to comply with its allocated proportion of California's 2020 emissions target under AB32. Since these projects are doing their part to solve the problem of climate change, it makes sense to use terminology like "fair share" to summarize the data and analysis justifying why such projects will be less than significant.

Finally, it is worth clarifying one question that this comment raises regarding the "fair share" terminology. Staff agrees with the commenter that when looking at the significance of a new project's emissions, the analysis must focus on whether their incremental addition is cumulatively considerable in light of the overall problem. The analysis should not focus on what is equitable in light of what has been achieved in the past by existing projects. For this reason, Staff has focused their analysis on emissions from new projects, and the greenhouse-gas efficiency thresholds that Staff are proposing reflect a better level of efficiency than seen in existing projects in the Bay Area. This was always Staff's intent underlying the "fair share" analysis, and Staff take this opportunity to clarify to the commenters that this is what they intend when using the "fair share" terminology.

#49

Ditching Dirty Diesel

October 19, 2009

Greg Tholen, Principal Planner
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

RE: Proposed Changes to CEQA Guidelines

Dear Mr. Tholen:

As members of the Bay Area Ditching Dirty Diesel (DDD) Collaborative, including community residents of neighborhoods that face high levels of air pollution from trains and railyards, we offer the following comments on your proposed changes to CEQA Guidelines. DDD is a coalition of over twenty grassroots organizations, environmental and health non-profit groups, labor unions, and agencies, that advocates for the reduction of diesel pollution in the San Francisco Bay Area, particularly in low-income communities of color.

We believe that stringent thresholds should be established for Diesel Particulate Matter (DPM) and other fine particulates that have a significant impact on human health. We are pleased that you are proposing new $PM_{2.5}$ guidelines for construction and project operations. We also believe that the CEQA Guidelines must account for the cumulative impacts of pollution from proposed new sources and on proposed new receptors. Your proposed guidelines in regards to cumulative impacts are a step in the right direction, and below we offer some proposed changes to strengthen these guidelines.

However, we are very disappointed that you have chosen to weaken thresholds of significance for siting new sources and receptors in designated Impacted Communities compared with what was in your earlier proposed guidelines. We believe that the increased burden from new sources of pollution on already impacted communities must be recognized, and that CEQA Guidelines are an important tool used by local entities to avoid increasing this already unjust excessive burden. The principles of Environmental Justice, as adopted by the State of California, demand the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws and policies. From its inception, DDD has recognized that environmental justice communities in the Bay Area are overburdened with multiple sources of pollution and that addressing diesel pollution is just one part of the problem. Having identified certain areas within your jurisdiction as disproportionately impacted, having acknowledged the significant health impacts of fine particulate matter, and having confirmed that the cumulative impact of multiple sources of pollution on a single receptor

49-1

shouldn't be ignored, these principles demand that you propose updated CEQA Guidelines that take positive steps to address these injustices. To do otherwise would be grossly unfair, and would violate these Environmental Justice principles. Unfortunately, you have done just that by eliminating the proposal to require stricter thresholds of significance for new sources in designated Impacted Communities. We strongly urge you to reinstate stricter thresholds of significance for the priority communities you have identified. 49-1

As a related matter, the principles of Environmental Justice demand that for decisions such as this to be fair, disproportionately impacted communities must have the ability to fully participate in the decision-making process. The deadline to submit public comment for the earlier draft of the updated CEQA Guidelines was October 9. Replacing the proposed stricter thresholds of significance for designated Impacted Communities with weaker proposed guidelines the day before, on October 8, denied impacted communities the right to be fully heard. Your decision to change the proposed guidelines before receiving and considering all public comments was unfair and calls into question the credibility of your decision-making process. We hope that in the future you will allow for full participation by impacted communities in this very important decision that directly affects their health. 49-2

The proposed alternative to stricter thresholds of significance for Impacted Communities, the development of Community Risk Reduction Plans (CRRPs), does not adequately address significant impacts to human health in priority communities. First, it is unclear what jurisdictions are responsible for developing and certifying CRRPs. Second, the Air District has not developed specific guidelines (regarding thresholds of significance for $PM_{2.5}$, cancer risk, and non-cancer health risk) to ensure that CRRPs are health-protective. Further, it is unclear what recourse is available to the public if CRRPs are *not* health-protective. Lastly, and most significantly, lead agencies have no incentive to follow existing CRRPs or develop their own if CRRPs are to establish tighter health risk thresholds than those established by the Air District. Any and all measures or plans with the goal of reducing risk and exposure in Impacted Communities must be approved by and monitored for compliance by the Air District. Approval processes for measures and plans should explicitly include an opportunity for the public to review and comment on proposed plans, and appeal the issuance of certification and implementation. 49-3

While some good first steps have been taken to address the Environmental Injustice borne by many communities due to their disproportionate exposure to the toxic emissions, noise, and congestion from diesel trucks, trains, ships and construction equipment, we offer the following recommendations to strengthen the proposed CEQA Guidelines.

1) Reinstate stricter thresholds of significance for cancer-risk, non-cancer health risk, and $PM_{2.5}$ in designated Impacted Communities. 49-4

2) Develop a methodology to account for cases where there are significant impacts from major sources of air pollution beyond 1000 feet from receptors. In section 1.2.4.2 of the *Draft Options and Justification Report*, the 1000-foot zone for assessing cumulative impacts on receptors may not be sufficient in all cases. For example, the CARB Health Risk Assessment for West Oakland determined that Port of Oakland operations generate 265 tons of diesel particulate matter per year, contributing significantly to potential cancer risk in the West Oakland community. Cancer risk isopleths in Figure D-2 (attached) illustrate that diesel pollution from port activities results in a cancer risk of *200* 49-5

in a million up to 2 km (6,562 ft) from the Port boundaries. This level of cancer risk is already significantly higher than the risk threshold for cumulative impacts of 100 in a million in your proposed guidelines.

3) The definition of a source in the guidelines should be constructed to include "magnet" sources of diesel pollution such as warehouses, port railyards, transfer stations, and recycling centers. All sources of DPM associated with these magnet sources need to be included in the calculations to determine the level of impact. 49-6

4) In section 1.1.4 of the *Draft Options and Justification Report,* the CEQA Guidelines should specify stringent T-BACT/TBP measures that any new project in Impacted Communities should take during the construction phase. For example, the CEQA Standards for Clean Construction developed by the NRDC are considered the "gold standard" and could be required by the CEQA Guidelines (see attached). 49-7

5) Since these proposed CEQA Guidelines contain significant new concepts and requirements, outreach and oversight plans should be developed to ensure that they are understood and are being followed by all lead agencies within your jurisdiction. 49-8

Updating BAAQMD's CEQA Guidelines provide a unique opportunity to execute an important objective of the Community Air Risk Evaluation (CARE) program: "develop and implement mitigation measures–such as grants, guidelines, or regulations–to achieve cleaner air for the public and the environment, focusing initially on priority communities." Ditching Dirty Diesel urges you to include the above outlined measures in order to prevent future increases and achieve significant reductions in diesel particulate matter and associated health risks.

We look forward to working with you and your staff to maximize health protections in the revised CEQA Guidelines.

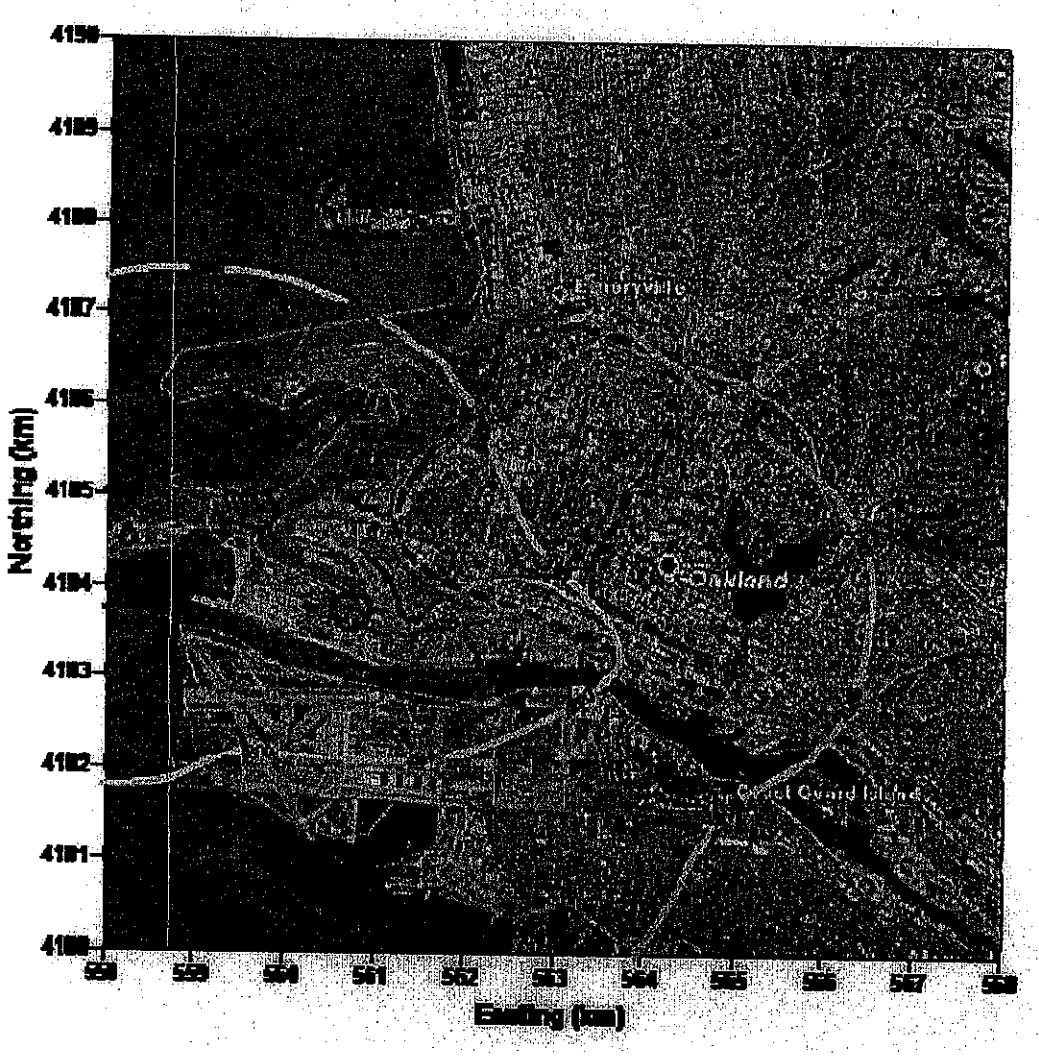
Thank you.

Sincerely,

Ditching Dirty Diesel Collaborative which includes the following signatories and organizations:

Wafaa Aborashed, Healthy 880 Communities
Diane Bailey, Natural Resources Defense Council
Christine Cordero, Center for Environmental Health
Joel Ervice, Regional Asthma Management and Prevention
Margaret Gordon, West Oakland Environmental Indicators Project
Michael Kent, Contra Costa Health Services
Anna Yun Lee, Communities for a Better Environment
Karen Pierce, Bayview Hunters Point Community Advocates
Swati Prakash, Pacific Institute

Figure D-2: Diesel PM Potential Cancer Risk Isopleth – All Activities from the Port (Part-I)



Di, Pingkuan. *Diesel Particulate Matter Health Risk Assessment for the West Oakland Community.* California Air Resources Board [2008]. Web. 19 October, 2009. (Page D-7, Appendix D) <http://www.arb.ca.gov/ch/communities/ra/westoakland/westoakland.htm>

Comment Letter #: 49
Date: October 19, 2009
From: Ditching Dirty Diesel Collaborative

Response to Comments:

49-1 The Proposed Thresholds of Significance report (November 2, 2009), recommends a single community risk and hazards threshold for all areas in the Bay Area, including impacted communities. Staff agrees with several commenters that the problem of certain areas being disproportionately adversely impacted should be addressed as a cumulative impacts problem. Staff has revised the proposed thresholds to do so. Under staff's current proposal, areas that are disproportionately burdened with TAC emissions sources in the local vicinity will benefit from a cumulative analysis threshold that will require projects to evaluate the cumulative impact of all such sources within a 1,000 foot radius of the proposed project. This revised approach will provide a tool for lead agencies to carefully consider whether to site new sources or receptors in disproportionately burdened areas, without establishing different health risk standards for different segments of the population. In addition, the Air District believes that withdrawing the earlier, more stringent threshold, is also appropriate in light of using OEHHA's more conservative risk factors (substantially increasing estimated risk levels) and the addition of community risk reduction plans. Risk reduction plans provide a programmatic approach to the overall problem and can also address existing sources of risks and hazards and can require design standards of new development not always available through the CEQA process.

49-2 See Master Response MR-8.

49-3 The updated CEQA Guidelines will provide a broad view of what Staff anticipates will be required in a Community Risk Reduction Plan (CRRP). Understanding that no such plans yet exist in the Bay Area, the Air District will initiate a public process to engage stakeholders in identifying steps and defining criteria for a CRRP. The public engagement process will work to answer the CCRP questions raised by the commenter.

49-4 See response 46-1.

49-5 It is in the purview of the lead agency to decide to extend the risk evaluation from a fence line past 1,000 feet to include significant emission sources. The Air District recommends including very large sources located beyond the 1,000-foot zone of influence.

49-6 The Air District will be providing tables with estimated calculations of community risk and hazards from all permitted sources and major roadways in the Bay Area. In the long term, it is our intention to include risk tables for magnet sources as well.

49-7 The community risk and hazard thresholds have been modified in the *Proposed Thresholds of Significance* report (November 2, 2009) and no longer include toxic bet practices as part of the threshold. However, the updated CEQA Guidelines will strongly recommend them as mitigation measures. Staff will consider recommending NRDC's standards for clean construction in the mitigation measures as well.

49-8 Staff agrees with the commenter's suggestion and will initiate an outreach effort to assist stakeholders in using the CEQA Guidelines following future adoption of the proposed thresholds

SF Environment
Our home. Our city. Our planet.
A Department of the City and County of San Francisco

#50

GAVIN NEWSOM
Mayor

DAVID ASSMANN
Acting Director

October 26th, 2009

Mr. Greg Tholen
Principal Environmental Planner
Bay Area Air Quaility Management Distrcit
939 Ellis Street
San Francisco, CA 94109
gtholen@baaqmd.gov

On behalf of the San Francisco Mayors Office and Department of the Environment we would like to offer the following comment on your newly released Draft CEQA Guidelines. We acknowledge and applaud BAAQMD taking action to include greenhouse gas considerations in land use and transportation planning and working to set a high bar for GHG reduction policy that will work towards actualizing the ambitious and necessary goals of AB32. However, it is of critical importance that the right bar be set so that the cities and counties under your jurisdiction are further enabled in their in climate planning and emissions reductions. **BAAQMD should convene a series of stakeholder workshops to allow local planning professionals, modeling experts, and climate change staff to propose alternate methodologies to advance regional GHG goals without penalizing smart growth. We strongly urge BAAQMD to postpone adoption of any standards until convening with local planning agencies well-versed in the local land use and CEQA process.** 50-1

Technical concerns with the new Draft CEQA Guidelines have been expressed by the San Francisco Planning Department. We second these concerns and would like to add the following.

- **The proposed greenhouse gas (GHG) thresholds in the Draft 2009 Air Quality Guidelines Update are seriously flawed and should not be adopted in their current form** As drafted, the thresholds would have unintended negative environmental consequences, undermining the ability of the Bay Area to meet its share of GHG reduction targets by increasing the regulatory obstacles to building high-density mixed-use development in transit-rich urban infill locations. 50-2
- **The proposed one-size-fits-all absolute numerical GHG threshold doesn't make sense.** While we understand they are meant to reflect the necessary reductions per AB32 targets they do so by assuming uniform reductions across sectors and are not specific to the land use and transportation sector allocations. Individual jurisdictions may already calculate project level or community level transpiration emissions via different models than the ITE. Finally numeric thresholds are problematic in that they don't consider relative density, location, mixed use, 50-3

proximity to other uses, alternative transportation and other local factors that work together to shape a projects lifetime carbon impact.

- **The proposed screening levels would trigger unnecessary and burdensome environmental review.** The screening levels (the point at which a land use project is presumed to have an impact) appear to be based on suburban assumptions of high auto trip generation and mode share rates. In other words, a 100-unit garden apartment project in an auto-oriented sprawling suburban location like Tracy is treated as equivalent to a 100-unit high-rise in downtown San Francisco. Screening levels need to be context sensitive. If enacted, the proposed screening levels would require modest mixed-use infill projects that would otherwise qualify for categorical exemptions to prepare expensive and lengthy negative declarations or EIRs. We would like to caution BAAQMD from creating further emphasis on upfront emissions projects and quantifications which can be overly burdensome, time consuming and prohibitively expensive. 50-4

- **Instead of focusing GHG emissions analysis on a quantitative threshold, a more appropriate approach may be to develop project-based reduction targets and standard mitigations.** There should be a mechanism by which projects can reduce their emissions by a percentage compared to "business as usual." BAAQMD states in its *Workshop Draft Options Report* that theoretically, if all land use projects reduced their emissions by 24 percent, AB32 land use goals would be met. Accordingly, there should be a mechanism for projects to reduce GHG emissions to less than significant by showing similar percentage reductions: perhaps 30 percent to account for projects not subject to CEQA, or 35 percent, since this is determined to be the highest feasible GHG reduction. This would give projects a real incentive to mitigate emissions rather than just concluding an impact to be significant and unavoidable. More research should be placed on standard mitigations. 50-5

- **Do not require CEQA Review of municipal Climate Action Plans**. As they are now municipal Climate Action Plans cannot act as the baseline for numerical project specific emissions impacts estimates or tracking. Community wide emissions inventories (which serve as the numerical basis for municipal Climate Action Plans) do not prescribe, or track reductions on a project by project or even policy basis, but rather track overall emissions by sector, sinks and material streams. This means that while a specific development project may have reduced its emissions below business as usual in compliance with AB32, a number of other factors may have caused community wide emissions to remain level or even increase. Furthermore the requirements that at a Climate Action Plan would have to meet under this option to house all climate related policies is prohibitive to the process of local government. A city's "green" or climate related policies do not live all in one place but are spread throughout city code in the many areas that affect climate; green building codes, recycling ordinances, energy efficiency and renewable energy financing and retrofit programs, urban forests and gardens, transportation agency plans and services, fleet fuel requirements, commuter benefit programs, community outreach programs, and education. All these programs and policies have come from unique forms of mandates, voter requirements, executive orders, committee recommendations and due public process. While the Climate Action Plans may point to these policies as the implementation pieces of the city's larger climate goals it would be organizational and politically infeasible for the CAP to prescribe (author) and house said policies. CAPs serve instead to enable these policies. *We urge BAAQMD to not require local Climate Action Plans be CEQA compliant and instead encourage BAAQMD to allow municipal flexibility in demonstrating compliance with AB32 goals, to house climate reduction specifications in General Plans and other project specific plans.* 50-6

- **Standardize Carbon Accounting.** Before any form of numerical thresholds can be established there needs to be a clear assignment of carbon accounting procedures so as to standardized baselines and sources of projected emissions across projects and jurisdictions. Our concern is that the current recommendations for the proposed thresholds will not achieve the desired results as they are based on what has hereto been and remains today, a non standardized system of municipal climate planning and emissions accounting which does not, yet, have the robustness of standard planning models, does not, per AB32 integrate with the state inventory, and is still very much in development as our understanding of the science and our impacts continues to change. 50-7

- **The proposed GHG regulations undermine the regional planning goals of SB 375.** SB 375 was enacted to align local planning for transportation, jobs and housing with regional policies to reduce the cumulative transportation and GHG emission impacts of growth. The absolute threshold would hinder the region's ability to take advantage of SB375's Sustainable Communities Strategy (SCS) provisions that encourage growth in lower-GHG-generating locations by granting exemptions from GHG analysis for transit-oriented projects that conform to locally-adopted plans that conform to a regionally-adopted SCS (CEQA Section 21151.1). Although it will take time to implement the SCS planning process, SB 375, unlike the proposed 2009 Guidelines, recognizes the importance of not just considering the land use type and square footage, but also taking into account location, density, proximity to transit and other factors affecting a project's contribution to GHGs. 50-8

Thank you for your time and consideration of this important and precedent setting matter. The City of San Francisco looks forward to working with the Air District to move regional climate policy forward and is a willing partner in our proposed stakeholder review process. It is critical that we get this right from the start and apply the knowledge we already have from our current climate and policy city planning work. The City recommends that the adoption of the Guidelines be postponed until a stakeholder review processes take place and public comment is incorporated.

Please contact Calla Rose Ostrander, Climate Action Coordinator at calla.ostrander@sfgov.org or 415 355-3785 if you have any questions.

Sincerely

Jared Bluemenfeld
Director, San Francisco Department of the Environment
11 Grove Street,
San Francisco, CA 94102

Comment Letter #: 50
Date: October 26, 2009
From: Jared Bluemenfeld, Director, San Francisco Department of the Environment

Response to Comments:

50-1 See master response MR-7.

50-2 See master response MR-2.

50-3 See master response MR-2 and MR-3.

50-4 See master response MR-2.

50-5 See master response MR-3.

50-6 OPR's proposed amendments to the CEQA Guidelines Section 15064.4 directs Lead Agencies to consider the following regarding consistency with a climate action plan:

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The Air District's recommendation that a climate action plan be vetted through the CEQA process is consistent with OPR's requirement for the plan to be adopted by the agency through a public review process.

The plan-level GHG threshold in the *Proposed Thresholds of Significance* report recommends for local governments that have not yet adopted a stand alone qualified climate action plan as defined by the CEQA Guidelines, they have the option to demonstrate that their collective set of climate action policies, ordinances, and other programs are consistent with AB 32. Demonstration of AB 32 consistency should be considered equivalent to a qualified climate action plan. In the case of demonstrating that a collective set of climate action policies, ordinances, and programs are consistent with AB 32, this would not qualify as a project under CEQA and would not need to go through CEQA review.

50-7 See master response MR-3 and MR-7.

50-8 See master response MR-3 and MR-5.

CITY OF Fremont

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#51

October 26, 2009

Greg Tholen, Principal Environmental Planner
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939 Ellis Street
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Subject: CEQA Guideline Update Comments

The City of Fremont wants to recognize the significant effort and time the Air District staff has expended in the comprehensive update of the 1999 CEQA Guidelines. The City and the Air District have the same long term goals of promoting sustainable development. The City has been a strong supporter of smart growth initiatives and sustainable practices that range from restrictions on hillside development to extending BART to Warm Springs and San Jose. Recently we have emphasized future sustainability by planning three infill areas for development as Priority Development Areas (PDA). As a City planning for infill and transit supported growth, we have concerns about both operational and temporary construction thresholds that are not supportive of regional goals of sustainability. A summary of our concerns includes: 51-1

1. Applicability to Categorical and Infill Exemption Projects
2. Temporary Construction Impacts Methodology
3. Penalty to Large Projects Versus Small Projects
4. Climate Action Plan Consistency

Infill Development

Supporting appropriate growth and sustainable development should be the priority of the draft guidelines. The City of Fremont concurs with comments from the City of Berkeley that the guidelines have the potential to undermine approval of desirable and long-term beneficial development projects by lengthening their evaluation. This would be a counter productive exercise of delaying infill projects and possibly deterring the undertaking of projects at all. There are many solutions to this issue as discussed by the City of Berkeley, we believe that at a minimum the scope of applicability should be modified. 51-2

We suggest the guidelines be revised to simply state they do not apply to exempt projects and that evaluation of project's location and features should occur before considering the application of mitigation measures. Projects consistent with the General Plan and a Climate Action Plan would not have a potentially significant impact

Construction Emissions

The new rules for temporary emissions associated with construction are disconcerting. We agree with the separate capture of construction and operational emissions. We disagree that evaluating construction emissions at the newly proposed project level is appropriate. Construction projects of all types and sizes are going on throughout the basin at any one time and are part of the background or baseline condition of air quality. The Air District analysis does not support extricating this particular background element of air quality as an individual project threshold. It does not stand to reason that doing multiple small construction projects or doing construction at a slower rate results in better air quality than a large project or a project that completes work quickly. Appropriate controls for construction are as an industry type, not as a project attribute. There does not appear to be a benefit of applying this type of threshold at this time. 51-3

The standard is also problematic when considering the screening thresholds alignment with proposed operational thresholds. It is impractical to consider that a project could have a temporary construction impact that requires an EIR when the completed project itself may not have an operational impact over the life of the project. Such a process for temporary impacts would be unacceptable to recruitment and retention efforts for economic development. Business timing and certainty are two of the most important attributes that a good planning and environmental review process can provide to allow the Bay Area to be competitive for new jobs and development. The City's recent experience in site selection exercises is that competition is not just within the air basin or California, but rather within the United States as a whole. It is unlikely that we could have retained a local solar panel manufacturing plant expansion project supported by the Governor and United States Department of Energy if the project schedule had included six additional months of review and complexity for a construction impact EIR. Adding this type of timeline to a shovel ready project would likely displace such project to another region. Limiting economic growth because of a temporary impact threshold is not an acceptable remedy for improving air quality in the long term. 51-4

Our recommendations are to consider construction impacts only when they are evaluated in conjunction with a project that has a potentially significant operational impact. Alternatively if a project construction threshold exists, we recommend replacing the proposed screening thresholds with the standards of CEQA Guideline 15206 (b) 2 A through E.

If a project has a potential long term operating impact it is good planning and environmental practice to consider the full effects of the project's implementation. This methodology is a practical approach to addressing air quality concerns for significant projects. While we do not believe construction emissions should stand alone, if they do remain then it is important to change the screening threshold to capture significant projects affecting the air basin. The proposed assumption driven thresholds create widely variable project area size capture that is unequal and overall too small. Furthermore, the local entitlement process often does not have the level of detail needed for these assumptions. It is much easier to implement a "bright line" threshold based on existing standards for regional issues. Relying on Guideline 15206 (b) 2 A-E for project size definitions will capture the projects that are of truly regional significance to the air basin. Using the regional project threshold also yields relative consistency with the screening thresholds proposed for ozone precursor operational impacts. 51-5

Project Size

We understand the draft guidelines were revised in October to include alternative metrics for evaluating plans and projects. Establishing an absolute value threshold is not consistent with the intent of AB32. We support the stated goal in the October report on page 38 for the guidelines to address a project's fair share of emission reductions. We want to state our support for recognizing the value of a per capita type measure of project impacts and support extending the service population concept to all types of employment uses, not just mixed use. We also support analyzing consistency with the Clean Air Plan through performance measures, rather than population growth alone. This approach fairly allows more infill development to occur when an opportunity arises to increase density appropriately. Promoting infill without additional regulation is critical to reaching everyone's goals. S1-6

However, there will be difficulty in applying an air basin wide metric once Climate Action Plans are approved locally. Language should allow for local substitution of a standard established by a General Plan or Climate Action Plan. Further it should be clear that regardless of project size or type that a project consistent with the General Plan or Climate Action Plan should not have consideration as a potentially significant source of emissions. S1-7

We support the use of performance and per capita types of metrics for evaluating projects and not penalizing large projects that operate efficiently. Furthermore, the guidelines should be clear that projects consistent with General Plans or Climate Action Plans are not potentially significant sources of emissions. S1-8

Climate Action Plans

The guidelines reference to Climate Action Plans is important, but may be unproductive at this time. Climate Action Plan protocols and methodologies are still under development and are highly localized in their assumptions and applicability to local actions. We support the City of Berkeley comment letter recommending additional work be undertaken around Climate Action Plans before finalizing the guidelines. S1-9

We thank the Air District for their attention to our concerns and their overall effort to promote improved air quality planning. The draft guidelines provide valuable expertise on the issue of air quality and health. We look forward to reviewing updated guidelines prior consideration by the Board.

Yours Truly,

Jeff Schwob

Jeff Schwob, Planning Director

cc: Jill Keimach, Community Development Director
Kelly Diekmann, Senior Planner

Comment Letter #: 51
Date: October 26, 2009
From: Jeff Schwob, Planning Director, City of Fremont

Response to Comments:

51-1 Comment noted. The Air District shares the long term goals of sustainable, health-protective development with the City of Fremont.

51-2 See Master Response MR-2. It is not within the authority of the Air District under CEQA to simply exempt a certain type of project such as infill development. If a project qualifies for an exemption under CEQA it is within the authority of the Lead Agency to claim the exemption.

51-3 The Bay Area has not attained the state ozone standard and anticipates being designated nonattainment of the new, lower national ozone standard. The Bay Area has also been designated nonattainment of the new, lower national $PM_{2.5}$ 24-hour standard. These pollutants and their precursor emissions must be reduced if the Bay Area is to attain the standards. Every emission sector, where feasible, including construction activity, will need to contribute appropriate reductions. In addition, these pollutants, once emitted, stay in the atmosphere for several days and combine with other emissions to create unhealthy concentrations. Therefore, curtailing emissions on even a daily basis helps bring the Bay Area closer to attainment goals.

51-4 Temporary significant adverse impacts carry the same weight as long term impacts under CEQA. An adverse impact is not rendered less than significant simply because it is of short duration. Also see Master Response MR-1.

51-5 The screening tables provided in the revised CEQA Guidelines are not thresholds of significance and will not, based on the screening table alone, trigger a mandatory EIR. Rather, they are just screening levels to minimize the need for full analysis in situations where BAAQMD has determined no significant air quality impact would occur because Air District staff have modeled the screening level projects under very conservative assumptions and have determined that such projects will not exceed the applicable thresholds of significance. Most projects will have characteristics, such as nearby transit and services, which will reduce estimated emissions and allow a larger project than indicated in the screening table to be less than significant. The screening table for construction is a conservative estimate based on typical construction practices in the Bay Area. The proposed thresholds are expressed as a bright line based on emissions. It is not appropriate to base a threshold on the size of a project as the commenter suggests because the size of project is not the best indicator of its efficiency and potential emissions.

