2020 Advanced CEQA Webinar

June 2, 2020

Webinar Topics/Speakers

- **Moderator**
  - Gary Jakobs, AICP – Ascent Environmental
- **The Friant Ranch Case & Air Quality Analysis**
  - Honey Walters – Ascent Environmental
- **CEQA Case Law focused on Project Descriptions**
  - Andee Leisy, Remy Moose Manley LLP
- **VMT Analysis in CEQA**
  - Gary Jakobs, AICP – Ascent Environmental

Friant Ranch Implications

Laura Yoon – ICF

Honey Walters – Ascent Environmental

Al Herson – Sohagi Law Group

Topics to be Discussed

- **Background on air quality and health risks**
- **Available models**
- ***Sierra Club v. County of Fresno* case summary**
- **In-use CEQA options**

Background on Air Quality and Health Risks

Criteria Air Pollutants

Definition

- Criteria air pollutants include:
  - Nitrogen dioxide (NO_2)
  - Sulfur dioxide (SO_2)
  - Carbon monoxide (CO)
  - Fine and respirable particulate matter ($PM_{2.5}$ and PM_{10})
  - Ozone
  - Lead
- Cause health problems and damage to the environment
- National and California ambient air quality standards (AAQS) have been set for these pollutants, specifying the concentrations deemed protective of human health and the environment
  - U.S. Environmental Protection Agency (EPA) (NAAQS)
  - California Air Resources Board (CARB) (CAAQS)

Criteria Air Pollutants

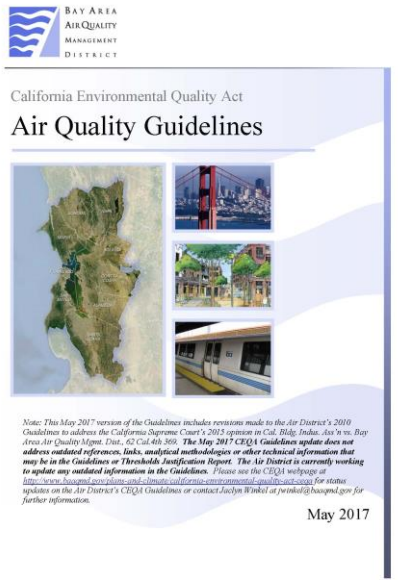
Air District Guidance

- Local air districts can set limits on daily mass emissions of criteria pollutants for sources located in their jurisdiction
- Air district daily mass emissions limits are typically used as CEQA significance thresholds
- Ozone is a regional pollutant, so emission limits are specified for its precursors, reactive organic gases (ROG) and oxides of nitrogen (NOx)

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

South Coast AQMD Air Quality Significance Thresholds

Mass Daily Thresholds [a]		
Pollutant	**Construction [b]**	**Operation [c]**
NO_x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day



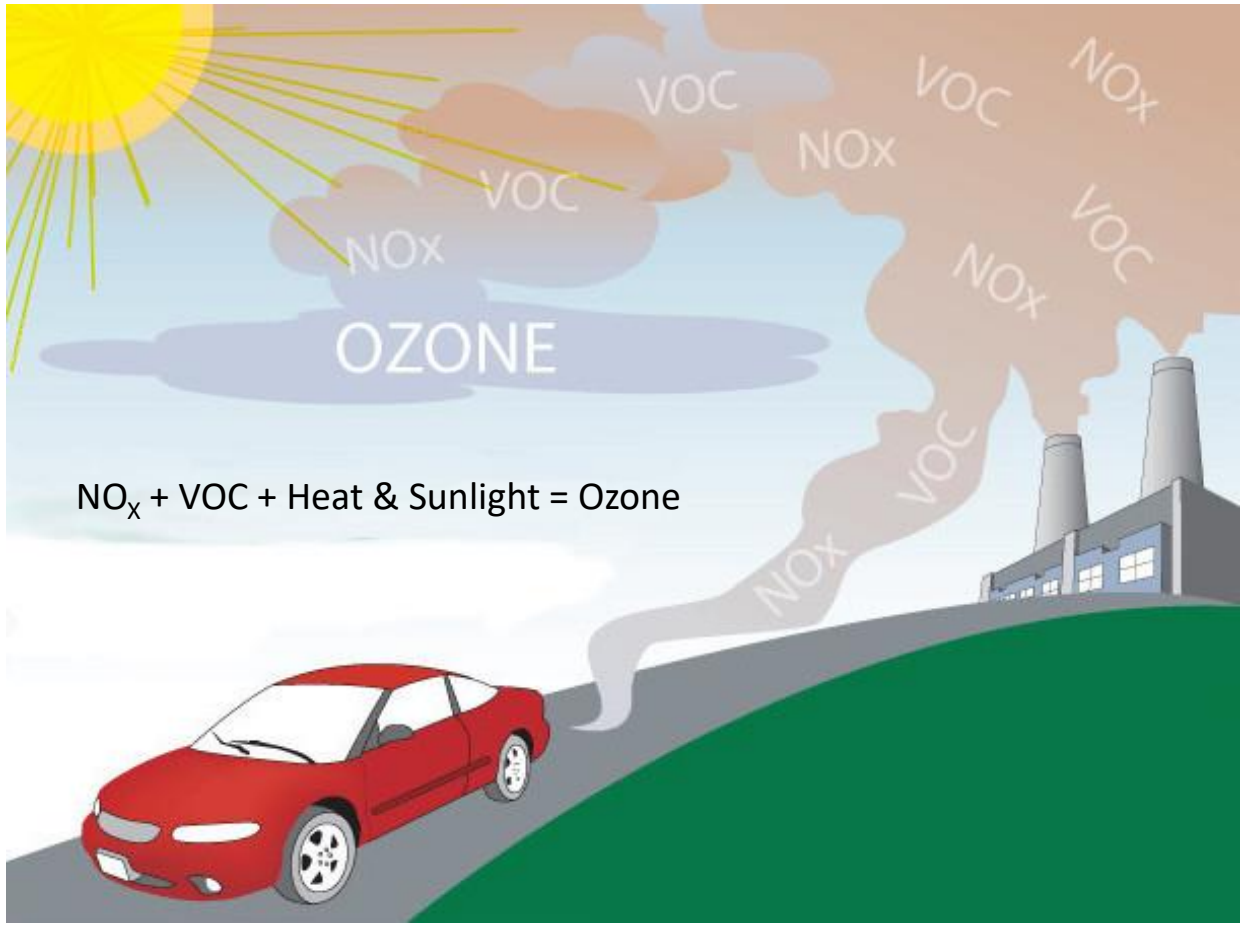
Criteria Air Pollutants

National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California (CAAQS)	National (NAAQS)	
			Primary	Secondary
Ozone (O_3)	1-hour	0.09 ppm (180 µg/m^3)	–	Same as primary standard
	8-hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	
Nitrogen dioxide (NO_2)	Annual arithmetic mean	0.030 ppm (57 µg/m^3)	53 ppb (100 µg/m^3)	Same as primary standard
	1-hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	—
Respirable particulate matter (PM_{10})	Annual arithmetic mean	20 µg/m^3	—	Same as primary standard
	24-hour	50 µg/m^3	150 µg/m^3	
Fine particulate matter ($PM_{2.5}$)	Annual arithmetic mean	12 µg/m^3	12.0 µg/m^3	15.0 µg/m^3
	24-hour	—	35 µg/m^3	Same as primary standard

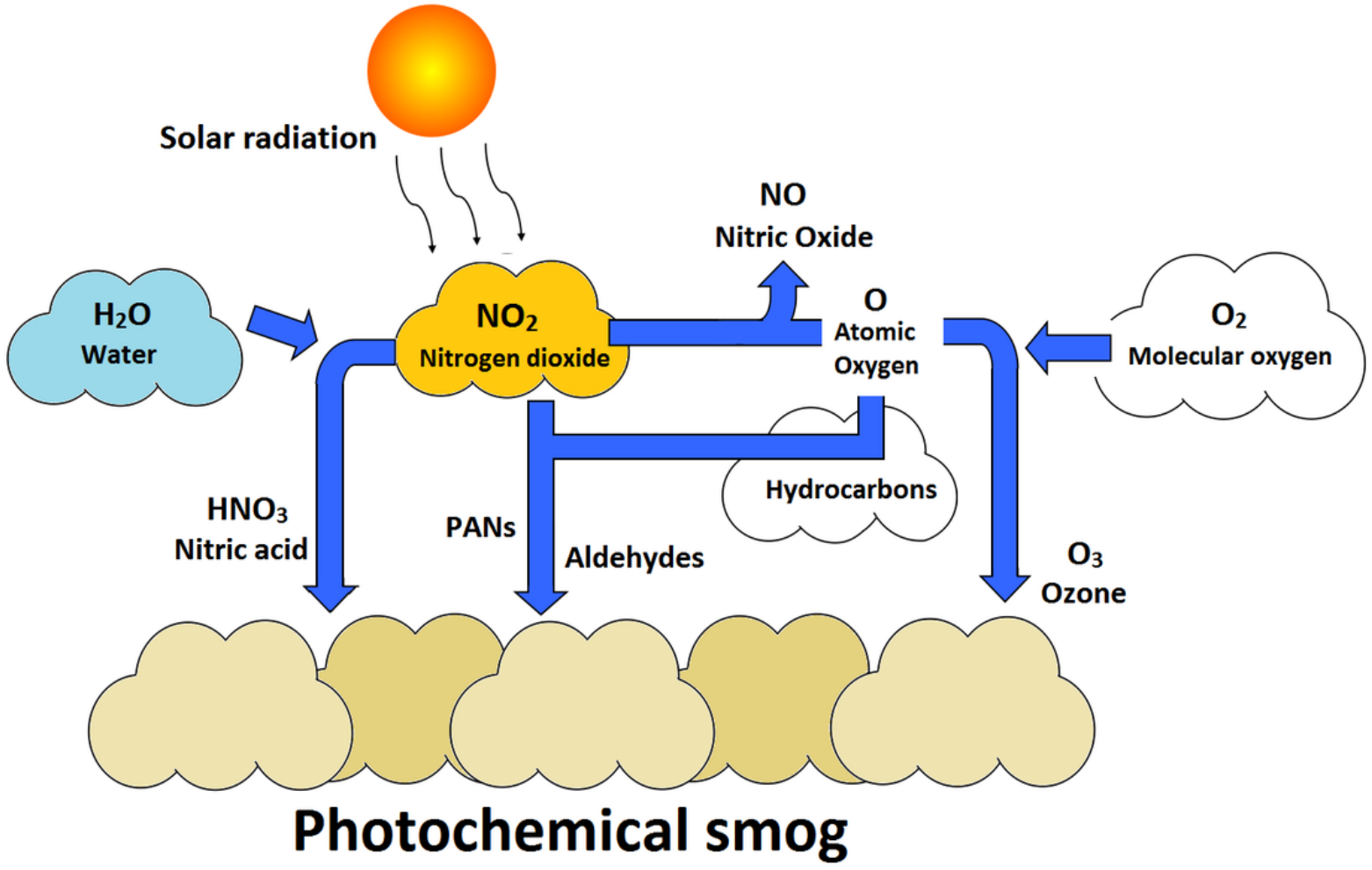
Source: https://ww3.arb.ca.gov/research/aaqs/aaqs2.pdf

Ground-level Ozone (Smog) Formation



Source: https://www.epa.gov/ground-level-ozone-pollution/ground-level-ozone-basics

Smog Formation



Source:
https://energyeducation.ca/encyclopedia/Photochemical_smog

Adverse Health Impacts

Pollutant	Effects on Health and the Environment
Ozone (O_3)	Respiratory symptoms; Worsening of lung disease leading to premature death; Damage to lung tissue Non-health related effects: crop, forest and ecosystem damage; Damage to a variety of materials, including rubber, plastics, fabrics, paint, and metals
Nitrogen oxides (NO_X)	Lung irritation; Enhanced allergic responses
Respirable particulate matter (PM_{10})	Premature death & hospitalization, primarily for worsening of respiratory disease Non-health related effects: Reduced visibility and material soiling
Fine particulate matter ($PM_{2.5}$)	Premature death; Hospitalization for worsening of cardiovascular disease; Hospitalization for respiratory disease; Asthma-related emergency room visits; Increased asthma symptoms and inhaler usage

Source: https://ww2.arb.ca.gov/resources/common-air-pollutants

Toxic Air Contaminants

Definition

- A toxic air contaminant (TAC) is defined in the California Health and Safety Code as “an air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health” (H&SC §39655)
- Common TACs include hexavalent chromium, benzene, and diesel particulate matter (DPM)
- Health impacts of TACs are classified as carcinogenic, acute non-carcinogenic, or chronic non-carcinogenic

Air District Guidance

- Local air districts typically provide guidance for performing health risk assessments (HRAs), including recommended parameters for air dispersion modeling

Local vs. Regional Air Pollutants

Local Air Pollutants

- Local air pollutants are primary pollutants emitted to the atmosphere in their final form
- Affect local air quality to the greatest extent
- Disperse/deposit with increased distance from the source
- Examples: TACs, PM_{10}, CO, SO_2, NO_X

Regional Air Pollutants

- Regional air pollutants are secondary pollutants formed in the atmosphere from precursor molecules due to photochemical and other transformations
- Secondary pollutants may travel long distances during formation and cannot be precisely attributed to specific sources
- Examples: $PM_{2.5}$, ozone, formaldehyde (a TAC), H_2SO_4 & HNO_3 (deposited as “acid rain”).
- Because of the complex processes of secondary pollutant formation, modeling is difficult

Available Models

Air Pollution Modeling

Mass Emissions Models

Quantify mass-based (lb/day, ton/year) airborne pollutant emissions from emission factors

- California Emissions Estimator Model (CalEEMod) – quantifies project-level construction and operational emissions
- Roadway Construction Emissions Model (RCEM) – quanitifies emissions from linear projects (e.g. roadways)
- EMissions FACtor (EMFAC) model – CARB maintained tool for calculating emissions of onroad vehicles
- OFFROAD/ORION – CARB maintained tool for calculating offroad equipment/vehicle emissions

