

**Summary of the 2016 AQMP Socioeconomic Assessment EJ Working Group Meeting #3
September 27, 2016**

Main Comments and Responses:

- Sang-Mi Lee, Air Quality Modeling and Emissions Inventory Program Supervisor at the SCAQMD, asked about the difference between the SCAQMD's current EJ areas and those designated EJ by Alternative Definition 1 in IEC's report, in particular, why there appear to be fewer areas on the west side of LA and more in San Bernardino mountains according to Alt. Def. 1.

IEC and staff response: Alt. Def. 1 is based on census tracts as compared to air quality grid-cells used in the SCAQMD definition. It is calculated using the CalEnviroScreen 2.0 method (where no threshold was applied to an individual indicator for inclusion/exclusion). Alt. Def. 1 uses a broader poverty measure and also includes ozone concentrations as an indicator while the SCAQMD definition does not.

- Scott Weaver with Environmental Resources Management and Sang-Mi Lee asked about the meaning of top 25% and top 50% thresholds used for IEC's alternative EJ definitions.

IEC and staff response: Consistent with the CalEnviroScreen method, all census tracts within the Basin were ranked from the most to the least impacted according to the overall screening score. When the top 50% population threshold is used, for example, the most impacted 50% of census tracts are designated as EJ areas (note: due to the design of census tracts, this generally corresponds to about 50% of the Basin's total population). The 50% threshold closely relates to that used for the SCAQMD's current EJ definitions (which covers around 47% of total population), and the 25% threshold reflects the same statewide percentage currently used for GGRF allocation.

- Michelle Hasson with Center for Community Action and Environmental Justice asked for an analysis of the scenario where no incentive funding is available. David Pettit with Natural Resources Defense Council also asked about whether the EJ analysis or economic analysis in general is examining scenarios where the goals of the AQMP are not achieved.

Staff response: All analyses of AQMP are conducted based on the assumption of full Plan implementation and that it will achieve all the projected emission reductions and corresponding air quality improvements. However, staff will bring this suggestion back for internal discussion.

- David Pettit asked whether ongoing revisions to AQMP will lead to corresponding revisions to the EJ analysis.

Staff response: Yes.

- Michelle Hasson asked whether CalEnviroScreen 3.0 revisions will be reflected in the AQMP EJ screening analysis. She added that the lack of adequate hospital access in some areas may not have been properly captured in the indicator for asthma-related emergency department (ED) visits that is used in CalEnviroScreen; therefore, additional health indicators are needed. She further commented that staff should work with county health departments and utilize sub-county health data, including

but not limited to the newly added indicator for heart attack-related ED visits in CalEnviroScreen 3.0, to refine EJ screening analysis.

Staff response: CalEnviroScreen 3.0 is currently accepting public comments and will not be finalized until the end of 2016. The finalized CalEnviroScreen 3.0 can be taken into account as staff continues to improve the analyses in the future. Staff has made attempts to gain access to confidential health data from the Office of Statewide Health Planning and Development (OSHPD) to be used in EJ analysis that requires location identifiers at a fine spatial resolution. However, staff could not obtain the needed data due to current legal constraints related to accessing confidential data. Staff will work on possibly gaining access in the future.

- Kimberly Clark with Southern California Association of Governments (SCAG) made comments related to how race/ethnicity should be used to define EJ areas. She stated that federal law, including Title VI, and the federal Department of Transportation guidelines mandate an even more detailed and individualized analysis of impacts on minority and low income populations. She said that with respect to minority and low income status, SCAG classifies an area as EJ if it has a greater-than-regional-average share of minority population or has a higher share of individuals with income under the poverty line than average. She claimed that SCAQMD's identification of EJ areas differs from SCAG's and does not include all minority-concentrated areas identified by SCAG (e.g., in Santa Ana/north Orange County).

Staff response: Staff explained that race/ethnicity was included in Alternative Definitions 2a and 3a using the CalEnviroScreen methodology. It is treated as an additional indicator, along with other relevant sociodemographic indicators. Staff understands the concern that minority areas often suffer from disproportionate pollution and/or environmental burdens. However, if race/ethnicity is used as the first and only filter to exclude/include EJ areas in circumstances where the total minority population of the Basin is 68.7%, the result would be to include some areas with high concentrations of minority population in circumstances where air quality issues (and/or other environmental burdens) are relatively less significant. Staff also mentioned that its expert consultant, IEC, recommended an EJ analysis that's "fit for purpose" and added that the purpose of the presented EJ analysis is to evaluate the impact of the Draft 2016 AQMP and how effective the proposed air policy is in *reducing* air-related health risk and any inequality of the risk distribution.