51-6 See Master Response MR-3. The Air District appreciates the commenter's support and recognition that the efficiency threshold for GHG is supportive of infill development. The Air District also appreciates the commenter's support of the Air District staff's proposed changes to the plan consistency threshold that encourages placing new growth and development in more dense urban patterns.

51-7 In response to this and similar comments, Air District staff's final proposed thresholds of significance recommend local jurisdictions adopt a qualified climate action plan *or similar criteria included in a General Plan* that is consistent with AB 32.

51-8 The Air District appreciates the commenter's support of the efficiency thresholds for GHG. The proposed thresholds of significance recommend that a Lead Agency may find that a project consistent with a climate action plan, or similar criteria included in a general plan, is less than significant for GHG emissions. However, the Air District cautions the commenter that the efficiency thresholds are not boundless. A project estimated to have very high GHG emissions may exceed a community's relative GHG "budget" and should also consider CEQA's fair argument standard that, despite consistency with and established threshold, if a fair argument is made that an impact may be significant an EIR should be prepared.

51-9 The Air District acknowledges that many communities will not be able to develop climate action plans in the near future. Many communities have adopted climate-friendly ordinances, such as green building codes, that can be included in climate action plans. Development of climate action should demonstrate consistency with AB 32 at a minimum, and use the best available data.

#52

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

October 26, 2009

Greg Tholen, Principal Planner
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

RE: Proposed Revision to CEQA Guidelines for Air Quality Impacts

Dear Mr. Tholen:

In July 2008, the Board of the Air Quality District (District) resolved that the agency commits to continue to address the cumulative impact of new and existing mobile and stationary sources of air pollution—particularly in disproportionately impacted communities—for sources that on a relative basis contribute most to health risk at a local and regional level; and that the Board will continue to explore and consider additional actions to reduce cumulative impacts throughout the Bay Area and that these actions will include, but not be limited to the development of new tools and methods, potentially including regulatory approaches, to consider and reduce cumulative impacts for sources that contribute most to health risk at a local and regional level. This resolution is compatible with and furthers the intent of Environmental Justice policy previously adopted by the Board.

In keeping with the Board's directive, BAEHC sees the CEQA revision as a prime opportunity to reduce cumulative impacts for disproportionately impacted communities. As the CEQA proposal serves as Guidance rather than regulation, it provides the District a chance to set the bar as high as technically feasible.

Loss of Tiered Approach to Thresholds of Significance

BAEHC agrees that the District is attempting to propose a new CEQA Thresholds of Significance for Land Use Planning as a means to improve the air quality of disproportionately impacted communities. However, we feel that this effort has fallen short in several aspects detailed in this letter. Most importantly, BAEHC is dismayed that the September 2009 proposal with a Tiered Approach of more protective thresholds of significance for Priority Communities was eliminated *prior* to the date that public comments were due. Therefore, we had not yet submitted our comment to be on record in support of the Tiered Approach. At times like this, we wonder about the transparency of the policy-making process, and why the Board had not been given an opportunity to weigh in on the Tiered Approach as part of the public record. 52-1

Disproportionate exposure to environmental pollution contributes to disproportionate health disparities. The District's CARE Program has made excellent strides in identifying high priority areas within its jurisdiction where the highest levels of toxic emissions overlap with sensitive populations. These disproportionate impacts are an Environmental Injustice, and in accordance with the District's Environmental Justice policy, must be fairly accounted for with respect to the development, adoption, implementation, and enforcement of

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environmental laws and policies. To develop a CEQA policy that would acknowledge these disproportionate impacts, but that would not take affirmative steps to reduce these impacts, would have to be considered an unfair policy.

52-1

Establishing more stringent CEQA significance thresholds for sources in these priority areas is a fair and reasonable approach to addressing this Environmental Injustice. Requiring more stringent CEQA thresholds in the high priority areas allows for additional mitigation measures that will reduce the disproportionate exposure between people living in these areas and people living in the rest of the Bay Area.

Given the directives of the Board's Environmental Justice and Cumulative Impacts policies and the defective public comment process, BAEHC demands that District staff reinstate your earlier proposed thresholds for siting new sources in high priority areas and present this Tiered Approach for consideration by the District's Board of Directors.

Lack of Detail Provided for Health-Protective Requirements of Community Risk Reduction Plan Approach Prior to Due Date for Comments

BAEHC agrees that the District is proposing Community Risk Reduction Plans (CRRP) as a means to improve the air quality of disproportionately impacted communities. No detail has been provided that assures us that the health-protective criteria of a CRRP would be equal to or greater than the default Thresholds of Significance for those jurisdictions that do not adopt CRRPs, and that the defined cumulative impact thresholds would still be required. Due to the great potential for the CRRP mechanism to be abused as a loophole, the Guidelines should also clarify that the other important cumulative impacts thresholds will remain after adoption of a CRRP. It is unclear what public participation protocols would be required of local jurisdictions before the District's staff would approve their proposed CRRPs.

52-2

It is unclear how the District would be staffed to effectively monitor these CRRPs, all of which call for enforceable measures, but does not designate by whom they are enforceable. If these issues can be clarified and resolved, and CRRP is truly advantageous for protecting Impacted Communities, as suggested in the October 2009 revision document, then it should be required for land use development in impacted communities. In addition, a minimum standard for public participation should be established to gain approval for a CRRP, particularly in impacted communities.

BAEHC proposes that the guidelines established for CRRPs within Impacted Communities must strengthen the Thresholds of Significance for individual new sources and cumulative impacts, to result in no net increase in air pollution. Furthermore, the District should commit to technical assistance and loan and grant programs for pollution sources in the CRRP defined area for funding necessary mitigations, if this approach is to be considered acceptable.

Construction-Related Thresholds

We are in support of the District's first-time inclusion of Construction-Related Project-Level Thresholds of Significance, but we strongly assert, along with partner coalitions, Ditching Dirty Diesel and the Clean Air Task Force, that the proposed Maximum Daily Emissions (lb/day) thresholds for Construction-Related Particulate Matter (PM 10 and 2.5) are insufficient to protect against local risks to public health, and that a more protective threshold needs to be established for Impact Communities. Much of new land use development occurs in impacted communities, and the construction phase alone can last 5-10 years, allowing for a significant daily impact from construction equipment emissions. Use of best available control technology would be a cost

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effective way to address a major source of toxic risk in the priority communities. The District's research in the CARE program found that construction equipment is 29% of the weighted cancer risk in the priority communities, and in some communities such as Bayview Hunters Point, it is even higher. Use of retrofits and higher tier engines can cut up to 85% of the fine particulate matter emitted, so adoption of toxic best practices could potentially result in a 25% reduction in cancer risk in the priority communities. Air Resources Board studies comparing the costs and benefits of requiring higher tier engines and retrofits showed a **nine to one** ratio of health benefits and industry costs, demonstrating that cleaner diesel equipment is an extremely cost effective measure. 52-3

Until Clean Construction Equipment is the required standard in Impacted Communities, these residents will continue to suffer disproportionate health impacts. Furthermore, there is no effective enforcement mechanism for monitoring the maximum daily emissions now included in the proposed CEQA thresholds.

Operational-Related Thresholds for Criteria Air Pollutants

We are in support of the District's first-time inclusion of Criteria Air Pollutants, and its effort to define thresholds for both siting a new source or receptor, as well as a cumulative significance criteria. **In addition to comments about enforcement of maximum daily emissions above, BAEHC urges that the Guidelines clarify that for specific exceptionally high-polluting sources, impacts between 1,000 – 2,000 feet should be considered based on the modeled impacts of these sources.** 52-4

Even in areas with annual attainment, particulate matter emissions provide significant health risks to local communities. For example, San Francisco received an "F" on the American Lung Association's 2009 *State of the Air Report Card* for 24 hour Particle Pollution for 14 days in the highest risk Orange zone. Quoting the Lung Association guide, "First and foremost, short-term exposure to particle pollution can kill. Peaks or spikes in particle pollution can last for hours to days. Deaths can occur on the very day that particle levels are high, or within one to two months afterward. Particle pollution does not just make people die a few days earlier than they might otherwise—these are deaths that would not have occurred if the air were cleaner." Particle pollution also diminishes lung function, causes greater use of asthma medications and increased rates of school absenteeism, emergency room visits and hospital admissions. Other adverse effects can be coughing, wheezing, cardiac arrhythmias and heart attacks. This Lung Association air quality indicator was projected to negatively impact close to 60,000 San Francisco residents with asthma and 230,000 residents with cardiovascular disease. We know that the eastern neighborhoods of San Francisco defined as Impacted Communities under the District's CARE Program have a disproportionate prevalence of these health impacts.

BAEHC proposed Pollution Reduction and Public Participation Protocols

While we support many of the concepts proposed by the District, BAEHC's position is that in Impacted Communities, an updated CEQA Guideline should prohibit new or modified pollution permits with the following exceptions: 52-5

> Urgent Community Need: Projects that address urgent community needs could be exempt from the prohibition. Urgent community needs are defined as healthcare facilities, childcare and school facilities, affordable housing and grocery stores of appropriate scale to the neighborhood. For this exemption to be granted, BAAQMD must document strong community support for the project through implementation of a thorough public participation process as described in BAEHC's Public Participation Protocol.

Net Reduction in Emissions and Risk: Projects that result in a net decrease in emissions and health risk to nearby residents and sensitive receptors would be exempt from the prohibition. Offsetting reductions in emissions must be at least 120% of new emissions and must be on-site or in very close proximity to the new source. 52-5

To further protect impacted communities, we request that the updated CEQA Guideline include criteria and explanation of how local planning agencies and redevelopment commissions and their EIR consultants can use the "No Project Option" that presently exists under CEQA authority.

BAEHC also believes the CEQA Guidelines should direct Lead Agencies, consultants, and other parties to develop and implement outreach, public input and oversight plans to ensure that the significant new concepts and requirements are understood and are being followed in impacted communities. 52-6

Linkage to CARE Mitigation Action Plan

As the District initiated the CARE Program in order to develop and implement mitigation measures–such as grants, guidelines, or regulations--to achieve cleaner air for the public and the environment, focusing initially on priority communities, it is essential that the District's CEQA Guidelines complement and enhance the CARE Program's charge. Furthermore, the District Board has adopted both Environmental Justice and Cumulative Impacts policy resolutions which support the priority given to reducing cumulative air pollution impacts on environmental justice communities in the Bay Area that are already documented to be disproportionately impacted by multiple sources of air pollution (stationary, magnet, construction and mobile sources) and their associated health effects. Independently of the CEQA Guidelines update, we expect the Air Quality District to continue to develop both regulatory and other strategies that will reduce these cumulative impacts on the most highly impacted communities. 52-7

BAEHC is a regional coalition of over a twenty grassroots, environmental and health organizations and agencies that advocates for the reduction of cumulative air pollution impacts in the San Francisco Bay Area. Thank you for your careful consideration of our comments to the revised CEQA Thresholds of Significance proposal. We look forward to working with you to maximize health protections for impacted communities.

Sincerely,

Gordon Mar
Interim Campaign Director
Bay Area Environmental Health Collaborative

Attachments:
BAEHC Pollution Reduction Protocol
BAEHC Public Participation Protocol

cc: Members of Bay Area Air Quality Management District Board of Directors

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Bay Area Environmental Health Collaborative

Proposed Bay Area Air Pollution Reduction Protocol

March 2009

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.

52-8

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.

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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 conside 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. 52-8

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. 52-8

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. 52-8

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

52-8

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

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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 Public Participation Protocol
March 2009

Purpose

For years, community leaders and public advocates have urged the Bay Area Air Quality Management District (BAAQMD) to improve its public outreach and participation to enable more effective community involvement in BAAQMD programs and decision-making processes. Towards this end, the Bay Area Environmental Health Collaborative (BAEHC) proposes the following Public Participation Protocol for adoption and swift implementation. This Protocol will aid BAAQMD in advancing its mission of achieving clean air to protect the public's health and the environment in the region, including development and implementation of protocols and policies to advance Environmental Justice goals.

52-8

Scope

The protocol focuses on public notice, comment and hearing procedures in air pollution permitting processes, but is also applicable to other regulatory actions. This protocol refers to two sets of BAEHC recommendations specifically formed to improve public outreach and participation in BAAQMD programs: the Limited English Proficiency Proposal (September 2008) and District Website Recommendations (December 2008).

Moreover, this protocol is designed to complement the proposed BAEHC Pollution Reduction Protocol (March 2009). BAEHC notes that the definition of the key term "highly impacted areas" in this document is more broad and inclusive than the BAEHC Pollution Reduction Protocol's definition of the same term, as the intent here is to expand opportunities for public access and participation in BAAQMD decision-making processes.

Definitions

1. **Highly Impacted Areas**
   A. *Highly impacted areas* include, but are not limited to, the following:
      i. Existing *"priority communities"* as designated under the Community Risk Evaluation (CARE) Program;
      ii. Areas identified as *high hazard* under the BAEHC Pollution Reduction Protocol (March 2009);
      iii. Areas that are the most heavily burdened by air pollution in: Southeast San Francisco, Richmond, Martinez, Benicia, East and West Oakland, San Leandro, East San Jose, Hayward, Pittsburg, Antioch, Hercules, East Palo Alto, East San Jose, and West Berkeley.
      iv. Note: This shall be a working and expandable definition.
   B. To determine where additional highly impacted areas may be located, BAAQMD shall conduct a community-based and participatory process.

2. **"Medium" and "Low" Hazard Areas**
   A. BAAQMD shall define "medium" and "low" hazard areas consistent with the BAEHC Pollution Reduction Protocol (March 2009).

Proposed Protocol

1. Website Accessibility and Right-to-know
   BAAQMD shall adopt BAEHC recommendations regarding website accessibility as outlined in the District Website Recommendations (December 2008).

2. Language Access for Limited English Proficiency Residents
   BAAQMD shall adopt BAEHC recommendations regarding language access as outlined in the Limited English Proficiency Proposal (September 2008).

3. Outreach Implementation Plan
   BAAQMD shall develop and implement an effective public outreach plan for each identified area to effectively determine the community's priorities and needs regarding public notice, outreach, and opportunities for participation.

   A. **Public Workshops.** BAAQMD shall conduct a series of workshops in each target area, planned and coordinated in partnership with community organizations and interested residents. Through these workshops, BAAQMD shall determine the most appropriate form of outreach in each area, and shall identify additional outreach measures as appropriate. The objective is to gather information for BAAQMD to conduct efficient public outreach to prepare community residents for effective participation in BAAQMD proceedings.

   B. **Notification List.** BAAQMD shall develop a notification list for each target area, including, but not limited to, public libraries, neighborhood and community centers, and local media, in addition to entities automatically added to the list and residents added by request (see Sectiond 3.C and 4.B below).

   C. **Information Repositories.** BAAQMD shall determine, in consultation with community residents, the best locations for repositories of public information including public notices and related permit documents.

   D. **Public Record.** BAAQMD shall keep a public record of its outreach activities, including comments raised at public meetings and workshops.

4. Public Notice

   A. **Highly Impacted Areas.** For all proposed permit and regulatory actions in *highly impacted areas*, BAAQMD shall provide adequate notice of availability of public documents and access to public proceedings for all proposed regulatory actions, including permit applications, public comment periods, public meetings and public hearings. All relevant documents shall be made available in a timely manner by the means identified through the outreach implementation workshops (see Section 5), and on the BAAQMD website.

   B. **Adequate Notice.** To fulfill adequate public notice requirements, BAAQMD shall, in addition to fulfilling existing legal requirements regarding public notification (e.g., per BAAQMD Reg. 2-1-412 2-6-412, and under CEQA), provide public notice of any proposed permit or regulatory action:

52-8

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i. *Within a Geographic Boundary.* Notice shall be provided to all residents, property owners, organizations and businesses within 3,000 feet of a site at which regulatory action is proposed.

ii. *In Accessible Language.* Notice language and permit documents shall be readily accessible in easily understandable language, in addition to the recommendations in the BAEHC Limited Proficiency Proposals (September 2008).

iii. *By Request.* Any member of the public can request to be on a "public notification list" to receive public notices, in a method of her or his choosing,[1] for all BAAQMD permit applications and proposed regulatory actions for any facility or facilities in a geographic region (e.g., by zip code, city, county, or district-wide) or the region as a whole.

iv. *Automatically to Certain Entities.* When the public notice requirement is triggered, in addition to entities required by law and identified by request, BAAQMD shall automatically provide adequate notice to environmental health and justice organizations and neighborhood associations identified through the outreach implementation plan.

C. **Neutral Language.** BAAQMD shall provide neutral language in public notices and permit documents.

i. *Proposed Actions.* BAAQMD notices shall clarify that the proposed actions under consideration are proposed, not final, and that public comment is sought on proposed actions.

ii. *Unbiased Language.* BAAQMD notices shall use neutral and unbiased language and shall not rely on industry marketing materials or industry claims as the basis for proposed decisions.

5. Public Comment

A. **Comment Periods.** To fulfill public comment requirements, BAAQMD shall, in addition to fulfilling existing legal requirements regarding public notification and comment (e.g., per BAAQMD Reg. 2-1-412 2-6-412, and under CEQA), provide a public comment period for any proposed permit or regulatory action, as follows:

i. *Highly Impacted Areas.* In highly impacted areas, BAAQMD shall provide a mandatory public comment period of at least 30 days for all proposed permit actions, consistent with the BAEHC Pollution Reduction Protocol (March 2009).

ii. *Medium and Low Hazard Areas.* In "medium" and "low" hazard areas, BAAQMD shall provide a public comment period of at least 30 days for all upcoming permit actions, if requested by a member of the public.

B. **Response.** Before a final decision is made, BAAQMD shall respond in writing to all public comments made during the public comment period or at public meetings on proposed proceedings. All comments and responses to comments shall be posted on the BAAQMD website in a timely manner.

C. **Public Record.** BAAQMD shall keep a public record of all comments raised during permit proceedings, and BAAQMD responses.

[1] Including by E-mail, U.S. Postal Service, telephone, or other methods as determined by the outreach implementation plan.

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6. Public Hearings

A. **Highly Impacted Areas.** BAAQMD shall hold a public hearing for all proposed regulatory actions in or affecting highly impacted areas.

B. **Medium Hazard and Low Hazard Areas.** In medium and low hazard areas where a public hearing is not already planned, BAAQMD shall hold a public hearing upon request or when concern is raised by any of the following parties, even if the site is not in a CARE priority community or other high hazard area: 52-8

   i. *Residents.* A group of five residents
   ii. *Organization or Association*
   iii. *Individual Member of the Public.* A member of the public raises a legitimate concern during the public comment period.

C. **Accessibility of Public Hearings and Informational Meetings.** Public hearings and public informational meetings shall be held in the affected area and at a convenient time and place in order to maximize community attendance and the public's ability to participate. The desired times and locations shall be determined through the public workshops in the outreach implementation plan.

D. **Demolition, Remediation, Clean-up Activities.** Where demolition, remediation, or clean-up activities are planned and subject to BAAQMD jurisdiction, BAAQMD shall hold a public hearing in the affected area after conducting outreach through the means identified in the outreach implementation plan (see Section 5). Residents shall be informed about proposed activities including BAAQMD oversight and enforcement, and shall be given an opportunity to provide input.

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Comment Letter #: 52
Date: October 26, 2009
From: Gordon Mar, Bay Area Environmental Health Coalition

Response to Comments:

52-1 The Proposed Thresholds of Significance report (November 2, 2009), recommends a single community risk and hazards threshold for all areas in the Bay Area, including impacted communities. Staff agrees with several commenters that the problem of certain areas being disproportionately adversely impacted should be addressed as a cumulative impacts problem. Staff has revised the proposed thresholds to do so. Under staff's current proposal, areas that are disproportionately burdened with TAC emissions sources in the local vicinity will benefit from a cumulative analysis threshold that will require projects to evaluate the cumulative impact of all such sources within a 1,000 foot radius of the proposed project. This revised approach will provide a tool for lead agencies to carefully consider whether to site new sources or receptors in disproportionately burdened areas, without establishing different health risk standards for different segments of the population. In addition, the Air District believes that withdrawing the earlier, more stringent threshold, is also appropriate in light of using OEHHA's more conservative risk factors (substantially increasing estimated risk levels) and the addition of community risk reduction plans. Risk reduction plans provide a programmatic approach to a localized problem, address existing sources of risks and hazards, and require design standards of new development not always available through the CEQA process.

52-2 The updated CEQA Guidelines will provide a broad view of what Staff anticipates will be required in a Community Risk Reduction Plan (CRRP). Understanding that no such plans yet exist in the Bay Area, the Air District will initiate a process to identify steps and defining criteria for a CRRP. The process will work to answer the CCRP questions raised by the commenter. In addition, the commenter's subsequent comments regarding reducing emissions in impacted communities could serve as guidance in defining a CCRP. District Staff will consider these comments in the CCRP development process.

52-3 The Air District encourages cities and counties to develop community risk reduction plans. Such plans would be the appropriate place to recommend clean construction equipment as a required standard in impacted communities.

52-4 It is in the purview of the lead agency to decide to extend the risk evaluation from a fence line past 1,000 feet to include significant emission sources.

52-5 As part of the proposed community risk and hazard threshold, the Air District encourages cities and counties to develop community risk reduction plans. If projects, as the ones suggested by the commenter, are consistent with the community risk reduction plan, than it can be assumed that their air quality impacts will be less than significant.

52-6 Staff agrees with the commenter's suggestion and will initiate an outreach effort to assist stakeholders in using the CEQA Guidelines following future adoption of the proposed thresholds.

52-7 The community risk and hazard thresholds in the *Proposed Thresholds of Significance* report (November 2, 2009) were developed with consideration to the Air District's CARE program. The Air

District is committed to continue enhancing its CARE program and believes that the proposed community risk and hazard thresholds support the CARE program and will reduce cumulative impacts in impacted communities.

52-8 See comment response 52-2.

#53

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October 26, 2009

Mr. Gregory Tholen, Principal Planner
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Subject: ***Draft** BAAQMD CEQA Guidelines, Sept. 2009*

The Contra Costa County Department of Conservation and Development has reviewed the draft CEQA Guidelines (September 2009) issued by the Bay Area Air Quality Management District. As a general comment, we support the Air District's goals of developing CEQA guidelines that provide an effective and meaningful way to gauge the significant air quality impacts of development projects. 53-1

We observe that the Air District's Draft CEQA Guidelines necessarily contain significant technical information and call for cities, counties, and other public agencies in the Bay Area to apply a more sophisticated air quality analysis as part of the lead agency's CEQA Process. Therefore it is important that the guidelines be as easy to understand and apply as possible, since most local jurisdictions have limited resources and expertise in this area. We support the development of guidelines that will improve the CEQA process, and ultimately provide meaningful and relevant information to local decision-makers about the air quality impacts from new development. 53-2

We offer the following specific comments on the draft guidelines:

1. We support the emphasis on gauging cumulative impacts on communities that are already disproportionately impacted by air quality problems. We note that Bay Point, an industrially impacted community in eastern Contra Costa County, is not included in the Air District's map of impacted communities as shown in Figure 4-1, Communities of High Concern (page 4-3, Draft CEQA Guidelines, Sept. 2009). Many Bay Point residents live in close proximity to chemical plants. There are also two active freight railroads, including the mainline of the Burlington Northern Santa Fe (BNSF) and the Mococo line of the Union Pacific Railroad, which traverse through Bay Point and the cities of Pittsburg, Antioch, Oakley, and Brentwood. These freight railroads not only emit diesel particulate matter from the locomotive engines, but often carry hazardous materials on these railroad lines destined for industrial users in the Bay Area or for export through the Port of Oakland. 53-3

2. We support the establishment of threshold screening sizes as shown in Table 2-2, Operation Criteria Air Pollutant and Precursor Screening Level Sizes (pages 2-3 to 2-4, Draft CEQA Guidelines, Sept. 2009), which provide threshold sizes for each type of development that would be analyzed for air quality impacts. Many of the development applications that Contra Costa County processes are for smaller, infill residential development projects that would not, by themselves, generate significant air quality impacts. We also suggest the Air District offer additional guidance to a local jurisdiction on how to address the air quality impacts of smaller, infill residential development project that is not included in Table 2-2. 53-4

3. We welcome the menu of potential mitigations that are offered in the draft guidelines, but we note that some of the mitigations are beyond the authority of local governments to implement. It is important that the mitigations fall within local authority so that we are able to implement them. The mitigations also should be consistent with local guidelines that encourage infill development. As an example, at page 3-11, Section 3.3 Mitigating Operational-Related Impacts, Included as mitigation measures in this section are "transit passes" and "transit service" itself. Additional detail with these mitigation measures will substantially increase the effectiveness of the mitigation measures, ensure they are feasible, would result in guidelines that are much more useful to local staff, and would represent an evolution of transit related mitigation measures made necessary by the expectations established in SB 375. The mitigation measures should include the establishment of an ongoing funding mechanism (assessment district, parcel tax, service area fee, etc.) to pay for transit passes and/or the transit service itself. Without such a mitigation measure of this type, there can be no assurance that transit will be present to take advantage of "free transit passes" or to justify the reductions for "transit service" that may be in place during the time of environmental review but disappear with the next round of funding cuts. Absent such mitigation as this, the guidelines should be clear that in order to take advantage of reductions for transit mitigation measures the project proponent must establish that it is reasonable to assume the transit service will be present in perpetuity or for the duration of the project. 53-5 53-6

As a final matter, we are aware that Dr. Wendel Brunner, M.D., Director of Public Health, Contra Costa County, has also submitted a letter to the Air District commenting on the draft guidelines (dated October 23, 2009). In his letter, Dr. Brunner identifies his support on several of the approaches to determining air quality impacts proposed under the draft guidelines. However, he recommends that the Air District reconsider its decision to withdraw an earlier proposal to establish more stringent CEQA significance thresholds for sources of air pollution in the "Communities of High Concern" (Figure 4-1, page 4-3, Draft BAAQMD 53-7

Guidelines, Sept. 2009). Dr Brunner is urging the reinstatement of the earlier proposed thresholds of significance for siting new sources of air pollution in the communities with a disproportionate exposure to air pollutants. Dr. Brunner points out that there are significant health disparities associated with air pollution in the high concern (impacted) communities as compared to less impacted communities, and he notes that establishing more stringent CEQA significance thresholds for new sources of air pollution would allow for additional mitigation measures that would advance environmental justice to these impacted communities. We respectfully urge the Air District to give due consideration to Dr. Brunner's request and recommendation to reinstate the more stringent CEQA significance thresholds for new sources of air pollution in communities of high concern that have been identified by the Air District. 53-7

The Contra Costa County Department of Conservation and Development appreciates the opportunity to review and comment on the Draft CEQA Guidelines. We fully appreciate the difficult task of updating the guidelines, particularly in balancing the needs and desires of the many stakeholders in the process. So, we hope that you will view these comments as we intend them, constructive and supportive. 53-8

Should you have any questions regarding the concerns and comments raised in this letter, please contact me by telephone at (925) 335-1242 or by e-mail at proch@cd.co.contra-costa.ca.us

Sincerely yours,

Patrick Roche

Patrick Roche
Principal Planner

CC: Supervisor John Gioia, District I, CCC-BAAQMD Board Rep.
Supervisor Gayle B. Uilkema, District II, CCC-BAAQMD Board Rep.
Dr. Wendel Brunner, M.D., Director of Public Health, Contra Costa County
C. Kutsuris, Dir., Dept. of Conservation and Development, Contra Costa County
CCC PITCH members

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Comment Letter #: 53
Date: October 26, 2009
From: Patrick Roche, Principal Planner, Department of Conservation & Development, County of Contra Costa

Response to Comments:

53-1 The Air District appreciates the commenter's general support of the CEQA Guidelines update effort.

53-2 The Air District is continually working to enhance the ease of understanding and direction included in the revised CEQA Guidelines. Air District staff is preparing numerous tools and look-up tables to relieve local agencies staff of arduous technical analyses. Air District staff is also prepared to assist local agencies with methodologies contained in the revised CEQA Guidelines.

53-3 The CARE program used specific criteria to identify communities of high concern. In the proposed thresholds of significance and revised CEQA Guidelines, the Air District encourages cities and counties to develop community risk reduction plans. Risk reduction plans can be developed for any community the local jurisdiction deems appropriate.

53-4 The screening tables provided in the revised CEQA Guidelines are not thresholds of significance and will not, based on the screening table alone, trigger a mandatory EIR. Rather, they are just screening levels to minimize the need for full analysis in situations where BAAQMD has determined no significant air quality impact would occur because Air District staff have modeled the screening level projects under very conservative assumptions and have determined that such projects will not exceed the applicable thresholds of significance. The screening tables include all land uses found in the URBEMIS model. Air District staff is available to assist local agencies identify land uses not included in the screening tables.

53-5 Air District staff strives to include all available mitigation in the menus of options. With regard to mitigation calling for a project proponent to offer transit passes to occupants or users of a development, Air District staff believes it within a Lead Agency's authority to require such mitigation as a condition of project approval. A project proponent may also choose an alternative to locate near established transit routes, or provide its own transit or shuttle service to existing transit lines.

53-6 The Air District has not yet considered establishing a region-wide funding mechanism to support free or subsidized transit passes. However, it may be within the authority of local agencies to establish such a mechanism, and perhaps have it funded by businesses within the community.

53-7 See comment response 41-5.

53-8 Comment noted. The Air District encourages and values constructive and supportive comments.