Air Dispersion Models

Calculate ground-level concentrations ($\mu g/m^3$) at receptors based on source emissions and meteorology

- Examples: AERMOD, CALPUFF, CALINE3/CALINE4
- Can be used to help determine health impacts experienced by receptors

Photochemical Grid Models (PGMs)

Model the formation of secondary pollutants due to physicochemical and photochemical processes

- Examples: CMAQ, CAMx, SMOKE (used for pre-processing of emissions data)
- CMAQ and CAMx may be "scientifically appropriate" for regional level analysis (2017 EPA Guidance Memo[1])

[1]Source: https://www3.epa.gov/ttn/scram/guidance/clarification/20170804-Photochemical_Grid_Model_Clarification_Memo.pdf

Model Advantages and Disadvantages

Air Dispersion Models

Advantages:

- Account for meteorological and terrain influences on pollutant dispersion and ground-level concentrations
- Work very well for defined sources with precise pollutant mass emission rate data
- Output can be used to directly calculate local cancer and non-cancer health risks posed by pollutants

Disadvantages:

- Difficult to quantify ground-level concentrations of secondary air pollutants (e.g. $PM_{2.5}$ and ozone)

Photochemical Grid Models (PGMs)

Advantages:

- Account for secondary chemistry, thus allowing for better prediction of $PM_{2.5}$ and ozone formation
- Good for regional air quality analysis

Disadvantages:

- Emissions data input must be specifically formatted: hourly, chemically speciated, defined grid squares
- Only regional approximations of secondary air pollutant concentrations are possible

Estimating Health Risk

Health Risk Assessment and Health Effects Incidence Models

CARB's Hotspots Analysis and Reporting Program

- HARP was developed by CARB to address requirements of the Air Toxics "Hot Spots" Program (AB 2588)
- Using pollutant ground-level concentrations predicted by air dispersion modeling, HARP can calculate increases in cancer and non-cancer risks due to pollutant exposures at exposed receptors

Estimating Health Risk

Health Risk Assessment and Health Effects Incidence Models

EPA's Environmental Benefits Mapping and Analysis Program – Community Edition (BenMAP-CE)

- Quantifies health impacts resulting from project-generated $PM_{2.5}$ or ozone emissions by estimating the increased incidence of adverse health effects per ton of pollutant emitted
- Uses estimated incidence factors based on concentration-response relationships drawn from the epidemiological research literature and national emissions inventories
- Estimated incidence factors are derived from national averages, but may provide a general order-of-magnitude characterization of the potential health impacts associated with project-generated mass emissions of $PM_{2.5}$, ozone, and their chemical precursors
- Modeled concentrations of secondary $PM_{2.5}$ and ozone provided by PGMs may be used to calculate increased incidence of health impacts at a regional scale with BenMAP

Sierra Club v. County of Fresno Case Summary

Selected slides courtesy Jim Moose - Remy Moose Manley LLP

Sierra Club v. County of Fresno (2018) 6 Cal. 5th 502

- *California Supreme Court finds flaws in parts of the air quality analysis in Fresno County's EIR for the 942-acre Friant Ranch Specific Plan, a proposed 2,500-unit "active adult" master-planned community north of City of Fresno and just south of the San Joaquin River*

Factual Background

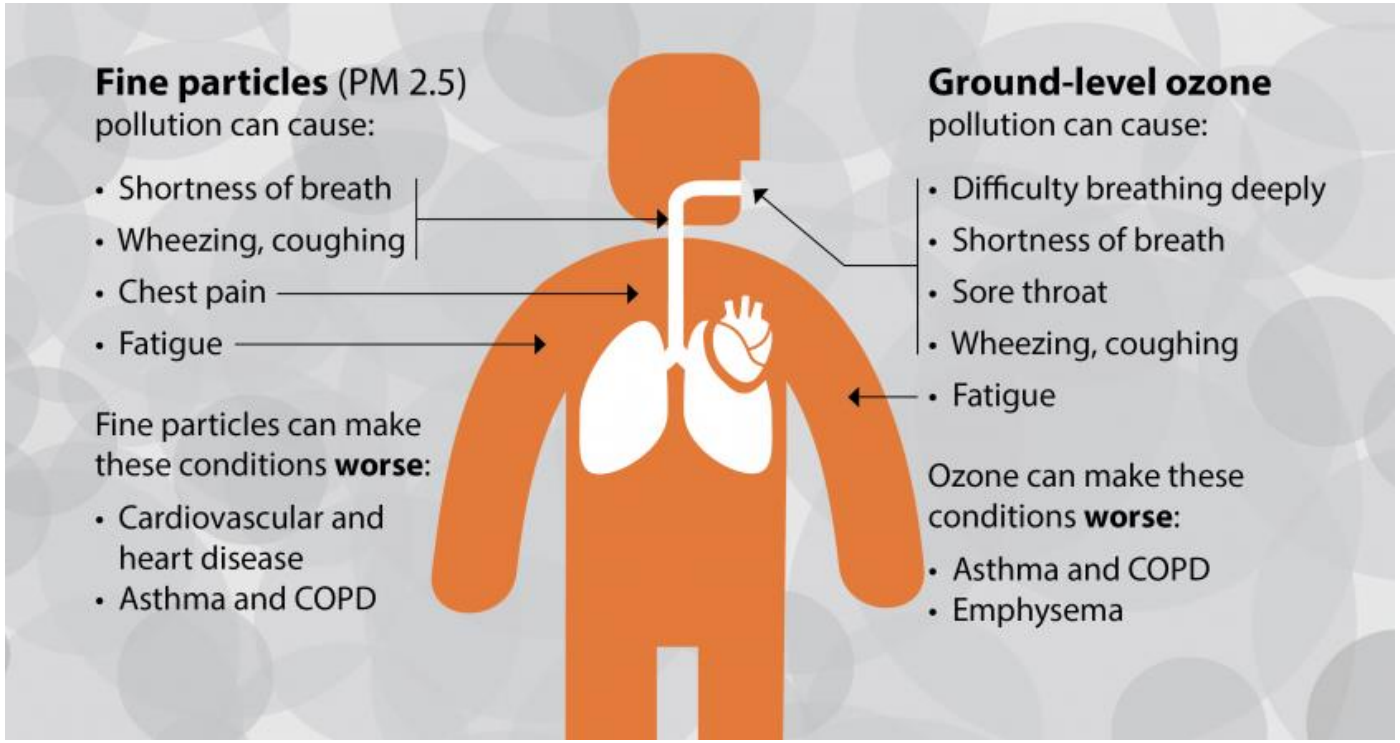
- **The proposed Friant Ranch project includes:**
  - About 2,500 age-restricted (55 and older) residential units
  - Other unrestricted residential units
  - A commercial village center
  - A recreation center
  - Trails, parks and parkways, and 460 acres of dedicated open space
  - A neighborhood electric vehicle network
  - 250,000 square feet of commercial space on 482 acres

The EIR for the Project

- Generally discussed the health effects of air pollutants such as ROG, NOx, and PM10, but without predicting any specific health-related effects resulting from the Project
- Found the Project's long-term operational air quality effects to be significant and unavoidable, even with all feasible mitigation

Air Quality/Health Impact Holding

» An EIR must show a "*reasonable effort* to *substantively* connect a project's air quality impacts to likely *health consequences*"



Air Quality/Health Impacts, cont'd

- **An EIR must show "a reasonable effort to discuss relevant specifics regarding the *connection* between"**
  - The "general health effects associated with a particular pollutant"; and
  - The "estimated amount of that pollutant the project will likely produce"

Air Quality/Health Impacts, cont'd

- **"[T]here must [also] be a *reasonable effort* to put into a *meaningful context* the conclusion that the air quality impacts will be significant"**
  - The EIR should give a "sense of the *nature and magnitude* of the 'health and safety problems' caused by a project's air pollution (see CEQA Guidelines, § 15126.2(a))

Air Quality/Health Impacts, cont'd

- Although the lead agency "has discretion in choosing what type of analysis to provide," an EIR must adequately explain either
  - How "bare [emissions] numbers" translate to create potential adverse health impacts; or
  - What the agency *does* know and why, given existing scientific constraints, it cannot translate potential health impacts further

Air Quality/Health Impacts, cont'd

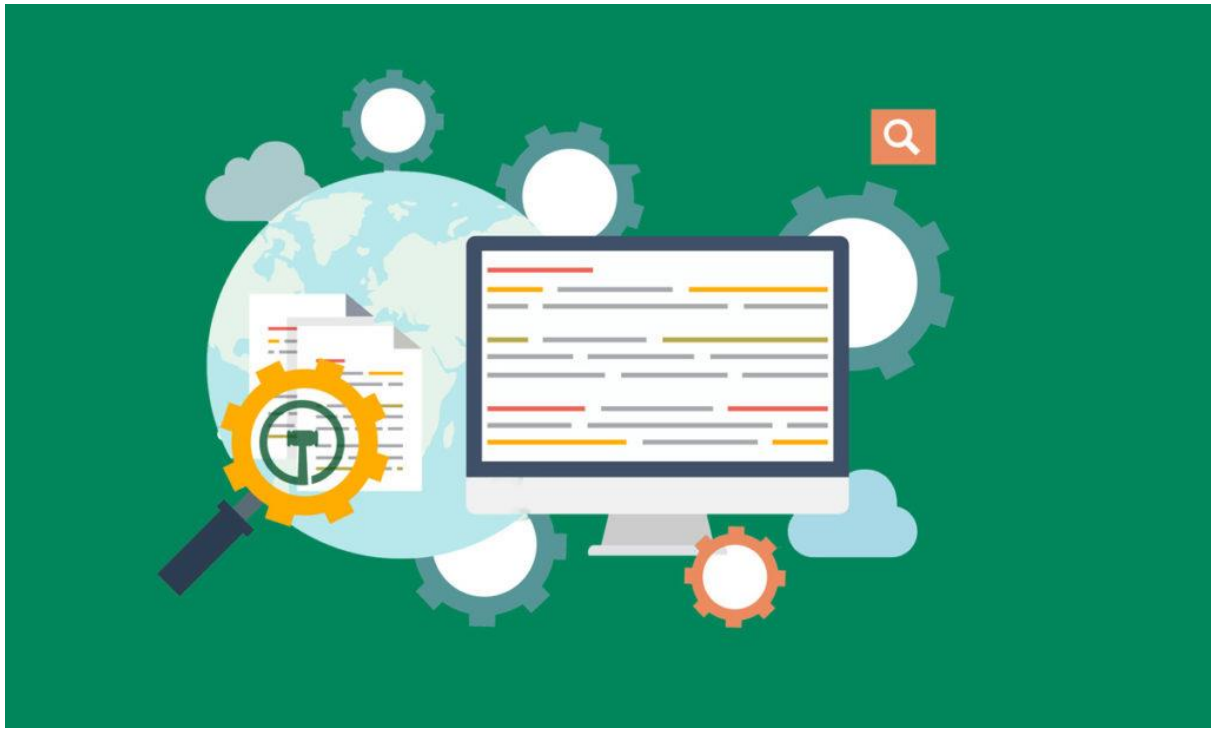
- Here, the EIR quantified how many tons per year of ROG and NOx are expected to result from the Project

- But "[t]he raw numbers … of ROG and NOx … do not give any information to the reader about how much *ozone* is estimated to be produced as a result"

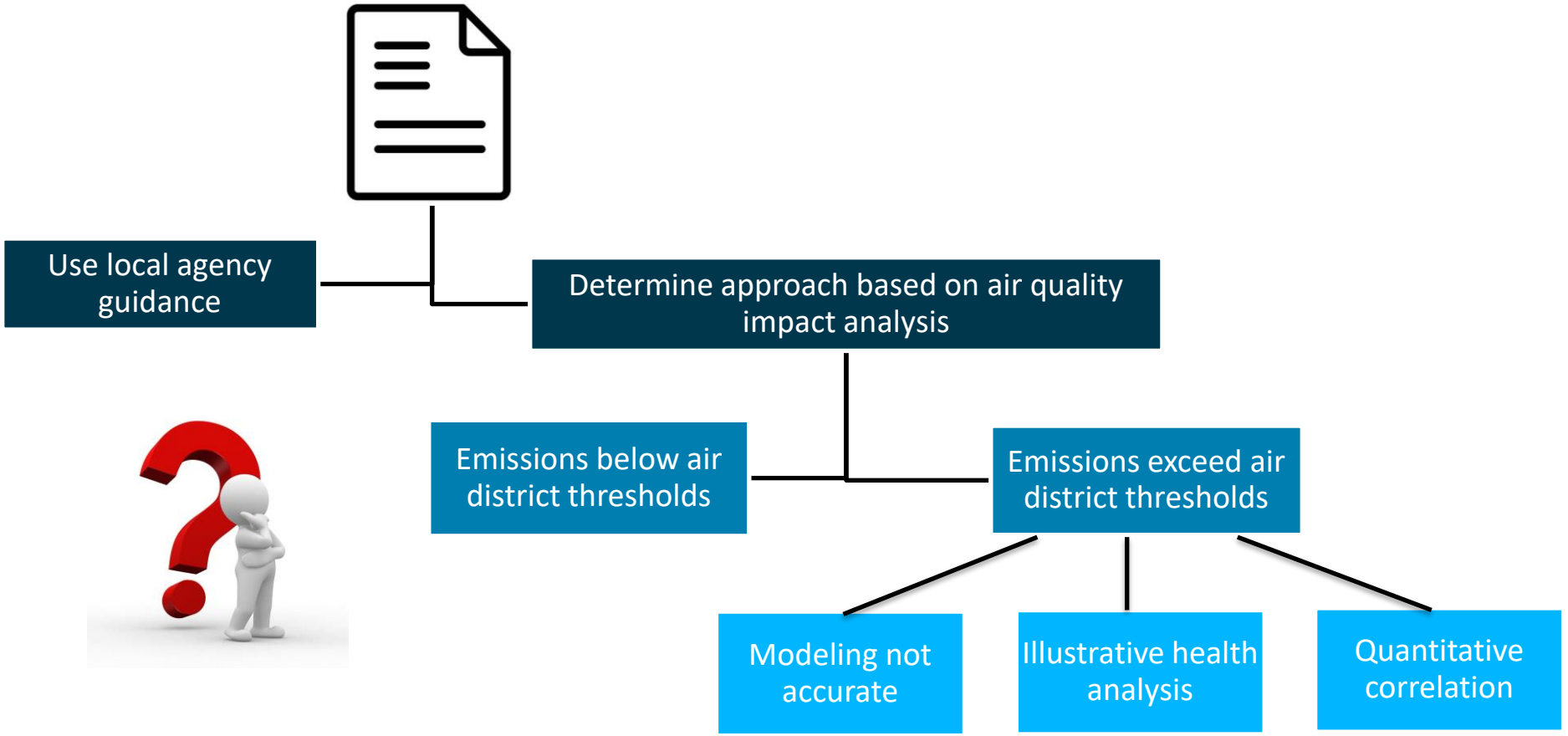
Air Quality/Health Impacts, cont'd

- The EIR "makes it impossible for the public to translate the bare numbers provided into adverse health impacts or to understand why such translation is not possible at this time (and what limited translation is, in fact, possible)"
- Court also held that the "EIR must accurately reflect *the net health effect* of proposed air quality mitigation measures"

