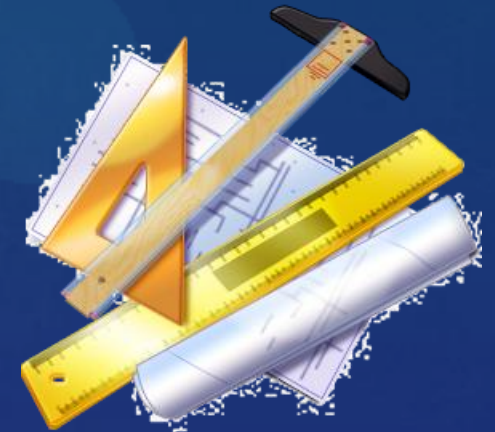


Project Level Assessment *using CEQA*

{ A&WMA Mother Lode Chapter
November 6, 2013



- ⌘ Public Resources Code § 21000 et. seq. requires an agency to consider the potential environmental impacts of a “project” and reduce, avoid or mitigate the impacts prior to approval
- ⌘ Health & Safety Code § 40961 requires the SMAQMD to represent the citizens of Sacramento in influencing decisions of agencies whose actions may adversely impact air quality



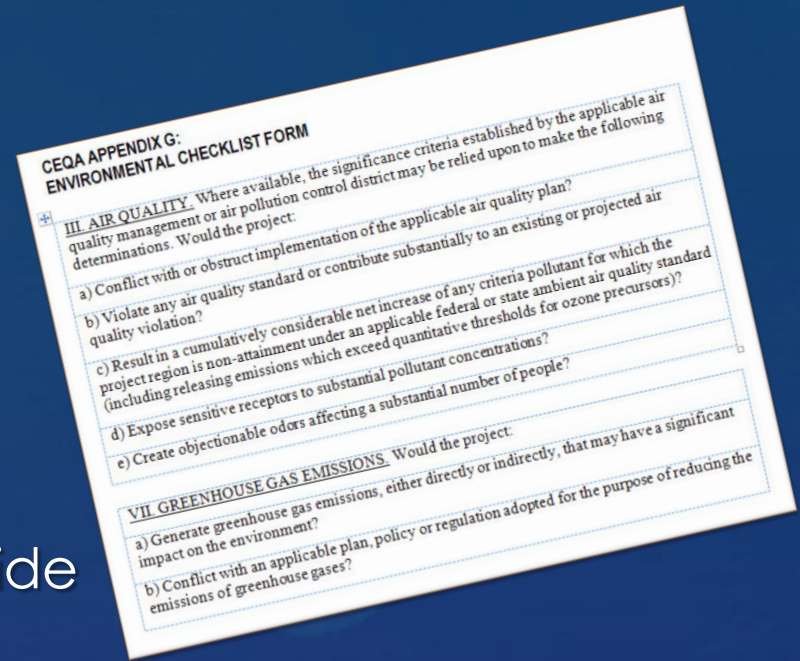
CEQA & Authorities

- ⌘ Identify projects that may impact AQ and Climate Change
- ⌘ Attainment
- ⌘ Reduce VMT, emissions & exposure
- ⌘ Improve health
- ⌘ Encourage AQ friendly development
- ⌘ Inform decision makers

Assessment



- ⌘ Coordination & consultation
- ⌘ County/City General Plans
- ⌘ CEQA Guidelines – Appendix G
- ⌘ SMAQMD Principles & CEQA Guide
 - ⌘ Screening tables
 - ⌘ Thresholds
 - ⌘ Near roadways
 - ⌘ Mitigation plans



What Guides the Process

- ⌘ Estimate pollutants (NO_x, ROG, GHG, PM)
- ⌘ Determine if project emissions significant
 - ⌘ Screening methods & thresholds
 - ⌘ Near roadway exposure
 - ⌘ Rules
- ⌘ Mitigation plans document reductions
 - ⌘ Alternative modes
 - ⌘ TMA
 - ⌘ Infrastructure
 - ⌘ Building & site design
 - ⌘ Energy efficiency