#54

ALAMEDA COUNTY COMMUNITY DEVELOPMENT AGENCY

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October 26, 2009

Mr. Greg Tholen, Principal Environmental Planner
Bay Area Air Quality Management District
939 Ellis Street
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gtholen@baaqmd.gov

RE: COMMENTS ON PROPOSED CEQA GUIDELINES

Dear Mr. Tholen:

Thank you for the opportunity to comment on the September Draft CEQA Guidelines. As a County that is currently engaged in Climate Action Planning and is committed to reducing its greenhouse gas (GHG) emissions, we appreciate the efforts of the BAAQMD to assist Bay Area agencies with development of a consistent set of guidelines for addressing the climate crisis. However, we feel that many of the guidelines and methods proposed by the BAAQMD have a number of potentially unintended consequences for CEQA analysis of various types of projects, including the possible effect of providing disincentives for smart growth and sustainable development in places where such development would help to reduce vehicle trips, increase public transit use and help to reduce GHG emissions. 54-1

Alameda County therefore wishes to support the discussion and arguments of the City of Berkeley in its letter of October 26, 2009. We believe the City makes a number of excellent points about potential drawbacks of the new guidelines regarding GHG emissions, and we make those same arguments for not only our jurisdiction, but also any other agency whose goal is to provide an effective vehicle for helping to resolve the climate crisis. To summarize the issues raised by the City of Berkeley in its letter: 54-2

1. The Guidelines would place obstacles to local and regional smart growth efforts, which are fundamental to achieving GHG reduction goals related to land use and transportation. 54-3

2. The Guidelines would essentially eliminate the "infill-exemption" for many multi-family infill projects (projects over roughly 80 – 90 units). This exemption is one valuable way to encourage appropriate regional development patterns in places where infrastructure exists, and where the population may be better served by transit and community facilities. 54-4

3. The Guidelines place too much and too narrow reliance on jurisdictions adopting enforceable Climate Action Plans for promoting overall policies to reduce GHG at a time when there are no clear metrics or standards for developing and measuring/modeling the efficacy of such plans. It is Alameda County's intent at this time to accomplish the goal of developing and incorporating an effective enforceable Community CAP, but it will take a significant amount of time locally, and we recognize that not every agency may have this goal. 54-5

We do appreciate the thought and effort put into the draft Guidelines by the BAAQMD, and encourage the effort to continue to closure; however, we urge you to consider these concerns and work closely with the agencies who, on a daily basis, must deal with these issues and arrive at effective and workable solutions to the climate change problems facing each of us. 54-6

Thank you for your consideration. If you have any questions, please contact Sonia Urzua or Bruce Jensen of this office at (510) 670-5400, or at sonia.urzua@acgov.org or bruce.jensen@acgov.org.

Very truly yours,

Albert Lopez,
Planning Director

cc: Chris Bazar, CDA Director

Comment Letter #: 54
Date: October 26, 2009
From: Albert Lopez, Planning Director, Planning Department, Alameda County Community Development Agency

Response to Comments:

54-1 Comment noted. Also see Master Responses MR-1 and MR-2.

54-2 See comment letter 45 responses.

54-3 See Master Response MR-1.

54-4 See Master Response MR-2.

54-5 The Air District acknowledges that many communities will not be able to develop climate action plans in the near future. Many communities have adopted climate-friendly ordinances, such as green building codes, that can be included in climate action plans. Development of climate action should demonstrate consistency with AB 32 at a minimum, and use the best available data.

54-6 Comment noted. Also see Master Response MR-8.

#55

City of San Leandro
Civic Center, 835 East 14th Street
San Leandro, California 94577

Mr. Greg Tholen
Principal Environmental Planner
Bay Area Air Quality Management District
939 Ellis Street, San Francisco, CA 94109

October 26, 2009

Re: Comments on the BAAQMD Draft CEQA guidelines:

Dear Mr. Tholen,

The City of San Leandro has reviewed BAAQMD's draft CEQA Guidelines as well as comments from other jurisdictions. Based on this review the City of San Leandro supports the recommendations contained in the City of Berkeley's comments dated October 26, 2009. The Berkeley letter makes the following recommendations: 55-1

1) We recommend that BAAQMD establish appropriate GHG metrics and thresholds for projects and plans based on regional location and other smart-growth criteria. As an incentive to appropriate development patterns, BAAQMD should evaluate how its Guidelines can minimize the necessity of undertaking air quality assessments for projects and plans that further appropriate development patterns, and perhaps even provide "GHG Credits" for certain types of projects. 55-2
2) We recommend that BAAQMD set forth specific measures for how thresholds should be modified based on smart growth location criteria, and for projects that incorporate specific GHG reduction measures in the project description. 55-3
3) We recommend that BAAQMD take a leadership role in better defining GHG reduction metrics and do so prior to adopting revised Guidelines. 55-4
4) We recommend that prior to setting forth standards to be achieved by Climate Action Plans, that the District work directly with a few Bay Area cities to prepare a model CAP, showing how the various inventories and mitigations would fit together to achieve AB 32 goals. 55-5

Additionally, we believe that BAAQMD is proposing adoption of the CEQA Guidelines too quickly as staff may not have foreseen the unintended consequences of these guidelines. We urge BAAQMD to extend its timeline in order to consider these consequences. 55-6

If you have any questions please feel free to call me at (510) 577-3350.

Sincerely,

Kathleen Livermore, Planning Manager

Tony Santos, Mayor

City Council: Surlene G. Grant, Michael J. Gregory, Jim Prola, Diana M. Souza, Joyce R. Starosciak, Bill Stephens

Comment Letter #: 55
Date: October 26, 2009
From: Kathleen Livermore, Planning Manager, City of San Leandro

Response to Comments:

55-1 See comment letter 45 responses.

55-2 See Master Response MR-5. The revised CEQA Guidelines provide recommended methodologies that allow well-designed, efficient projects to "take credit" for reducing emissions compared to less efficient projects. In addition, projects located near transit and support services may be able to achieve even lower emission levels and possibly an impact finding of less than significant for air quality.

55-3 The screening tables provided in the revised CEQA Guidelines are not thresholds of significance and will not, based on the screening table alone, trigger a mandatory EIR. Rather, they are just screening levels to minimize the need for full analysis in situations where BAAQMD has determined no significant air quality impact would occur because Air District staff have modeled the screening level projects under very conservative assumptions and have determined that such projects will not exceed the applicable thresholds of significance. Most projects will have characteristics, such as nearby transit and services, which will reduce estimated emissions and allow a larger project than indicated in the screening table to be less than significant. Also see Master Response MR-2.

55-4 In response to this and similar comments, Air District staff has worked to improve guidance on applying estimates of mitigation effectiveness. Air District staff will continue to refine the guidance. Air District staff is available to assist with estimating emissions and mitigation efficiency. Air District staff is also developing off-model tools to use in conjunction with the URBEMIS model.

55-5 The Air District is continually working to enhance existing metrics to quantify community GHG emissions and climate action plan recommendations. Air District staff are prepared to assist local agencies prepare climate action plans.

55-6 See Master Response MR-8.

#56

LIVERMORE
CALIFORNIA

October 26, 2009

Bay Area Air Quality Management District (BAAQMD)
939 Ellis Street
San Francisco, CA 94109
Attn: Greg Tholen, Principal Planner

Dear Mr. Tholen:

We appreciate the opportunity to provide comments to the BAAQMD on the Draft CEQA Guidelines. The City of Livermore recently adopted a Climate Change Element in the 2003 Livermore General Plan and is about to begin preparation on a Climate Action Plan for the Community. For these reasons, we are very interested in the realistic implementation effects of the proposed thresholds, particularly at the project-level. Specifically, we are concerned (and in agreement with comments provided by the City of Berkeley) regarding three specific areas of the Draft Guidelines: 56-1

- *Smart Growth Strategies for Vehicle Miles Traveled (VMT) Reduction* – The City of Livermore Climate Change Element seeks to reduce GHG's through a variety of goals and objectives—one important objective being the link between transportation, commercial services, employment and residential density to reduce vehicle miles traveled. Land use strategies linked to mixed-use and infill development near transportation modes, services, and employment will reduce GHG emissions associated with vehicle travel. Yet, the proposed guidelines do not address or include VMT reduction measures in the threshold determination for operational impacts at the project-level. 56-2

- *Infill Exemption* – The proposed threshold measures for project-level operational impacts will make it much more difficult for mixed-use infill development projects to meet the infill categorical exemption. This seems contrary to the intent of establishing this exemption and further undermines smart growth policies to reduce Greenhouse Gas Emissions. 56-3

- *Detailed Climate Action Plans* – We concur with City of Berkeley comments that not all local jurisdictions have the ability at this time to produce inventories and measurable (and enforceable) benefits from specific reduction measures that are achievable at a realistic cost and timeframe. Therefore it is not realistic to rely on detailed, individual city-prepared Climate Actions Plans for project by project CEQA assessment of GHG impacts. 56-4

Given the importance of comments that are being raised by numerous jurisdictions, we respectfully request that the BAAQMD acknowledge and address the comments received prior to taking any action to adopt the new Guidelines. Additionally, we encourage the BAAQMD to revise the guidelines and allow for additional opportunity for stakeholder input and review of the Guidelines. 56-5

If you have any questions, please do not hesitate to contact me at (925) 960-4450.

Sincerely,

Ingrid Rademaker for
Susan Frost

Susan Frost
Principal Planner
Advanced Planning, Community Development Department
(925) 960-4450
(925) 960-4459

cc: Fred Osborn, Planning Manager

Comment Letter #: 56
Date: October 26, 2009
From: Susan Frost, Principal Planner, Advanced Planning, Community Development Department, City of Livermore

Response to Comments:

56-1 See comment letter 45 responses.

56-2 The screening tables provided in the revised CEQA Guidelines are not thresholds of significance and will not, based on the screening table alone, trigger a mandatory EIR. Rather, they are just screening levels to minimize the need for full analysis in situations where BAAQMD has determined no significant air quality impact would occur because Air District staff have modeled the screening level projects under very conservative assumptions and have determined that such projects will not exceed the applicable thresholds of significance. Most projects will have characteristics, such as nearby transit and services, which will reduce estimated emissions and allow a larger project than indicated in the screening table to be less than significant. Well designed projects that incorporate recommended measures in the project proposal are not considered mitigated projects and may still be found less than significant and qualify for a categorical exemption.

56-3 See Master Response MR-2.

56-4 The Air District acknowledges that many communities will not be able to develop climate action plans in the near future. Many communities have adopted climate-friendly ordinances, such as green building codes, that can be included in climate action plans. Development of climate action should demonstrate consistency with AB 32 at a minimum, and use the best available data.

56-5 See Master Response MR-8.

#57

Transportation Solutions Defense and Education Fund

P.O. Box 151439 San Rafael, CA 94915 415-331-1982

October 26, 2009
By E-Mail

Greg Tholen
Bay Area Air Quality Management District

Re: Revised Draft CEQA Guidelines--Supplemental Comments

Dear Greg:

TRANSDEF would like to offer the following comments on Chapter 3.3 of the Draft CEQA Guidelines:

1. Please include a sentence indicating that "Mitigations must be included in project conditions of approval, in a form that is enforceable by the approving agency."

2. The Unscaled Reductions for Free Transit Passes should read "25% of reductions for transit service." The way it is written, it looks like there are reductions for transit service reductions.

3. The Unscaled Reductions for Other Transportation Demand Measures is hard to read. Better would be "1% reduction for at least 3 elements plus 5% of the total reduction for transit and pedestrian/bike friendliness; 2% reduction for at least 5 elements plus 10% of the total reduction for transit and pedestrian/bike friendliness."

4. The clustering of measures is non-intuitive. We recommend eliminating the Others Measures sub-category, and modifying the Area-Source category. If we number the measures starting with Area-Source measure "Increase Energy Efficiency..." as 1, and ending at 29, then we have the following groupings:

Non-URBEMIS Energy Efficiency-Related Measures: 1, 4-12, 17, 20-22,

Non-URBEMIS Planning-Related Measures: 13-16, 19

Non-URBEMIS Water-Related Measures: 18, 26-29

Non-URBEMIS Landfill-Related Measures: 23-25

Non-URBEMIS Area-Source Measures: 2, 3

We suggest using an asterisk and footnote to indicate the measures for which there are no quantifiable emissions reductions.

57-1

Thank you for the consideration of these comments. As always, we stand ready to assist the District in the development and implementatation of these Guidelines.

Sincerely,

/s/ DAVID SCHONBRUNN

David Schonbrunn,
President

57-1

Editorial Suggestions

p. 41: delete "see" in Step 6.

p. 45: "estimated" rather than "estimate" on the 4th line.

p. 45: The text uses the phrase "land use development" several times, including on this page. Although this phrase may sound very professional and plannerly, isn't this usage incorrect? Shouldn't it be "land development?"

Transportation Solutions Defense and Education Fund

P.O. Box 151439 San Rafael, CA 94915 415-331-1982

October 25, 2009
By E-Mail

Greg Tholen
Bay Area Air Quality Management District

Re: Revised Draft CEQA Thresholds of Significance

Dear Greg:

We are struck by the fact that the recommended GHG thresholds are focused solely on achieving 2020 emissions reduction goals, and not the longer-term 2050 goals. (p. 52.) Because the longer-term goals require a far greater emissions reduction effort--one that can be considered "game-changing"--we wonder about the wisdom of a policy choice that sets in motion an evaluation system that will be seen in the future to have exceedingly modest goals. The long-term nature of investments in land development demands that profound changes in energy consumption be adopted as soon as possible, because the GHG emissions remain in the atmosphere for 100+ years. 57-2

Because of the cumulative nature of GHG emissions over the years, emissions reductions in the earlier years of the 2010 - 2050 period will be far more beneficial than the later years. One way to resolve this policy question would be to identify emissions reductions beyond these threshold levels as "additional" and therefore available to generate credits in future programs of the California Climate Action Registry.

It is troubling that the CEQA Thresholds of Significance, Revised Draft Options and Justification Report (Thresholds Report) was released substantially after the publication of the Draft CEQA Guidelines. Upon close review, it appears the documents were produced independently, with the CEQA Guidelines report selecting different thresholds than were recommended in the Thresholds Report. The problem is serious enough as to make the adoption of new Guidelines in November unlikely. 57-3

The disconnect between these two documents was highlighted by the difference in the sequence of different thresholds. In the CEQA Guidelines, Operational comes before Plan-level, which comes before Construction. In the Thresholds Report, Construction comes before Operational, which comes before Plan-level. This lack of coherence detracts from the important work of setting and justifying new CEQA Guidelines. We suggest making the two documents parallel in sequence.

p. 17: Section 3.2, Analysis of Bay Area Growth and Emissions Forecasts, clearly has some role to play in the development of thresholds. However, we were unable to find any text providing an overview of how these forecasts relate to the larger task at hand.

Please expand on the explanation of the process of the development of the thresholds. In particular, identify how the data in Table 5 is to be used. 57-4

p. 21: Please verify whether each datum of Unmitigated Emissions in Table 5 is cumulative for all the projects in that ten year window that precede it.

p. 22: Table 6 would not have been confusing had the introduction said "Threshold options to be evaluated are summarized in Tables 6 and 7." 57-5

p. 26: The following statement appears to have no evidentiary basis for PM, because the District has not developed any PM attainment plans, and little basis for other pollutants, seeing as the CCAA requires all feasible measures: "Thus, utilization of the BACT Requirements as thresholds of significance for CEQA would result in achieving considerably more emission reductions from land use development than is needed to achieve air quality goals." Unless the District can justify this language, it must be deleted, and the 10 lb/day BACT Requirements for criteria pollutants must be recommended instead. This would then require the revision of Tables 6-1 and 6-2. 57-6

p. 27: The recommendation is for a BMP approach to a fugitive dust significance threshold. However, that was not the approach taken in the Draft Guidelines. The text on p. 6-11, Section 6.3.1, lists the BMPs as Additional Construction Mitigation Measures. This conflict must be resolved. 57-7

p. 28: GHG Threshold 6.4 (p. 6-14) is inconsistent with Staff Recommendation 4.1.3.4. This conflict must be resolved. 57-8

p. 30: TAC Threshold 6.5 (p. 6-15) took the Option 2 approach, the Tiered Quantitative Threshold, which is inconsistent with Staff Recommendation 4.1.4.4, which took the Option 3 approach. This conflict must be resolved.

p. 31: We are struck by a fundamental problem we identified in our comments on the CEQA Guidelines: Plan consistency with the Clean Air Plan (AQP) is overly subjective, due to the inclusion of control measures in the AQP that are not actually being implemented. Because the region is in non-attainment of several NAAQS, there needs to be a well-defined minimal amount of mitigation effort required by the AQP, before a project or plan could, with confidence, be considered consistent with the AQP. This concern pertains to the evaluation of cumulative operational impacts. 57-9

p. 33: Unless we are mistaken, Table 13 refers only to CCAA 5% reductions to the 2010 base year inventory, but ignores the emissions increases from projects in the 2010 - 2020 window. 57-10

p. 37: Recommendation 4.2.1.5 did not sufficiently demonstrate that adoption of the proposed thresholds will not hinder attainment of NAAQS or prevent further deterioration of air quality. Specifically, the assertion that these thresholds for ozone precursors would be "an appropriate approach to prevent further deterioration of ambient air quality..." was unsubstantiated by evidence. The sensitivity analysis offered nothing relevant to the question of attainment. Nothing in this section justifies why using a federal Significant Emission Rate as a threshold will prevent cumulative PM emissions from increasing. 57-11

p. 40: After consulting with individuals familiar with SB 375, it appears that the following citation is simply untrue: "If MPOs do not meet the GHG reduction targets, transportation projects would not be eligible for State funding programmed after January 1, 2012." 57-12

p. 47: Table 18 is close to impenetrable. It is not self-explanatory. Part of the problem is that the second and third columns on the left are secondary assumptions, not the primary assumption. The table would be much more understandable if the second column were the Mass Emission Threshold Levels, in numerical order. The % Projects Captured column is dependent on the Threshold levels. The Mitigation Effectiveness is then a secondary assumption, upon which the % of Emissions Captured column is based. The MT/yr Emissions Reduction is actually redundant, given the MMT figures in the next column. 57-13

pp. 48 & 72: Please be sure to identify the GHG efficiency metrics as annual emissions per capita. These metrics are cited in multiple places in the document, but not with the "per year" descriptor. 57-14

p. 58: Something is wrong with y axis labels on Table 4. There is no way that each of those histograms can represent 20% of the total number of grid cells. The total number of histograms needs to add to 100%.

p. 59: Label the x axis Excess Cancer Risk (per million).

p. 60: define "HI."

p. 61: The discussion of the infeasibility of no net increases in TACs is totally flawed. The situation should instead be analogized to 'no net increase' in water consumption, a policy found more frequently in the Bay Area. Developers seeking to install a new water connection need to invest in off-site water efficiency technology to reduce consumption elsewhere, thus freeing up capacity for a new project. There is no reason why an analogous TAC program could not be constructed. 57-15

p. 62: We fail to detect a health-based rationale for recommending a 500 per milliion threshold. It would appear that a 100 per million threshold would at least restrict exposures to the lightest exposures now found in the region. 57-16

p. 65: If the District is proposing to tier off a CRRP, then its contents must be mandatory. Replace the "should" with "shall" in the sentence following the Qualified plans heading. 57-17

p. 65: It would read better to say "Projects would be considered to have a significant air quality impact when proposed in areas where a CRRP has not been adopted and the potential exists to expose sensitive receptors or the general public to emissions-related risk in excess of the following thresholds from any source: " Note the misspelling of 'exists.'

p. 66: The text offers no justification for not using the methodology provided by SFDPH that set a $PM_{2.5}$ limit at 0.2 μg/m³. On the contrary, the text clearly indicates that the SIL is a threshold for areas in attainment. (p. 61.) That is not the case in the Bay Area. Given the failure to support a 0.3 μg/m³ threshold as health-protective, a 0.2 μg/m³ must be recommended instead. Interestingly, the Draft CEQA Guidelines uses both. 57-18

p. 66: Although the Recommendation for siting a new source or receptor claims to include Option 3--Tiered Approach, there is no reference whatsoever to an impacted community in this Recommendation. This is a critical part of the CARE program, and was written into the Draft CEQA Guidelines. This conflict must be resolved. 57-19

pp. 66-68: This section on Cumulative Option 2 has no citation to literature indicating that an 0.8 $\mu g/m^3$ threshold for $PM_{2.5}$ is health-protective. Instead, the fact that that level was approached by mice tells us nothing. 57-20

p. 68: The Recommendation for Cumulative TAC is silent on the topic of impacted communities. The District needs to justify this omission. Why are the cumulative impacts on impacted communities not the basis for additional health protection? 57-21

p. 68: The Recommendation for Cumulative TAC includes the ugly sentence discussed above (see comment re: p. 65.) Please note that the "following thresholds" no longer appear following that sentence. 57-22

p. 70: We are struck by a fundamental problem we identified in our comments on the CEQA Guidelines: Plan consistency with the Clean Air Plan (AQP) is overly subjective, due to the inclusion of transportation control measures in the AQP that are not actually being implemented. Because the region is in non-attainment of several NAAQS, there needs to be a well-defined minimal amount of mitigation effort required by the AQP, before a plan could, with confidence, be considered consistent with the AQP. 57-23

p. 73: We strongly disagree with the discussion of 2050 vs. 2020 goals. See our introductory comments above. 57-24

Editorial Suggestions

p. 41: delete "see" in Step 6.

p. 45: "estimated" rather than "estimate" on the 4th line.

p. 45: The text uses the phrase "land use development" several times, including on this page. Although this phrase may sound very professional and plannerly, isn't this usage incorrect? Shouldn't it be "land development?"

p. 64: add: "(if mitigation is available to reduce to below threshold levels)"

p. 71: "development" not "develop" in the first paragraph.

57-25

Thank you for the consideration of these comments. As always, we stand ready to assist the District in the development and implementatation of these Guidelines.

Sincerely,

/s/ DAVID SCHONBRUNN

David Schonbrunn,
President

Sigalle Michael

From: Gregory Tholen
Sent: Monday, October 26, 2009 5:28 PM
To: Sigalle Michael
Cc: David Vintze
Subject: FW: Additional Threshold comments

Greg Tholen
(415) 749-4954

From: David Schonbrunn [mailto:David@Schonbrunn.org]
Sent: Monday, October 26, 2009 5:24 PM
To: Gregory Tholen
Cc: David Vintze
Subject: Additional Threshold comments

In our comment letter submitted today, we noted that plans that are eligible to be tiered off for CEQA purposes needs to have mandatory contents. The list of Climate Action Plan contents starts with "should" on p. 73. This "should" must be changed to "must." 57-26

Also, the second sentence of Section 4.3.2.2 on p. 73 has no main verb or object. It is incomplete.

p. 74: "includes requirements for feasible measures..."

p. 74: We are strongly opposed to 'back door' Climate Action Plans. Because these can be tiered off, it is rash to propose a bypass pathway that does not require CEQA or enforceable measures. We were surprised to find this recommendation at the very back of the Report, having never heard it mentioned previously. It is not consistent with what was published in the Draft CEQA Guidelines. This conflict must be resolved. 57-27

--David

David Schonbrunn, President
Transportation Solutions Defense and Education Fund (TRANSDEF)
P.O. Box 151439
San Rafael, CA 94915-1439

415-331-1982

David@Schonbrunn.org
www.transdef.org

Comment Letter #: 57
Date: October 26, 2009
From: David Schonbrunn, President, Transdef

Response to Comments:

57-1 Comments have been noted and staff will apply the commenter's suggestions in Chapter 3.3 of the updated CEQA Guidelines where appropriate such as clarifying the noted mitigation measure emission reductions and reorganizing the area-source measure categories.

57-2 As noted in the *Proposed Thresholds of Significance* report (November 2, 2009), the year 2020 is examined in the threshold evaluation because doing so for the year 2050 would be too speculative. Advances in technology and policy decisions at the state level will be needed to meet the aggressive 2050 goals. It is beyond the scope of the analytical tools available at this time to examine reasonable emission reductions that can be achieved through CEQA analysis in the year 2050. As the 2020 timeframe approaches, the Air District will need to reevaluate the thresholds to better represent progress toward the 2050 goals.

57-3 The updated CEQA Guidelines will be reorganized, reflecting some of the commenter's suggestions from a previous letter. Staff does not intend to update the Revised Draft Options and Justification Report or to reorganize it since it will not be part of the final CEQA Guidelines. The Proposed Thresholds of Significance (November 2, 2009), which provides Air District Staff's proposed thresholds and the substantial evidence that justifies their adoption and use, will be included in an appendix of the revised CEQA Guidelines. See also Master Response MR-8.

57-4 Table 5 in the Revised Draft Options and Justification Report is intended to illustrate the number of projects and associated emissions the Air District estimates will occur in future years in the Bay Area. The forecasted projects and emissions helped to inform the potential emission capture rate of proposed thresholds. The forecasted projects where used to evaluate the sensitivity such as, emission reductions and capture rates, of different threshold levels for pollutants. The Air District conducted a sensitivity analysis which involved adjusting the threshold to attain different amounts of emission reductions. Each datum of unmitigated emissions in Table 5 in the Revised Draft Options and Justification Report represents the total number of projects in five year windows.

57-5 Comment noted.

57-6 Comment is noted, however, Air District Staff does not anticipate revising the Revised Draft Options and Justification Report.

57-7 Air District staff will update the CEQA Guidelines with the thresholds from the *Thresholds of Significance* report (November 2, 2009).

57-8 The plan-level threshold in the updated CEQA Guidelines will refer users to the Air District's most recent Air Quality Plan for criteria on how a proposed plan should be consisted with the most recent Air Quality Plan. Since the Air District's Air Quality Plan is updated more frequently than the CEQA Guidelines, it can better address changing needs and issues. The Air District's Air Quality Plan will detail

the minimum amount of control measures that a proposed plan should implement to be consistent with the Air Quality Plan.

57-9 Comment noted.

57-10 As noted in the *Proposed Thresholds of Significance* report, the criteria pollutant threshold levels are well-established in terms of existing regulations as promoting review of emissions sources to prevent cumulative deterioration of air quality. Using existing environmental standards in this way to establish CEQA thresholds of significance under Guidelines section 15067.4 is an appropriate and effective means of promoting consistency in significance determinations and integrating CEQA environmental review activities with other areas of environmental regulation. (*See Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal. App. 4th 98, 111.4)

57-11 Comment noted.

57-12 Staff recognizes that Table 18 in the Revised Draft Options and Justification Report is difficult to understand. If the table is used in the updated CEQA Guidelines, it will be revised suggested by the commenter.

57-13 Comments noted and will be addressed if the Revised Draft Options and Justification Report is updated.

57-14 A threshold of no net increase in toxic air contaminants was deemed infeasible from stakeholder input received in the CEQA Guidelines update process. Many local governments expressed that a no net increase thresholds for TACs would discourage infill and transit-oriented development in Preferred Development Areas.

57-15 The proposed threshold for community risk and hazard in the *Proposed Thresholds of Significance* report (November 2, 2009) has been modified to a cancer risk of 100 in a million cumulative risk from all sources.

57-16 The updated CEQA Guidelines will provide a broad view of what Staff anticipates will be required in a Community Risk Reduction Plan (CRRP). Understanding that no such plans yet exist in the Bay Area, the Air District will initiate a public process to engage stakeholders in identifying steps and defining criteria for a CRRP. The public engagement process will work to answer the CCRP questions raised by the commenter.

57-17 The Proposed Thresholds of Significance report (November 2, 2009), recommends a single community risk and hazards threshold for all areas in the Bay Area, including impacted communities. Staff agrees with several commenters that the problem of certain areas being disproportionately adversely impacted should be addressed as a cumulative impacts problem. Staff has revised the proposed thresholds to do so. Under staff's current proposal, areas that are disproportionately burdened with TAC emissions sources in the local vicinity will benefit from a cumulative analysis threshold that will require projects to evaluate the cumulative impact of all such sources within a 1,000 foot radius of the proposed project. This revised approach will provide a tool for lead agencies to carefully consider whether to site new sources or receptors in disproportionately burdened areas, without establishing different health risk standards for different segments of the population. In addition, the Air District

believes that withdrawing the earlier, more stringent threshold, is also appropriate in light of using OEHHA's more conservative risk factors (substantially increasing estimated risk levels) and the addition of community risk reduction plans. Risk reduction plans provide a programmatic approach to the overall problem and can also address existing sources of risks and hazards and can require design standards of new development not always available through the CEQA process.

57-18 Air District staff will update the CEQA Guidelines with the thresholds from the *Proposed Thresholds of Significance* report (November 2, 2009).

57-19 The *Proposed Thresholds of Significance* report (November 2, 2009) cites a number of studies discussing the health protectiveness of the proposed $PM_{2.5}$ threshold.

57-20 See response to comment 57-17.

57-21 Comment noted.

57-22 See response to comment 57-9.

57-23 See response to comment 57-2.

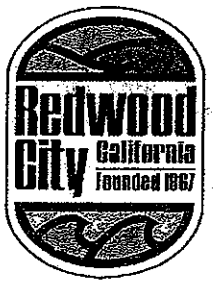
57-24 Comments noted and will be addressed if the Revised Draft Options and Justification Report is updated.

57-25 See response to comment 57-24.

57-26 The revised plan-level GHG threshold in the *Proposed Thresholds of Significance* report (November 2, 2009) reflects the commenter's suggestion. The revised plan-level GHG threshold recommends that if a proposed project is consistent with an adopted qualified climate action plan, or Sustainable Communities Strategy, it can be presumed that it will not have significant GHG emission impacts. In addition, for local governments that have not yet adopted a qualified climate action plan as defined by the CEQA Guidelines, they have the option to demonstrate that their collective set of climate action policies, ordinances, and other projects are consistent with AB 32.