In-Use Options for Addressing Friant Ranch



Framing the Options

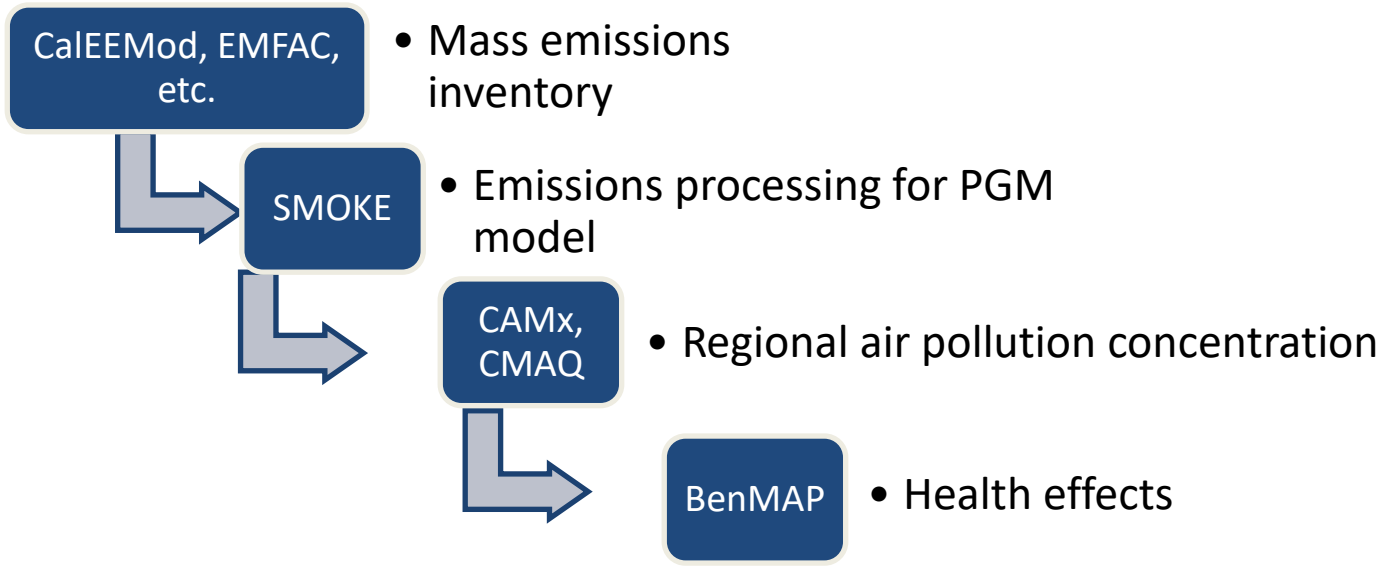


Air District CEQA Thresholds

- **Air district thresholds are based on regional attainment designations**
  - Represent maximum emissions levels a project can generate without causing or contributing to an exceedance of an ambient air quality standard
  - Ambient air quality standards are derived from scientific studies and designed to protect the health of "sensitive populations"
  - Air district thresholds create a bridge between project emissions and the health-protective ambient air quality standards
- **Projects with emissions below air district thresholds would be presumed to not adversely affect air quality or contribute to significant human health impacts**

Quantitative Correlation

- **Series of models to translate project generated mass emissions to changes in regional air pollution concentrations and resulting human health effects**



Quantitative Correlation

- **PGMs and BenMAP are regional- and national-scale models**
- **May be insensitive to emissions from most land use development projects**
  - SCAQMD found that NOx and ROG emissions of 3.31 and 44.59 tons/day (6,620 and 89,180 pounds per day) resulted in 20 additional premature deaths per year
    - This modeling was performed for implementation of Rule 1315; for context, 6,620 pounds per day of NOx is equivalent to the daily NOx emissions generated by more than 50,000 single family homes.
  - Small changes in modeled results may be within normal margin of error
- **Evaluate model resolution and ability to provide accurate and meaningful results**
  - Document limitations and uncertainties

Illustrative Health Incidence

- **Use "incident per ton" metrics derived from state or national photochemical and health modeling to estimate project effects**
  - Incident per ton = number of cases of a health effect per year per ton of emissions
- **USEPA and CARB have developed metrics and quantification methods**
  - Designed to evaluate economic benefits of air pollution rules and regulations
  - Represent average incident rates over a large geographic area (e.g., nationwide, state)
  - Do not account for location or project-specific variables
- **Limitations should be clearly described**

Illustrative Health Incidence

Incidence per ton of directly emitted PM2.5 mass emissions for the onroad vehicle sector

Health endpoint	Incidence per ton of PM2.5
Premature Mortality	0.097000
Respiratory emergency room visits	0.025000
Acute bronchitis	0.064000
Lower respiratory symptoms	0.810000
Upper respiratory symptoms	1.200000
Minor Restricted Activity Days	35.000000
Work loss days	5.900000
Asthma exacerbation	1.400000
Cardiovascular hospital admissions	0.010000
Respiratory hospital admissions	0.009800
Non-fatal heart attacks (Peters)	0.041000
Non-fatal heart attacks (All others)	0.004500

Source: United States Environmental Protection Agency, Technical Support Document - Estimating the Benefit per Ton of Reducing PM2.5 Precursors from 17 Sectors, Table 30

X Project-emitted PM2.5 tons per year from onroad mobile sources **=** Incidence (cases per year) resulting from project emitted mobile source PM2.5 emissions

Modeling Not Accurate or Meaningful

- **Generally follow approach from SJVAPCD and SCAQMD *Friant* amici briefs**
  - Differentiate between criteria pollutants and toxic air contaminants
  - Describe the scale of project-generated emissions in relation to regional air pollution
  - Describe the complexities surrounding regional air pollution formation
  - Describe sensitivities and limitations of existing models
- **Rely on narrative and citations to agency and air district guidance as evidence that a quantitative correlation would not yield accurate or meaningful results**

Use of Local Agency Guidance - SMAQMD

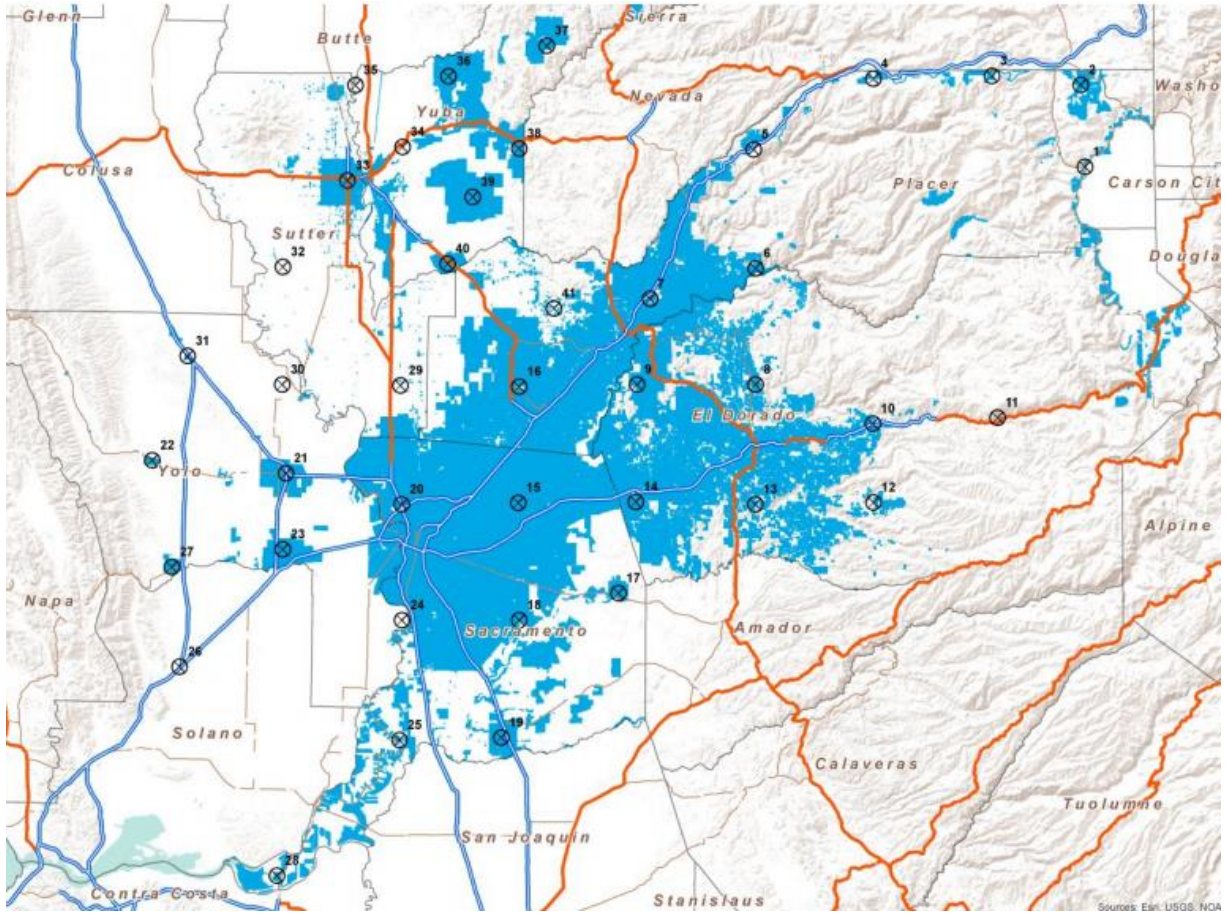
SMAQMD released draft Friant Ranch guidance on January 31, 2020

- Provides look-up tables to characterize health risks for “small projects”
- Provides screening information for selected strategic area projects above thresholds
- Provides modeling guidance for large projects

Minor Project Health Effects Screening Tool

- Based on CAMx and BenMAP analysis of 41 hypothetical sources throughout the Sacramento Federal Nonattainment Area (SFNA) with emissions of ROG, NOx, and PM2.5 at 82 pounds per day
- Tool interpolates the modeled results to generate a table of health effects for a specific project location based on the user supplied latitude/longitude coordinates

Use of Local Agency Guidance - SMAQMD



1	Minor Project Health Effects Tool			
2				
3				
4	Latitude	38.71094	<-- Step 1: Input latitude (Please chose a value between 38.0 and 39.7)	
5	Longitude	-121.10464	<-- Step 2: Input longitude (Please chose a value between -122.5 and -120.0)	
7				
8	**PM2.5 Health Endpoint**	**Age Range[1]**	**Incidences (per year)[2]**	**Percent of Background Health**
9			**(Mean)**	**(%)**
10	Emergency Room Visits, Asthma	0 - 99	0.55	0.00070
11	Mortality, All Cause	30 - 99	1.75	0.00095
12	Hospital Admissions, Asthma	0 - 64	0.034	0.00038
13	Hospital Admissions, All Cardiovascular (less Myocardial Infarctions)	65 - 99	0.124	0.00012
14	Hospital Admissions, All Respirato	65 - 99	0.26	0.00029
15	Acute Myocardial Infarction, Nonf	18 - 24	0.000048	0.00028
16	Acute Myocardial Infarction, Nonf	25 - 44	0.004	0.00036
17	Acute Myocardial Infarction, Nonf	45 - 54	0.0095	0.00033
18	Acute Myocardial Infarction, Nonf	55 - 64	0.0153	0.00032
19	Acute Myocardial Infarction, Nonf	65 - 99	0.073	0.00036
20				
21				
22	**Ozone Health Endpoint**	**Age Range[1]**	**Incidences (per year)[2]**	**Percent of Background Health**
23			**(Mean)**	**(%)**
24	Hospital Admissions, All Respirato	65 - 99	0.063	0.00007
25	Mortality, Non-Accidental	0 - 99	0.040	0.00003
26	Emergency Room Visits, Asthma	0 - 17	0.190	0.00079
27	Emergency Room Visits, Asthma	18 - 99	0.342	0.00062

