

Mobility. Environment. Community. Economy. Technology



I-710 Corridor Project EIR/EIS

metro.net

Corridor Advisory Committee and Environmental Subject Working Group Recommendations to the I-710 Project Committee

October 29, 2009

Corridor Advisory Committee

Discussion

Air Quality/ Health Risk Assessment- What cancer risk level is being considered significant in this assessment.

Significant Threshold

What are the air quality impacts to the residents that live within 1000 feet of the freeway, related to this project.

Near-Source Modeling

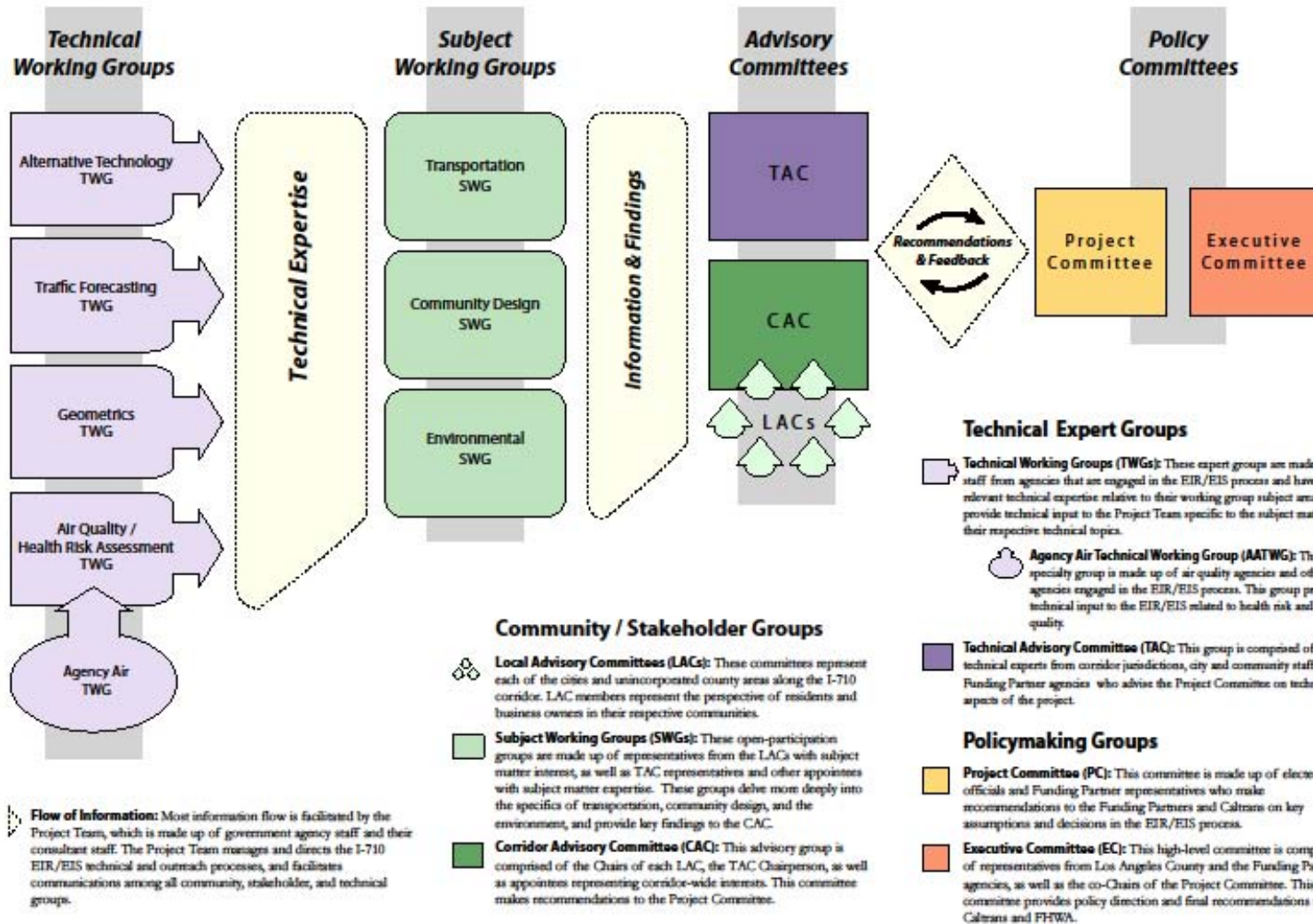
What are the air quality impacts during the construction of the project.