#58

Office of the City Manager
Peter Ingram



1017 Middlefield Road
Redwood City, CA 94063
Telephone (650) 780-7301
FAX (650) 780-7225

October 26, 2009

Bay Area Air Quality Management District
Attention: Greg Tholen, Principal Planner
gtholen@baaqmd.gov

RE: Revised CEQA Thresholds Options and Justifications Report;
Indirect Source Review Rule Development;
2009 Clean Air Plan
Regulation 2, Rule 5 Development

Dear Mr. Tholen:

The City of Redwood City appreciates the opportunity to provide these comments on the Bay Area Air Quality Management District's proposal to revise its California Environmental Quality Act ("CEQA") guidelines and recommended thresholds of significance for use by cities in carrying out their obligations under CEQA. The City supports and applauds the District's efforts to improve air quality in the region, combat the effects of climate change, and protect the health of all residents in the Bay Area. 58-1

We understand that, in addition to its revisions to its CEQA guidelines, the District has initiated several other rulemaking processes and programs that have the potential to affect local municipalities land use planning and economic development activities. These programs and processes include the District's Community Air Risk Evaluation ("CARE") program, its development of an Indirect Source Review Rule, its update to its Clean Air Plan, and its proposed amendments to its proposed revisions to Regulation 2, Rule 5, relating to new source review of toxic air contaminants. Our comments herein are intended to apply generally to all of these programs and processes, and to alert the District to certain concerns held by Redwood City, which we imagine are shared by other cities in the region. We offer these comments in the hope that it will help the District to develop and implement feasible and practical programs and regulations that will help the District achieve its goals with respect to air quality, while respecting the concerns of cities throughout the region regarding their obligations to manage land uses and promote economic development. 58-2

Redwood City is currently in the midst of a two-year process to overhaul and update its General Plan. A key tenet of the City's proposed General Plan is the City's commitment to sustainable growth. Through its General Plan update process, the City seeks to identify and implement sustainable urban planning practices focusing on new and innovative land use and transportation 58-3

policies that will reduce greenhouse gas emissions and protect and conserve natural resources, including our air quality resource. In conjunction with the General Plan update, the City is also preparing its first Climate Action Plan. 58-3

A key strategy for implementing sustainable development in Redwood City is to promote in-fill development in the Downtown area and along the City's major transportation corridors. The Downtown area has been designated a "Priority Development Area" ("PDA") pursuant to the Focus program which is a development and conservation strategy for the San Francisco Bay Area. The Focus program is supported by the Association of Bay Area Governments ("ABAG"), Metropolitan Transportation Commission ("MTC"), the Bay Conservation and Development Commission ("BCDC"); and the Bay Area Air Quality Management District ("BAAQMD"). PDAs are planning areas that have been determined by these agencies to present unique or important in-fill development opportunities that could reduce housing costs and traffic congestion and preserve natural resources. With respect to its El Camino Real corridor, the City is carefully coordinating its development strategy with various other cities in San Mateo and Santa Clara counties in the multi-jurisdictional "Grand Boulevard Initiative." Within San Mateo County, the entire El Camino Real corridor, including the two-mile portion in Redwood City and all of the properties along the route, has also been designated as a PDA. By encouraging more compact, mixed-use development in its Downtown and along its primary corridors, the City seeks to transform these areas into more pedestrian-friendly environments that will reduce single-passenger vehicle use and encourage alternative forms of travel. 58-4

As you know, a substantial portion of the City has been designated as a "Priority Community" under the District's CARE program. This designation includes most of the Downtown area and El Camino Real corridor, and several other primary corridors in the City. We understand that the District is considering more stringent air quality regulations for Priority Communities than for non-Priority Communities. The City is concerned that heightened regulatory requirements on development in Downtown and along its primary transportation corridors could impede the City's efforts to implement its sustainable development policies by making it difficult to attract development to and investment in these areas. In moving toward establishing a Sustainable Community Strategy pursuant to SB 375, ABAG and the other regional planning agencies will rely upon the PDAs including Downtown Redwood City and El Camino Real. 58-5

A second important element of the City's sustainable development strategy is a healthy and vibrant Port of Redwood City. As the only deep-water port in south San Francisco Bay, the Port is one of the City's great assets. It is designated by the BCDC for maritime uses in the BCDC's Seaport Plan. The Port area is currently home to many light and heavy industrial uses, including many shipping related activities for building construction materials. All of these uses contribute significantly to the City's economic health, and the City's proposed General Plan update contains policies that reflect the value of the Port to the City by emphasizing its protection and maintenance as an important employment center and economic generator.

The Port is entirely within the District's Priority Community designation. We are concerned that the more stringent air quality regulations being considered by the District could affect the development and maintenance of employment-generating uses at the Port as well as the Port's ability to enable goods movement via its bulk materials shipping facility as well as freight rail, two methods which offset the need for trucking freight on the San Francisco Peninsula. We

further understand that the proposed regulatory changes could result in the application of more stringent emission standards on emission sources in the Port area due to its proximity to residential areas to the west of the Port. We also note that the Port is home to salvaging and recycling activities which contribute to the City's overall conservation and sustainability efforts, and these activities may be expanded in the future. We are concerned that increased air quality regulation could inhibit the expansion of these conservation efforts. 58-5

The current state of the economy presents unusual challenges to everyone in California. Californians are looking to cities and businesses to take all necessary and appropriate steps to create new jobs, expand economic development opportunities, and improve the economy. Such improvement requires generating job growth by expanding business opportunities and promoting new development including residential development, which despite the economic downturn, remains a primary concern in the Bay Area. While supporting the District's efforts to protect the Bay Area's air quality, the City has taken this opportunity to alert the District to potential conflicts between various District programs and proposals and the City's and the regions efforts to restore job growth and improve the economic circumstances of all residents in the Bay Area. 58-6

Very truly yours,

Peter Ingram
City Manager

Copy via email:
Stan Yamamoto, City Attorney
Mike Giari, Executive Director Port of Redwood City
Chu Chang, Director Building Infrastructure and Transportation Department
Larry Barwacz, Director Public Works Services Department
Jill Ekas, Planning Manager

Comment Letter #: 58
Date: October 26, 2009
From: Peter Ingram, City Manager, Redwood City

Response to Comments:

58-1 Comment noted. The Air District appreciates Redwood City's support to improve air quality in the region, reduce the effects of climate change and protect public health.

58-2 Comment noted. The Air District encourages and values constructive and supportive comments as it implements programs to achieve its goals.

58-3 The Air District supports Redwood City's general plan update and preparation of a climate action plan, and the decision to focus the update on sustainable urban practices and policies that will reduce GHG emissions.

58-4 The Air District is a strong supporter of the Bay Area FOCUS program and development of Priority Development Areas (PDA). The Air District encourages Redwood City to develop PDAs in an efficient and health-protective manner.

58-5 The Proposed Thresholds of Significance report (November 2, 2009), recommends a single community risk and hazards threshold for all areas in the Bay Area, including impacted communities. Staff agrees with several commenters that the problem of certain areas being disproportionately adversely impacted should be addressed as a cumulative impacts problem. Staff has revised the proposed thresholds to do so. Under staff's current proposal, areas that are disproportionately burdened with TAC emissions sources in the local vicinity will benefit from a cumulative analysis threshold that will require projects to evaluate the cumulative impact of all such sources within a 1,000 foot radius of the proposed project. This revised approach will provide a tool for lead agencies to carefully consider whether to site new sources or receptors in disproportionately burdened areas, without establishing different health risk standards for different segments of the population. In addition, the Air District believes that withdrawing the earlier, more stringent threshold, is also appropriate in light of using OEHHA's more conservative risk factors (substantially increasing estimated risk levels) and the addition of community risk reduction plans. Risk reduction plans provide a programmatic approach to the overall problem and can also address existing sources of risks and hazards and can require design standards of new development not always available through the CEQA process.

58-6 See Master Response MR-1.

#59

Core Members

American Lung Association of California
Greater Bay Area
www.californialung.org

Bayview Hunters Point Community Advocates
bhunterspoint@sbcglobal.net

Breathe California
www.ggbreathe.org

Friends of the Earth
www.foe.org

Natural Resources Defense Council
www.nrdc.org

Our Children's Earth Foundation
www.ocefoundation.org

RAMP: Regional Asthma Management & Prevention
www.rampasthma.org

Sierra Club
www.sierraclub.org

Union of Concerned Scientists
www.ucsusa.org

West Oakland Environmental Indicators Project
www.pacinst.org

BAY AREA CLEAN AIR TASK FORCE

October 26, 2009

Greg Tholen
Principal Environmental Planner
Bay Area Air Quality Management District
939 Ellis St.
San Francisco, CA 94109

Mr. Tholen:

The Bay Area Clean Air Task Force offers the following comments on the Draft Air Quality Guidelines for administering the California Environmental Quality Act. In general, the Guidelines establish stronger thresholds that will protect public health and the climate. However, there are particular areas that do not adequately recommend to Lead Agencies how to account for the operational impacts of projects, or for the cumulative impacts or for health-protective risk standards.

These comments are in response to both the September 2009 Draft Guidelines, and the October 9, 2009 release of the Revised Thresholds Options Report. We are concerned that the Revised Thresholds Options Report was released before the original comment deadline, and therefore was not in response to comments from the public health community. Therefore, we urge a new look at the revisions in light of public health concerns.

1. Greenhouse Gases Thresholds Establish Modest, but Improved Standards

The proposed thresholds for greenhouse gas emissions take an important step in addressing the climate crisis by providing guidance to lead agencies in assessing the environmental impacts of projects on the global climate, which impacts air quality in the Bay Area. BAAQMD could have set a higher standard than AB 32 targets based on either the Governor's Executive Order, or the substantial science demonstrating the need for stronger emission reductions. BAAQMD could have also incorporated additional GHG emissions in the reduction goal used in the "gap analysis," such as emission reductions planned as part of local government reductions and SB 375 implementation. Therefore, the proposed thresholds are modest, and a minimum level to begin application of CEQA to GHG emissions. 59-1

2. Local Community Risk and Hazard Impacts

Approach Most Protective of Community Health - The heightened protection for priority communities in the September 2009 Draft is an important step for assessing public health impacts of permits on the basis of cumulative impacts (p. 2-6). The September 2009 Draft proposed "Option 59-2

3: Tiered Approach," and set a more stringent threshold of a 5 in a million cancer risk, and 0.2 $\mu g/m^3$ $PM_{2.5}$ annual average for proposed sources in the impacted communities. Although this proposal merely slowed the increase of toxics in priority communities, and did not act to fully protect the health of residents, we strongly support efforts to more stringently protect public health where needed the most.

In the context of priority communities with double or triple the background cumulative cancer risk, the September 2009 proposal recommending "Option 3: Tiered Approach" should continue to be recommended, and should be presented to the Board as an option that would provide needed health protection. If a Community Risk Reduction Plan is allowed as a substitute for a directly meaningful threshold, the September 2009 / Option 3 proposal for heightened protection for impacted communities should serve as an interim threshold until such a Qualified Plan is adopted and remains in compliance with the Guidelines.

Consistency within CRRP - The Guidelines do not adequately define the meaning of "consistency" with a Qualified Community Risk Reduction Plan (CRRP). Local jurisdictions are given unchecked discretion to establish risk and exposure reduction targets for the community, but are not given guidance on needed reductions. While measures will be required to reduce exposures, there is nothing to prevent a new source with cumulatively considerable risk, and for a plan to deem this project "consistent," because the plan did not rely on such a new source to contribute toward reductions. A new source may be deemed "consistent," but may operate outside the projects intended to effect pollution reductions. The pollution reduction programs could remain unfunded, without a clear and required implementation mechanism. **The Guidelines must strengthen the Thresholds within the CRRP for individual new sources, and the mechanisms for funding mitigation if this approach is to be considered acceptable. Due to the great potential for this mechanism to be abused as a loophole, the Guidelines should also clarify that the other important cumulative impacts thresholds and the thresholds for new source impacts and ambient particulate matter will remain after adoption of a CRRP. The CRRP may not be as health protective, or enforceable. <u>While it is a positive step for BAAQMD to collaborate with local jurisdictions on air quality planning, the CRRP should be in addition to strong Thresholds, not a substitute.</u>** 59-3

Site Design Toxic Best Practices - The September 2009 proposal also included a site design toxic best practice to locate the HVAC system intake as far from the source of risk as possible for projects within the impacted communities (p. 2-6). This very feasible measure should be retained, though there should also be recommended methods of minimizing the impacts. There may be multiple sources of risk at a site, or situations where the intake being further from a source may not always equate with minimizing risk. 59-4

Magnet Source Impacts - Many sources in the Bay Area are not permitted point sources, but are "magnet" sources, which attract mobile sources indirectly. Some point sources also attract indirect sources as magnet sources. We urge clarification in Section 3 and elsewhere in the Guidelines that magnet source impacts are to be considered within the scope of impacts to be assessed, and include induced demand for mobile sources, including light-duty and heavy-duty vehicles that are expected to travel to and from the site, and expected engine idling that may occur at the site. 59-5

3. Plan-Level Impacts

VMT Threshold - The Draft Guidelines include a chart of Thresholds of Significance for Plans on page 2-7. The chart omits the second bullet on page 2-9, which specifies as a Criteria Air Pollutant Threshold that proposed plans must show over the planning period that the rate of increase in VMT is equal to or lower than the rate of increase in population projected. The chart should be corrected to include reference to both Criteria Air Pollutant Thresholds. This Threshold for VMT is a significant improvement for protecting climate and reducing mobile source emissions. 59-6

Climate Action Plan Approach Requires Clarification - The Climate Action Plan approach is described on pages 2-9, and 5-2 through 5-4. This mechanism may be a desirable option for cities to comply with the Guidelines in a flexible manner, but it is important that mitigations for significant impacts are not lost in the process. There is no guidance on what is an appropriate base year. There is also no guidance on how to determine that the GHG reduction target meets or exceeds AB 32. We urge clarification to the Guidelines that a Climate Action Plan that reduces 2020 emission levels to 1990 levels within the jurisdiction is in compliance with AB 32, but requires additional detail. **The requirements must also specify that the reductions must be additional; they must be a part of "the gap" used in BAAQMD's analysis to develop the threshold, and not elsewhere incorporated and counted into other portions of the AB 32 Scoping Plan. The reductions must also be real, verifiable, and permanent. The Guidelines should specify these requirements.** 59-7

Defining Consistency with AQP and CAP - The Guidelines do not adequately define the meaning of "consistency" with the Air Quality Plan or the Qualified Climate Action Plan. While measures will be required to reduce emissions, jurisdictions could still deem projects "consistent," if a plan purportedly does not rely on such a new source to contribute toward reductions. A new source may be deemed "consistent," but may operate outside the projects intended to effect greenhouse gas emission reductions. The emission reduction programs could remain unfunded, without a clear and required implementation mechanism. **The Guidelines must clarify the requirements for determining consistency with an Air Quality Plan (APQ) or Climate Action Plan (CAP) to prevent this mechanism's abuse as a loophole.** 59-8

All projects tiered from Plan-level CEQA documentation should incorporate control measures to be consistent with the AQP. The CAP mitigation measures must be enforceable, and the mitigation measures must be explicitly tied to required reductions. We suggest that the last sentence on page 5-4 calling for mitigation measures to be made into binding and enforceable policies be augmented with language at the end: "that will achieve the Plan's greenhouse gas reductions goals." **Significant additional clarification and conditioning is needed to the CAP Threshold description.**

4. Assessing and Mitigating Operational-Related Impacts

Land Use Context of Screening Chart - The operational-related screening level charts on pages 2-3 through 2-5 list a variety of land uses, and can be useful to indicate typical project sizes that would trigger the threshold. However, the Guidelines do not describe the land use context for which the screening levels indicate. Indirect source emissions, particularly vehicle emissions, can vary widely based on the local context of surrounding densities and mix of uses, and transit 59-9

accessibility. The Guidelines should specify the land use context that they were designed for so that the screening levels are not inappropriately applied to varying kinds of project settings.

The Draft Guidelines direct lead agencies to compare the proposed project with the Screening Criteria on page 3-2. While the Guidelines suggest that the screening criteria are a conservative indication of whether the project would generate impacts exceeding the threshold, there is no guidance as to what conservative means. We suggest further indication of the land use setting so this is clear.

Substantial Evidence Required When Deducting Pass-Bay Trips - The Draft Guidelines describe how Lead Agencies can deduct adjustments for pass-by trips from the URBEMIS model on page 3-5. The Guidelines indicate that the Lead Agency should discuss its reasoning, but a mere discussion is not enough. We suggest that Lead Agencies must "discuss and justify its reasoning with substantial evidence" for assuming that some of the project-generated vehicle trips would be considered pass-by trips. 59-10

Location-Specific Evidence Required When Calculating Energy & Water Impacts - The Draft Guidelines on page 3-9 advise how to calculate a project's energy and water usage. For the embedded energy in water, Lead Agencies are directed to use the average embedded energy in water conveyance for water usage for Northern California. In fact, there are significant variations by agency, with some agencies operating using a gravity-fed conveyance, and others relying primarily on energy-intensive pumping operations. The CEC average for Northern California should be used only if agency-specific information is unavailable. In addition, the Guidelines suggest that a project's usage be estimated by identifying the average water usage rate per household. In fact, many agencies' water usage varies greatly across land use type and city/zip code. Instead of a utility-wide average, Lead Agencies should base estimated water use on specific patterns associated with the land use type in the specific city or zip code. 59-11

Clarification and Evidence Required When Deducting Mitigations for Reducing VMT - The Draft Guidelines identify on pages 3-11 through 3-17 potential ranges of deductions for mitigating operational-related impacts, many from reducing greenhouse gases and criteria air pollutants by reducing vehicle miles traveled. However, the Guidelines do not caution that substantial evidence is required to justify a reduction, particularly a reduction that approaches the higher points on the range. The Guidelines also do not caution that the reductions are not purely additive; as mitigation measures are implemented, the effectiveness of each individual measure is lower, although the combined mitigation rises with declining incremental returns. Such guidance is critical to avoid Lead Agencies arbitrarily applying deductions that do not amount to adequate feasible mitigation, would represent double-counting, or that cannot be supported by substantial evidence. 59-12

While research on deductions for individual measures, such as high quality transit service and the effects of mixed use and neighborhood retail are potentially quantifiable, less is known about the combined effects of applying a daily parking charge, parking cash-out, and free transit passes. Research generally shows that the price elasticity is a much lower factor with regard to mode choice in comparison to service elasticity. For CEQA purposes, it should be held to greater scrutiny that providing free transit passes would always equate to a 25% trip reduction from the transit service reduction, though this might occur in transit-rich areas that also have priced parking.

As another example, a mitigation for "bike & pedestrian" improvements may qualify for up to a 9% deduction, and daily parking charges up to 25% reduction, and parking cash-out up to 12.5% reduction. With transit service mitigating up to 15%, and free transit passes mitigating an additional 3.75% (25% of 15%), an affordable housing project (4%) with local serving retail (2%), and complete streets (3%) could mitigate a combined 74.25% of vehicle trips from the ITE trip generation model, under the Proposed Guidelines.

59-12

Although the ITE trip generation model assumes an auto-oriented environment, and deductions are necessary, the Proposed Guidelines allow arbitrary and unsubstantiated deductions for the mitigation measures listed. Significantly more guidance is needed as to how the measures are to be applied in specific local land use settings, and when in combination with other mitigation measures. This guidance should caution that substantial evidence for each deduction is required, and such evidence must address the combined effect of measures. BAAQMD should assist in providing the basis for this evidence in conjunction with the development of the Indirect Source Rule so there is a more level playing field with regard to how trip deductions are applied.

Emissions Projections Should Consider Projected Length of Vehicle Trips - The Guidelines also do not account for the length of vehicle trips made to the project site, which is not considered in the ITE manual. The ITE manual is primarily to estimate trips and parking demand needs in an auto-oriented environment. The Guidelines should build on the trip generation estimates, and require an estimate of the average trip length, so projects can accurately estimate their impact on greenhouse gases and criteria pollutants.

59-13

Additionality for Recycling, Water, and Energy Conservation Measures - Mitigations must be in response to impacts assessed. If recycling, water, or energy conservation measures were integrated and effectively deducted at the front-end in assessing the impacts of a project, they should not be deducted as mitigations on the back-end.

59-14

Use of All Feasible Mitigation Measures - We urge clarification that all feasible mitigations must be pursued under the California Environmental Quality Act. We encourage incorporation of the following language: "If mitigation did not bring a project back within the threshold requirements, the project would be cumulatively significant and could be approved only with a Statement of Overriding Considerations and a showing that all feasible mitigation measures have been implemented."

59-15

5. Cumulative Impacts

The Thresholds of Significance Report identifies the high levels of total cancer risk as a result of cumulative toxic exposure. It is important that the guidelines reflect the severity of the health impacts caused by high levels of pollution in specific impacted communities within the Bay Area.

Necessity of Cumulative Impacts Analysis - The Draft Guidelines include language arbitrarily limiting the recommended level of analysis. They state that due to consideration of a project's individual emissions, and the level that they would be cumulatively considerable: "[i]n a sense, the project-level air quality impacts reflect a project's cumulative air quality impact as well. Therefore, additional analysis beyond project level analysis for assessing cumulative impacts is unnecessary." (p. 2-1). This language is unclear given the inclusion in the updated Draft

59-16

Guidelines of a cumulative impacts threshold, and the importance of adequately discussing cumulative impacts in CEQA review. We recommend eliminating these two sentences such that BAAQMD does not discourage lead agencies from assessing cumulative impacts.

Cumulatively Considerable Impacts Beyond 1,000 Feet - The Draft Guidelines recommend that all sources and receptors located within 1,000 foot radius of a proposed project be considered as the range of sources that are cumulatively considerable. Although one published study shows allergic reactions in mice dropping off to less significant levels at 500 – 1000 feet, there is still the potential for sources beyond 1,000 feet to generate cumulatively considerable impacts at the project site. For example, the plume of pollution from the Potrero Power Plant in San Francisco continues well beyond 1,000 feet of the source, and can be easily visually observed. Prevailing winds can also exacerbate this effect. Certain heavy-traffic areas or high-impact sources may also generate a cumulatively considerable impact even beyond 1,000 feet. **We urge that the Guidelines clarify that for specific exceptionally high-polluting sources, impacts between 1,000 – 2,000 feet may need to be considered based on the modeled impacts of these sources.** 59-17

Modeled Impacts at 250 ft. Increments - BAAQMD's presentations on the Guidelines suggested that impacts from sources would be modeled every 500 feet for cumulative consideration. However, between 500 feet and 1000 feet, the level of significance may be crossed in many areas. We urge that modeled impacts for health risk and particulate matter concentrations be provided at 250 foot increments, so that the impacts at 750 feet from the project are clear for Lead Agencies to assess. 59-18

Inclusion of Non-Permitted Sources - We would also like to ensure that in areas with several non-permitted sources, that these effects are considered as cumulative impacts. We request additional clarification on page 4-4 to show that non-permitted toxic sources will be included. BAAQMD should also assist Lead Agencies in acquiring and updating this information. 59-19

Particulate Standard - The Cumulative Local Community Risk and Hazard Threshold of 0.8 $\mu g/m^3$ standard for $PM_{2.5}$ pollution is to be commended. We consider this a significant improvement over the prior draft, and hope that this will help protect community health. 59-20

Applicability of Threshold - The addition of this cumulative impacts threshold is a significant improvement over the prior adopted Guidelines. We urge that it be adopted, and not be waived with a jurisdiction's adoption of a CRRP that may not be as health-protective or enforceable. 59-21

6. Construction-Related Impacts

Particulate Matter Threshold - The Thresholds for Construction-Related Criteria Air Pollutants for Particulate Matter are insufficient to protect public health. The screening chart identifies effectively no common urban use as triggering a threshold that would require mitigation for particulate matter. Construction equipment emits high amounts of fine diesel particulate matter, triggering asthma attacks, cardiovascular risk, and cancer. The Draft Guidelines would set 82 lbs per day for PM10 and 54 lbs per day for $PM_{2.5}$ as the Thresholds, but such emissions would likely cause exceedences in parts of the Bay Area for the $PM_{2.5}$ standard of 35 $\mu g/m^3$. However, the construction-related standard of .3 $\mu g/m^3$ in the revised Thresholds report may or may not be sufficient. We urge the adoption of an ambient particulate matter standard over a 1-hour averaging period to ensure that projects that may cause levels of pollution 59-22

that would trigger asthma attacks and cardiovascular health risks will be mitigated – averaging over an 8-hour period would be insufficient since construction-related pollution is typically emitted over short, intense periods.

Thresholds Needed for Clean Construction Equipment Mitigation- Use of best available control technology would be a cost effective way to address a major source of toxic risk in the priority communities. The District's research in the CARE program found that construction equipment is 29% of the weighted cancer risk in the priority communities, and in some communities such as Bayview-Hunters' Point, it is even higher. Use of retrofits and higher tier engines can cut up to 85% of the fine particulate matter emitted, so adoption of toxic best practices could potentially result in a 25% reduction in cancer risk in the priority communities. Air Resources Board studies comparing the costs and benefits of requiring higher tier engines and retrofits showed a **nine to one** ratio of health benefits and industry costs, demonstrating that cleaner diesel equipment is an extremely cost effective measure.

59-23

The Guidelines state that District staff is developing a screening level to indicate the size of a construction project that will trigger Local Community Risk and Hazards Thresholds. We urge inclusion in the Guidelines the use of Toxic Best Practices for clean construction equipment, particularly in the impacted communities. The "Gold Standard" developed by NRDC should be adopted as TBACT/TBP for new projects that could potentially increase ambient particulate matter or local community risk. In the impacted communities, all projects exceed unhealthy levels of air quality and cancer risk, and therefore all projects should be required to mitigate by use of TBACT/TBP. We also urge BAAQMD's quick adoption of a screening level that would indicate the size of a construction project that will trigger the thresholds. This screening level should take into consideration the cumulative risk by requiring all projects in the impacted communities utilizing 25 horsepower equipment operating at more than de minimus time per day to trigger the threshold.

At the Plan level, the Guidelines should also recommend the use of Toxic Best Practices for clean construction equipment, particularly in the impacted communities. This could be stated in the list of performance-based best management practices on pages 2-7, 2-8, and 5-6, and the Basic Construction Mitigation Measures on page 6-10. Additional Mitigation Measure #9 on page 6-12 is inadequate because it only applies to equipment of more than 50 horsepower, and calls for only a 45 %.PM reduction. Particularly in the impacted communities, feasible mitigation of construction-related impacts should mean all equipment greater than 25 horsepower operating with BACT such as a cleaner engine or particulate filter, or using 100% biofuel.

Idling at Schools - Additionally, Best Practice number 6 includes reference to existing regulations on idling. This guideline should also reference the limit on idling at schools of 30 seconds, on both pages 2-8 and 5-6.

59-24

Phasing - Some construction projects may be so large as to generate significant impacts unless phased. Under "Additional Construction Mitigation Measures" on page 6-11, the Guidelines should indicate when Phasing would be required to reduce daily emissions and local concentrations of particulate matter below emissions thresholds.

Toxic Risk Threshold - The discussion of Diesel Particulate Matter on page 6-15 should discuss the asthma and cardiovascular impacts generated from diesel particulate matter. We request

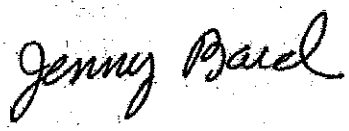
59-25

clarification that in BAAQMD recommending the same Threshold of Significance for project operations be applied to construction, that this means that the daily emissions that would result in a 10 in a million cancer risk to the community would be the Threshold of Significance for mitigating construction-related impacts related to toxic air contaminants.

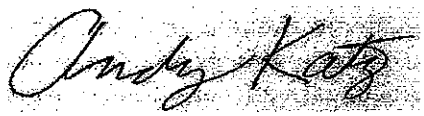
7. Conclusion

On behalf of the Bay Area Clean Air Task Force, thank you for your consideration.

Sincerely,



Jenny Bard
Co-Chair



Andy Katz
Co-Chair

Attachment 1

NRDC CEQA Standards for Clean Construction

All CEQA projects should meet the following standards for construction to minimize air quality, public health and climate impacts:

Construction Equipment

Equipment[1] greater than 25 horsepower must:

(1) Meet current emission standards[2] *and*

(2) Be equipped with Best Available Control Technology (BACT)[3] for emissions reductions of PM and NOx, *or*

(3) Use an alternative fuel.[4]

Diesel Trucks

On-road trucks used at construction sites, such as dump trucks, must:

(1) Meet current emission standards, *or*

(2) Be equipped with BACT[5] for emissions reductions of PM and NOx, *and*

(3) Any trucks hauling materials such as debris or fill, must be fully covered while operating off-site (i.e. in transit to or from the site).

Generators

Where access to the power grid is limited, on-site generators must:

(1) Meet the equivalent current off-road standards for NOx , *and*

(2) Meet a 0.01 gram per brake-horesepower-hour standard for PM, *or*

(3) Be equipped with Best Available Control Technology (BACT) for emissions reductions of PM.

Special Precautions Near Sensitive Sites

All equipment operating on construction sites within 1,000 feet of a sensitive receptor site (such as schools, daycares, playgrounds and hospitals)[6] would either:

(1) Meet US EPA Tier IV emission standards *or*

(2) Install ARB Verified "Level 3" controls (85% or better PM reductions), and

(3) Notify each of those sites of the project, in writing, at least 30 days before construction activities begin.[7]

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[1] Equipment refers to vehicles such as excavators, backhoes, bulldozers propelled by an off-road diesel internal combustion engine.

[2] These standards are described in Division 3 Chapter 9, Article 4, Section 2423(b)(1)(A) of Title 13 of the California Code of Regulations, as amended. An explanation of current and past engine standards can also be accessed at http://www.dieselnet.com/standards/. Currently all new equipment are meeting the US EPA Tier II standards and most equipment also meets Tier III standards (all 100HP to 750HP equipment). Note that Tier IV standards would automatically meet the BACT requirement.

[3] Here BACT refers to the "Most effective verified diesel emission control strategy" (VDECS) which is a device, system or strategy that is verified pursuant to Division 3 Chapter 14 of Title 13 of the California Code of Regulations to achieve the highest level of pollution control from an off-road vehicle.

[4] This could include 100% natural gas or biodiesel, which is a fuel comprised of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, meeting the requirements of ASTM D 6751. However, biodiesel must be proven to be sourced from sustainable feedstocks including waste grease, fats or oil and under certain circumstances, farmed oils that can be proven to be sustainable.

[5] Here BACT also refers to most effective VDECS as defined by the California Air Resources Board (CARB).