Use of Local Agency Guidance - SMAQMD

Strategic Area Projects Health Effects Screening Tool

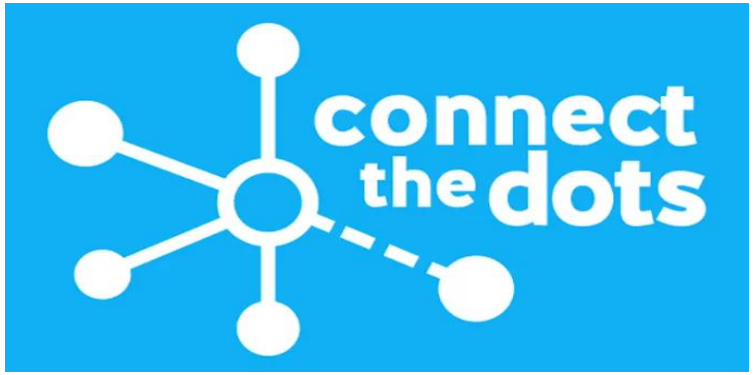
- SMAQMD selected five strategic growth areas in the SFNA and modeled five hypothetical projects with ROG, NOx, and PM2.5 emissions at twice and eight times the threshold level
  - Sacramento, Rancho Cordova, Woodland, Vacaville, and West Roseville
- Users select the strategic growth area applicable to their project and insert their emissions
- Tool linearly interpolates the BenMAP results to generate a table of health effects for the project
- Tool is only applicable to projects located within one of the five strategic growth area and with ROG, NOx, and PM2.5 emissions between 2x and 8x the threshold level
- Still in draft form as of today

Use of Local Agency Guidance – Los Angeles

- **City of Los Angeles published Friant Ranch guidance in October 2019**
  - Applies to City-lead projects requiring and EIR
  - Concludes that it is "*it is infeasible for City EIRs to directly link a plan's or project's significant air quality impacts with a specific health*"
  - Recommends that EIRs for projects with emissions above SCAQMD thresholds:
    - Summarize the court decision
    - Reference the City's guidance
    - Include a statement or comparison that the project falls within the scope of a "typical City project or plan" that is described in the paper

Cliff Notes for Addressing Friant Ranch

- **Generally describe potential health effects of air pollutants**
- **Consider local agency guidance (if available)**
- **Explain the nexus between air district thresholds and ambient air quality standards**
  - If emissions are below thresholds, document no significant health impact
  - If emissions exceed thresholds,
    - Explain why correlating project emissions to health outcomes would not yield accurate results OR
    - Describe the modeling and present the results
- **Relate all impact conclusions to their ultimate effect on human health**



Analysis Examples

» Qualitative

- Mitigated Negative Declaration for LS1 Data Center Project

  https://www.santaclaraca.gov/home/showdocument?id=65174

» Illustrative Health Incidence

- Final Environmental Impact Report for the Central El Dorado Hills Specific Plan

  https://eldorado.legistar.com/LegislationDetail.aspx?ID=4213650&GUID=D28F1803-A2D5-43FF-9B23-42273EF2A586&Options=&Search=

» Quantitative Correlation

- Environmental Impact Statement for CAFE Standards, 2017-2025

  https://www.nhtsa.gov/corporate-average-fuel-economy/environmental-impact-statement-cafe-standards-2017-2025

PROJECT DESCRIPTION CASES FROM 2019

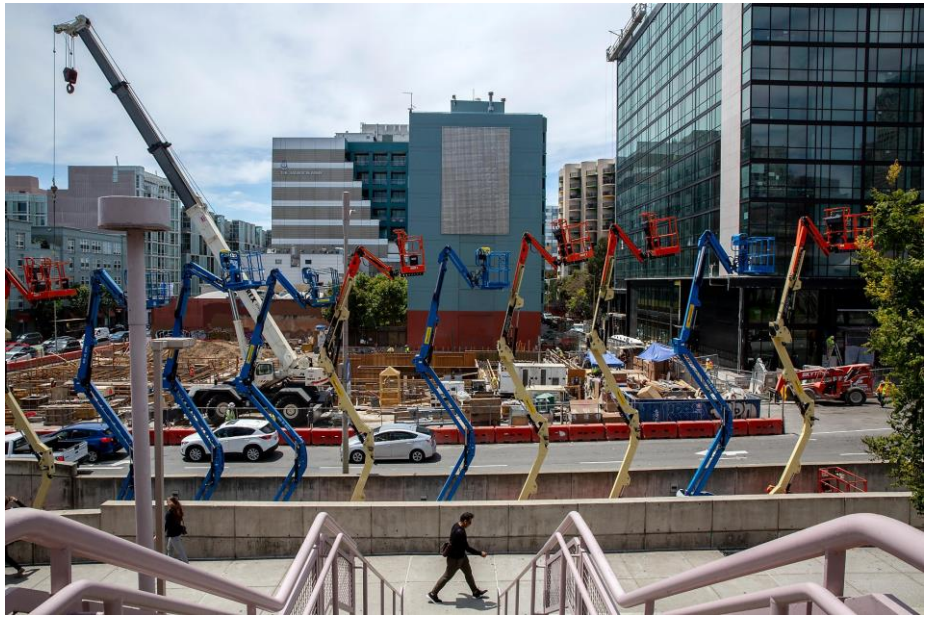
Andrea K. Leisy – Remy Moose Manley LLP

CASES

- ***South of Market Community Action Network v. City and County of San Francisco* (2019) 33 Cal.App.5th 321**

- ***Stopthemillenium.com v. City of Los Angeles* (2019) 39 Cal.App.5th 1**

South of Market Community Action Network v. City and County of San Francisco



- ***Court upholds EIR prepared by City and County of San Francisco for a general plan amendment and zoning change creating a new Fifth and Mission Special Use District allowing mixed-use business and residential uses in a 4-acre downtown area***

(2019) 33 Cal.App.5th 321

FACTUAL BACKGROUND

- **The City's Draft EIR considered, at an equal level of detail, two different "*options*" for the Fifth and Mission ("5M") Project, each with substantially the same overall gross square footage:**
  - An Office Scheme
  - A Residential Scheme

(2019) 33 Cal.App.5th 321

South of Market Community Action Network (cont.)

» **After rejecting five potential alternatives as infeasible, the Draft EIR discussed the following four alternatives:**

- A "No Project" alternative
- A "Code Compliant" alternative
- A "Unified Zoning" alternative
- A "Preservation" alternative

(2019) 33 Cal.App.5th 321

COURT'S CONCLUSIONS

- **The *Project Description* was *not* inadequate for being unstable and inaccurate; although the EIR addressed the Office and Residential Scheme *options* at the same level of detail,**
  - The analysis was not curtailed, misleading, or inconsistent
  - It carefully articulated two possible variations and fully disclosed the maximum possible scope of the project

(2019) 33 Cal.App.5th 321

South of Market Community Action Network (cont.)

- ***Washoe Meadows Community v. Department of Parks & Recreation* (2017) 17 Cal.App.5th 277 is distinguishable**

  - There, the Draft EIR identified five "very different" alternatives without designation of a stable project, which became an "obstacle to informed public participation" (As a joint EIR/EIS, the Bureau of Reclamation NEPA process required selection of a preferred alternative to be deferred until after the public weighed in on the Draft EIR/EIS alternatives.)

  - Here, "the project description clearly identified a mixed-use development project at a specific, defined location with two options for allocations of office and residential use"

(2019) 33 Cal.App.5th 321

FACTUAL BACKGROUND

- **The City's Draft EIR considered, at an equal level of detail, two different "*options*" for the Fifth and Mission ("5M") Project, each with substantially the same overall gross square footage:**
  - An Office Scheme
  - A Residential Scheme

(2019) 33 Cal.App.5th 321

South of Market Community Action Network (cont.)

» **After rejecting five potential alternatives as infeasible, the Draft EIR discussed the following four alternatives:**

- A "No Project" alternative
- A "Code Compliant" alternative
- A "Unified Zoning" alternative
- A "Preservation" alternative

(2019) 33 Cal.App.5th 321

COURT'S CONCLUSIONS

- **The *Project Description* was *not* inadequate for being unstable and inaccurate; although the EIR addressed the Office and Residential Scheme *options* at the same level of detail,**
  - The analysis was not curtailed, misleading, or inconsistent
  - It carefully articulated two possible variations and fully disclosed the maximum possible scope of the project

(2019) 33 Cal.App.5th 321

South of Market Community Action Network (cont.)

- ***Washoe Meadows Community v. Department of Parks & Recreation* (2017) 17 Cal.App.5th 277 is distinguishable**

  - There, the Draft EIR identified five "very different" alternatives without designation of a stable project, which became an "obstacle to informed public participation" (As a joint EIR/EIS, the Bureau of Reclamation NEPA process required selection of a preferred alternative to be deferred until after the public weighed in on the Draft EIR/EIS alternatives.)

  - Here, "the project description clearly identified a mixed-use development project at a specific, defined location with two options for allocations of office and residential use"

(2019) 33 Cal.App.5th 321

South of Market Community Action Network (cont.)

- **The City did *not* violate CEQA by approving a "*revised project*" that was a variant of the Preservation alternative**
  - "CEQA does not handcuff decisionmakers . . . . The action approved need not be a blanket approval of the entire project initially described in the EIR"
  - "Decisionmakers should have the flexibility to implement that portion of a project which satisfies their environmental concerns"

(2019) 33 Cal.App.5th 321

Stopthemillenium.com v. City of Los Angeles

- ***Court sets aside an EIR prepared by the City of Los Angeles for a master land use permit and a development agreement creating flexible policies governing mixed use development on a 4.5-acre parcel in Hollywood near the historic Capitol Records building***

(2019) 39 Cal.App.5th 1

Stopthemillenium.com (cont.)

FACTUAL BACKGROUND

- **On August 18, 2008, Millennium filed an application for a master land use permit for mixed residential, hotel, office, commercial, and food and beverage uses**
- **The application included specific descriptions of what Millennium proposed to build, as well as detailed site plans, building elevations, and architectural renderings**

(2019) 39 Cal.App.5th 1

Stopthemillenium.com (cont.)

- **In April 2011, Millennium submitted an updated application for a similar proposal**
- **But missing was any description or detail regarding what Millennium intended to build**

(2019) 39 Cal.App.5th 1

Stopthemillenium.com (cont.)

- **The Draft EIR (DEIR) described the project as creating development regulations and a development agreement that would vest entitlements through detailed and flexible design parameters**

  - The "Project will occur within a *pre-determined massing envelope*"

(2019) 39 Cal.App.5th 1

Stopthemillenium.com (cont.)

» **The DEIR analyzed three "*concept scenarios*":**

- An illustrative *Concept Plan*
- A Residential Scenario
- A Commercial Scenario

(2019) 39 Cal.App.5th 1

Stopthemillenium.com (cont.)

- **Based on this approach, the DEIR analyzed "the *greatest possible impact* on each environmental issue area"**
  - "The most intense impacts from each scenario represent the greatest environmental impacts permitted for any development scenario"
  - "The Project may not exceed any of the maximum impacts identified for each issue area" under any of the scenarios

(2019) 39 Cal.App.5th 1

Stopthemillenium.com (cont.)

COURT'S OVERALL CONCLUSIONS

- **"The Project Description Was not 'Accurate, Stable and Finite' as required by CEQA"**
- **"The EIR's Ambiguous Project Description Prejudicially Impairs the Public's Ability to Participate in the CEQA Process"**

(2019) 39 Cal.App.5th 1

Stopthemillenium.com (cont.)

INADEQUATE PROJECT DESCRIPTION

- **A Draft EIR project description must include:**
  - The precise location and boundaries of the project
  - A statement of the objectives sought by the project
  - A general description of the project's technical, economic and environmental characteristics
  - A statement briefly describing the intended use of the EIR

(CEQA Guidelines, section 15124, subds. [a]-[d])

(2019) 39 Cal.App.5th 1

Stopthemillenium.com (cont.)

- **Case law holds that a project description must be "*accurate, stable and finite*"**
  - *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185 (EIR included multiple inconsistent and confusing project descriptions)
  - *Washoe Meadows Community v. Department of Parks & Recreation* (2017) 17 Cal.App.5th 277 (CEQA violated where Draft EIR did not identify proposed project but instead identified multiple alternatives and said a proposed project would be identified in the Final EIR after public comment on the alternatives)

(2019) 39 Cal.App.5th 1

Stopthemillenium.com (cont.)

- **Here, the different conceptual scenarios that Millennium or future developers may follow do not meet the requirement of a stable or finite proposed project**

- **The EIR fails to satisfy the Guidelines requirement for a general description of the project's technical, economic, and environmental characteristics**

(2019) 39 Cal.App.5th 1

Stopthemillenium.com (cont.)

- **“[T]he project description is not simply inconsistent, it fails to describe the siting, size, mass, or appearance of any building proposed to be built at the project site”**

- **“The draft EIR does not describe a building development project at all”**

(2019) 39 Cal.App.5th 1

Stopthemillenium.com (cont.)

- **The project description lacked site plans, cross-sections, building elevations, or illustrative massing to show**
  - What buildings would be built
  - Where they would be sited
  - What they would look like
  - How many there would be

- **"[E]ven the limits imposed are vague and ambiguous"**
  - "[N]o particular structure or structures are required to be built"

(2019) 39 Cal.App.5th 1

Stopthemillenium.com (cont.)

PREJUDICE

- **“Millennium’s failure to present any concrete project proposal, instead choosing concepts and ‘impact envelopes’ rather than an accurate, stable, and finite project, was an obstacle to informed public participation”**
  - This is so “even if we cannot say such input would have changed the project ultimately selected and approved”

(2019) 39 Cal.App.5th 1

Stopthemillenium.com (cont.)

EDITORIAL NOTES

- **This decision is hard to reconcile with *Citizens for a Sustainable Treasure Island v. City and County of San Francisco* (2014) 227 Cal.App.4th 1036**

(2019) 39 Cal.App.5th 1

Stopthemillenium.com (cont.)