Significance & Mitigation

SMAQMD Thresholds of Significance Table

Construction Phase		Operational Phase	
Mass Emission Thresholds (dealing with Ozone precursors)			
NO _x	85 pounds/day	65 pounds/day	
ROG	NONE	65 pounds/day	
Concentration Thresholds (based on the California Ambient Air Quality Standard, identical threshold for both phases of development)			
PM ₁₀	50 µg/m ³ 24-hour standard; 20 µg/m ³ Annual Arithmetic Mean		
PM _{2.5}	12 µg/m ³ Annual Arithmetic Mean		
CO	20 ppm 1-hour standard; 9 ppm 8-hour standard		
NO ₂	0.18 ppm 1-hour standard; 0.03 ppm Annual Arithmetic Mean		
SO ₂	0.25 ppm 1-hour standard; 0.04 ppm 24-hour standard		
Lead	1.5 µg/m ³ 30-day average		
Visibility Reducing Particles	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more due to particles when relative humidity is 70% or greater		
Sulfates	25 µg/m ³ 24-hour standard		
H ₂ S	42 µg/m ³ or 0.03 ppm 1-hour standard		
Vinyl Chloride	26 µg/m ³ or 0.01 ppm 24-hour standard		

Notes:

The SMAQMD Board of Directors adopted the air quality thresholds of significance on March 28, 2002, via resolution AQMD2002018. A project is considered significant if emissions exceed a CAAQS or contribute substantially to an existing or projected violation of a CAAQS. A substantial contribution is considered an emission that is equal to or greater than 5% of a CAAQS. Revisions to the CAAQS are automatically adopted as revisions to these thresholds. Official citation for the CAAQS: California Code of Regulations, Title 17, Section 70200, Table of Standards.

SMAQMD Operational Screening Levels

Land Use Category	CalEEMod Land Use	Screening Level	Units
Residential	Single Family Housing	316	du
Residential	Apartments or Condos (low, mid or high rise)	460	du
Educational	Day Care Center	111	ksf
Educational	Elementary School	275	ksf
Educational		3,275	students
Educational	Junior High School	290	ksf
Educational		2,500	students
Educational	High School	270	ksf
Educational		2,050	students
Educational	Junior College (2 yrs)	178	ksf
Educational		4,100	students
Educational	University/College (4 yrs)	1,900	students
Educational	Place of Worship	175	ksf
Recreational	Health Club	190	ksf
Recreational	Quality Restaurant	93	ksf
Recreational	High Turnover Restaurant (sit down)	58	ksf
Recreational	Fast Food Restaurant with Drive Thru	15	ksf
Recreational	Hotel	520	rooms