[6] Sensitive sites are defined and described in the CARB Air Quality and Land Use Planning Guidelines, 2005; http://www.arb.ca.gov/ch/landuse.htm.

Recommendations to Limit Global Warming Pollution from Construction:

(1) Prohibit all non-essential idling of equipment and vehicles onsite.
(2) Use the lowest carbon fuels possible (such as biodiesel or other alternative fuels).
(3) Electrify operations to the extent possible. Where access to the power grid is possible, this should be established instead of using stationary or mobile power generators. All cranes, forklifts and equipment that can be electrified, should be.
(4) All constructed buildings should meet the Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ including the use of locally sourced materials, where possible.[8]

[7] Notification shall include the name of the project, location, extent (acreage, number of pieces of equipment operating and duration), any special considerations (such as contaminated waste removal or other hazards), and contact information for a community liaison who can answer any questions.
[8] For information on LEED standards, see the U.S. Green Building Council: http://www.usgbc.org/DisplayPage.aspx?CategoryID=19

Comment Letter #: 59
Date: October 26, 2009
From: Jenny Bard and Andy Katz, Co-Chairs, Bay Area Clean Air Task Force

Response to Comments:

59-1 See Master Response MR-3.

59-2 The Proposed Thresholds of Significance report (November 2, 2009), recommends a single community risk and hazards threshold for all areas in the Bay Area, including impacted communities. Staff agrees with several commenters that the problem of certain areas being disproportionately adversely impacted should be addressed as a cumulative impacts problem. Staff has revised the proposed thresholds to do so. Under staff's current proposal, areas that are disproportionately burdened with TAC emissions sources in the local vicinity will benefit from a cumulative analysis threshold that will require projects to evaluate the cumulative impact of all such sources within a 1,000 foot radius of the proposed project. This revised approach will provide a tool for lead agencies to carefully consider whether to site new sources or receptors in disproportionately burdened areas, without establishing different health risk standards for different segments of the population. In addition, the Air District believes that withdrawing the earlier, more stringent threshold, is also appropriate in light of using OEHHA's more conservative risk factors (substantially increasing estimated risk levels) and the addition of community risk reduction plans. Risk reduction plans provide a programmatic approach to the overall problem and can also address existing sources of risks and hazards and can require design standards of new development not always available through the CEQA process.

59-3 The updated CEQA Guidelines will provide a broad view of what Staff anticipates will be required in a Community Risk Reduction Plan (CRRP). Understanding that no such plans yet exist in the Bay Area, the Air District will initiate a public process to engage stakeholders in identifying steps and defining criteria for a CRRP. The public engagement process will work to answer the CCRP questions raised by the commenter.

59-4 Staff will consider including the suggested mitigation measure in the updated CEQA Guidelines.

59-5 The Air District will be providing tables with estimated calculations of community risk and hazards from all permitted sources and major roadways in the Bay Area. In the long term, it is our intention to include risk tables for magnet sources as well.

59-6 The thresholds summary table will be updated in the CEQA Guidelines to reflect the proposed plan-level thresholds in the *Proposed Thresholds of Significance* report (November 2, 2009).

59-7 The updated CEQA Guidelines will provide direction on criteria for developing a qualified climate action plan, including guidance on requirements for mitigation measures. See also master response MR-3.

59-8 The plan-level threshold in the updated CEQA Guidelines will refer users to the Air District's most recent Air Quality Plan for criteria on how a proposed plan should be consisted with the most recent Air Quality Plan. Since the Air District's Air Quality Plan is updated more frequently than the CEQA Guidelines, it can better address changing needs and issues. The updated CEQA Guidelines will also

provide more clarification on how proposed projects should determine consistency with a climate action plan.

59-9 The screening tables provided in the revised CEQA Guidelines are not thresholds of significance and will not, based on the screening table alone, trigger a mandatory EIR. Rather, they are just screening levels to minimize the need for full analysis in situations where BAAQMD has determined no significant air quality impact would occur because Air District staff have modeled the screening level projects under very conservative assumptions and have determined that such projects will not exceed the applicable thresholds of significance. Most projects will have characteristics, such as nearby transit and services, which will reduce estimated emissions and allow a larger project than indicated in the screening table to be less than significant.

59-10 Comment noted, Staff will consider revising language as suggested by commenter.

59-11 The updated CEQA Guidelines will provide direction on how lead agencies should calculate GHG emissions from indirect sources, including electricity use and water conveyance.

59-12 The mitigation measure tables in the CEQA Guidelines are intended to assist lead agencies in identifying and quantifying mitigation for their projects. It is the lead agency's responsibility to justify the mitigation reduction assumed for proposed projects including disclosure of calculation method and assumptions. Staff recognizes that quantifying emission reductions from mitigation measures in combination with one another could be a challenge. Staff will consider providing additional direction on quantifying mitigation reductions in the updated CEQA Guidelines.

59-13 Air District staff believes that using readily available modeling tools, such as URBEMIS, is adequate for estimating GHG emissions from vehicle trips in a proposed project.

59-14 Staff agrees with the commenter that project attributes, such as recycling or water and energy conservation, should not be considered mitigation measures.

59-15 Comment noted, Staff will consider adding the suggested language in the updated CEQA Guidelines.

59-16 The proposed thresholds of significance were developed with consideration to an air pollutant's cumulative impact. Rather than recommending thresholds for project related and cumulative impacts separately, the thresholds are based on cumulative impacts. The community risk and hazard thresholds recommend a separate cumulative threshold to ensure that the total of all directly emitted risk and hazard emissions in an area are not significantly adverse.

59-17 It is up to the lead agency to determine if the 1,000 foot radius line should be expanded to consider risks from stationary sources for siting a new receptor or source.

59-18 The Air District will provide screening tables of modeled impacts for health risk and particulate matter concentration at various distances from the source.

59-19 The screening tables that the Air District will provide will be modeling impacts for health risk and particulate matter concentrations from permitted sources and roadways, a non-permitted source. Staff is unclear to what other non-permitted sources the commenter is referring to.

59-20 The proposed threshold for construction of an annual average increase in $PM_{2.5}$ emissions of 0.3 $\mu g/m^3$ is based on the US EOA Significant Impact Level (SIL) for $PM_{2.5}$. The SIL is a threshold applied to individual facilities that apply for a permit to emit a regulated pollutant in an area that meets the national ambient air quality standards.

59-21 Comment noted and appreciated.

59-22 See comment response 59-2.

59-23 The Air District will consider adding NRDC's "Golden Standard" construction standards be recommended as mitigation measures. We will also consider recommending screening levels for construction projects that would trigger the threshold.

59-24 Staff will consider the commenter's suggestions for construction mitigation measures for plan-level construction impacts.

59-25 The updated CEQA Guidelines will discuss health risks attributed to exposure to diesel particulate matter. The updated CEQA Guidelines will clearly state that the community risk and hazard threshold for construction is the same one as the threshold for projects.

#60

CITY OF UNION CITY CALIFORNIA INCORPORATED JANUARY 1959

34009 ALVARADO-NILES ROAD
UNION CITY, CALIFORNIA 94587
(510) 471-3232

October 26, 2009

Bay Area Air Quality Management District BAAQMD Board of Directors
Attn: Greg Tholan, Principal Planner
939 Ellis St.
San Francisco, CA 94109

Dear Bay Area Air Quality Management District Board of Directors:

Thank you for the opportunity to comment on the draft Bay Area Air Quality Management District's California Environmental Quality Act Guidelines ("Guidelines"). The City of Union City ("City") is in support of the District's effort to update their Guidelines but are concerned that the Guidelines may have unintended consequences that would impact current efforts of Bay Area cities to promote smart growth and infill development. In addition, the City is concerned that the timing of the implementation of the Guidelines will negatively impact projects for which an Environmental Impact Report is currently in process. 60-1

It is our understanding that the proposed methodology does not take into consideration any emission reduction features of a project before determining a project's level of significance. As such, projects that incorporate greenhouse gas emissions reduction features, such as the location of a project near transit or incorporation of Transportation Demand Management (TDM) strategies that may include the provision of transit passes, on-site car share, etc., are treated the same as projects that do not incorporate these measures. Instead, these reduction features are treated as mitigations, which would negate a project's ability to qualify for a categorical exemption. Rather than treat all projects the same, the proposed Guidelines should begin with the premise that the CEQA process should be minimized for projects consistent with achieving the region's smart growth goals. 60-2

It should also be noted that this methodology will have a detrimental impact on infill projects that previously qualified for a Categorical Exemption per Section 15332, *Infill Development Projects*. These types of projects are typically located in areas well served by transit and have the most opportunity to incorporate TDM strategies. However, these project features would not be taken into consideration when determining a project's level of significance. In addition, under the proposed Guidelines, the infill categorical 60-3

exemption could not be used for a mid-rise project with more than 90 units. These provisions could result in more infill projects being required to prepare a Negative Declaration or Mitigated Negative Declaration, which would add more cost and time to the process and uncertainty to the developer. For these reasons, it is anticipated that the Guidelines may fail to encourage development patterns essential to meeting the State's greenhouse gas emissions reduction goals. 60-3

We are also concerned that there has been no discussion regarding a pipeline for projects that are currently in process. The City is currently processing an Environmental Impact Report (EIR) that is almost completed. The draft EIR was scheduled to be released in the next few months. To ensure the document's adequacy, the city requested the EIR consultant prepare a revised budget and scope that would address the proposed Thresholds. The additional scope added approximately $48,000 to the budget and several additional weeks of delay to a project that is currently feeling the effects of the current economic crisis. On a related note, this project would accommodate high-density residential at our BART station, which is exactly what SB 375 is trying to encourage. To accommodate projects for which EIR's are currently being prepared, it is recommended that projects that have had a Notice of Preparation recorded for them be excluded from these requirements. 60-4

We appreciate your consideration of the issues raised in this correspondence and hope that you will consider them when adopting the final Guidelines.

Sincerely,

Joan Malloy

Joan Malloy
Economic & Community Development Director

Comment Letter #: 60
Date: October 26, 2009
From: Joan Malloy, Economic & Community Development Director, City of Union City

Response to Comments:

60-1 See Master Response MR-1.

60-2 The screening tables provided in the revised CEQA Guidelines are not thresholds of significance and will not, based on the screening table alone, trigger a mandatory EIR. Rather, they are just screening levels to minimize the need for full analysis in situations where BAAQMD has determined no significant air quality impact would occur because Air District staff have modeled the screening level projects under very conservative assumptions and have determined that such projects will not exceed the applicable thresholds of significance. Most projects will have characteristics, such as nearby transit and services, which will reduce estimated emissions and allow a larger project than indicated in the screening table to be less than significant. Well designed projects that incorporate recommended measures in the project proposal are not considered mitigated projects and may still be found less than significant and qualify for a categorical exemption.

60-3 See Master Response MR-2.

60-4 The District's proposed thresholds of significance will not be mandatory for use by other lead agencies in the Bay Area. Lead agencies may choose to apply the District's thresholds to determine the significance of projects before them, or they may determine that some other method of analysis would be more appropriate for their particular agency or for a particular project. The District cannot therefore adopt a specific "effective date" upon which the thresholds will become mandatory. For lead agencies with projects that are already under review when the proposed thresholds are adopted, it will be up to each individual agency to determine whether and when to apply the District's revised thresholds for those projects. If the lead agency finds it appropriate to apply the District's revised thresholds in its significance analysis for such projects, it may do so. If the lead agency finds that it would not be appropriate to apply the revised thresholds to projects already under review, it may use some other means to determine significance as long as the determination is supported by substantial evidence as required by CEQA. For these reasons, staff is not proposing an "effective date" for the proposed thresholds. For those jurisdictions choosing to use the District's recommended thresholds, the District will establish a date upon which we recommend the thresholds become effective.

WSPA
Western States Petroleum Association
Credible Solutions • Responsive Service • Since 1907

Catherine H. Reheis-Boyd
Executive Vice-President and Chief Operating Officer

October 26, 2009

Mr. Jack Broadbent
Chief Executive Officer/Air Pollution Control Officer
Bay Area Air Quality Management District Office
939 Ellis Street
San Francisco, CA 94109

Dear Mr. Broadbent:

In September 2009, the Bay Area Air Quality Management District (BAAQMD or District) issued the California Environmental Quality Act (CEQA) Draft Air Quality Guidelines." Subsequently, on October 8, 2009, the District released amendments titled "Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance." This letter provides the comments of the Western States Petroleum Association ("WSPA") on the BAAQMD CEQA Guidelines and Revised Draft Options.

WSPA is a non-profit trade organization representing twenty-seven companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy products in California and five other western states. Our organization is dedicated to working toward ensuring that consumers continue to have reliable access to petroleum and petroleum products through policies that are socially, economically and environmentally responsible.

WSPA has a significant interest in the implementation of California's Global Warming Solutions Act of 2006 ("AB 32"). Our interest, as relevant to the Guidelines, is related to the manner in which the Guidelines attempt to evaluate and mitigate impacts from Greenhouse Gas (GHG) emissions pursuant to CEQA.

Unlike impacts from criteria pollutant emissions, there does not appear to be a scientific basis linking GHG emissions from a particular project to specific physical, localized environmental effects. Impacts from GHG emissions must be evaluated in a significantly larger context than most environmental impacts under CEQA.

This type of evaluation is further re-enforced in the Executive Summary of the Revised Draft Options which states in pertinent part… "BAAQMD publishes these Guidelines to assist local jurisdictions and agencies to comply with the requirements of CEQA regarding potentially adverse impacts to air quality. The primary purpose of the Guidelines is to provide a means to identify proposed local plans and development projects that may have a significant adverse effect on air quality, public health, attainment of state and national ambient air quality standards, and to provide recommendations to mitigate those impacts." 61-1

While the Proposed Amendments as presented generally reflect this unique reality, WSPA contends that to evaluate accurately an individual project's impacts on climate change, the project must be viewed in the context of the statewide reductions targeted under AB 32, as well as statewide GHG emissions.

WSPA believes that any CEQA Guidelines governing GHG emissions should recognize the importance of the AB 32 Scoping Plan adopted by the California Air Resources Board.

The Scoping Plan provides a blueprint for how the state will achieve the GHG reductions needed to meet the AB 32 mandate. Therefore, projects for sources within sectors covered by the GHG measures and reductions referenced in the Scoping Plan should be able to rely on those mandated measures and reductions when determining whether the projects result in a significant environmental impact pursuant to CEQA. 61-1

In its draft proposed amendments for CEQA GHG regulations, the Natural Resources Agency, in section 15093(d), acknowledges that given the unique nature of global climate change, lead agencies should have discretion to consider asserted local effects in the context of region-wide or statewide benefits.

WSPA believes that when evaluating project-specific GHG emissions in such broader context, local agencies must still base any determination of significant effects on substantial evidence. They do not have the discretion to burden individual projects with mitigation measures or conditions designed to achieve reductions greater than those required to mitigate such projects' asserted cumulative contribution to climate change. 61-2

Thus, in Section 1.2.3.1 of the Proposed Options, WSPA recommends it be amended as follows (proposed language underlined).

"Projects consistent with a qualified Climate Action Plan adopted by the local jurisdiction (or similar adopted policies, ordinances and programs) that include enforceable measures to reduce GHG emissions consistent with AB 32 goals or Executive Order S-03-05 targets would be considered less than significant.

<u>"A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program. This includes, but is not limited to, water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, plans or regulations for the reduction of greenhouse gas emissions which provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located.</u> 61-3

<u>It also includes other state and/or federal mandates, in addition to the Global Warming Solutions Act of 2006, that, when implemented result in a net increase in energy efficiency or decrease in carbon intensity of the underlying economic activity or of the state's overall carbon footprint. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. When relying on a plan or program, the lead agency should explain how the particular requirements in the plan or program ensure that the project's incremental contribution to the cumulative effect is not cumulatively considerable."</u>

This language is consistent with Section 15064(h) (3) of the proposed CEQA Guidelines pertaining to greenhouse gases pending adoption at the California Natural Resources Agency.

The principle for this language is identical to that in the first paragraph of Section 1.2.3.1 which allows lead agencies to consider local "Climate Action Plans" as satisfying any significance threshold. The factors that constitute feasible mitigation for purposes of determining whether a project's GHG emissions should be required to go through the CEQA review process, should be evaluated based on several criteria.

These include the totality of the circumstances related to a particular project's or facility's or the State's overall increase in energy efficiency, or decrease in the carbon intensity of the underlying economic activity, or of the state's overall carbon footprint.

WSPA is very concerned with **Section 1.2.3.2 STATIONARY SOURCES** and the bright-line threshold of 10,000 MT CO_2e/yr. The discussions that have taken place as part of the District's CEQA GHG Significance Threshold development process highlight a fundamental problem if one tries to define a numeric CEQA GHG significance threshold.

That is, lacking any substantial evidence (i.e., technical or scientific basis) for determining significance, attempts to define CEQA significance result in arbitrary, ill-conceived and untested definitions. 61-4

Given the nature of GHG emissions and global warming concerns, determining the "significance" under CEQA of emissions from a single project is an area of uncertainty. Moreover, a rule based solely on a project's overall emissions increase in numeric terms could have the counterproductive effect of driving highly desirable energy supply projects outside of the Bay Area.

This could create the further unintended consequence of causing global GHG emissions to rise as the distance between energy supply and delivery to consumers increases.

An imbalance between the location of energy supplies and the point of consumption increases GHG emissions due to transmission losses (in the electricity sector) and increased transportation activities (in the fuels sector).

Using a numerical significance threshold as currently proposed by District Staff to determine project significance would chill development of important local/state projects by adding another layer of costly mitigation that may be unnecessary and unjustified.

WSPA recognizes that the District needs to conduct CEQA analyses for proposed projects within its jurisdiction – and to do so in light of the implementation of AB 32. To this end, WSPA believes that, in determining whether a proposed project's GHG emissions may have a significant impact on climate change, the District as a lead agency for a project should consider the following principles:

- Whether the project complies with GHG emissions standards or requirements promulgated by CARB under AB 32 and/or SB 375, the District, or by other state agencies or commissions applicable to the source;

- Determination that a project does **not** have a significant impact on the climate if the project will meet applicable standards promulgated by CARB, Air District, or other state agencies or commissions; if no such standards currently are in effect, then the District may evaluate whether the project will result in a net increase in energy efficiency or decrease in the carbon intensity of the underlying economic activity or the state's overall carbon footprint; and, 61-5

- If the project results in a net improvement in energy efficiency or a net decrease in carbon intensity of the underlying economic activity or the state's overall carbon footprint, then the District may determine that the project does not have a significant impact on climate.

WSPA believes strongly that the approach outlined above is the appropriate and supportable approach as compared to the numeric, mass emissions bright-line threshold limit contemplated by District Staff, given the

nature of GHG emissions. This is also consistent with WSPA's proposed Section 1.2.3.1 language as discussed above.

1.3.2 GREENHOUSE GAS EMISSIONS

Staff recommends that plans, such as general plans or plans and programs developed in conformance with other state and/or federal mandates, in addition to the Global Warming Solutions Act of 2006, that, when implemented result in a net increase in energy efficiency or decrease in carbon intensity of the underlying economic activity or of the state's overall carbon footprint, be considered less than significant if they either meet specified GHG efficiency criteria or if the jurisdiction has adopted a qualified Climate Action Plan (or similar adopted policies, ordinances and programs) that includes feasible measures to reduce GHG emissions consistent with AB 32 goals and Executive Order S-03-05 targets. 61-6

4.2.3.2 SCIENTIFIC AND REGULATORY JUSTIFICATION

While the Scoping Plan establishes the policy intent to control numerous GHG sources through regulatory, incentive and market means, given the early phase of implementation and the level of control that local CEQA lead agencies have over numerous GHG sources, CEQA is an important and supporting tool in achieving GHG reductions overall in compliance with AB 32. In this spirit, BAAQMD is considering the adoption of thresholds of significance for GHG emissions for land use development projects. However, as the Scoping Plan is implemented, those activities should be considered in GHG significance evaluations so as to not upset the balance of the AB32 implementation. 61-7

In summary, just as a Community Action Plan acknowledges commitment to emission reduction targets, so do programs to achieve the AB32 Scoping Plan objectives. Sources that are under the jurisdiction of the state should not be subject to duplicative and overlapping local programs, something that is specifically precluded by AB32.

Because there are no "local" or "cumulative" impacts from GHGs that are not addressed in these regulatory strategies being adopted by ARB, there is no "significance" from these sources.

WSPA appreciates the opportunity to comment on the Proposed Amendments. If you have any questions, please contact me at this office or Michaeleen Mason of my staff at (916) 498-7753.

Sincerely,

Catherine Reheis-Boyd
Executive Vice President and Chief Operating Officer

cc: Jean Roggenkamp, Deputy Air Pollution Control Officer
Jeff McKay, Deputy Air Pollution Control Officer
Greg Tholen, Principal Planner
Michaeleen Mason
Dennis Bolt

1415 L Street, Suite 600, Sacramento, California 95814
(916) 498-7752 • FAX (916) 444-5745 • cathy@wspa.org • www.wspa.org

Comment Letter #: 61
Date: October 26, 2009
From: Catherine Reheis-Boyd, Executive Vice President, Western States Petroleum Association

Response to Comments:

61-1 Staff agrees that no single project is likely to generate enough GHG emissions to noticeably change the local or global average temperature. However, GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. The combination of GHG emissions from past, present, and future projects contribute substantially to the phenomenon of global climate change and its associated environmental impacts. When the incremental contribution of a project to this phenomenon is cumulatively considerable, the project will be significant for purposes of CEQA. Thus, as noted in the thresholds report, the thresholds proposed by Staff are all for determining whether a project's GHG emissions are cumulatively considerable and thus significant under CEQA.

Moreover, to the extent that this commenter is suggesting that GHG emissions should not be evaluated under CEQA, Staff strongly disagrees. GHG emissions leading to climate change have clear, significant environmental impacts, and must be evaluated when conducting any CEQA review of a project. The California State Legislature confirmed this fact when it passed SB 97, which directs OPR to develop CEQA guidelines for the evaluation of GHG emissions impacts.

61-2 Staff agrees. Staff's proposed GHG thresholds of significance are based on substantial evidence and the Air District's expertise and represent the level at which a project will have a cumulatively considerable impact on climate change, as is detailed in Staff's *Proposed Thresholds of Significance Report*, and documents and evidence cited and relied upon therein. Pursuant to the proposed guidelines and thresholds, if a project's GHG emissions are greater than the proposed threshold, the project would be required to mitigate emissions back down to below the threshold of significance, or else have an unmitigated significant impact. The proposed thresholds do not propose to impose mitigation requirements on projects such that they mitigate more than required to reduce emissions to below the level of significance.

61-3 Air District staff believe that the commenter's recommendation and staff's recommendation both define climate actions plans that must be consistent with State CEQA Guidelines Section 15064(h)(3) to allow a project to be considered less than significant.

61-4 See Master Response MR-3.

61-5 See Master Response MR-3.

61-6 The revised plan-level GHG threshold in the *Proposed Thresholds of Significance* report (November 2, 2009) reflects the commenter's suggestion. The revised plan-level GHG threshold recommends that if a proposed project is consistent with an adopted qualified climate action plan, or Sustainable Communities Strategy, it can be presumed that it will not have significant GHG emission impacts. In addition, for local governments that have not yet adopted a qualified climate action plan as defined by the CEQA Guidelines, they have the option to demonstrate that their collective set of climate action policies, ordinances, and other projects are consistent with AB 32.

61-7 As stated in the *Proposed Thresholds of Significance* report (November 2, 2009), the proposed GHG thresholds are interim thresholds and will be revisited when CARB develops a statewide GHG threshold. The Air District's proposed GHG thresholds are based on AB 32 GHG emission reduction goals and take into consideration emission reduction strategies outline in ARB's Scoping Plan. The *Proposed Thresholds of Significance* report provides an explanation on how the Scoping Plan was integrated into the GHG threshold development. See also Master Response MR-3.

#62

SAN FRANCISCO
Asthma Task Force

10/27/2009

Greg Tholen, Principal Planner
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

RE: Proposed Revision to CEQA Guidelines for Air Quality Impacts

Dear Mr. Tholen:

The San Francisco Asthma Task Force was appointed by the Board of Supervisor to guide policy and budget that would promote a better quality of life for people with asthma in this City, in addition to preventing new asthma onset. We developed a strategic plan in 2003 and a report card to the community in 2008 (see www.sfgov.org/asthma). We have 15 voting members who represent a variety of advocates, residents affected by asthma, and health professionals who serve people with asthma. To this end, we are interested in land use planning that promote respiratory health.

In keeping with the Air District Board's directive to reduce cumulative impacts for disproportionately impacted communities, the Asthma Task Force fully supports the District's proposed CEQA Guidance inclusion of a defined threshold of significance for cumulative risk. However, in defining thresholds of significance for the risks and hazards of individual projects, the Asthma Task Force would like to see the September 2009 proposal for a Tiered Approach of more protective thresholds of significance for Impacted Communities introduced for public review by the District's Board. We believe there are significant merits to this approach, and their pros and cons deserve to be reviewed in the public setting.

We are fully in support of the District's first-time inclusion of Construction-Related Project-Level Thresholds of Significance, but we strongly assert that stronger measures are needed to protect communities who already bear a disproportionate amount of asthma and other respiratory disease burden. To this end, we would like all land use development in CARE communities to **require** Clean Construction Equipment standards, and anything less be considered a significant environmental impact. 62-1

Much of new land use development occurs in impacted communities, and the construction phase alone can last 5-10 years, allowing for a significant daily impact from construction equipment emissions. Use of best available control technology would be a cost effective way to address a

Advocates for Policies to Reduce Asthma's Impact

San Francisco Asthma Task Force, c/o Children's Environmental Health Promotion, San Francisco Department of Public Health
1390 Market Street, Suite 230, San Francisco, CA 94102 / Phone: (415) 252-3812 / Fax: (415) 554-8938

SAN FRANCISCO
Asthma Task Force

major source of toxic risk in the priority communities. The District's research in the CARE program found that construction equipment is 29% of the weighted cancer risk in the priority communities, and in some communities such as Bayview Hunters Point, it is even higher. Use of retrofits and higher tier engines can cut up to 85% of the fine particulate matter emitted, so adoption of toxic best practices could potentially result in a 25% reduction in cancer risk in the priority communities. Air Resources Board studies comparing the costs and benefits of requiring higher tier engines and retrofits showed a nine to one ratio of health benefits and industry costs, demonstrating that cleaner diesel equipment is an extremely cost effective measure.

Until Clean Construction Equipment is the required standard in Impacted Communities, these residents will continue to suffer disproportionate health impacts. Furthermore, there is no effective enforcement mechanism for monitoring the maximum daily emissions now included in the proposed CEQA thresholds.

We applaud your effort to reduce cumulative air pollution impacts on environmental justice communities in the Bay Area, which have already been well documented to be disproportionately impacted by multiple sources of air pollution (stationary, magnet, construction and mobile sources) and their associated health effects. Independently of the CEQA Guidelines update, we expect the Air Quality District to continue to develop both regulatory and other strategies that will reduce these cumulative impacts on the most highly impacted communities.

Thank you for consideration of our comment.

Sincerely,

Gloria Thornton

Gloria Thornton, Chairperson

Advocates for Policies to Reduce Asthma's Impact

San Francisco Asthma Task Force, c/o Children's Environmental Health Promotion, San Francisco Department of Public Health
1390 Market Street, Suite 230, San Francisco, CA 94102 / Phone: (415) 252-3812 / Fax: (415) 554-8938

Comment Letter #: 62
Date: October 27, 2009
From: Gloria Thornton, San Francisco Asthma Task Force

Response to Comments:

62-1 The updated CEQA Guidelines will strongly recommend the commenter's suggestion as a mitigation measure for community risk and hazard. The Air District will also consider this suggestion for when criteria is defined for the Community Risk Reduction Plans. The updated CEQA Guidelines will provide a broad view of what Staff anticipates will be required in a Community Risk Reduction Plan (CRRP). Understanding that no such plans yet exist in the Bay Area, the Air District will initiate a public process to identify steps and define criteria for a CRRP. In addition, the commenter's subsequent comments regarding reducing emissions in impacted communities could serve as guidance in defining a CCRP. District Staff will consider these comments in the future CCRP development process.

#63

CITY OF

San Rafael

Mayor
Albert J. Boro

Council Members
Greg Brockbank
Damon Connolly
Barbara Heller
Cyr N. Miller

October 26, 2009

Greg Tholen, Principal Planner
Planning Rules & Research
Bay Area Air Quality Management District
939 Ellis Street, 6th floor
San Francisco,, CA 94109

Re: CEQA Guidelines Update- Greenhouse Gas Emissions Thresholds Report and Draft Guidelines

Dear Mr. Tholen:

The City of San Rafael has completed a broad review of the Draft Thresholds Report and Draft Guidelines for addressing greenhouse gas emissions, which have been prepared by your agency (BAAQMD). These draft documents include recommendations for specific thresholds of significance that are proposed for assessing greenhouse gas emissions associated with construction-level and operation-level impacts, at both a plan-level and project-level.