Construction Impacts

What are the health impacts beyond air quality.

Comprehensive Health Analyst

Subject Working Group & Technical Working Group Information Flow



Recommendations from CAC

Adopt SCAQMD's air quality significance thresholds for the evaluation of alternatives in the I-710 Corridor Project EIR/EIS, or an alternative threshold based on CEQA Guidelines.

Adopt significance thresholds before completion of draft AQ/HRA results.

Near-roadway modeling at a level smaller than the analysis unit of a Traffic Analysis Zone (TAZ) should be done as part of the air quality impact analysis.²

For near-roadway analysis, consider ambient air quality data that reflect near-roadway concentrations

Recommendations from CAC

Develop a staging plan with adequate time to quantify construction impacts in the Health Risk Assessment.

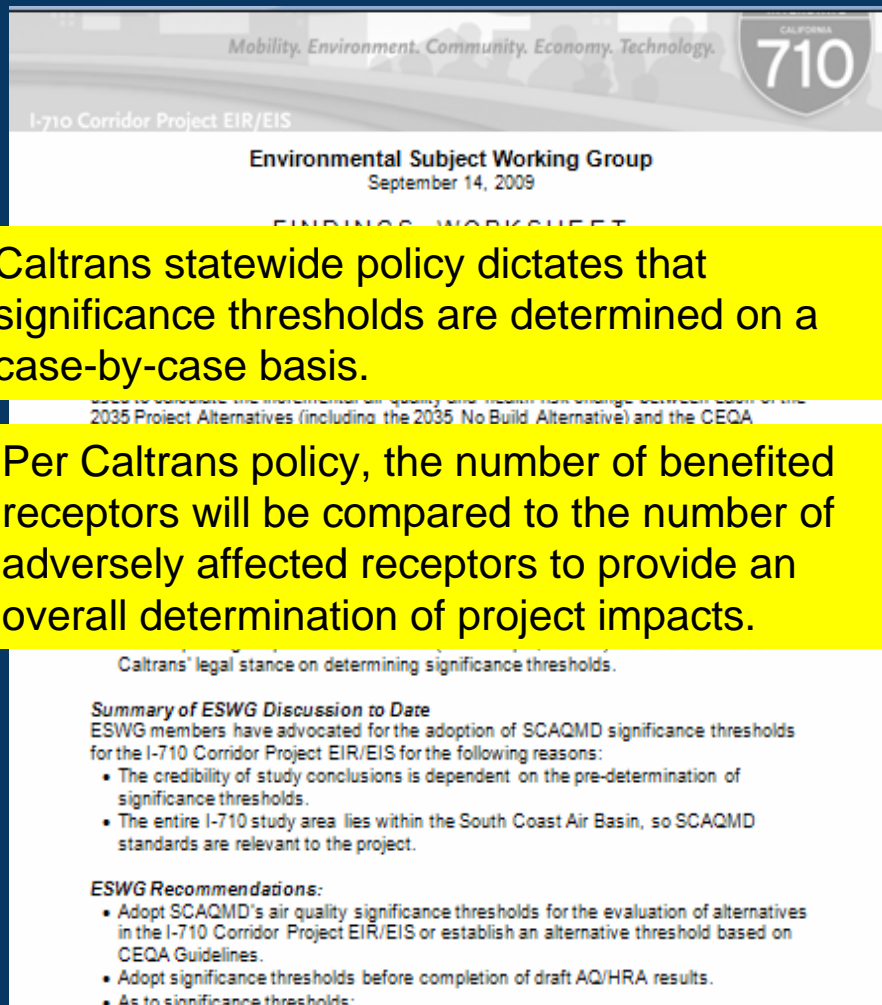
Address full construction impacts from a health perspective.

Implement the tools and methodologies presented for the HIA, specifically the “pathways to health outcomes,” and fund this effort.