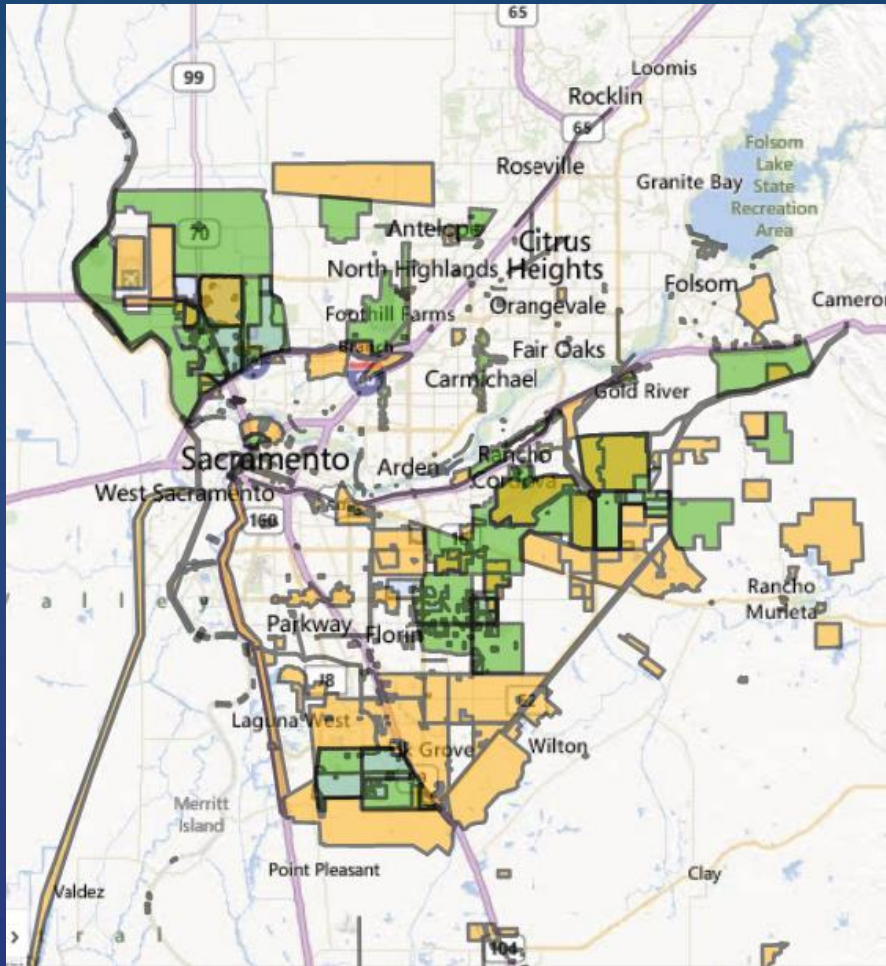
Table 1: 2011 Diesel PM Cancer Risk (Potential Incremental Cancer Chances per Million) North and South of an East-West Roadway

Peak Hour Traffic (vehicle/hr)	Receptor Distance from Edge of Nearest Travel Lane (feet)						10	25	50	100	200	300
	10	25	50	100	200	300						
PROJECTS NORTH AND SOUTH OF AN EAST-WEST ROADWAY VERSUS TRAFFIC VOLUME (EMFAC2007 (Analysis Year 2011))												
Incremental Cancer Risk Per Million: North (downwind)												
4000	188	165	137	102	67	51	41	35				
8000	372	331	273	204	134	99	83	67				
12000	550	487	404	299	197	149	121	102				
16000	760	671	557	410	270	204	165	137				
20000	951	840	696	515	337	254	207	172				
24000	1138	1008	836	617	404	305	248	207				
Incremental Cancer Risk Per Million: South (upwind)												
4000	102	86	67	48	32	22	19	16				
8000	207	172	137	99	64	48	38	32				
12000	305	254	200	143	92	70	54	48				
16000	423	353	277	200	127	95	76	64				
20000	531	442	347	248	159	121	95	80				
24000	636	531	417	299	191	143	114	95				



- ⌘ Consultation results in projects being designed better and reducing emissions that impact AQ and Climate Change
 - ⌘ Opportunities for walking, biking, transit
 - ⌘ Energy efficiency
- ⌘ Location and project design important
- ⌘ SMAQMD technical assistance valuable to lead agency and proponents
- ⌘ Informed decision makers

Meaningful Results



- & SMUD ECOC
- & Township 9
- & Curtis Park Village
- & Sunrise Mall
- & Capital Village

Project Examples



- ⌘ CAPCOA developed CalEEMod for analyzing land development project emissions
- ⌘ SMAQMD provides the RCEM for linear projects, construction
- ⌘ Risk screening tables in Roadway Protocol

Modeling Tools

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{ Websites

CalEEMod

www.caleemod.com

SMAQMD Tools

www.airquality.org/ceqa

AEP – CEQA

<http://califaep.org/>

For more information...