- Michele Hasson stated that there are areas of the eastern San Gabriel Valley with high concentrations of minority population that are missing from the EJ screening maps based on the alternative EJ definitions. Similarly, Kimberly Clark stated that there are areas in north Orange County that should be considered EJ areas due to high concentrations of minority population but are also missing from the maps. Additionally, Michelle Hasson questioned why, between Alt. Def. 3 and 3a, the large census tract at the southeast corner of the Basin is no longer EJ when race/ethnicity is taken into account. She stated that this particular census tract has a population with approximately 80% Hispanics and suggested a possible mistake in staff's analysis.

Staff response:

- Staff reiterated that the use of the CalEnviroScreen tool and the various alternative definitions were developed in order to best evaluate the impact of the AQMP on improving public health

and its distribution of benefits across the basin. As in the CalEnviroScreen method, when a population-based designation threshold is used (e.g., top 50% or top 25%), there is a fixed number of Basin residents who live in the designated EJ areas. Therefore, the inclusion of any census tract at the margin generally implies the exclusion of another.

- Staff promised to verify minority population share in the census tract at the southeast most corner of the Basin. Since the meeting, staff has verified that Census Bureau data shows this tract has a minority population of 36.5%.
- Several stakeholders requested access to data associated with the EJ screening analysis. Kimberly Clark also requested the shapefiles used for creating the exposure-related mortality risk maps. She also asked for the timeline for release of Appendix 6 of the Socioeconomic Report.

Staff response: Staff will publicly share all data. Appendix 6 will be available within 30 days or so.

- David Pettit noted that implementation of the Draft 2016 AQMP suggests larger per capita health benefits in EJ than in non-EJ areas and asked whether the reverse (i.e., EJ suffers more than non-EJ areas) would result if the Draft 2016 AQMP is not implemented.

Staff response: Staff stated the analysis looks at benefits in 2031. Staff further stated that the effects from a failure to implement the plan cannot be assumed and have not been analyzed in this EJ analysis.

- Larry Beeson with Loma Linda University asked staff to define clearly in the report the definition of “premature” when discussing premature deaths avoided. Margot Malarkey with California Environmental Associates later asked about why the same value of statistical life (VSL) can be applied to premature deaths that reflect different number of days of dying prematurely.

Iec and Staff response: Premature deaths due to long-term exposure to PM_{2.5} can reflect dying prematurely by a wide range of days. Staff added that the health effect and VSL used in the analysis both represent an *average* estimate and the results reported as such.

- Alvaro Alvarado with California Air Resources Board asked about whether the results of distributional analysis could be related to differential impacts between primary and secondary PM. He thought primary PM would impact the EJ communities more; additionally, some indicators in the “other environmental” category are related to air pollutants, such as traffic density is closely related to near-roadway exposure to air pollutants.

Staff response: There is no consensus yet regarding differential health outcomes from exposure to primary or secondary PM. The PM_{2.5} concentration input used in this analysis is based on all PM_{2.5} without any speciation.

- Michele Hasson asked if staff plans to conduct analyses to examine the cost-effectiveness in terms of public health benefits of control measures, or balancing the cost with the health benefits. Furthermore, she asked if it is possible to attribute the health benefits or conversely cost to a particular industry as staff does for control measure cost in Chapter 2 of the Socioeconomic Report. She then asked staff to include in the Socioeconomic Report a summary of the SCAQMD survey about why facilities moved out of the Basin.

Staff response:

- Staff uses the REMI model to evaluate the regional impact of the incremental cost of control measures, and to a more limited extent, the corresponding monetary value of the health benefits. Staff is closely monitoring US EPA's effort in developing methodology to account for health and other non-market benefits in macroeconomic modeling.
- The public health benefits are based on the modeled air quality improvements, which are in turn yielded by the overall emissions reductions of the draft Plan. There is no distinction in the modeling as to which industry the emission reductions are expected to originate from. Numerous scenario analyses will be required to produce any reasonable estimates, assuming it's feasible at all.
- Staff agreed to follow up on the survey in question.