- In that case, another Court of Appeal upheld a project-level EIR for a 15- to 20-year plan for a new mixed-use community on Treasure Island and Yerba Buena Island
  - There, the facts involved similarly flexible land use entitlements and a similar approach to environmental review, and the court rejected the contention that the Project Description was too conceptual

(2019) 39 Cal.App.5th 1

Vehicle Miles Traveled Analysis in CEQA

John Gard - Fehr & Peers

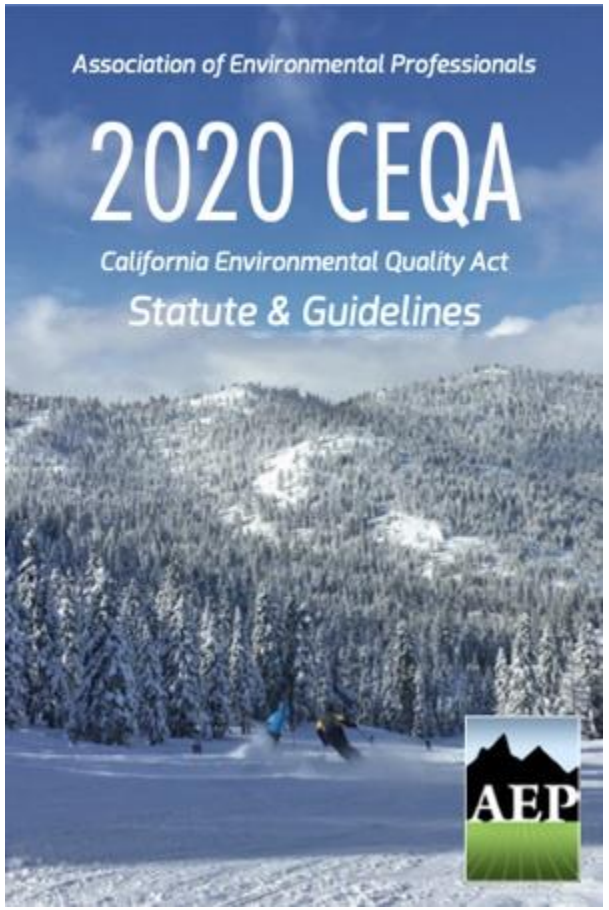
Andee Leisy - Remy Moose Manley

Gary Jakobs, AICP– Ascent Environmental

Topics to be Discussed

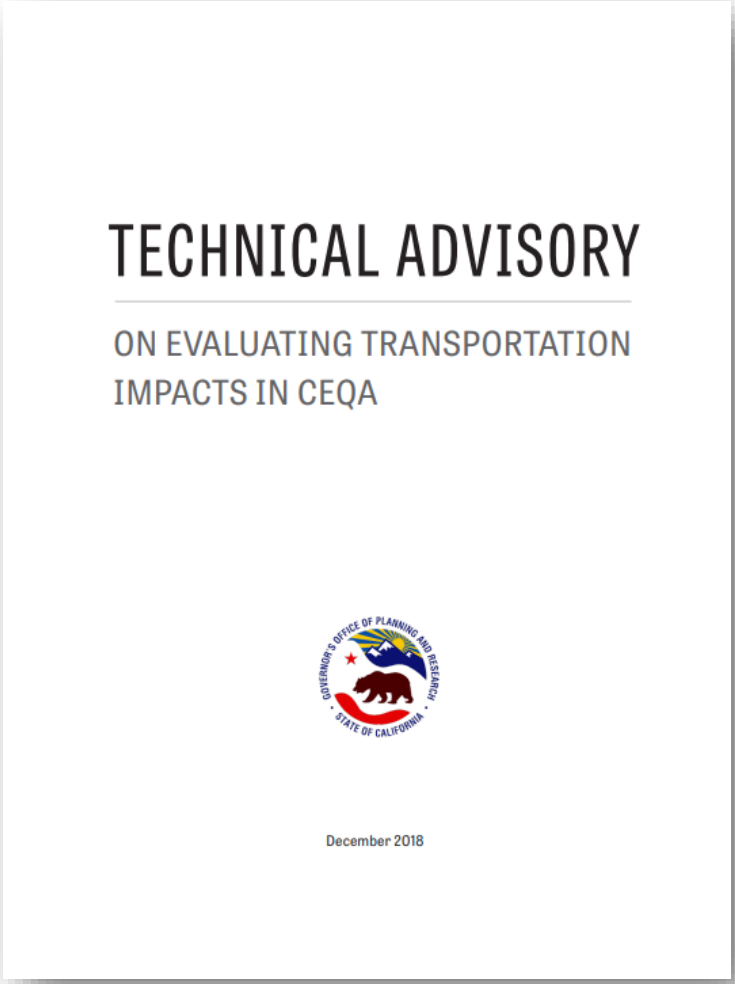
- Regulatory Background (Statue and Guidelines)
- VMT Overview
- Role of RTP/SCS and their EIRs
- Timing and Substantiated Thresholds
- How Does Screening Work?
- Case Studies
- Geographic Setting /Other Project Types
- Words of Caution / Practice Tips

VMT – Regulatory Background



Regulatory Background Overview

- **SB 743 (Steinberg 2013):**
  - PRC Section 21099(b) and (c) – change transportation analysis in CEQA from LOS to VMT to better align with State goals to reduce GHG, encourage infill development, and improve public health through increased active transportation
  - 2018 CEQA Guidelines - Section 15064.3 and Appendix G
  - OPR December 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA
  - VMT was previously an input to other traffic analyses (air quality, energy, GHG, and noise)
  - Now VMT is the primary metric for measuring transportation impacts

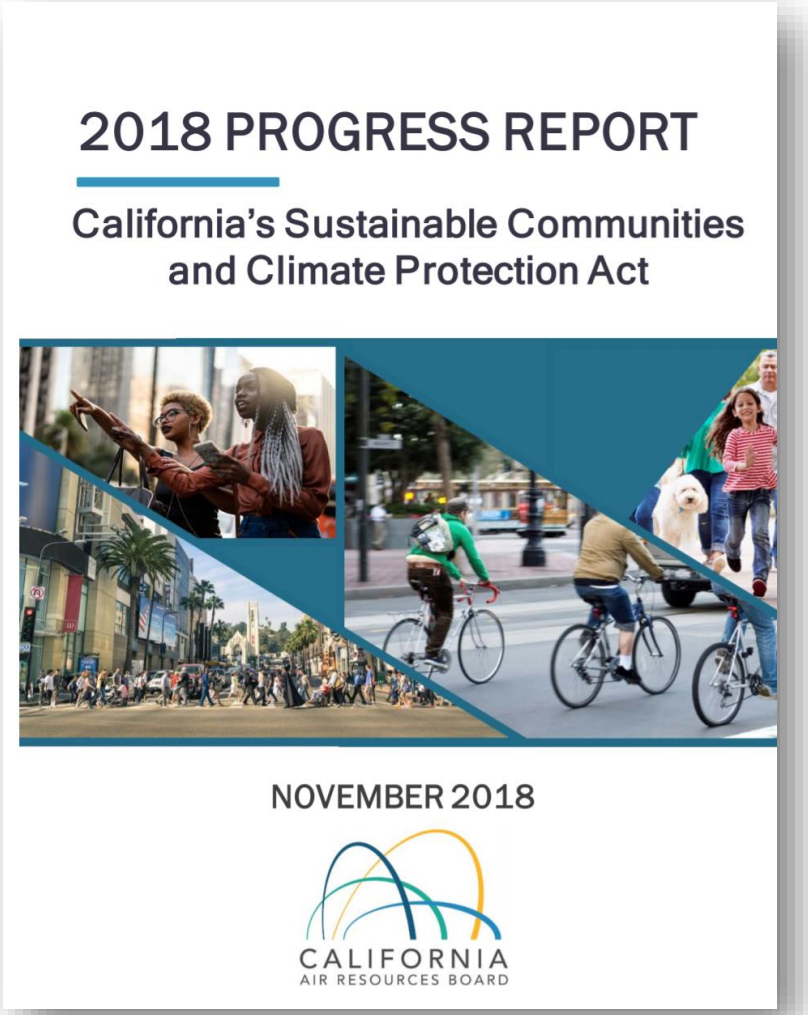


Role of RTP/SCSs

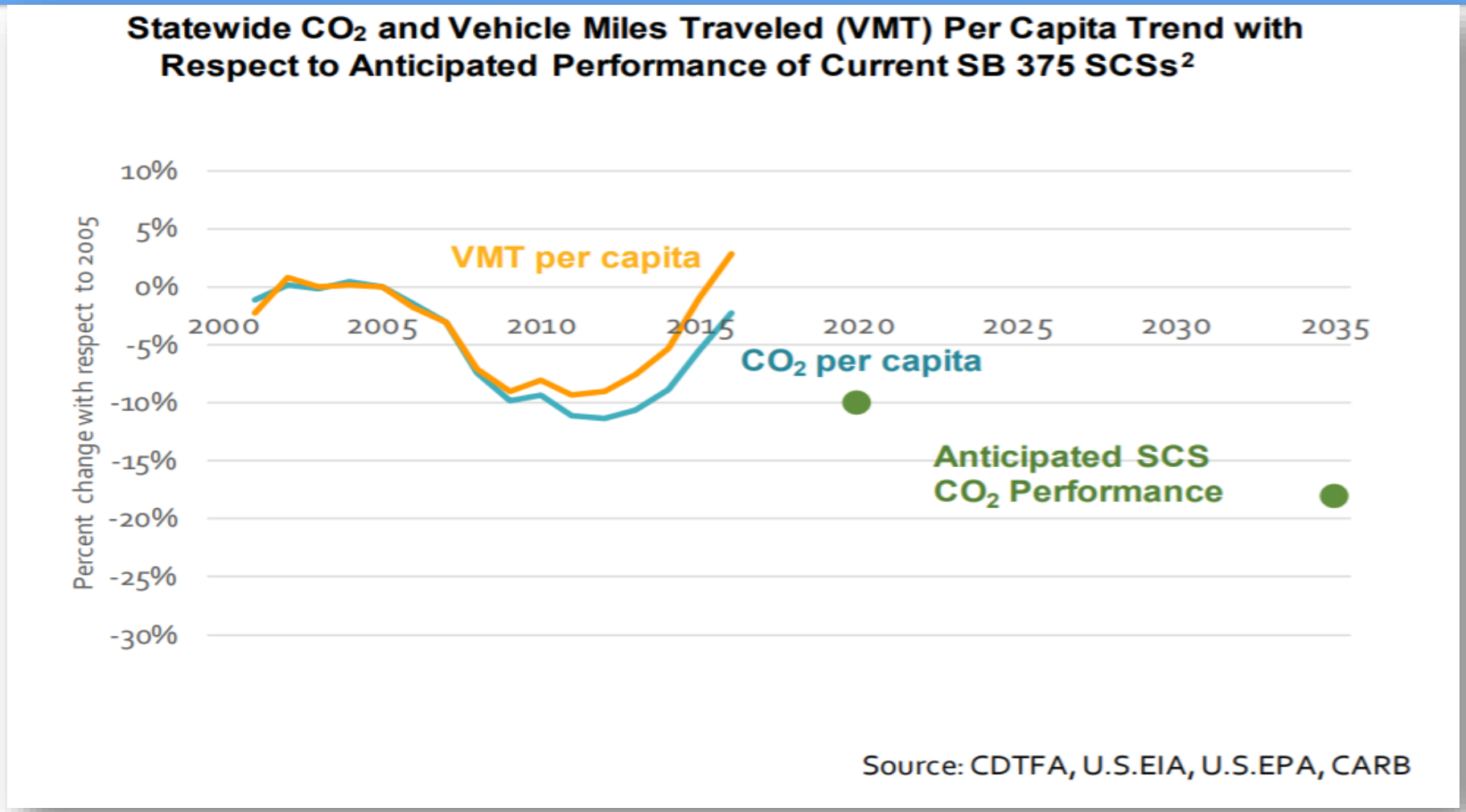
- **SB 375 delegated responsibility for GHG reduction from land use and transportation sectors to MPOs**

Role of RTP/SCSs (cont.)

VMT reduction is a core element of an SCS but these plans have failed to generate sufficient reductions to meet ARB goals in transportation sector



VMT Trends



» **Source:** https://ww2.arb.ca.gov/sites/default/files/201811/Final2018Report_SB150_112618_02_Report.pdf

State VMT Goals

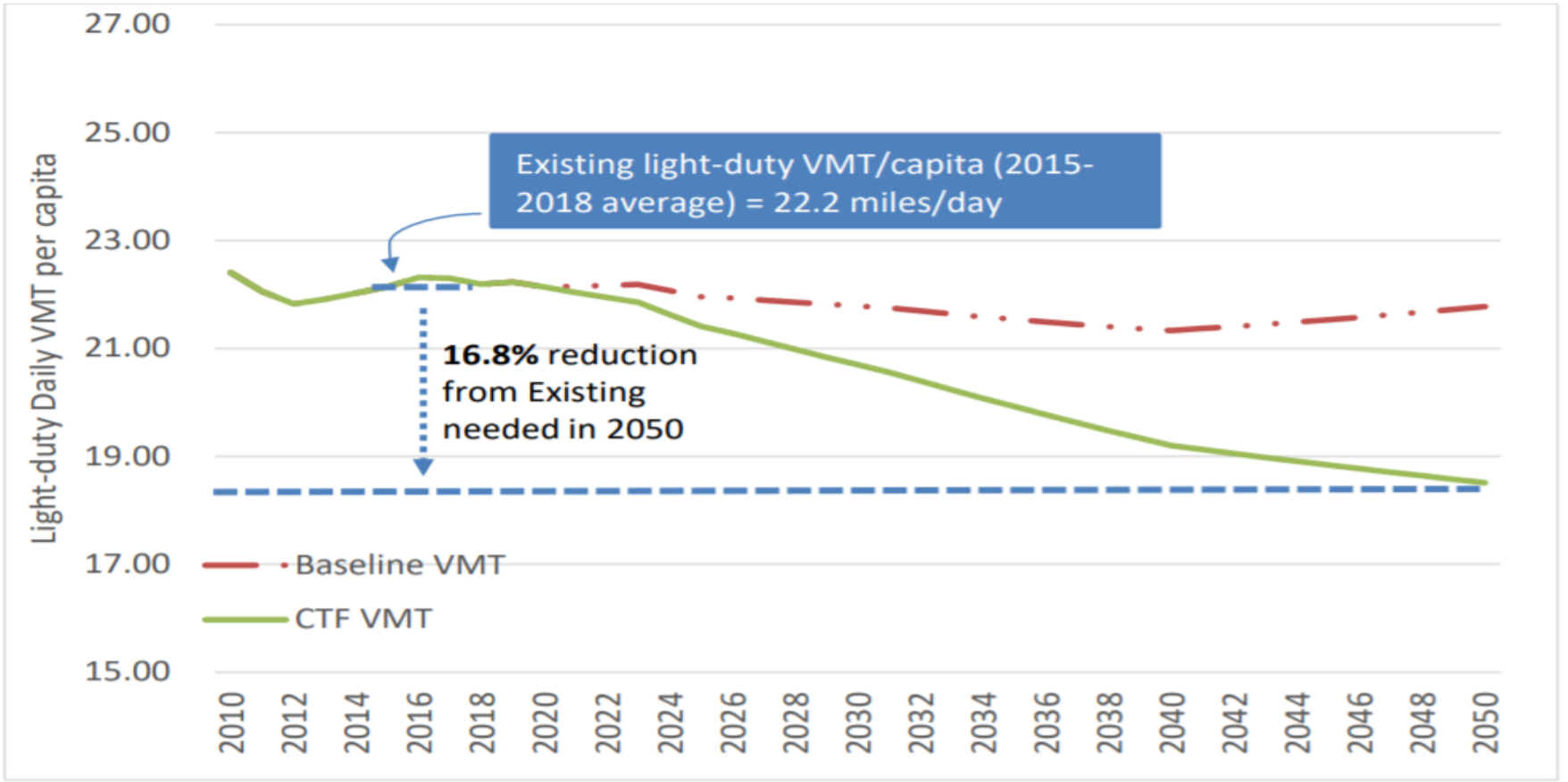


Figure 3: California Light-Duty VMT Per Capita

» **Source:** https://ww2.arb.ca.gov/sites/default/files/2019-01/2017_sp_vmt_reductions_jan19.pdf