First, we would like to commend the BAAQMD for the detailed, technical work and time in preparing these documents. The quantitative assessment of air quality is a technical task. The City of San Rafael, like most local municipalities is relying on the BAAQMD to provide us with guidance on how to address thresholds and model greenhouse gas emissions, as we do not have the technical expertise or resources. Further, while our staff has attended numerous workshops sponsored by BAAQMD, the State of California and planning organizations, until now, there has been little direction on what thresholds should be used and how to develop a model that quantitatively assesses emissions. Therefore, our review and comments on these documents is not technical but intentionally broad. The following is a summary of our concerns and comments regarding your draft documents: 63-1

1. Compliance with a Climate Change Action Plan should be established as a threshold of significance for assessing project-level, operational-related greenhouse gas emission impacts. Further, the term "Qualified Climate Change Action Plan" needs to be clearly defined. As currently drafted, compliance with such a plan is addressed in assessing plan-level greenhouse gas emission impacts only. What we understand is that little or no credit would be given for a specific project that is in compliance with an approved or adopted plan. Earlier this year, the City of San Rafael prepared and approved a Climate Change Action Plan. Our plan included an assessment of projecting greenhouse gas emissions using the model published by ICLEI- Local Governments for Sustainability. The assessment prepared 63-2

Community Development Department
1400 Fifth Avenue, P.O. Box 151560, San Rafael, CA 94915-1560
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for this plan does not provide the level of quantitative information to use for project-level review and CEQA clearance to meet the mandate of Senate Bill 375. Therefore, a clear definition of a "Qualified" plan is critical in determining where we currently stand and where expanded or new modeling is necessary to meet this mandate. Further, providing a sample of a "Qualified" plan would be very useful to the local, Bay Area agencies. 63-2

2. The 'model' that is used for quantitatively assessing greenhouse gas emissions should be accessible and available for local agency use and easy application. In fact, we would recommend that, in addition to providing access to the quantitative model, a sample CEQA analysis be provided and a draft 'ordinance' be prepared to further guide and assist local, Bay Area agencies in complying with the SB 375 mandate. Since most local agencies do not have the resources, the technical expertise or the funds to start-from-scratch, providing a model template, a sample CEQA analysis and a 'model ordinance' would ensure a quicker response by local agencies and would result in a more consistent compliance with the mandate. This approach was taken by the State of California Department of Water Resources (DWR) in responding to Senate Bill 1881, which is a statewide mandate for local agencies to prepare and adopt a 'water-efficient landscape ordinance.' The DWR has prepared and published a draft 'model ordinance' to assist local agencies in preparing their own ordinance by a January 2010 deadline. 63-3

3. We are concerned that the draft documents do not appropriately or fairly address the assessment of project-level operational impacts for infill projects in urban areas. As you are likely aware, CEQA Guidelines Section 15332 provides a categorical exemption for urban infill projects on sites of up to five acres in size. The method for review that is presented in your draft documents do not provide credit for a project that proposes emission reduction measures, before calculating or determining the level of significance. This methodology makes it questionable if an infill exemption determination is possible on any project. In addition, the methodology that is used does not appear to credit a project's location, which could influence or result in reductions in greenhouse gas emissions. It is suggested that the methodology account for and incorporate the potential reduction of project-proposed measures (including project location) before calculating the level of significance. 63-4

Thank you again for the opportunity to comment on these draft documents. Should you have any questions or comments, please do not hesitate to contact me at (415) 485-5064 or Paul.Jensen@cityofsanrafael.org.

Sincerely,

Paul A. Jensen

Paul A. Jensen, AICP
CITY OF SAN RAFAEL
Planning Manager

cc: Bob Brown, Community Development Director
Kraig Tambornini, Senior Planner

W:/. . ./CEQA Update/BAAQMD.CEQAamendments10-26-09.doc

Community Development Department
1400 Fifth Avenue, P.O. Box 151560, San Rafael, CA 94915-1560
Phone: (415) 485-3085 • Facsimile:(415) 485-3184

Comment Letter #: 63
Date: October 26, 2009
From: Paul A. Jensen, AICP, Planning Manager, City of San Rafael

Response to Comments:

63-1 In response to this and similar comments, Air District staff has worked to improve guidance quantifying GHG emissions. Air District staff is developing off-model tools to use in conjunction with the URBEMIS model. Air District staff will continue to refine the guidance. The Air District is continually working to enhance existing metrics to quantify community GHG emissions and climate action plan recommendations. Air District staff are prepared to assist local agencies prepare climate action plans.

63-2 The proposed thresholds of significance recommend that projects consistent with adopted qualified climate action plans be considered less than significant pursuant to the State CEQA Guidelines. Also see Master Response MR-5.

63-3 See comment response 63-1 and Master Response MR-5.

63-4 See Master Response MR-2. The revised CEQA Guidelines provide recommended methodologies that allow well-designed, efficient projects to take credit for reducing emissions compared to less efficient projects. In addition, projects located near transit and support services may be able to achieve even lower emission levels and possibly an impact finding of less than significant impacts to air quality. Well designed projects that incorporate recommended measures in the project proposal are not considered mitigated projects and may still be found less than significant and qualify for a categorical exemption.

#64

September 26, 2009

Greg Tholen
Principal Planner
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

VIA ELECTRONIC MAIL

RE: Draft CEQA Air Quality Guidelines

Dear Mr.Tholen,

Citizens Against Pollution (CAP) is a Hayward based non-profit that has advocated for the health of the citizens of Hayward and the Bay ecosystem since our founding in 2007. CAP appreciates this chance to comment on the District's proposed CEQA air quality guidelines.

We would like to commend the District on its decision to include Greenhouse Gas (GHG) emissions in its assessment of whether a project under review complies with all CEQA requirements, and would like to bring to the Districts attention what we feel is an important but unaddressed issue in the District's proposed CEQA guidelines; an assessment of the increase in the criteria pollutants PM and Ozone from a projects GHG emissions.

As demonstrated in the studies of Mark Z. Jacobson (Director, Atmosphere/Energy Program, Stanford University), locally emitted CO2 can create local CO2 domes which increase production of both PM and Ozone with the attending increase in local morbidity and mortality.

While the majority of the almost 900 source categories that the District inventories, do not singly, in and of themselves produce large enough quantities of GHG's to contribute significantly to the creation of a local CO2 dome, and the corresponding increase in PM and Ozone through the Jacobson Effect (JE), there are at least two class of projects that do; fossil fuel refineries and fossil fuel power plants. Indeed of the approximately 4,000 stationary source facilities the District inventories, the top 9 emitters of GHG's are fossil fuel refineries and fossil fuel power plants.

As an example of how significant a contribution to an increase in local GHG's a single fossil fuel power plant may be, the example of the proposed Russell City Energy Center (RCEC) may be useful. The RCEC is a proposed 600 Megawatt NG power plant currently seeking a Prevention of Significant Deterioration (PSD) permit from the District to be built in the city of Hayward.

The District's "Additional Statement of Basis for the Draft Federal PSD Permit" (Aug.

'09), proposes to permit RCEC to emit 11,604,000 lbs a day of CO2e.The proposed PSD permit would permit 3,856,364,000 lbs (1,928,182 metric tons) of CO2e every year.

This would be an increase in GHG emissions of over 10 percent of Alameda County's 2007 GHG emissions of 17,728,259 MT/year (Source Inventory of Bay Area GHGE, BAAQMD Dec. '08), and a more than 100 percent increase in Hayward's 2005 GHG emissions of 1,279,438 MT/year (City of Hayward Baseline Inventory Report, ICLEI June,'08).

CAP believes that projects within the jurisdiction of the District that singly emit such massive amounts of GHG's are required under CEQA to be assessed as to their likely significant contribution to the increase in local morbidity and mortality as a result of an increase in the criteria pollutants; PM and Ozone. We also believe that CEQA requires consideration by the District of the Jacobson Effect in it's assessment of projects and plans that produce smaller quantities of GHG's, to determine if the cumulative impact would contribute to an increase of PM and Ozone. 64-1

We agree with the District that "The analysis to assess project-level air quality impacts should be as comprehensive and rigorous as possible." (draft CEQA Air Quality Guidelines, BAAQMD) and hope that the District will incorporate into its guidelines; consideration of the local impacts of locally emitted GHG's.

Sincerely,

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Hayward, CA 94541
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Attachment A: On the Causal Link between CO2 and Air Pollution Mortality (Jacobson '08)

Attachment B: The Enhancement of Local Air Pollution by Urban CO2 Domes (Jacobson '09)

The enhancement of local air pollution by urban CO_2 domes

Mark Z. Jacobson

Department of Civil and Environmental Engineering, Stanford University, Stanford, California 94305-4020, USA; Email: jacobson@stanford.edu; Tel: (650) 723-6836

March 21, 2009

Data suggest that domes of high CO_2 levels form over cities. The effects of such domes on local temperatures and water vapor, and the resulting feedbacks to air pollution and health have never been examined. Here, such effects are studied for Los Angeles and California as a whole. It is found that local CO_2 emissions, in isolation, cause increases in local ozone and particulate matter. As such, reducing locally-emitted CO_2 will reduce local air pollution mortality even if CO_2 in adjacent regions is not controlled. This result contradicts the basis for all air pollution regulations worldwide, none of which considers controlling local CO_2 based on its local health impacts. It also suggests that the underlying assumption of the "cap and trade" policy, that CO_2 impacts are the same regardless of where emissions occur, is incorrect.

1. Introduction

Although CO_2 is generally well-mixed in the atmosphere, data indicate that its mixing ratios are higher in urban areas than in the background air, resulting in *urban CO_2 domes* (*1-4*). Measurements in Phoenix, for example, indicate that peak CO_2 levels in the city center are 75% higher, mean levels in the city center are 38-43% higher, and mean levels in the commercial sector are 23-30% higher than in surrounding rural areas (*1*).

Many studies have examined the impact on air pollution of changes in global greenhouse gases (*5-17*). However, no study has isolated the impact of locally-emitted CO_2 on local air

pollution, health, or climate, through the creation of CO_2 domes. The issue is important, since if only changes in global-scale well-mixed CO_2 affect local air pollution, local air pollution due to CO_2 can be reduced only by reducing CO_2 emissions on a large scale (nationally or internationally). However, if locally-emitted CO_2 in isolation increases local air pollution, cities, counties, states, and small countries can reduce air pollution health problems by reducing their own CO_2 emissions, regardless of whether other air pollutants are reduced simultaneously.

2. Methodology

For this study, the nested global-through-urban 3-D model, GATOR-GCMOM was use to examine the effects of locally-emitted CO_2 on local climate and air pollution on two scales, California as a whole and the Los Angeles basin. The model and numerous comparisons with data have been described in detail in publications over the past 16 years, including several recent ones (*16-21*). Additional comparisons are shown here.

Three pairs of simulations were run: one pair nested from the globe to California for one year and two pairs nested from the globe to California to Los Angeles, each for three months (Aug-Oct; Feb-Apr). The resolutions of the global, California, and Los Angeles domains were 4° SN x 5° WE, 0.20° SN x 0.15° WE, and 0.45° SN x 0.05° WE, respectively. The global domain included 47 sigma-pressure layers up to 0.22 hPa (≈60 km), with very high resolution (15 layers) in the bottom 1 km. Such high vertical resolution was necessary to obtain the accurate ozone predictions shown in Fig. 1. The nested regional domains included 35 layers exactly matching the global layers up to 65 hPa (≈18 km).

Each simulation pair consisted of a baseline simulation and a sensitivity simulation in which only anthropogenic CO_2 emissions ($emCO_2$) were removed from the finest domain. Initial ambient CO_2 was the same in all domains of both simulations and $emCO_2$ was the same in the parent domains of both simulations. As such, all resulting differences were due solely to locally-emitted (in the finest domain) CO_2.

3. Results

Figure 1 compares modeled O_3, PM_{10}, and CH_3CHO from August 1-7 of the baseline (with $emCO_2$) and sensitivity (no $emCO_2$) simulations from the Los Angeles domain with paired-in-time-and-space data. The model was run without data assimilation or model spinup, thus the results indicate the ability of the model to predict air pollution hour by hour at exact locations. The comparisons indicate very good agreement with respect to ozone in particular. They also indicate that $emCO_2$ increased O_3, PM_{10}, and CH_3CHO almost immediately, during both day and night. The reasons for the increases are examined further, first with respect to California, then Los Angeles.

Figure 2a compares annually-averaged modeled spatial differences in ambient CO_2 in California obtained by subtracting no-$emCO_2$ results from the baseline results. The modeled CO_2 domes over Los Angeles, the San Francisco Bay Area, and parts of the Central Valley are evident and consistent with expectations from the measurement studies previously discussed. The largest annually-averaged CO_2 increase (5%, or 17.5 ppmv) was lower than observed CO_2 dome increases in cities (*1*) since the resolution of the California domain was coarser than the resolution of measurements. As shown shortly, an increase in model resolution for Los Angeles increases the magnitude of the largest CO_2 increase and the resulting effects on air pollution. Whereas the population-weighted (PW) and domain-averaged (DA) increases in surface CO_2 due to $emCO_2$ were 7.4 ppmv and 1.3 ppmv, respectively, the corresponding increases in column CO_2 were 6.0 g/m^2 and 1.53 g/m^2, respectively, indicating that changes in column CO_2 were spread more horizontally than were changes in surface CO_2. This is because local $emCO_2$ starts mixing with the larger scale soon after emissions, but the losses are quickly replaced with more local CO_2 emissions.

The local increases in CO_2 in California increased the PW air temperature by about 0.0063 K, more than it changed the domain-averaged air temperature (+0.00046) (Fig. 2b). Thus, local CO_2 domes had greater temperature impacts where the CO_2 was emitted and where people lived than they did on the domain average. This result holds true for the effects of $emCO_2$ on column water vapor (Fig. 2c - PW: +4.3 g/m^2; DA: +0.88 g/m^2), ozone (Fig. 2d – PW: +0.06 ppbv; DA: +0.0043 ppbv), $PM_{2.5}$ (Fig. 2f – PW: +0.08 μg/m^3; DA: -0.0052 μg/m^3), PAN (Fig. 2h – PW: +0.002 ppbv; DA: -

0.000005 ppbv) and particle nitrate (Fig. 2i – PW: +0.030 $\mu g/m^3$; DA: +0.00084 $\mu g/m^3$), among many other parameters.

Figure 3 elucidates correlations between changes in local ambient CO_2 caused by changes in $emCO_2$ and changes in other parameters. The figure shows that modeled temperatures, water vapor, ozone, and $PM_{2.5}$ increased more in the annual average in grid cells with larger ambient CO_2 increases than in cells with smaller ambient CO_2 increases. In other words, increases in ozone and $PM_{2.5}$ were correlated spatially with local CO_2 increases. Figure 2 further shows that increases in ozone were correlated spatially with increases in temperature and water vapor, a result consistent with (*16*), which found that higher temperature and water vapor increased ozone more in locations where ozone was already high due to the temperature and water-vapor-dependence on chemical reactions producing ozone.

The reasons for higher $PM_{2.5}$ resulting from higher CO_2 are more complex. Figure 2 shows that $PM_{2.5}$ correlated slightly negatively (R=0.017) with increases in temperature but more strongly positively (R=0.23) with increases in water vapor. Higher temperatures tended to decrease $PM_{2.5}$, in part by increasing vapor pressures thus PM evaporation and in part by enhancing precipitation in some locations. Some of the $PM_{2.5}$ decreases due to higher temperatures were offset by increases in biogenic organic emissions due to higher temperatures and oxidation of such organics to organic PM. But in California, biogenic emissions are much lower than the southeast U.S., so this factor was not so significant. Some of the $PM_{2.5}$ decreases were also offset by slower winds caused by enhanced boundary-layer stability from CO_2. While higher temperatures slightly decreased $PM_{2.5}$, higher water vapor due to $emCO_2$ increased $PM_{2.5}$ by increasing the liquid water content of aerosols, increasing the dissolution of gases such as nitric acid and ammonia, forming more particle nitrate (Fig. 2i) and ammonium. Also, higher ozone caused by higher water vapor increased oxidation rates of organic gases to organic PM. Since $PM_{2.5}$ increased overall due to $emCO_2$, the water vapor effect exceeded the temperature effect.

Health effect rates (y) due to ozone and $PM_{2.5}$ in each model domain during each simulation were determined from

$$y = y_0 \sum_i \left\{ P_i \sum_t \left(1 - \exp\left[-\beta \times \max\left(x_{i,t} - x_{th}, 0 \right) \right] \right) \right\} \quad (1)$$

where $x_{i,t}$ is the mixing ratio or concentration in grid cell i at time t, x_{th} is the threshold value below which no health effect occurs, β is the fractional increase in risk per unit x, y_0 is the baseline health effect rate, and P_i is the grid cell population. Table 1 provides values of P (summed over each domain), β, y_0, and x_{th}.

Application of Equation 1 resulted in ~13 (6-19) additional ozone-related deaths/year due to local CO_2 emissions in California (Fig. 2e), or 0.3% above the baseline 4600 (2300-6900) deaths/year (Table 1). The higher particulate matter due to local CO_2 contributed another ~39 (13-60) deaths/year in California (Fig. 2g), 0.2% above the baseline death rate of 22,500 (5900-42,000) deaths/year. Changes in cancer due to emCO_2 were relatively small (Table 1).

Simulations for Los Angeles echo results for California as a whole but allow for a higher-resolution and more accurate picture of changes due to CO_2. The Feb-Apr panels in Fig. 4 indicate that the CO_2 dome that formed over Los Angeles peaked at about 34 ppmv, twice as high as over the coarser-resolution California domain. The column difference indicates a clear spreading of the dome over a larger area than the surface dome. In both Feb-Apr and Aug-Oct, emCO_2 enhanced PW ozone and $PM_{2.5}$, increasing mortality (Fig. 4, Table 1) and other health effects (Table 1). The causes of such increases, however, differed somewhat with season. From Feb-Apr, emCO_2 increased surface temperatures and water vapor over the Los Angeles basin (Fig. 4). This slightly enhanced ozone and $PM_{2.5}$, but the increase in the land-ocean temperature gradient also increased sea-breeze wind speeds, increasing resuspension of road and soil dust and moving particulate matter more to the eastern basin. From Aug-Oct, emCO_2 increased temperatures aloft, increasing the land-sea temperature gradient and wind speed aloft, increasing the flow of moisture from the ocean to land aloft, increasing water vapor and clouds over land, decreasing surface solar radiation, causing a net decrease in local ground temperatures and UV radiation but a net increase in water vapor at all

altitudes due to the vertical diffusion of water vapor aloft to the surface. The higher water vapor triggered greater ozone formation and a higher relative humidity, which increased aerosol particle swelling, allowing an increase in gas growth onto aerosols, and reduced particle evaporation. In sum, the net effect of emCO_2 was to increase ozone and $PM_{2.5}$ and their corresponding health effects in both seasons, increasing air pollution death rates in California and Los Angeles by about 50-100 per year (Fig. 4, Table 1). Death rates for Los Angeles were similar or higher than those for California due to the greater accuracy of higher resolution (Los Angeles) simulations, as shown in Table 2 of (*18*); thus, these results are likely to be conservative for California as a whole.

The California mortality increase compares with a U.S. death rate increase of about 1000/yr per 1 K temperature rise due to globally-emitted anthropogenic CO_2, with about 300 deaths/yr occurring in California (*16*), which has 12% of the U.S. population. The greater death rates in California versus the rest of the U.S. are due to the fact that higher temperatures and water vapor due to CO_2 enhance air pollution the most where it is already high, and California has more than half of the top 10 most polluted cities in the U.S.

5. Implications

Worldwide, emissions of many pollutants (e.g., NO_x, HCs, CO, PM) that cause local air pollution health problems are regulated. The few CO_2 emission regulations proposed to date have been justified based on the large-scale climate effects that such emissions cause and the feedback of such large-scale changes to sea levels, water supply, and global air pollution. However, no regulation of CO_2 has been proposed based on the potential impact of locally emitted CO_2 on local air pollution as such effects have been assumed not to exist (*22*). The result here suggests that reducing local CO_2 will reduce local air pollution mortality by 50-100 deaths/yr in California alone even if CO_2 in adjacent regions is not controlled. Thus, CO_2 emission controls are justified on the same grounds that NO_x, HC, CO, and PM emission regulations are justified. Results further imply that the assumption behind the policy of "cap and trade," namely that CO_2 emissions in one location have the same impact as CO_2 emissions in another, is incorrect, as CO_2 emissions in populated cities have

significantly larger impacts on health than do CO_2 emissions in unpopulated areas. As such, implementation of CO_2 cap and trade, if done, should consider the location of emissions to avoid additional health damage.

References and Notes

1. C.D. Idso, S.B. Idso, R.C. Balling Jr., *Atmos. Environ.* **35**, 995 (2001).
2. L. Gratani, L. Varone, *Atmos. Environ.* **39**, 2619 (2005).
3. S. Newman, X. Xu, H.P. Affek, E. Stolper, S. Epstein, *J. Geophys. Res.* **113**, D23304, doi:10.1029/2008JD009999 (2008).
4. M. Rigby, R. Toumi, R. Fisher, D. Lowry, and E.G. Nisbet, *Atmos. Environ.* **42**, 8943 (2008).
5. A.M. Thompson, R.W. Stewart, M.A. Owens, J.A. Herwehe, *Atmos. Environ.* **23**, 519 (1989).
6. K. Knowlton, J.E. Rosenthal, C. Hogrefe, B. Lynn, S. Gaffin, R. Goldberg, C. Rosenzweig, K. Civerolo, J.-Y. Ku, P.L. Kinney, *Environ. Health Perspectives* **112**, 1557 (2004).
7. L.J. Mickley, D.J. Jacob, B.D. Field, D. Rind, *Geophys. Res. Lett.* **31**, L24103, doi:10.1029/2004GL021216 (2004).
8. D. Stevenson, R. Doherty, M. Sanderson, C. Johnson, B. Collins, D. Derwent, *Faraday Disc.* **130**, 1 (2005).
9. G.P. Brasseur, M.M. Schultz, C. Granier, M. Saunois, T. Diehl, M. Botzet, E. Roeckner , *J. Clim.* **19**, 3932 (2006).
10. K. Murazaki, P. Hess, *J. Geophys. Res.* **111**, D05301, doi:10.1029/2005JD005873 (2006).
11. P.N. Racherla, P.J. Adams, *J. Geophys. Res.* **111**, D24103, doi:10.1029/2005JD006939 (2006).
12. A.L. Steiner, S. Tonse, R.C. Cohen, A.H. Goldstein, R.A. Harley, *J. Geophys. Res.* **111**, D18303, doi:10.1029/2005JD006935 (2006).
13. N. Unger, D.T. Shindell, D.M. Koch, M. Ammann, J. Cofala, D.G. Streets, *J. Geophys. Res.* **111**, D12313, doi:10.1029/2005JD006518 (2006).
14. H. Liao, W.-T. Chen, J.H. Seinfeld, *J. Geophys. Res.* **111**, D12304, doi:10.1029/2005JD006852 (2006).

15. M.L. Bell, R. Goldberg, C. Hogrefe, P.L. Kinney, K. Knowlton, B. Lynn, J. Rosenthal C. Rosenzweig, J.A. Patz, *Climatic Change* **82**, 61 (2007).

16. M.Z. Jacobson, *Geophys. Res. Lett.* **35**, L03809, doi:10.1029/2007GL031101 (2008).

17. M.Z. Jacobson, D.G. Streets, *J. Geophys. Res.*, in press (2009).

18. M.Z. Jacobson, *J. Geophys. Res.* **106**, 5403 (2001).

19. M.Z. Jacobson, Y.J. Kaufmann, Y. Rudich, *J. Geophys. Res.* **112**, doi:10.1029/2007JD008922 (2007).

20. M.Z. Jacobson, *Geophys. Res. Lett.* **35**, L19803, doi:10.1029/2008GL035102 (2008).

21. M.Z. Jacobson *J. Geophys. Res.* **113**, D23101, doi:10.1029/2008JD010689 (2008).

22. S.L. Johnson, S.L, *Federal Register* **73** (45), 12,156 (2008).

23. United States Environmental Protection Agency (USEPA), AIR Data, http://www.epa.gov/air/data/ (2006).

24. Thurston, G.D., K. Ito, *J. Exposure Analysis and Env. Epidemiology* **11**, 286 (2001).

25. D.L. Hoyert, D.L., M.P. Heron, S.L. Murphy, H.-C. Kung, National Vital Statistics Reports, Vol. 54, No. 13, http://www.cdc.gov/nchs/fastats/deaths.htm (2006).

26. C.T. Merrill, A. Elixhauser, www.ahrq.gov/data/hcup/factbk6/factbk6e.htm (2005).

27. D.M. Mannino, D.M. Homa, L.J. Akinbami, J.E. Moorman, C. Gwynn, S.C. Redd, *Surveillance Summaries* **51** (SS01), 1 (2002).

28. B.D. Ostro, H. Tran, J.I. Levy, *J. Air & Waste Manage. Assoc.* **56**, 1007 (2006).

29. C.A. Pope III, R.T. Burnett, M.J. Thun, E.E. Calle, D. Krewski, K. Ito, G.D. Thurston, *JAMA*, **287**, 1132 (2002).

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Figure Captions

Figure 1. (a) Paired-in-time-and-space comparisons of modeled baseline (solid lines), modeled no-emCO_2 (dashed lines), and data (dots) for ozone, sub-10-μm particle mass, and acetaldehyde from the Los Angeles domain for August 1-7, 2006. Data from (*23*).

Figure 2. Modeled annually averaged difference for several parameters when two simulations (with and without emCO_2) were run. The numbers in parentheses are population-weighted changes.

Figure 3. Scatter plots of paired-in-space one-year-averaged changes between several parameter pairs, obtained from all near-surface grid cells of the California domain. Also shown is an equation for the linear fit through the data points in each case.

Figure 4. Same as Fig. 2., but for the Los Angeles domain and for Feb-Apr and Aug-Oct. Also shown are scatter plots for Aug-Oct similar to those for Fig. 3.

Table 1. Summary of locally-emitted CO_2's ($emCO_2$) effects on cancer, ozone mortality, ozone hospitalization, ozone emergency-room (ER) visits, and particulate-matter mortality in California. Results are shown for the with-$emCO_2$ emissions simulation ("Base") and the difference between the base and no $emCO_2$ emissions simulations ("Base minus no-$emCO_2$") for California and Los Angeles. The domain summed populations in the Los Angeles and California domains were 17.268 million and 35.35 million, respectively. All mixing ratios and concentrations are near-surface values weighted spatially by population. Los Angeles results were an average of Feb-Apr and Aug-Oct results.

	Annual base Calif.	Base minus no $emCO_2$ Calif.	Annual Base LA	Base minus no $emCO_2$ LA
Ozone ≥ 35 ppbv (ppbv)	47.4	+0.060	44.7	+0.12
$PM_{2.5}$ ($\mu g/m^3$)	50.0	+0.08	36	+0.29
Formaldehyde (ppbv)	4.43	+0.0030	4.1	+0.054
Acetaldehyde (ppbv)	1.35	+0.0017	1.3	+0.021
1,3-Butadiene (ppbv)	0.11	-0.00024	0.23	+0.0020
Benzene (ppbv)	0.30	-0.00009	0.37	+0.0041
Cancer				
USEPA cancers/yr+	44.1	0.016	22.0	+0.28
OEHHA cancers/yr+	54.4	-0.038	37.8	+0.39
Ozone health effects				
High O_3 deaths/yr*	6860	+19	2140	+20
Med. O_3 deaths/yr*	4600	+13	1430	+14
Low O_3 deaths/yr*	2300	+6	718	+7
O_3 hospitalizations/yr*	26,300	+65	8270	+75
Ozone ER visits/yr*	23,200	+56	7320	+66
PM health effects				
High $PM_{2.5}$ deaths/yr^	42,000	+60	16,220	+147
Medium $PM_{2.5}$ deaths/yr^	22,500	+39	8500	+81
Low $PM_{2.5}$ deaths/yr^	5900	+13	2200	+22

(+) USEPA and OEHHA cancers/yr were found by summing, over all model surface grid cells and the four carcinogens (formaldehyde, acetaldehyde, 1,3-butadiene, and benzene), the product of individual CUREs (cancer unit risk estimates=increased 70-year cancer risk per $\mu g/m^3$ sustained concentration change), the mass concentration ($\mu g/m^3$) (for baseline statistics) or mass concentration difference (for difference statistics) of the carcinogen, and the population in the cell, then dividing by the population of the model domain and by 70 yr. USEPA CURES are 1.3×10^{-5} (formaldehyde), 2.2×10^{-6} (acetaldehyde), 3.0×10^{-5} (butadiene), 5.0×10^{-6} (=average of 2.2×10^{-6} and 7.8×10^{-6}) (benzene) (www.epa.gov/IRIS/). OEHHA CUREs are 6.0×10^{-6} (formaldehyde), 2.7×10^{-6} (acetaldehyde), 1.7×10^{-4} (butadiene), 2.9×10^{-5} (benzene) (www.oehha.ca.gov/risk/ChemicalDB/index.asp).

(*) High, medium, and low deaths/yr, hospitalizations/yr, and emergency-room (ER) visits/yr due to short-term O_3 exposure were obtained from Equation 1, assuming a threshold of 35 ppbv (*24*). The baseline 2003 U.S. death rate (y_0) was 833 deaths/yr per 100,000 (*25*). The baseline 2002 hospitalization rate due to respiratory problems was 1189 per 100,000 (*26*). The baseline 1999 all-age emergency-room visit rate for asthma was 732 per 100,000 (*27*). These rates were assumed to be the same in each U.S. county, although they vary slightly by county. The fraction increases (β) in the number of deaths from all causes due to ozone were 0.006, 0.004, and 0.002 per 10 ppbv increase in daily 1-hr maximum ozone (*28*). These were multiplied by 1.33 to convert the risk associated with a 10 ppbv increase in 1-hr maximum O_3 to that associated with a 10 ppbv increase in 8-hour average O_3 (*24*). The central value of the increased risk of hospitalization due to respiratory disease was 1.65% per 10 ppbv increase in 1-hour maximum O_3 (2.19% per 10 ppbv increase in 8-hour average O_3), and that for all-age ER visits for asthma was 2.4% per 10 ppbv increase in 1-hour O_3 (*28*) (3.2% per 10 ppbv increase in 8-hour O_3).

(^) The death rate due to long-term $PM_{2.5}$ exposure was calculated from Equation 1. Reference (*29*) provides increased death risks to those ≥30 years of 0.008 (high), 0.004 (medium), and 0.001 (low) per 1 $\mu g/m^3$ $PM_{2.5}$ >8 $\mu g/m^3$ based on 1979-1983 data. From 0-8 $\mu g/m^3$, the increased risks here were assumed =¼ those >8 $\mu g/m^3$ to account for reduced risk near zero $PM_{2.5}$ (*16*). The all-cause 2003 U.S. death rate of those ≥30 years was 809.7 deaths/yr per 100,000 total population.