Recommended Action

Concur with CAC recommendations and give direction to staff

Caltrans' Policy on Significance Thresholds



Caltrans statewide policy dictates that significance thresholds are determined on a case-by-case basis.

Per Caltrans policy, the number of benefited receptors will be compared to the number of adversely affected receptors to provide an overall determination of project impacts.

- Project is wholly within South Coast Air Basin
- Use for this case
- Comparing total benefited to adversely affected receptors is averaging impacts
- Does not address EJ issues
- Use of AQMD Thresholds will address this issue

Significance Thresholds – Background

- ESGW members have advocated for the adoption of SCAQMD significance thresholds for the following reasons:
 - The credibility of study conclusions is dependent on the pre-determination of significance thresholds
 - The entire I-710 study area lies within the South Coast Air Basin, so SCAQMD standards are relevant to the project

OPR Thresholds of Significance

- Advantages to establishing significance thresholds
 - “...significance determinations will be made on a consistent and objective basis.”
 - “...promotes consistency, efficiency, and predictability...”
 - “...clear differentiation of whether or not the project may result in a significant environmental effect.”
 - “...some assurance that a comprehensive review has been made.”
 - “...provides a rational basis for significance determinations.”
 - “...encourage project proponents to incorporate mitigation into the design of the project...”



AQMD Significance Thresholds

- Developed consistent with CEQA Guidelines
- Based on scientific and technical information
- Developed through public process
- Approved by SCAQMD's Governing Board
- Addresses
 - Regional criteria pollutants
 - Localized criteria pollutants
 - Toxic air contaminants



South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds ^a		
Pollutant	Construction ^b	Operation ^c
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
SOx	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs) and Odor Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality for Criteria Pollutants ^d		
NO2	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state)	
1-hour average annual average		
PM10	10.4 $\mu\text{g}/\text{m}^3$ (construction) ^e & 2.5 $\mu\text{g}/\text{m}^3$ (operation) 1.0 $\mu\text{g}/\text{m}^3$	
24-hour average annual average		
PM2.5	10.4 $\mu\text{g}/\text{m}^3$ (construction) ^e & 2.5 $\mu\text{g}/\text{m}^3$ (operation)	
24-hour average		
Sulfate	1 $\mu\text{g}/\text{m}^3$	
24-hour average		
CO	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) 9.0 ppm (state/federal)	
1-hour average 8-hour average		

^a Source: SCAQMD CEQA Handbook (SCAQMD, 1993)

^b Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).
^c For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.

^d Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.

^e Ambient air quality threshold based on SCAQMD Rule 403.

KEY: lbs/day = pounds per day ppm = parts per million $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter \geq greater than or equal to

(Rev. March 2009)

Lead Agency's That Use Significance Thresholds

- Port of Los Angeles
- Port of Long Beach
- Alameda Corridor Transportation Authority
- Metro
- City of Los Angeles
- County of Riverside
- LA Unified School District

Significance Thresholds - Recommendations

- Adopt SCAQMD's air quality significance thresholds for the evaluation of alternatives in the I-710 Corridor Project EIR/EIS or establish an alternative threshold based on CEQA Guidelines
- Adopt significance thresholds before completion of draft AQ/HRA results

Construction Impacts – Background

- Because of the anticipated duration of construction, which spans up to two K-12 cycles of school children, the ESWG has expressed the utmost importance of analyzing construction impacts in the I-710 EIR/EIS

Construction Impacts – Background

- In order to determine the extent of potential mitigation and the implementation of mitigation measures, the ESGWG believes air quality and health risk impacts should be quantified using a reasonable worst-case scenario and full dispersion modeling

Construction Impacts – Background

- The community needs to feel confident that construction impacts will properly be analyzed and disclosed, including a Health Risk Assessment, in the selection of an alternative when adequate information becomes available