RTP/SCS Example - SACOG

Table 16-10
Regional Vehicle Miles Traveled Per Capita

Variable	Baseline (2016)	MTP/SCS (2040)
Household-Gen. VMT[1]	42,579,646	49,478,847
Population	2,376,311	2,996,832
HH-Gen VMT per Capita	**17.92**	**16.51**
% Change from Baseline		***-7.86%***

[1]Includes household-generated VMT for all residents of the SACOG region, for travel within the region. This is a subset of total VMT. Estimates and forecasts from SACSIM regional travel demand model.
Source: SACOG 2019a; SACOG 2019b.

- **Source:** https://www.sacog.org/sites/main/files/file-attachments/ch._16_transportation_pdeir.pdf?1569040290

Timing for VMT Analysis

- **VMT analysis required statewide beginning July 1, 2020 (CEQA Guidelines Section 15064.3[c])**
- ***Citizens for Positive Growth & Preservation v. City of Sacramento* (2019)**
  - Upheld EIR prepared for City's 2035 General Plan;
  - Found LOS related challenge to EIR moot because **LOS no longer required** when new CEQA Guidelines took effect, i.e. in late 2018 (Section 15064.3)

Thresholds for VMT Impact Analysis

- **General rule - Agencies are encouraged to develop and publish thresholds of significance to use in determining the significance of environmental effects. (§§ 15064.7 (b); 15064.3.)**

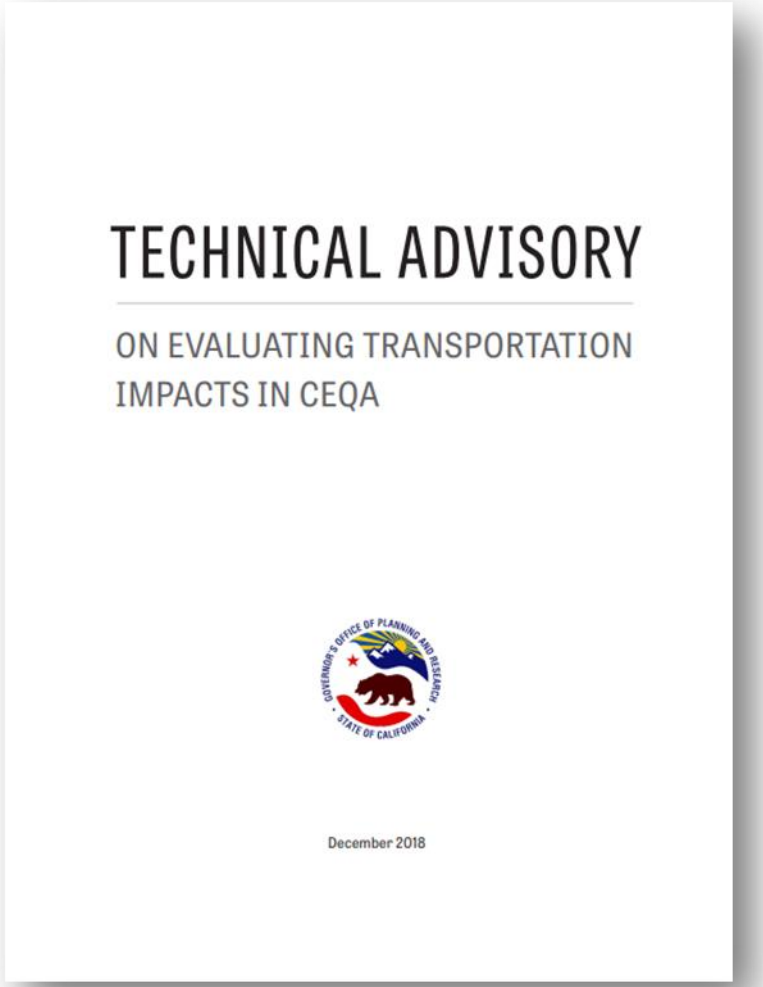
  - **Public review process if thresholds are proposed and adopted for general use.**
  - **If a project decreases existing VMT, is located within ½ mile of a major transit stop or a stop along a high transit corridor, a less than significant transportation impact "should be presumed." (§ 15064.3(b)(1)(2).)**

Thresholds for VMT Impact Analysis (cont.)

- **If existing models/methods are unavailable to estimate VMT for a project (including construction traffic), a lead agency may consider the project's VMT qualitatively, including consideration of the availability of transit, proximity to other destinations etc. (§ 15064.3 (b)(3).)**

- **Lead Agency has discretion to choose the appropriate methodology. Assumptions used to estimate VMT "should be documented and explained in the environmental document." (§ 15064.3 (b)(4), citing 15151.)**

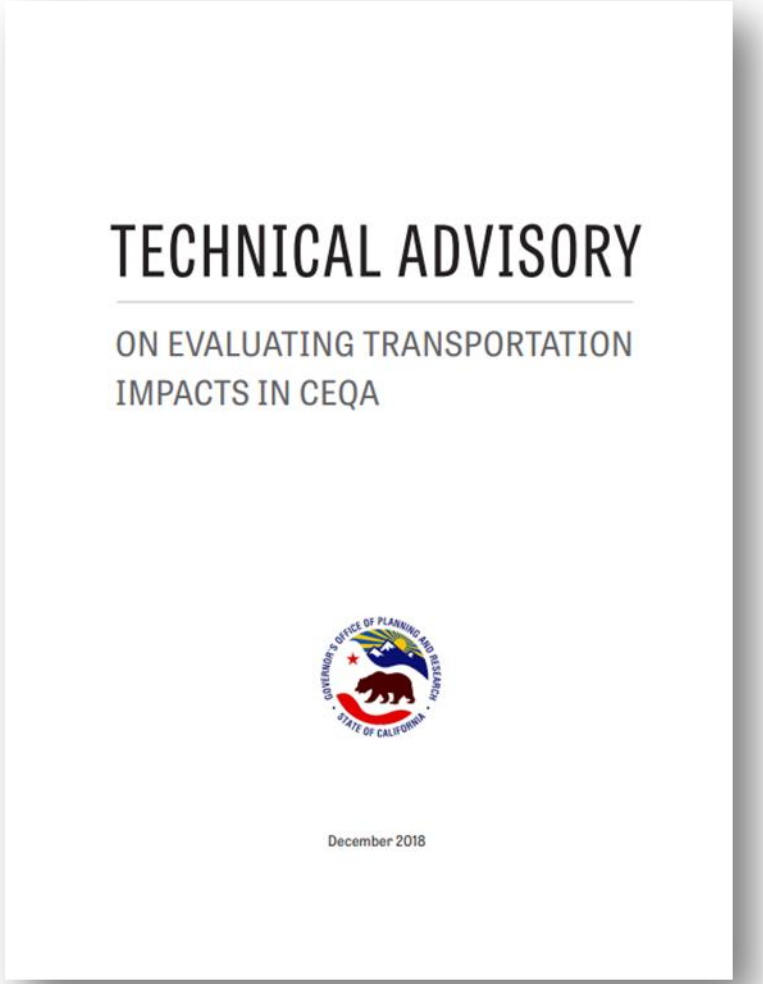
Thresholds for VMT Impact Analysis (cont.)



Contents

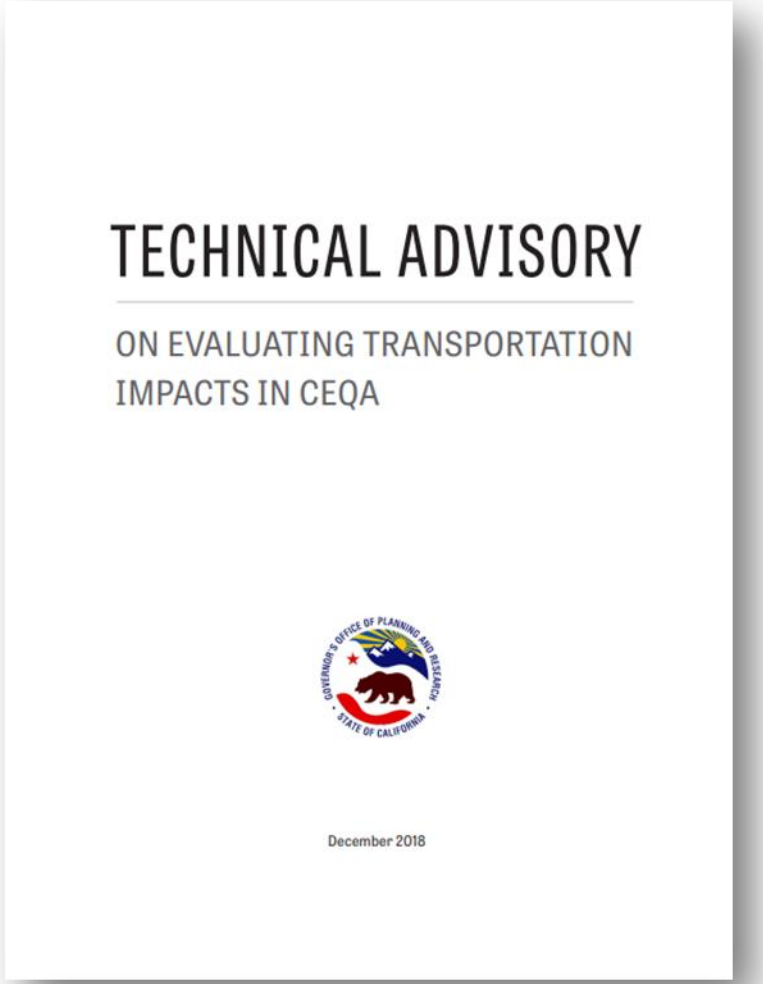
Thresholds for VMT Impact Analysis (cont.)

- **Potential VMT Thresholds include:**
  - **Range from using OPR's Tech Advisory default of 15% reduction threshold to developing a localized threshold**
  - **Localized thresholds would be developed based on existing VMT for the jurisdiction or region, and whether project would increase or decrease the same**
  - **Agencies have discretion to develop localized thresholds if supported by substantial evidence**
  - **COGs may be developing localized thresholds based on areawide VMT**



Thresholds for VMT Impact Analysis (cont.)

- **OPR Technical Advisory focused on Urban Uses**
  - Residential
  - Office
  - Commercial
- **Little Guidance on**
  - Rural development
  - Parks, mining, institutional, recreational, etc.

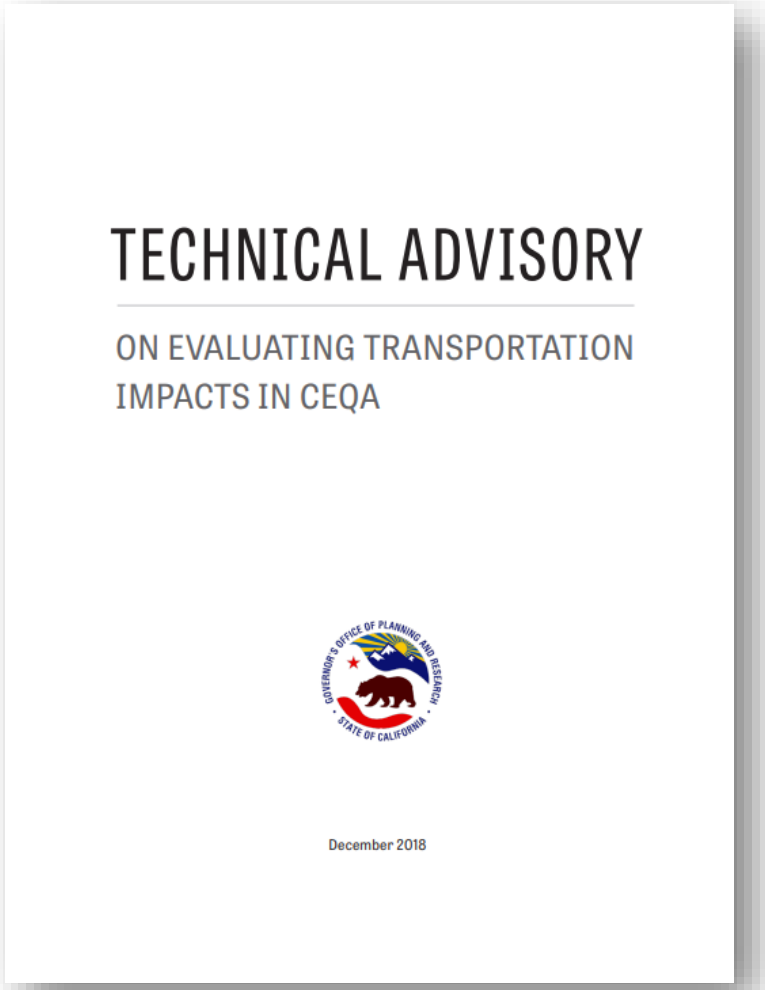


Thresholds for VMT Impact Analysis (cont.)