Figure 1

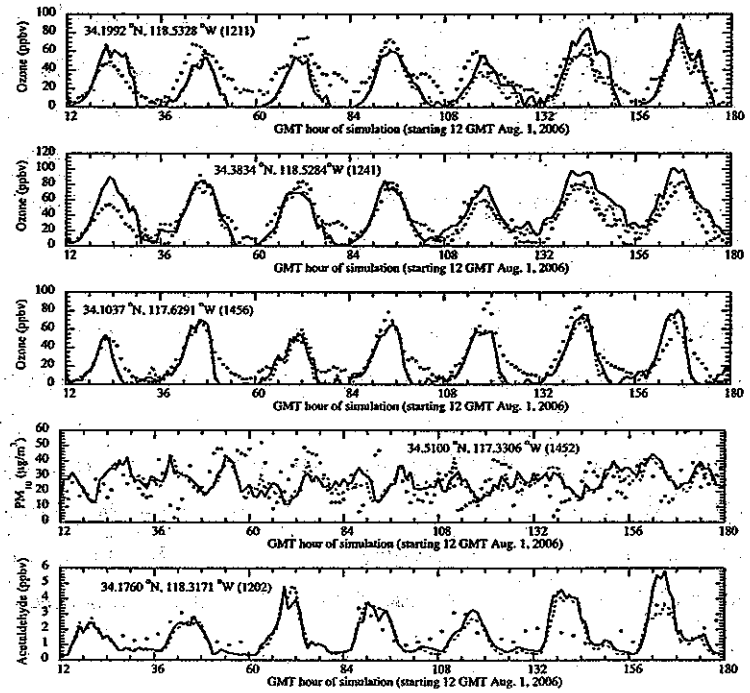

34.1992 °N, 118.5328 °W (1211)
Ozone (ppbv)
GMT hour of simulation (starting 12 GMT Aug. 1, 2006)
34.3834 °N, 118.5284 °W (1241)
Ozone (ppbv)
GMT hour of simulation (starting 12 GMT Aug. 1, 2006)
34.1037 °N, 117.6291 °W (1456)
Ozone (ppbv)
GMT hour of simulation (starting 12 GMT Aug. 1, 2006)
34.5100 °N, 117.3306 °W (1452)
PM10 (ug/m3)
GMT hour of simulation (starting 12 GMT Aug. 1, 2006)
34.1760 °N, 118.3171 °W (1202)
Acetaldehyde (ppbv)
GMT hour of simulation (starting 12 GMT Aug. 1, 2006)

Figure 2

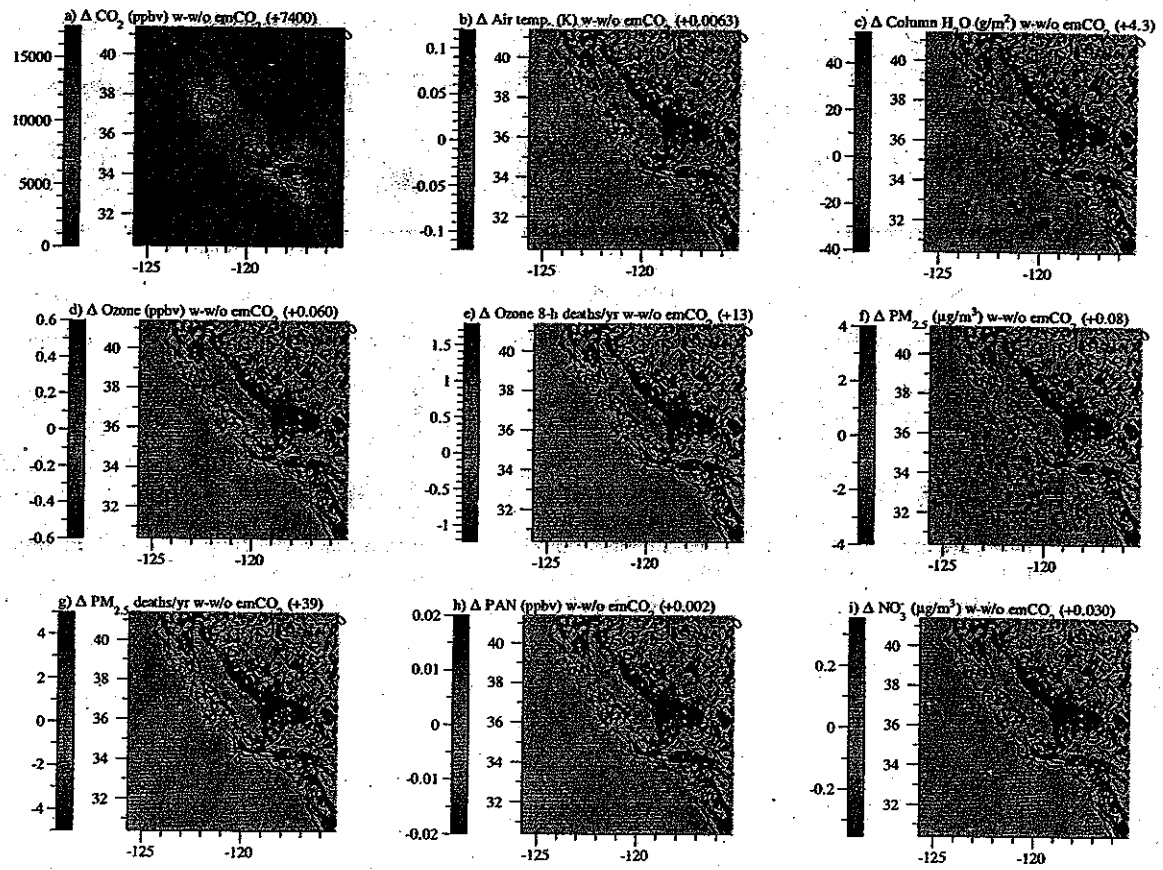

a) Δ CO2 (ppbv) w-w/o emCO2 (+7400)
b) Δ Air temp. (K) w-w/o emCO2 (+0.0063)
c) Δ Column H2O (g/m2) w-w/o emCO2 (+4.3)
d) Δ Ozone (ppbv) w-w/o emCO2 (+0.060)
e) Δ Ozone 8-h deaths/yr w-w/o emCO2 (+13)
f) Δ PM2.5 (μg/m3) w-w/o emCO2 (+0.08)
g) Δ PM2.5 deaths/yr w-w/o emCO2 (+39)
h) Δ PAN (ppbv) w-w/o emCO2 (+0.002)
i) Δ NO3- (μg/m3) w-w/o emCO2 (+0.030)

Figure 3

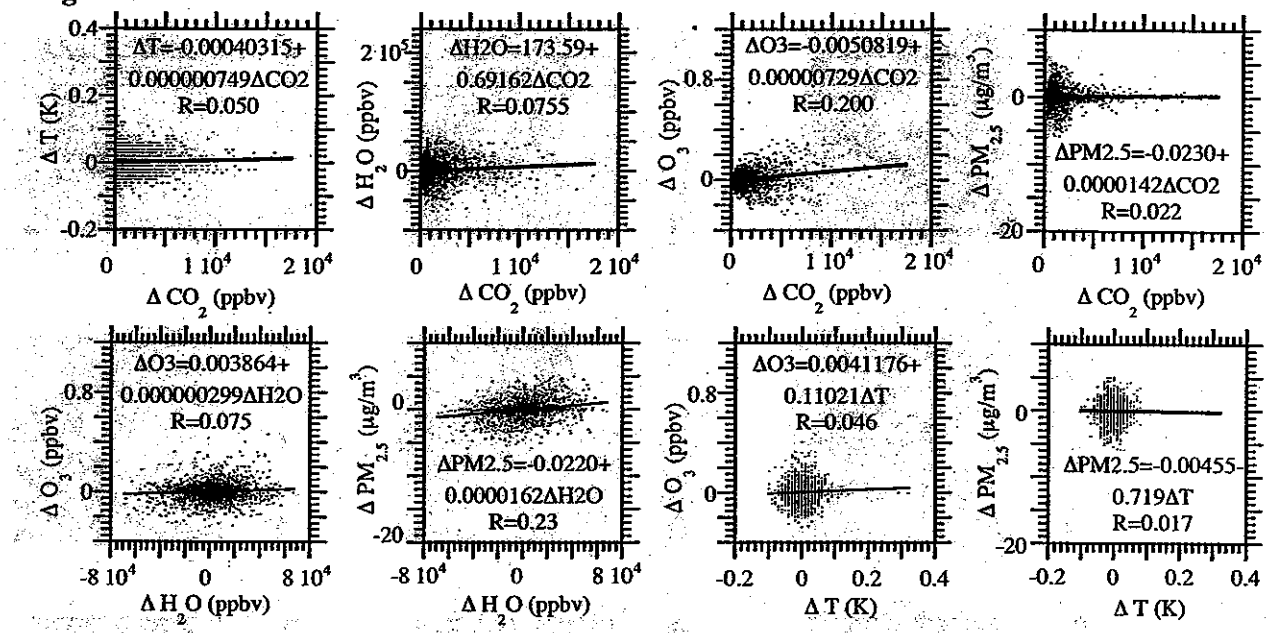
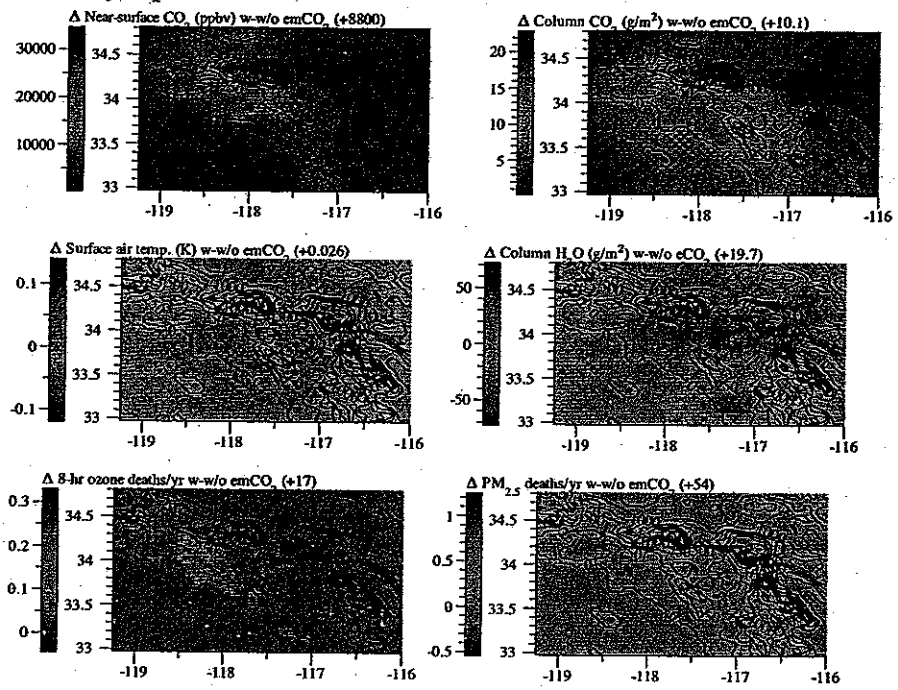
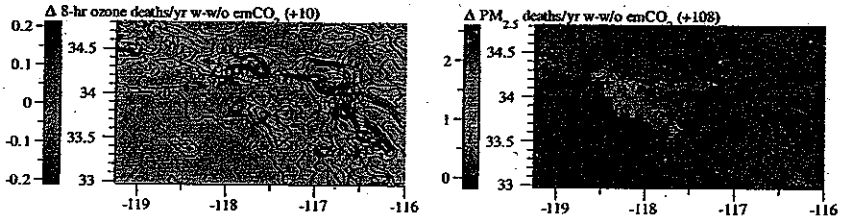

ΔT=-0.00040315+
0.000000749ΔCO2
R=0.050
Δ T (K)
Δ CO2 (ppbv)
ΔH2O=173.59+
0.69162ΔCO2
R=0.0755
Δ H2O (ppbv)
Δ CO2 (ppbv)
ΔO3=-0.0050819+
0.00000729ΔCO2
R=0.200
Δ O3 (ppbv)
Δ CO2 (ppbv)
ΔPM2.5=-0.0230+
0.0000142ΔCO2
R=0.022
Δ PM2.5 (μg/m3)
Δ CO2 (ppbv)
ΔO3=0.003864+
0.000000299ΔH2O
R=0.075
Δ O3 (ppbv)
Δ H2O (ppbv)
ΔPM2.5=-0.0220+
0.0000162ΔH2O
R=0.23
Δ PM2.5 (μg/m3)
Δ H2O (ppbv)
ΔO3=0.0041176+
0.11021ΔT
R=0.046
Δ O3 (ppbv)
Δ T (K)
ΔPM2.5=-0.00455-
0.719ΔT
R=0.017
Δ PM2.5 (μg/m3)
Δ T (K)

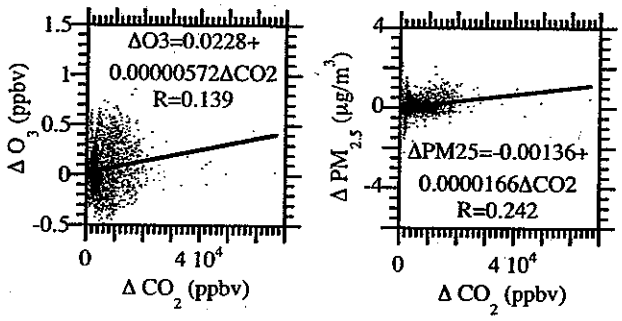
Figure 4

February-April



August-October





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On the causal link between carbon dioxide and air pollution mortality

Mark Z. Jacobson[1]

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[1] Greenhouse gases and particle soot have been linked to enhanced sea-level, snowmelt, disease, heat stress, severe weather, and ocean acidification, but the effect of carbon dioxide (CO_2) on air pollution mortality has not been examined or quantified. Here, it is shown that increased water vapor and temperatures from higher CO_2 separately increase ozone more with higher ozone; thus, global warming may exacerbate ozone the most in already-polluted areas. A high-resolution global-regional model then found that CO_2 may increase U.S. annual air pollution deaths by about 1000 (350–1800) and cancers by 20–30 per 1 K rise in CO_2-induced temperature. About 40% of the additional deaths may be due to ozone and the rest, to particles, which increase due to CO_2-enhanced stability, humidity, and biogenic particle mass. An extrapolation by population could render 21,600 (7400–39,000) excess CO_2-caused annual pollution deaths worldwide, more than those from CO_2-enhanced storminess. **Citation:** Jacobson, M. Z. (2008), On the causal link between carbon dioxide and air pollution mortality, *Geophys. Res. Lett.*, *35*, L03809, doi:10.1029/2007GL031101.

1. Introduction

[2] Because carbon dioxide's (CO_2's) ambient mixing ratios are too low to affect human respiration directly, CO_2 has not been considered a classic air pollutant. Its effects on temperatures, though, affect meteorology, and both feed back to air pollution. Several studies have modeled the sensitivity of ozone to temperature [*Sillman and Samson*, 1995; *Zhang et al.*, 1998] and the regional or global effects of climate change from all greenhouse gases on ozone [*Thompson et al.*, 1989; *Evans et al.*, 1998; *Dvortsov and Solomon*, 2001; *Mickley et al.*, 2004; *Stevenson et al.*, 2005; *Brasseur et al.*, 2006; *Murazaki and Hess*, 2006; *Steiner et al.*, 2006; *Racherla and Adams*, 2006] and aerosol particles [*Aw and Kleeman*, 2003; *Liao et al.*, 2006; *Unger et al.*, 2006]. Some studies have highlighted the effect of water vapor on chemistry [*Evans et al.*, 1998; *Dvortsov and Solomon*, 2001; *Stevenson et al.*, 2005; *Steiner et al.*, 2006; *Racherla and Adams*, 2006; *Aw and Kleeman*, 2003]. However, none has isolated the effect of CO_2 alone on ozone, particles, or carcinogens, applied population and health data to the pollution changes, or examined the problem with a global-regional climate/air pollution model.

[3] Here, a box photochemistry calculation is first used to show how increases in water vapor and temperature independently increase ozone more with high than low ozone. This analysis helps to explain the causal link between CO_2 and health in areas where most people live, as subsequently found in 3-D global-regional simulations.

2. Chemical Effects of CO_2 on Ozone

[4] The SMVGEAR II chemical solver was used first in box mode, without dilution or entrainment, to solve chemistry for 12 hours among 128 gases and 395 inorganic, organic, sulfur, chlorine, and bromine reactions (including 57 photoprocesses) (mostly given by *Jacobson et al.* [2007], also see the supplementary material of *Jacobson* [2007]). Cases with different initial NO_x and organic gas were run.

[5] Figure 1 shows the water-vapor (H_2O) and temperature-dependence of ozone under several ozone precursor combinations. For initial $NO_x < 8$ ppbv, ozone decreased with increasing H_2O. For initial $NO_x > 80$ ppbv and moderate initial NO_x with low organics, though, ozone increased with increasing H_2O, by up to 2.8 ppbv-O_3 per 1 ppthv-H_2O. Between these extremes, ozone increased with increasing H_2O at low H_2O and stayed constant or slightly decreased at high H_2O (see the auxiliary material).[1] Figure 1 also shows that, generally (but not always), increasing water vapor increased ozone more with higher ozone.

[6] Further, the more ozone present, the more temperature-dependent chemistry increases ozone (Figure 1), consistent with *Sillman and Samson* [1995] and *Zhang et al.* [1998]. The ozone increase ($\Delta\chi$, ppbv) per 1 K change in temperature (ΔT) from all points in Figure 1 were fit to

$$\Delta\chi/\Delta T = -0.13034 - 0.0045585\chi + 0.00028643\chi^2 - 4.6893 \times 10^{-7}\chi^3 \quad (1)$$

where χ is ozone (ppbv) at 298.15 K (32–250 ppbv). A 1 K rise increased ozone by about 0.1 ppbv at 40 ppbv but 6.7 ppbv at 200 ppbv. *Olszyna et al.* [1997] reported an observed correlation in the rural southeast U.S. of 2.4 ppbv ozone per 1 K. If temperature-dependent chemistry alone were causing this increase, ozone would need to be about 115 ppbv (equation 1) in that study, but it was 30–90 ppbv. Thus, other factors not accounted for in Equation 1, such as H_2O increases (described above) and biogenic gas emission increases [e.g., *Guenther et al.*, 1995], due to higher temperatures, may have caused the larger observed temperature-ozone correlation. Also, both temperature and ozone increase with sunlight, so all observed temperature-ozone correlations overestimate the magnitude of cause and effect.

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[1]Auxiliary materials are available in the HTML. doi:10.1029/2007GL031101.

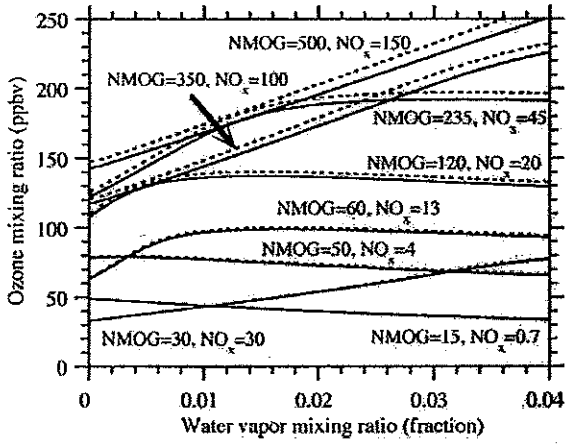

Figure 1. Mixing ratio of ozone and several other gases as a function of water vapor mixing ratio after 12 hours of a box-model chemistry-only simulation initialized at 0430 under several initial NO_x and nonmethane organic gas (NMOG) mixing ratio combinations (ppbv) (given in the figure) at 298.15 K (solid lines) and 299.15 K (dashed lines). The simulations assumed sinusoidally varying photolysis between 0600 and 1800.

3. Health Effects of CO_2 From Global-U.S. Simulations

[7] The chemistry used for Figure 1 was applied with emission, aerosol, cloud, meteorological, radiative, transport, and surface processes in the nested global-urban 3-D model, GATOR-GCMOM. The model (see auxiliary material) has been evaluated against U.S. gas, aerosol, meteorological, and radiative data extensively [e.g., *Jacobson*, 2001; *Jacobson et al.*, 2004, 2007; *Colella et al.*, 2005].

[8] Two global simulations (4°-SN × 5°-WE) were run under present-day conditions. In the second, fossil-fuel CO_2 (fCO_2) ambient mixing ratios and emissions were set to preindustrial values. When U.S. temperatures were about 1 K higher in the present minus preindustrial-CO_2 global simulations, the U.S. regional domain (0.5°S-N × 0.75°W-E) in each global simulation was turned on and initialized with global-domain data (including ambient CO_2). Global and regional domains were run another four months. Emissions of fCO_2 were included in the present-day but not preindustrial-CO_2 global- and U.S.-domain simulations.

[9] Figures 2 and S3 show differences between the present-day and preindustrial-CO_2 simulations. Figure 2a compares modeled with radiosonde (1958–2006) vertical temperature differences. The population-weighted near-surface temperature increase over land was 1.07 K (Table S4), which increased population-weighted H_2O by 1.28 ppthv (Table S4) and U.S.-averaged H_2O by 1.1 ppthv (Figure 2b). The observed 1961–1995 U.S. water vapor increase and positive correlation between temperature and H_2O [*Gaffen and Ross*, 1999] support the modeled H_2O increase with increasing temperatures.

[10] Figure 2c indicates that fCO_2 increased ozone by 0.12 ppbv in the U.S., 5 ppbv in Los Angeles, 1–5 ppbv in the southeast, and up to 2 ppbv along the northeast coast. In Los Angeles, the 0.75 K temperature increase (Figure 2a) and 1.3 ppthv water vapor increase increased ozone through chemistry (Figure 1).

[11] In the southeast, 0.5–1 K temperature increases increased isoprene and monoterpenes (Figure S3a), reducing the relative humidity (Figure S3c) and cloud optical depth (Figure S3d), increasing ultraviolet radiation (Figure S3e), and enhancing ozone. The 0.5–2 ppbv/K ozone increase in Tennessee is just below the correlated estimate of 2.4 ppbv/K from *Olszyna et al.* [1997] as expected (section 2). Averaged over the U.S. domain, higher temperatures from fCO_2 increased biogenic soil NO_x, isoprene, monoterpene, and other organic carbon emissions by 6% (0.01 Tg/yr), 9% (0.47), 9.8% (0.15), and 8.9% (0.14), respectively. In the northeast, higher ozone due to higher temperatures was offset partly by higher cloud optical depth (Figure S3d) and lower ultraviolet radiation (Figure S3e), modestly increasing ozone.

[12] The population-weighted 8-hr ozone increase due to fCO_2 was +0.72 ppbv (Table 1), suggesting a greater increase over populated than less-populated areas. FCO_2 increased particles in populated areas (Tables 1 and S4) by warming the air more than the ground, increasing stability (as with radiosonde data-Figure 2a, ii), decreasing turbulence, shearing stress, and surface wind speed (Table S4 and Figure S3), reducing dispersion. Reduced dispersion and wind speed are consistent with *Mickley et al.* [2004] who correlated warmer temperatures with reduced cyclone activity. FCO_2 also increased isoprene and monoterpene emissions, thus secondary organic matter (SOM) (Table S4, Figures S3a and S3b); and increased relative humidity (Table S4) by increasing H_2O, swelling aerosol particles, increasing nitric acid and ammonia dissolution and the surface area for sulfuric acid and organic condensation. FCO_2 increased land precipitation, consistent in direction with observed trends [*Intergovernmental Panel on Climate Change*, 2001], increasing aerosol removal, but less than other processes increased aerosol concentrations.

[13] Health effect changes (Δy) due to ozone and $PM_{2.5}$ changes in each model cell were determined from [e.g., *Ostro et al.*, 2006],

$$\Delta y = (1 - \exp[-\beta \Delta x]) y_0 P \qquad (2)$$

where Δx is the simulation-averaged mixing ratio or concentration change in the cell, β is the fractional increase in risk per unit Δx, y_0 is the baseline health effect rate, and P is the cell population exposed to at least a minimum threshold. Table 1 and its footnote provide values of P, Δx, β, y_0, and thresholds. Changes were summed over all cells and adjusted from a four-month to an annual average (Table 1, footnote).

[14] With this method, mortality increases due to modeled ozone and $PM_{2.5}$ from fCO_2 were 415 (207–620)/yr and 640 (160–1280)/yr, respectively, per 1.07 K (Table 1) or a total of near 1000 (350–1800) per 1.00 K (a 1.1% increase relative to the baseline death rate - Table 1), with about 40% due to ozone. A simple extrapolation from U.S. to world population (301.5 to 6600 million) gives 21,600 (7400–39,000) deaths/yr worldwide per 1 K due to fCO_2 above the baseline air pollution death rate (2.2 million/yr). The ozone portion of this (8,500 deaths/yr) is conservative compared with 15,500 deaths/yr, calculated from *West et al.* [2006] (= 30,000 deaths/yr from 1 ppbv ozone multiplied by the 2006:2030 population ratio (66:92) and the ozone

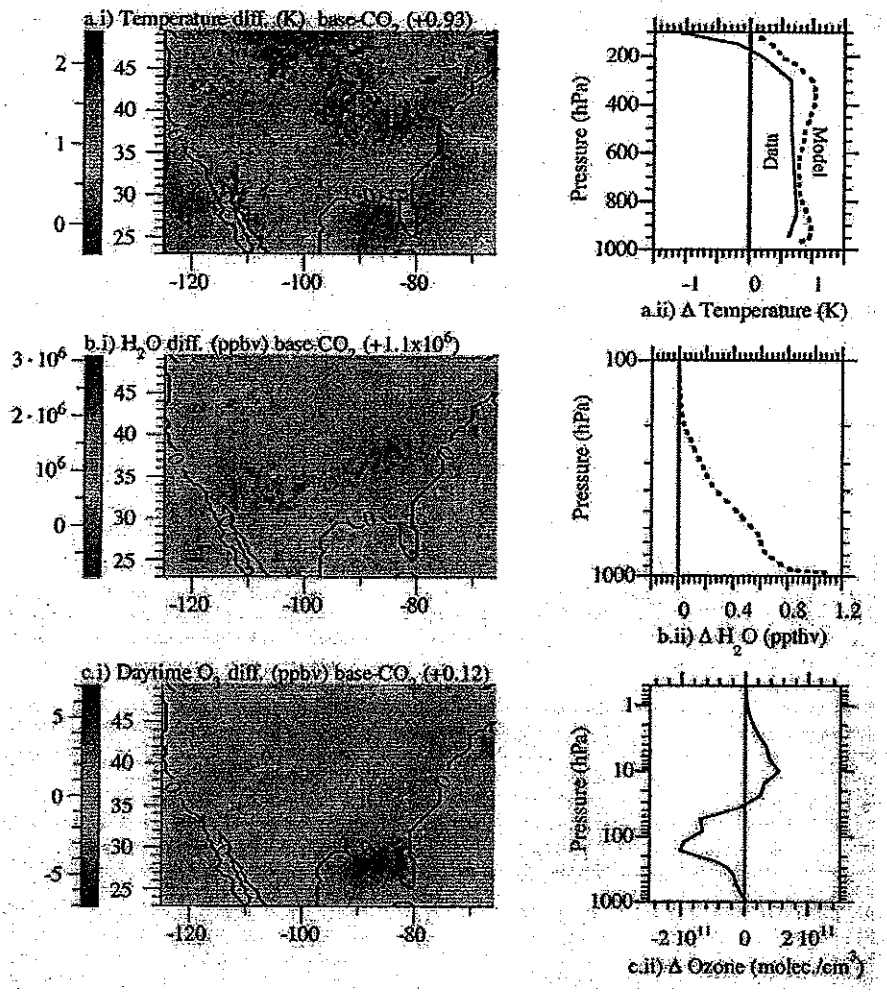

Figure 2. . Four-month (mid-July to mid-November) domain-averaged near-surface and vertical-profile differences in (a) temperature, (b) water vapor, and (c) ozone between the present-day and preindustrial-CO_2 simulations. The domain-averaged (over land and water) change for each surface plot is given in parentheses. Also shown in Figure 2a (ii) is the 1958–2006 globally-averaged radiosonde temperature change [*Thorne et al.*, 2005], which is for reference only since the present simulations isolate the effects of CO_2 and do not examine all forcing agents.

change ratio (0.72:1.0). Remaining differences may be due to different thresholds used (35 ppbv here vs. 25 ppbv).

[15] One estimate of severe weather-related fatalities worldwide in the 1990s was 33,000/yr (Worldwatch Institute, Unnatural disaster: The lesson of Katrina, available at www.worldwatch.org/node/1822, 2005). A 1 K rise will increase this number, but less than 23,000/yr given that hurricane and tornado deaths have declined due to better warning systems (e.g., the deadliest hurricane since 1910 was over 30 years ago – Honduras, 1974, 10,000 deaths). Global warming will increase heat stress- and disease-related deaths as well, but by uncertain rates [e.g., *Medina-Ramon and Schwartz*, 2007].

[16] FCO_2 increased carcinogens, but the increase was small. Isoprene increases due to higher temperatures increased formaldehyde and acetaldehyde. Reduced dispersion increased exposure to these carcinogens and benzene and 1,3-butadiene.

[17] These simulations treated temperature effects on natural emissions but not power plant or vehicle emissions. A sensitivity test was run examining the impact of 1 K on power plant energy demand and emissions. The resulting ozone (Figure S4) may cause 80 more U.S. deaths/yr. However, warmer winter temperatures will also decrease natural gas and vehicle emissions, and warmer summers will increase vehicle emissions [*Rubin et al.*, 2006; N. Motallebi et al., manuscript in review, 2007]. The feedbacks of temperature to anthropogenic emissions must be studied more but are expected to be smaller than the other feedbacks examined here. Further uncertainties arise from model resolution, current and future emissions, numerical treatments, health data, and extrapolation of four-month results to a year, as detailed in the auxiliary material.