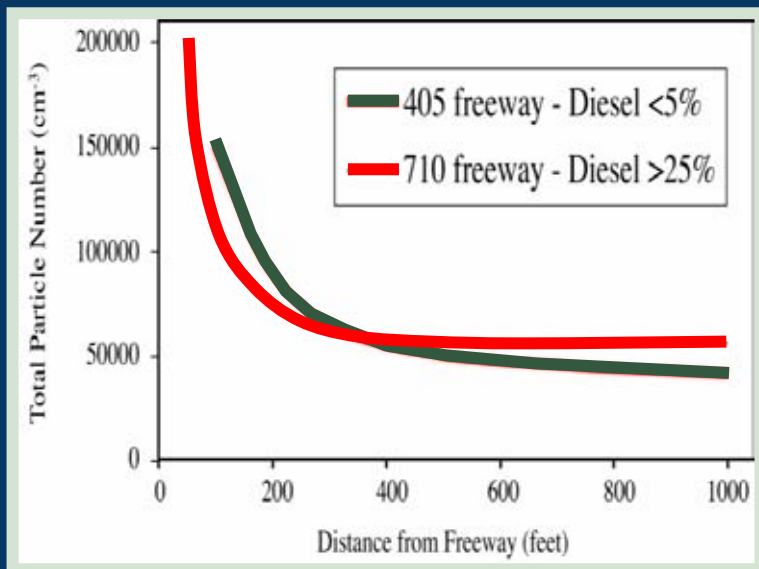
Construction Impacts - Recommendations

- Develop a staging plan with adequate time to quantify construction impacts in the Health Risk Assessment
- Address full construction impacts from a health perspective

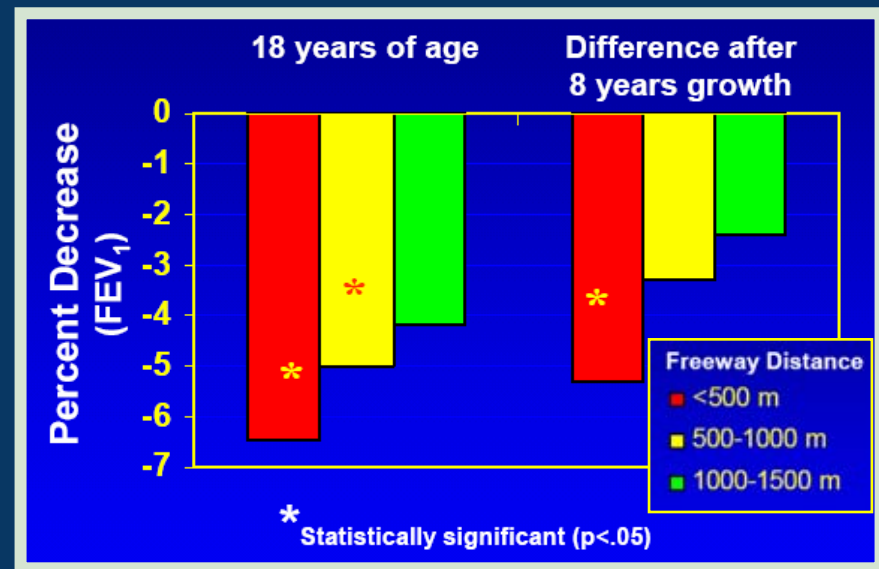
Near-Source Modeling – Background

- The ESWG believes that health impacts at near-roadway receptors are of enough concern that near-roadway modeling should be done

Near-Source Modeling – Background



Ultrafine Particles



Children's Health Study

Sources:

- Gauderman WJ, et al., Lancet, Feb. 2007, 369 (9561): 571-7
- Health Effects Associated with Traffic Related Air Pollution, CARB Mar. 2007
- Zhu Y, et al., Atmospheric Environment, 2002, v. 36, 4323-35

Near-Source Modeling – Background

- Specific suggestions and ideas by members have included:
 - Analyze units smaller than a TAZ to isolate areas that are very close to the freeway
 - Consider receptors that will assume “near-freeway” status after expansion
 - Include NO₂ in the air quality analysis, since ESWG members believe that NO₂ impacts generally parallel impacts of ultrafines

Near-Source Modeling – Recommendations

- Near-roadway modeling should be done as part of the air quality impact analysis
- For near-roadway analysis, consider ambient air quality data that reflect near-roadway concentrations
- Continue to monitor current research on modeling ultrafines, and incorporate as appropriate