- **Cautionary cases*:***
  - **Golden Door Properties, LLC v. County of San Diego**
  - **Center for Biological Diversity v. Dept. of Fish & Wildlife (Newhall Ranch)**

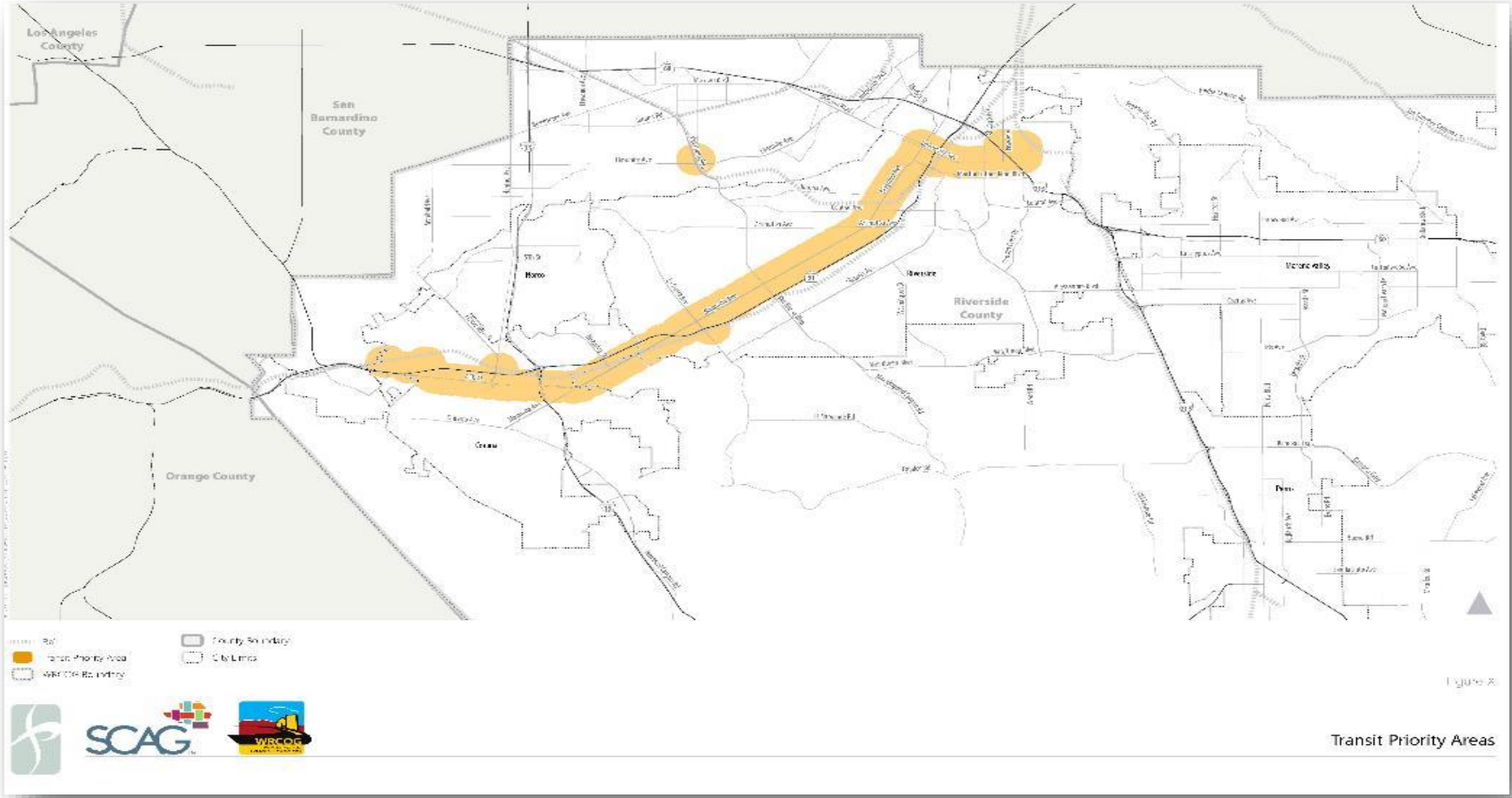
Screening of VMT

What is screening and why is it the focus of the Technical Advisory?



Screening Example

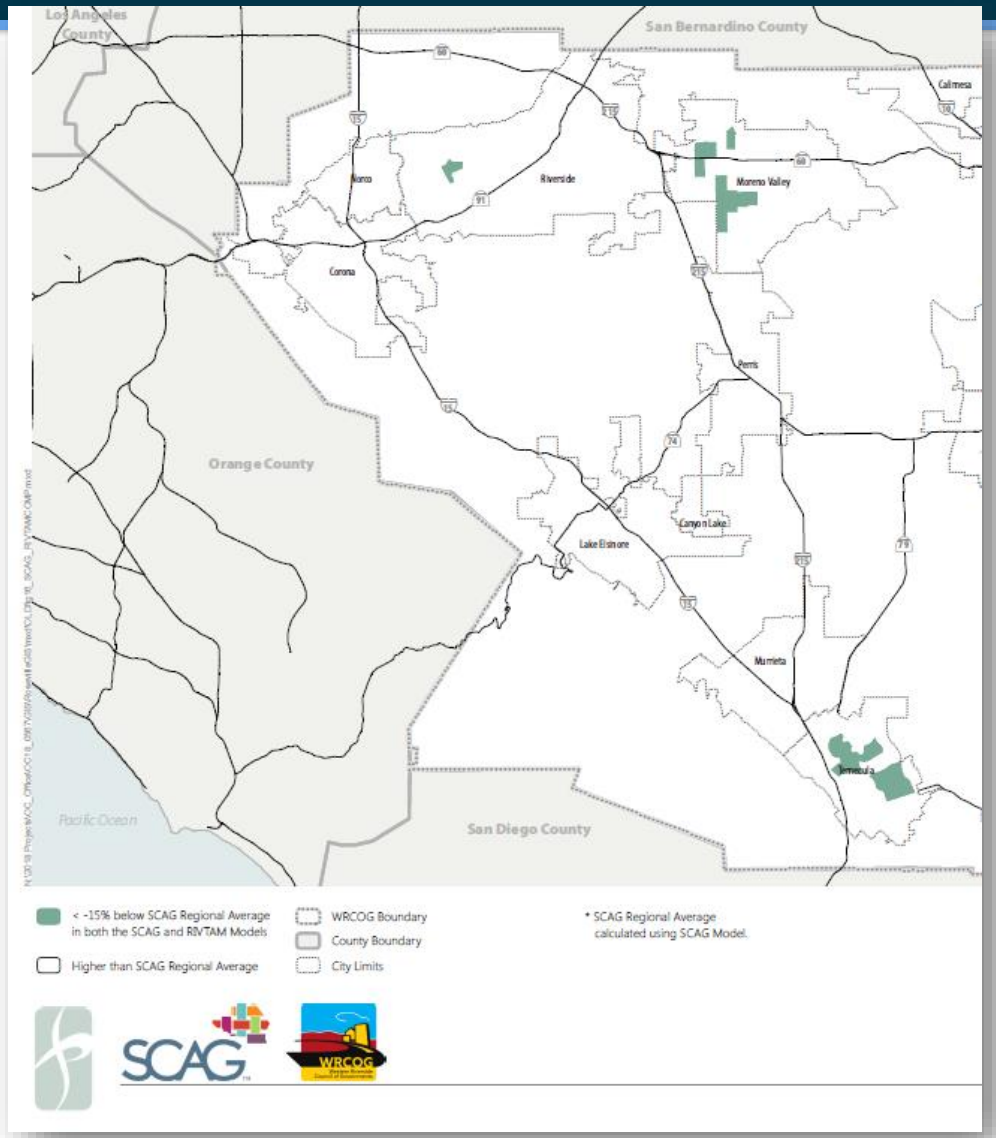
Transit Priority Areas



Screening Example

Low VMT Zones "15% Below" Threshold

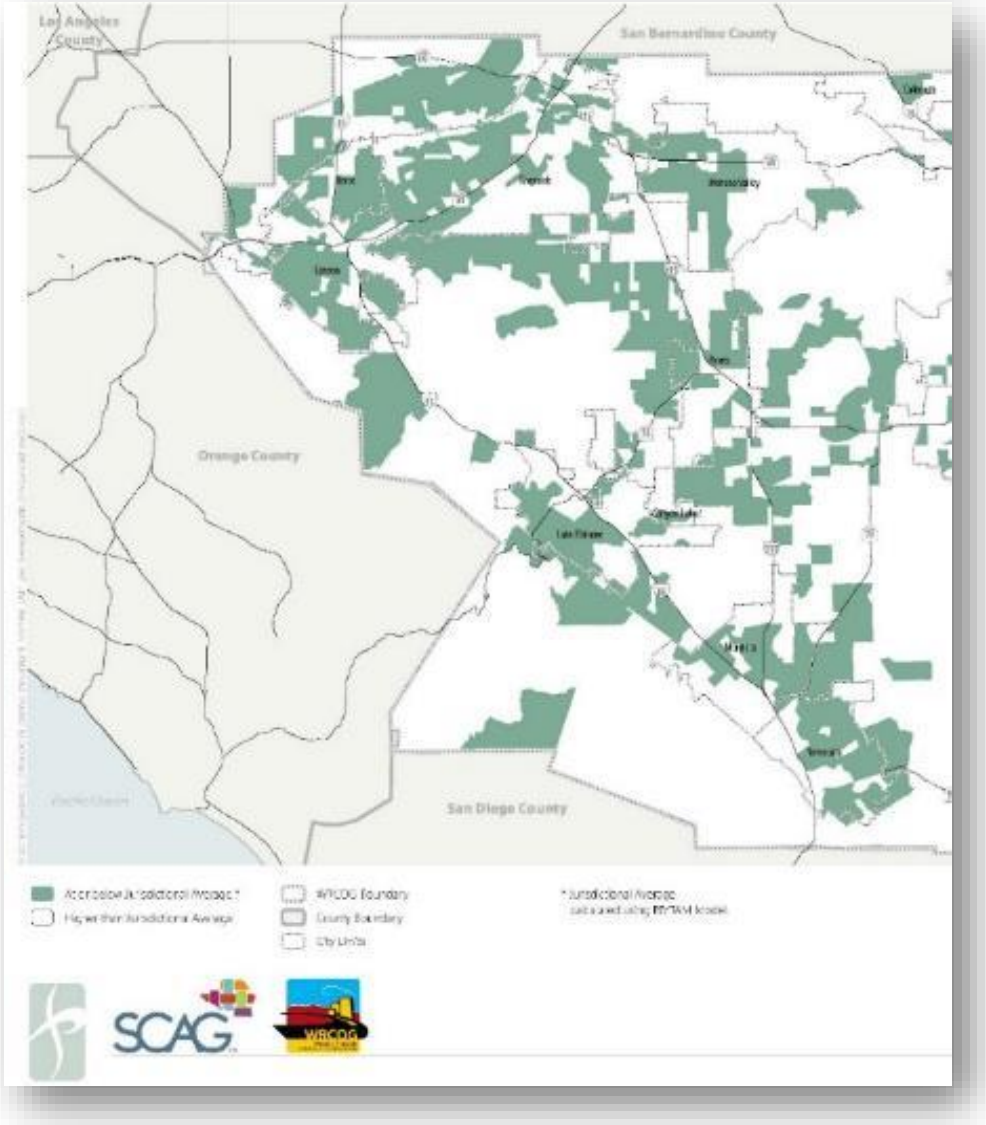
Note: Areas shown in green are low VMT Zones



Screening Example

Low VMT Zones "Average Baseline Threshold"

Note: Areas shown in green are low VMT Zones



Status of Addressing VMT Thresholds

Region	Agency	Part of GP Update?	Resolution Adopted?	OPR Threshold Adopted?
Bay Area	City/County of San Francisco	N	Y	Y
Bay Area	City of Oakland	N	Y	Y
NorCal	City of Elk Grove	Y	Y	Y
SoCal	City of Los Angeles	N	Y	N
Bay Area	City of San Jose	N	Y	Y
NorCal	City of Woodland	Y	Y	N
All	CSU System: All 23 Campuses	N	Y	Y
SoCal	WRCOG	N	N	N
SoCal	ITE San Diego Section (Regional Guideline Suggestions)	N	N	N
SoCal	City of Santa Ana	N	Y	Y
SoCal	San Bernardino County	Y	Y	N