4. Effects of CO_2 on Stratospheric Ozone and UV Radiation

[18] Whereas, fCO_2 warms the surface and troposphere, it cools the stratosphere (Figure 2a, ii). Measurements indicate a 1%/yr (0.45 ppmv/decade) stratospheric water vapor

Table 1. Summary of CO_2's Effects on Cancer, Ozone Mortality, Ozone Hospitalization, Ozone Emergency Room Visits, and Particulate-Matter Mortality[a]

	Base	Base Minus No fCO_2
	Carcinogens	
Formaldehyde (ppbv)	3.61	+0.22
Acetaldehyde (ppbv)	2.28	+0.203
1,3-Butadiene (ppbv)	0.254	+0.00823
Benzene (ppbv)	0.479	+0.0207
USEPA cancers/yr[b]	389	+23
OEHHA cancers/yr[b]	789	+33
	Ozone	
8-hr ozone (ppbv) in areas ≥35 ppbv[c]	42.3	+0.724
Pop (mil.) exposed in areas ≥35 ppbv[d]	184.8	184.8
High ozone deaths/yr[e]	6230	620
Med. ozone deaths/yr[e]	4160	+415
Low ozone deaths/yr[e]	2080	+207
Ozone hospitalizations/yr[e]	24,100	+2400
Ozone ER visits/yr[e]	21,500	+2160
	Particulate matter	
PM2.5 ($\mu g/m^3$) in areas > 0 $\mu g/m^3$[f]	16.1	+0.065
Pop (mil.) exposed in areas ≥ 0 $\mu g/m^3$	301.5	301.5
High PM2.5 deaths/yr[g]	191,000	+1280
Medium PM2.5 deaths/yr[g]	97,000	+640
Low PM2.5 deaths/yr[g]	24,500	+160

[a]Results are shown for the present-day ("Base") and present-day minus preindustrial ("no-fCO_2") 3-D simulations. All mixing ratios and concentrations are near-surface values averaged over four months (mid-July to mid-November) and weighted by population (population-weighted value is defined in the footnote to Table S4). Divide the last column by 1.07 K (the population-weighted CO_2-induced temperature change from Table S4) to obtain the health effect per 1 K.

[b]USEPA and OEHHA cancers/yr were found by summing the product of individual CUREs (cancer unit risk estimates = increased 70-year cancer risk per $\mu g/m^3$ sustained concentration change) by the population-weighted mixing ratio or mixing ratio difference of a carcinogen, by the population, and air density, over all carcinogens, then dividing by 70 yr. USEPA CURES are 1.3×10^{-5} (formaldehyde), 2.2×10^{-6} (acetaldehyde), 3.0×10^{-5} (butadiene), 5.0×10^{-6} (= average of 2.2×10^{-6} and 7.8×10^{-6}) (benzene) (www.epa.gov/IRIS/). OEHHA CUREs are 6.0×10^{-6} (formaldehyde), 2.7×10^{-6} (acetaldehyde), 1.7×10^{-4} (butadiene), 2.9×10^{-5} (benzene) (www.oehha.ca.gov/risk/ChemicalDB/index.asp).

[c]8-hr ozone ≥35 ppbv is the highest 8-hour-averaged ozone during each day, averaged over all days of the four-month simulation in areas where this value ≥35 ppbv in the base case. When base O_3 ≥ 35 ppbv and no-fCO_2 O_3 < 35 ppbv, the mixing ratio difference was base O_3 minus 35 ppbv.

[d]The 2007 population exposed to ≥35 ppbv O_3 is the population exposed to a four-month-averaged 8-hour averaged ozone mixing ratio above 35 ppbv and was determined from the base case.

[e]High, medium, and low deaths/yr, hospitalizations/yr, and emergency-room (ER) visits/yr due to short-term O_3 exposure were obtained from Equation 2 applied to each model cell, summed over all cells. The baseline 2003 U.S. death rate (y_0) was 833 deaths/yr per 100,000 [*Hoyert et al.*, 2006]. The baseline 2002 hospitalization rate due to respiratory problems was 1189 per 100,000 [*Merrill and Elixhauser*, 2005]. The baseline 1999 all-age emergency-room visit rate for asthma was 732 per 100,000 [*Mannino et al.*, 2002]. These rates were assumed to be the same in each U.S. county, although they vary slightly by county. The fraction increases (β) in the number of deaths from all causes due to ozone were 0.006, 0.004, and 0.002 per 10 ppbv increase in daily 1-hr maximum ozone [*Ostro et al.*, 2006]. These were multiplied by 1.33 to convert the risk associated with 10 ppbv increase in 1-hr maximum O_3 to that associated with a 10 ppbv increase in 8-hour average O_3 [*Thurston and Ito*, 2001]. The central value of the increased risk of hospitalization due to respiratory disease was 1.65% per 10 ppbv increase in 1-hour maximum O_3 (2.19% per 10 ppbv increase in 8-hour average O_3), and that for all-age ER visits for asthma was 2.4% per 10 ppbv increase in 1-hour O_3 [*Ostro et al.*, 2006] (3.2% per 10 ppbv increase in 8-hour O_3). All values were reduced by 45% to account for the mid-July to mid-November and year-around O_3 ≥ 35 ppbv ratio, obtained from detailed observations (H. Tran, personal communication, 2007).

[f]This is the simulated 24-hr $PM_{2.5}$, averaged over four months, in locations where $PM_{2.5}$ ≥0 $\mu g/m^3$.

[g]The death rate due to long-term $PM_{2.5}$ exposure was calculated from Equation 2. *Pope et al.* [2002] provide increased dearth risks to those ≥30 years of 0.008 (high), 0.004 (medium), and 0.001 (low) per 1 $\mu g/m^3$ $PM_{2.5}$ >8 $\mu g/m^3$ based on 1979–1983 data. From 0–8 $\mu g/m^3$, the increased risks were conservatively but arbitrarily assumed = $^1/_4$ those >8 $\mu g/m^3$ to account for reduced risk near zero $PM_{2.5}$. Assuming a higher risk would strengthen the conclusion found here. The all-cause 2003 U.S. death rate of those ≥30 years was 809.7 deaths/yr per 100,000 total population. No scaling of results from the 4-month model period to the annual average was performed to be conservative, since $PM_{2.5}$ concentrations from July–November are lower than in the annual average based on California data (H. Tran, personal communication, 2007).

increase from 1954–2000 [*Rosenlof et al.*, 2001], but a slight lower-stratospheric decrease from 2001–2005 [*Randel et al.*, 2006]. The simulations here, which accounted for chlorine and bromine gas and heterogeneous chemistry, found that the temperature and H_2O changes due to fCO_2 increased middle and upper-stratospheric ozone but decreased upper tropospheric and lower stratospheric (UTLS) ozone, where its column abundance is greater, causing a net U.S. column ozone loss of 2.7% (Figure 2c, ii, and Table S4). The UTLS ozone losses were due to increases in H_2O there (Figure 2b, ii), as indicated by Figure S2b and *Dvortsov and Solomon* [2001]. The upper- and middle-stratospheric gains can be explained by Figure S1, which shows that, at 25 km, stratospheric ozone decreases by 1.5% as H_2O increases by 1 ppmv. As temperature decreases by 1.5 K, though, ozone increases by 3.6%, suggesting an overall ozone increase from H_2O and cooling. The ozone increase upon stratospheric cooling is due to reduced loss from $O+O_3$ [*Evans et al.*, 1998]. Despite the column ozone loss due to fCO_2, surface UV hardly changed (Table S4) because fCO_2 increased cloud optical depth, offsetting UV increases from ozone loss.

5. Summary

[19] A climate-air pollution model showed by cause and effect that fossil-fuel CO_2 increases increase U.S. surface ozone, carcinogens, and particulate matter, thereby increasing death, asthma, hospitalization, and cancer rates. Increased water vapor and temperatures due to higher CO_2

each increase ozone increasingly with increasing ozone. At low ozone, more water vapor decreases ozone slightly but higher temperatures increase biogenic emission in many areas, offsetting ozone decreases in such areas. CO_2 increases stability, the relative humidity, and biogenic particle mass thus $PM_{2.5}$. Finally, CO_2 decreases column ozone over the U.S. by increasing upper tropospheric/lower stratospheric water vapor.

[20] **Acknowledgments.** NASA grants NNG04GE93G and NNG04GJ89G and U.S. Environmental Protection Agency grant RD-83337101-O. I thank Hien Tran of the California Air Resources Board for helpful health statistic comments.

References

Aw, J., and M. J. Kleeman (2003), Evaluating the first-order effect of intraannual temperature variability on urban air pollution, *J. Geophys. Res.*, *108*(D12), 4365, doi:10.1029/2002JD002688.

Brasseur, G. P., M. M. Schultz, C. Granier, M. Saunois, T. Diehl, M. Botzet, and E. Roeckner (2006), Impact of climate change on the future chemical composition of the global troposphere, *J. Clim.*, *19*, 3932–3951.

Colella, W. G., M. Z. Jacobson, and D. M. Golden (2005), Switching to a U. S. hydrogen fuel cell vehicle fleet: The resultant change in emissions, energy use, and greenhouse gases, *J. Power Sources*, *150*, 150–181.

Dvortsov, V. L., and S. Solomon (2001), Response of the stratospheric temperatures and ozone to past and future increases in stratospheric humidity, *J. Geophys. Res.*, *106*, 7505–7514.

Evans, S. J., R. Toumi, J. E. Harries, M. P. Chipperfield, and J. M. Russell III (1998), Trends in stratospheric humidity and the sensitivity of ozone to these trends, *J. Geophys. Res.*, *103*, 8715–8725.

Gaffen, D. J., and R. J. Ross (1999), Climatology and trends of U.S. surface humidity and temperature, *J. Clim.*, *12*, 811–828.

Guenther, A., et al. (1995), A global model of natural volatile organic compound emissions, *J. Geophys. Res.*, *100*, 8873–8892.

Hoyert, D. L., M. P. Heron, S. L. Murphy, and H.-C. Kung, (2006), National vital statistics, *Rep. 54 (13)*, Cent. for Disease Control and Prev., Hyattsville, Md. (Available at http://www.cdc.gov/nchs/fastats/deaths.htm)

Intergovernmental Panel on Climate Change (2001), *Climate Change 2001: The Scientific Basis*, edited by J. T. Houghton et al., Cambridge Univ. Press, New York.

Jacobson, M. Z. (2001), GATOR-GCMM: 2. A study of day- and nighttime ozone layers aloft, ozone in national parks, and weather during the SARMAP Field Campaign, *J. Geophys. Res.*, *106*, 5403–5420.

Jacobson, M. Z. (2007), Effects of ethanol versus gasoline on cancer and mortality in the United States, *Environ. Sci. Technol.*, *41*, 4150–4157, doi:10.1021/es062085v.

Jacobson, M. Z., J. H. Seinfeld, G. R. Carmichael, and D. G. Streets (2004), The effect on photochemical smog of converting the U. S. fleet of gasoline vehicles to modern diesel vehicles, *Geophys. Res. Lett.*, *31*, L02116, doi:10.1029/2003GL018448.

Jacobson, M. Z., Y. J. Kaufmann, and Y. Rudich (2007), Examining feedbacks of aerosols to urban climate with a model that treats 3-D clouds with aerosol inclusions, *J. Geophys. Res.*, *112*, D24205, doi:10.1029/2007JD008922.

Liao, H., W.-T. Chen, and J. H. Seinfeld (2006), Role of climate change in global predictions of future tropospheric ozone and aerosols, *J. Geophys. Res.*, *111*, D12304, doi:10.1029/2005JD006852.

Mannino, D. M., D. M. Homa, L. J. Akinbami, J. E. Moorman, C. Gwynn, and S. C. Redd (2002), Surveillance for asthma: United States, 1980–1990, *Morbidity Mortality Weekly Rep. Surveillance Summaries 51 (SS01)*, pp. 1–13, Cent. for Disease Control, Atlanta, Ga.

Medina-Ramon, M., and J. Schwartz (2007), Temperature, temperature extremes, and mortality: A study of acclimatization and effect modification in 50 U.S. cities, *Occup. Environ. Med.*, *64*, 827–833, doi:10.1136/oem.2007.033175.

Merrill, C. T., and A. Elixhauser (2005), Appendix, in *Hospitalization in the United States, 2002, HCUP Fact Book 6*, Agency for Healthcare Res. and Qual., Rockville, Md. (Available at www.ahrq.gov/data/hcup/factbk6/factbk6e.htm)

Mickley, L. J., D. J. Jacob, B. D. Field, and D. Rind (2004), Effects of future climate change on regional air pollution episodes in the United States, *Geophys. Res. Lett.*, *31*, L24103, doi:10.1029/2004GL021216.

Murazaki, K., and P. Hess (2006), How does climate change contribute to surface ozone change over the United States?, *J. Geophys. Res.*, *111*, D05301, doi:10.1029/2005JD005873.

Olszyna, K. J., M. Luria, and J. F. Meagher (1997), The correlation of temperature and rural ozone levels in southeastern U.S.A., *Atmos. Environ.*, *31*, 3011–3022.

Ostro, B. D., H. Tran, and J. I. Levy (2006), The health benefits of reduced tropospheric ozone in California, *J. Air Waste Manage. Assoc.*, *56*, 1007–1021.

Pope, C. A., III, R. T. Burnett, M. J. Thun, E. E. Calle, D. Krewski, K. Ito, and G. D. Thurston (2002), Lung cancer, cardiopulmonary mortality, and long-term exposure to fine particulate air pollution, *J. Am. Med. Assoc.*, *287*, 1132–1141.

Racherla, P. N., and P. J. Adams (2006), Sensitivity of global tropospheric ozone and fine particulate matter concentrations to climate change, *J. Geophys. Res.*, *111*, D24103, doi:10.1029/2005JD006939.

Randel, W. J., F. Wu, H. Vömel, G. E. Nedoluha, and P. Forster (2006), Decreases in stratospheric water vapor after 2001: Links to changes in the tropical tropopause and the Brewer-Dobson circulation, *J. Geophys. Res.*, *111*, D12312, doi:10.1029/2005JD006744.

Rosenlof, K. H., et al. (2001), Stratospheric water vapor increases over the past half-century, *Geophys. Res. Lett.*, *28*, 1195–1198.

Rubin, J. I., A. J. Kean, R. A. Harley, D. B. Millet, and A. H. Goldstein (2006), Temperature dependence of volatile organic compound evaporative emissions from motor vehicles, *J. Geophys. Res.*, *111*, D03305, doi:10.1029/2005JD006458.

Sillman, S., and P. J. Samson (1995), Impact of temperature on oxidant photochemistry in urban, polluted rural, and remote environments, *J. Geophys. Res.*, *100*, 11,497–11,508.

Steiner, A. L., S. Tonse, R. C. Cohen, A. H. Goldstein, and R. A. Harley (2006), Influence of future climate and emissions on regional air quality in California, *J. Geophys. Res.*, *111*, D18303, doi:10.1029/2005JD006935.

Stevenson, D., R. Doherty, M. Sanderson, C. Johnson, B. Collins, and D. Derwent (2005), Impacts of climate change and variability on tropospheric ozone and its precursors, *Faraday Discuss.*, *130*, 1–17.

Thompson, A. M., R. W. Stewart, M. A. Owens, and J. A. Herwehe (1989), Sensitivity of tropospheric oxidants to global chemical and climate change, *Atmos. Environ.*, *23*, 519–532.

Thorne, P. W., D. E. Parker, S. F. B. Tett, P. D. Jones, M. McCarthy, H. Coleman, and P. Brohan (2005), Revisiting radiosonde upper-air temperatures from 1958 to 2002, *J. Geophys. Res.*, *110*, D18105, doi:10.1029/2004JD005753.

Thurston, G. D., and K. Ito (2001), Epidemiological studies of acute ozone exposures and mortality, *J. Exposure Anal. Environ. Epidemiology*, *11*, 286–294.

Unger, N., D. T. Shindell, D. M. Koch, M. Amann, J. Cofala, and D. G. Streets (2006), Influences of man-made emissions and climate changes on tropospheric ozone, methane, and sulfate at 2030 from a broad range of possible futures, *J. Geophys. Res.*, *111*, D12313, doi:10.1029/2005JD006518.

West, J. J., A. M. Fiore, L. W. Horowitz, and D. L. Mauzerall (2006), Global health benefits of mitigating ozone pollution with methane emission controls, *Proc. Natl. Acad. Sci. U. S. A.*, *103*, 3988–3993.

Zhang, Y., C. H. Bischof, R. C. Easter, and P.-T. Wu (1998), Sensitivity analysis of a mixed phase chemical mechanism using automatic differentiation, *J. Geophys. Res.*, *103*, 18,953–18,797.

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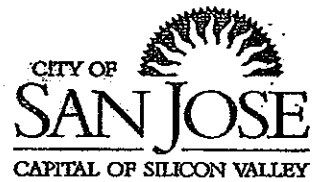
Comment Letter #: 64
Date: September 26, 2009
From: Ernest Pacheco, Citizens Against Pollution

Response to Comments:

64-1 Air District Staff would like to learn more about the air impact described in the commenter's letter before considering it for the updated CEQA Guidelines. Recognizing that Mark Jacobson's research is very recent and has not yet been fully vetted by the scientific community, Air District staff will follow research on and relating to the Jacobson Effect as noted by the commenter; and study whether it is feasible for lead agencies to assess the morbidity and mortality of increased criteria pollutants from GHG emissions.

#65



Department of Planning, Building and Code Enforcement
JOSEPH HORWEDEL, DIRECTOR

October 28, 2009

Mr. Greg Tholen
Principal Environmental Planner
Planning and Research Division
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Subject: City of San Jose Comments Concerning the Air District's Draft California Environmental Quality Act (CEQA) Guidelines

Dear Mr. Tholen,

The City of San Jose appreciates the opportunity to review the proposed update to the District's CEQA Guidelines and provide the following comments.

General Comments:
The City of San Jose shares the District's goals to improve regional and local air quality and to minimize greenhouse gas emissions consistent with AB 32 – the Global Warming Solutions Act. We are concerned, however, that in a number of instances, the proposed Guidelines will have unintended consequences and inhibit the City's attempts to focus growth in transit-rich urban infill locations. In many instances, thresholds are being lowered from existing levels or new standards set that will trigger Environmental Impact Reports (EIRs) due to a lack of feasible mitigation that will demonstrably reduce emissions below the new proposed emissions thresholds. By focusing on size rather than project performance, the new lowered thresholds will unfairly penalize large projects that are appropriately located and supported by transit, and still allow smaller, auto-oriented projects in more remote locations that result in more emissions on a per unit or per capita basis to avoid responsibility for mitigation. More specific comments and concerns are presented below. 65-1

I. Greenhouse Gas Emissions Thresholds of Significance and Screening Criteria

A. The District should not establish a greenhouse gas emissions (GHG) standard on its own. The District should instead direct its resources to participate in the development of a statewide threshold for GHG. It is inappropriate for an individual air district to attempt to set standards for an emission category that is being addressed at a statewide, and potentially federal, level. Consistency across California should be sought rather than a patchwork of inconsistent standards adopted by each air district, recognizing that 65-2

CEQA is applied across the state, and that GHG is ultimately a cumulative impact issue for the state. If the District proceeds with its own GHG threshold, please consider the following two points. 65-2

1. The thresholds for daily emissions of criteria pollutants have gone down for reactive organic gases (ROG) and nitrogen oxides (NOx). With improved vehicle emissions, however, the screening levels in **Table 2-2** generally appear higher than in the current guidelines. The screening levels for significant GHG in **Table 2-3** are much lower than those for the criteria pollutants. The threshold for GHG could trigger completion of an EIR and force cities to adopt overriding considerations for some projects, including dense infill projects near transit, that otherwise would have no significant unavoidable impacts. 65-3

2. The GHG thresholds should include a sliding scale, so more projects can be captured and the emphasis is on mitigation to lower overall emissions. For instance, a project with X but less than Y emissions is expected to include best management practices. A project with greater than Y emissions but less than Z emissions is expected to apply best management practices and reduce overall emissions by XX percent. A project with over Z emissions would have significant emissions. A large project, whether it be mixed use near transit or single-family homes in a greenfield location, is going to be so far above the threshold that any study of the emissions may be a worthless exercise. City staff understands that the San Joaquin Valley Air Pollution Control District is preparing to adopt a performance based threshold requiring that projects achieve a certain percentage reduction over unmitigated levels. This approach should be considered by BAAQMD. 65-4

B. Chapter 2 text discussing Land Use Projects does not mention tiering from a Climate Action Plan, as discussed on **Page 5-2** (third paragraph in Section 5.2.2, Greenhouse Gases). The District should consider adding a reference to tiering using an adopted Clean Air Plan to this section. 65-5

II. Assessing and Mitigating Local Community Risk and Hazard Impacts

The Guidelines have expanded and refined the guidelines for assessing impacts from Toxic Air Contaminants (TACs) under the heading **Local Community Risk and Hazard Impacts**. The draft guidelines call for using overlay zones to identify risks to the community, including near freeways and high volume roadways. Questions and comments include:

A. Page 5-5: Regarding Special Overlay Zones of 500 feet on each side of all freeways and high-volume roadways. Would the District revise this guideline to include an option for a jurisdiction to base Special Overlay Zones on actual conditions and air quality impacts? For example, due to meteorological conditions, risks from diesel 65-6

C. The City will have challenges enforcing with private development some of the Best Management Practices (BMP) for construction emissions of greenhouse gases on **Page 5-6**. For example, the BMP calling for 15 percent alternative-fueled construction vehicles and local building materials of at least 10 percent, especially on smaller projects is difficult to enforce.

IV. Construction Related Impacts

A. Section 6.2 and Screening Criteria in **Table 2-6 (Page 2-11)**: The proposed screening criteria appear to penalize infill and mixed use development by requiring quantification of construction emissions for any demolition and for construction projects that include more than one land use type. The City recommends that the District add:

- Screening criteria for demolition that incorporates BAAQMD rules and BMPs (based on the size/amount of demolition); and
- A methodology which allows weighting of land use types for mixed use projects

B. **Page 6-17.** Please clarify last sentence on the page. Is the intent that if a residential project is located in an area moderately likely to contain Naturally Occurring Asbestos and/or earth-moving is involved, the impact would be considered significant? Would the District add a list of possible mitigation measures that would reduce this impact to a less than significant level? Alternatively, is this being left up to the Lead Agency? For several residential infill projects in San Jose, soil has been removed to a depth of one to two feet in areas not covered by buildings or pavement and replaced with non-serpentine derived soil.

C. Construction Emissions - is there a minimum size that basic control measures would apply (e.g., one acre)?

V. Odors.

The screening distances for odors (**Table 2-8**) have changed (or increased) greatly since the previous set of guidelines. What is the justification for this? Outside of Milpitas, have there been confirmed complaints within two miles regarding wastewater treatment plants, landfills, asphalt batch plants? Painting/coating operations are regulated by BAAQMD. One would think that if one could smell these painting operations at one mile, then the regulations are not working and the VOC emissions must be substantial. Painting operations could include small auto body shops – is the District expecting the City would screen these out?

Again, we appreciate the opportunity to offer these comments and look forward to continuing to work with the District on achieving air quality improvements in the Bay Region, while accommodating growth consistent with AB32 and SB 375. Additionally, the City appreciates

particulates near a highway are generally lower where the predominant wind conditions are across a roadway rather than parallel to it. Also, on some highways and high-volume roadways, truck traffic is a lower proportion of total traffic than in some assumptions used to develop the 500 foot zone. For San Jose's General Plan Update, the City may want to refine the overlay zones to reflect local conditions. City of San Jose staff would be interested in working with the District on a qualified Local Community Risk Reduction Plan. The District could add a reference to an acceptable methodology or models for refining the 500 foot zone. 65-6

B. **Page 4-5.** Will the District work with Caltrans on developing a program for additional tree planting adjacent to roadways? Coast redwoods do not fare particularly well on the valley floor in the South Bay without additional water. Will the District consider it a significant unavoidable impact if redwood or deodar cedar trees are not planted between the source of risk and livable structures? 65-7

C. **Table 2-8** has some large screening distances, especially for painting/coating operations, given regulations for the emissions of volatile organic compounds. The asphalt batch plant screening distance also seems high. The City requests the District provide justifications for the screen distances in this table. 65-8

D. Siting new sensitive receptors in impacted communities will require Best Available Control Technology (T-BACT/TBP) measures. The District should recognize that most modern dwelling units do not have air intakes. The centralized heating/air conditioning (HVAC) recirculates air that "seeps" into the unit. Adding HVAC units may be costly and should be proven to have some desired benefit. What reduction does the District believe future project air quality assessments could consider for planting and maintaining tree zones between the source and receptors? 65-9

III. Assessing and Mitigating Plan-Level Impacts

Under the discussion of Operational Impacts on **Page 5-2**, the (General) Plan must show that the rate of increase in VMT or vehicle trips (VT) within the plan area is equal to or lower than the rate of increase in population within the proposed plan. 65-10

A. The VMT within the plan area may be different than the VMT calculated using the URBEMIS model as trips go into and out of the plan area (i.e., the City of San Jose). The District should clarify how to come up with the VMT number and/or if the plan area is defined more regionally than the Urban Service Area or Sphere of Influence.

The section on Greenhouse Gases lays out the contents of a Climate Action Plan and how it should be linked to the General Plan. Questions and comments on this section include: 65-11

B. **Page 5-4**: Once an updated General Plan is adopted by the City, would the process for comparing Service Population to 2020 GHG Projections in **Table 5-1** be carried out for each General Plan Amendment or for each group of amendments considered by the City?

the District's responsiveness to City staff participation on the CARE Task Force and Cumulative Impacts Working Group, and the District's willingness to allow jurisdictions to prepare Local Community Risk Reduction Plans. If you have any questions regarding this letter, please contact Akoni Danielsen, Principal Planner, at (408) 535-7823 or at Akoni.Danielsen@sanjoseca.gov.

Sincerely,

Laurel Prevetti

for Joseph Horwedel, Director
Department of Planning, Building, Code Enforcement

Cc: Kerrie Romanow, City of San Jose Environmental Services Department

Comment Letter #: 65
Date: October 28, 2009
From: Joseph Horwedel, Director, Department of Planning, Building, Code Enforcement, City of San Jose

Response to Comments:

65-1 See Master Response MR-2.

65-2 Early on the Air District worked closely with the California Air Resources Board (CARB) to develop a statewide GHG threshold. However, it is our understanding that CARB's work on developing a statewide GHG threshold has been delayed or suspended. Given the increasing urgency to address the impacts of climate change, repeated calls for assistance from local Bay Area agencies on how to address climate change in CEQA analyses and the absence of direction from state agencies, the Air District feels it is appropriate and necessary to move forward with an interim CEQA threshold for GHG emissions. As stated in the *Proposed Thresholds of Significance* report (November 2, 2009), the proposed GHG thresholds are interim thresholds and will be revisited when CARB develops a statewide GHG threshold.

65-3 It may be true that the thresholds for GHG emissions could require (trigger) completion of an EIR before the thresholds for criteria pollutants would do so, including dense infill projects. However, infill development will inherit advantages of substantially reduced vehicle trips, and associated emissions, due proximity to nearby transit and support services more so than greenfield development without access to transit or nearby support services. Also see Master Response MR-2.

65-4 The commenter suggests as an alternative threshold a sliding-scale threshold that would not penalize large infill mixed use projects near transit. The proposed thresholds now include an efficiency threshold that will allow larger more efficient mixed use and infill projects. Also see Master Response MR-2.

65-5 The proposed GHG thresholds have been modified to consider a project consistent with a qualified climate action plan less than significant.

65-6 The proposed risk and hazard thresholds have been modified to allow overlay zone distances other than 500 feet along freeways and high-volume roadways. The modified distance must be based on district-approved modeling for the locations being considered for distances other than 500 feet.

65-7 The Air District has not yet contacted Caltrans regarding the planting of trees adjacent to roadways. Redwood and deodar cedar species have been found to be the most effective at removing fine particulate matter from the air; other species are also effective and are identified in the revised CEQA Guidelines. The effectiveness of trees in mitigating risk impacts is unknown but is considered feasible mitigation.

65-8 The screening distances are based on Air District rules and experience with enforcing odor complaints.

65-9 The Air District is no longer recommending toxic best practices in impacted communities. The proposed thresholds of significance now recommend development of community risk reduction plans.

65-10 The proposed thresholds of significance have been changed and now recommend that the plan's VMT or trip increase is less than or equal to the plan's projected population to be considered less than significant.

65-11 The efficiency threshold for plans is intended to apply to the entire plan as amended.

65-12 The proposed thresholds of significance no longer include a recommendation for best management practices of construction GHG emissions. However, the Air District encourages Lead Agencies to include best management practices as conditions of approvals for projects.

65-13 See Master Response MR-2. The revised CEQA Guidelines provide recommended methodologies that allow well-designed, efficient projects to take credit for reducing emissions compared to less efficient projects. In addition, projects located near transit and support services may be able to achieve even lower emission levels and possibly an impact finding of less than significant impacts to air quality. Well designed projects that incorporate recommended measures in the project proposal are not considered mitigated projects and may still be found less than significant and qualify for a categorical exemption.

65-14 The intent of the revised CEQA Guidelines regarding naturally occurring asbestos is that projects that propose disturbing the NOA should mitigate potential impacts of causing asbestos to become airborne. The commenter's example to replace NOA-bearing soil with non-serpentine derived soil may be appropriate mitigation. Air District staff will clarify this section of the revised Guidelines.

65-15 The screening distances for odors are not intended to act as thresholds. The odor threshold is complaint-based. The screening distances are based on Air District rules and experience with enforcing odor complaints.