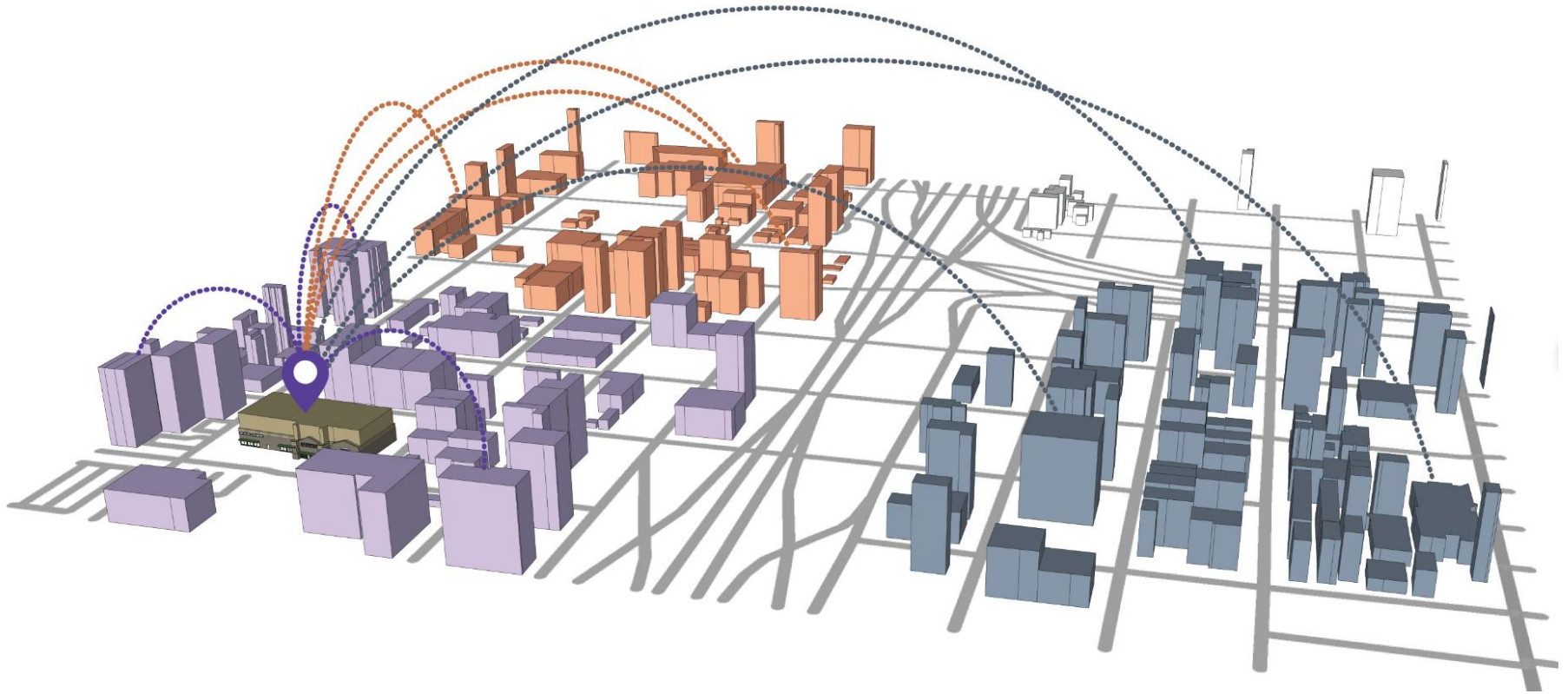
OPR SB 743 Office Hours

- **Series of online workshops (2 already occurred)**
  - May 20: Assessment Methods
  - May 27: Rural Areas
  - June 3: Other Land Uses Beyond Residential, Office, Retail
  - June 10: Tiering, Other Legal Topics
  - June 17: TBD
  - June 24: TBD

Register: https://governorca.zoom.us/webinar/register/WN_nv6W3x8ZTz6JQG4UgX-Xcw

Prior recordings: https://www.youtube.com/channel/UCTBmAaS7WDxOcyjo85dcXtA

VMT Analysis Case Studies

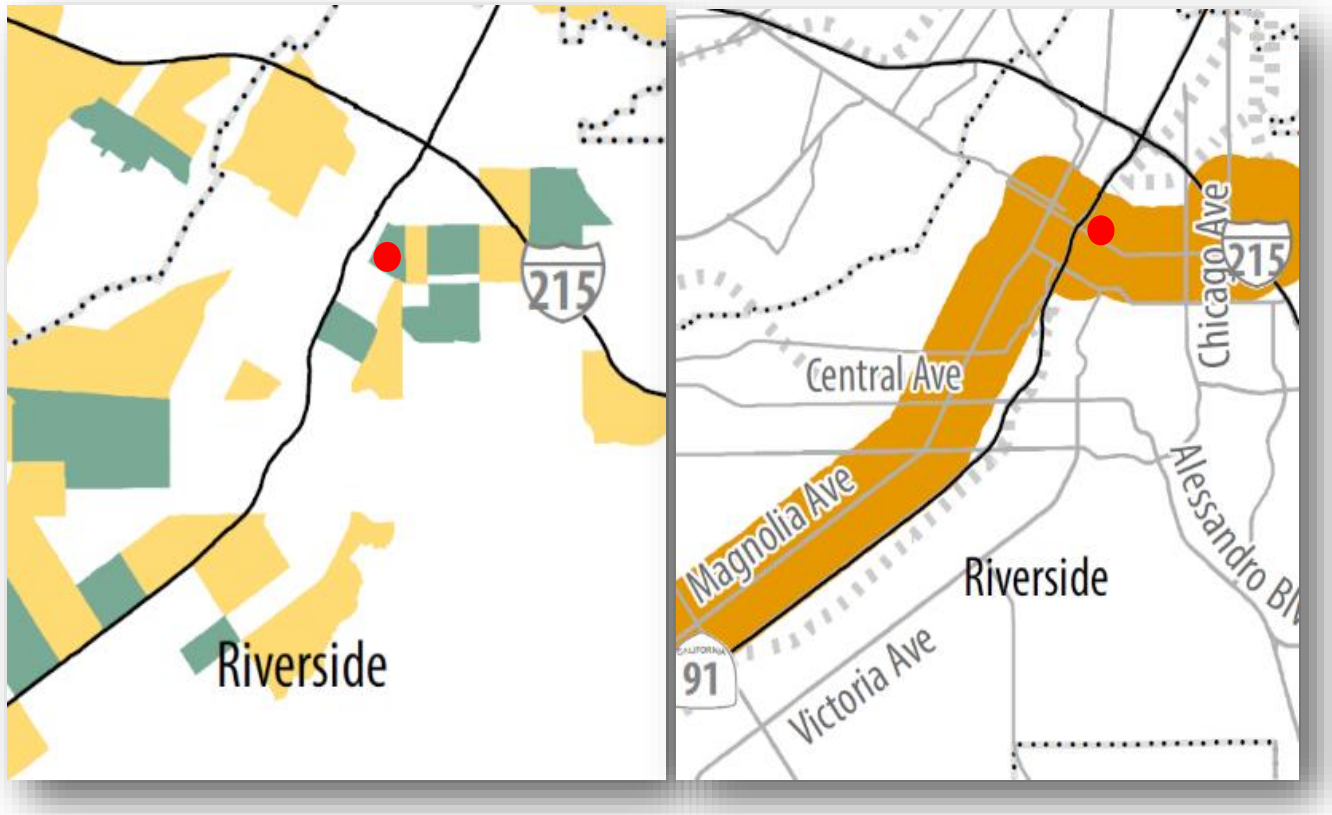


Case Study 1

Mixed Use Multi-Family Housing Project

Mission Lofts

- **Located in low VMT generating TAZ**
- **Screened out of VMT analysis**
- **Located in a Transit Priority Area (TPA)**
- **Impact analysis for other transportation system components still required**



Case Study 2

Regional Shopping Center Project

Eastvale Crossings

- **Located in low VMT generating TAZ but with higher trip generating uses than existing land use context**

Scenario	Total Daily VMT/Service Population		Eligible for VMT Screening
	Citywide	TAZ 3149	
Baseline No Project	26.9	23.3	Yes
Baseline Plus Project			If screened, no impact

Case Study 2 (cont.)

Regional Shopping Center Project

Eastvale Crossings

- **Sensitivity of Thresholds**

Scenario	Total Daily VMT/Service Population			Project Impact?
	Citywide	15% Threshold	TAZ 3149	
Baseline No Project	26.9	22.9	23.3	-
Baseline Plus Project	27.3		25.6	Yes

Case Study 2

Regional Shopping Center Project

Eastvale Crossings

- **Located in low VMT generating TAZ but with higher trip generating uses than existing land use context**

Scenario	Totl Daily VMT/Service Population		Eligible for VMT Screening
	Citywide	TAZ 3149	
Baseline No Project	26.9	23.3	Yes
Baseline Plus Project			If screened, no impact

Case Study 3 - Construction/Maintenance Projects

- **Linear sewer infrastructure construction project with no operational trips**
  - Project-generated trips are temporary and/or intermittent
  - Trips are limited to worker commute trips and haul trips
  - Managing trip length for haul trips is typically not feasible
  - Project to occur in a suburban area

Case Study 3 (cont.)

- **OPR Technical Advisory does not address construction/temporary impacts associated with the generation of VMT for land use projects. However, it does state that the following types of roadway projects generally should not require an induced travel analysis:**
  - Rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of existing transportation assets and that do not add additional motor vehicle capacity
- **OPR Technical Advisory notes that that projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact, absent substantial evidence indicating otherwise**

Case Study 4 - Resource Management Project (Vegetative/Fuel Management)

- **Vegetation treatment program to address wildfire risk**
  - Program would consist of an array of separate in-field activities on different sites over a broad geography
  - Project-generated VMT would be temporary and/or intermittent and attributable to worker commute trips and haul trips
  - Due to the variability of the scale and location of program activities, the number of vehicle trips and trip lengths are not feasible to precisely predict
  - Program activities are generally consistent with construction activities in terms of the temporary nature of activities, trip generation characteristics, and types of vehicles and equipment required
  - Inherently, managing trip length is not feasible for such a natural resources management program scenario, because of the variability of location of individual activities, broad geography of the program, and specialized skill set of the workers

Case Study 4 (cont.)

- **The OPR Technical Advisory notes that that projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact, absent substantial evidence indicating otherwise**
- **The Program would not be considered a land use or transportation project, so neither Section 15064.3(b)(1) or Section 15064.3(b)(2) of the State CEQA Guidelines apply.**
- **State CEQA Guidelines Section 15064.3(b)(3), Qualitative Analysis, states that if existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Additionally, this section notes that for many projects, a qualitative analysis of construction traffic may be appropriate.**

Case Study 4 (cont.)

- **Given the absence of a quantitative method or applicable OPR Technical Advisory scenario, reliance on fundamental CEQA principles for defining a qualitative threshold of significance for VMT was used**
  - A significant effect on the environment is defined in CEQA as a "substantial or potentially substantial adverse change in the environment." (PRC Section 21068).
  - For purposes of PRC Section 21100, governing actions for proposed state projects, subpart (a) limits significant effects on the environment to "substantial or potentially substantial adverse changes in physical conditions…"
  - Statutory environmental policy seeks to decrease VMT

Case Study 4 (cont.)

- **A primary objective of the program was to reduce wildfire risk and wildfires require an immediate response from emergency personnel and mobilization of equipment**
- **During wildfires that exceed the containment capacity of local resources, personnel from throughout the state (and occasionally nationally and internationally) are dispatched to assist in firefighting**
- **Implementation of the program was designed to reduce wildfire occurrence and severity and the surge in VMT resulting from increased trip generation and trip lengths associated with response to such events**

Case Study 5 – Cannabis Land Use Ordinance

- **Ordinance establishing land use regulations for cannabis activities and operations**
  - Cannabis cultivation, indoor and outdoor growth requirements, harvesting activities, and preparation of cannabis products for sale
  - Programmatic environmental analysis addresses combined effect of all future cannabis operations under the ordinance
  - Rural jurisdiction dedicated to protecting and enhancing agricultural industry

Case Study 5 (cont.)

- **The OPR Technical Advisory**
  - Does not offer guidance for a programmatic project like the subject ordinance
- **State CEQA Guidelines Section 15064.3**
  - Land use projects - Section 15064.3(b)(1)
  - Transportation projects - Section 15064.3(b)(2)
  - Qualitative Analysis - Section 15064.3(b)(3)

Case Study 5 (cont.)

VMT Quantification Efforts

- **Model Limitations**
  - No agricultural land use included in the model
  - Exact location of future cannabis operations unknown
  - Model does not account for travel outside of the region
  - CalEEMod
- **Qualitative Analysis - Section 15064.3(b)(3) used to analyzing the transportation impacts of the program**

Case Study 5 (cont.)

- **The OPR Technical Advisory**
  - 110 trips per day generally may be assumed to cause a less-than-significant transportation impact
- **Land Use Projects - Section 15064.3(b)(1) describes that projects which would decrease VMT in the project area as compared to existing conditions should also be presumed to have a less than significant effect.**

Words of Caution/Practice Tips

EPM Photographics / E. Patrick Morris

Words of Caution.....

- **Delivering this new approach to transportation impacts to decision-makers can be challenging**
- **Threshold setting and project-level analyses should rely on the same model/tool.**
- **VMT can be calculated in many ways. Be consistent in the jurisdiction in which you work**

Words of Caution…..(cont.)

- **Beware of the many types of projects for which accurate VMT estimation will be challenging.**
- **Mitigation for VMT impacts is an evolving subject, in which both project-level mitigations and regional solutions, such as VMT exchanges and mitigation banks are being considered.**
- **If LOS analysis required per General Plan or Municipal Code to ensure consistency with the Planning and Zoning Law – may include in EIR or technical appendix for information, but not impact analysis**

OPR SB 743 Office Hours

- **Series of online workshops (2 already occurred)**
  - May 20: Assessment Methods
  - May 27: Rural Areas
  - June 3: Other Land Uses Beyond Residential, Office, Retail
  - June 10: Tiering, Other Legal Topics
  - June 17: TBD
  - June 24: TBD

Register: https://governorca.zoom.us/webinar/register/WN_nv6W3x8ZTz6JQG4UgX-Xcw

Prior recordings: https://www.youtube.com/channel/UCTBmAaS7WDxOcyjo85dcXtA

2020 Advanced CEQA Webinar

Q&A

Don't Miss these Upcoming AEP Events!

6/25/20 | NEPA Essentials Webinar – Part 1

6/26/20 | NEPA Essentials Webinar – Part 2

7/29/20 | Fire Resiliency Webinar

11/8 – 11/11 | 2020 AEP State Conference

Fall 2020 | CEQA Essentials Workshop

Please visit www.califaep.org to register and for updates on upcoming events.

To join our email list or for additional questions, please contact us at membership@califaep.org.