

## **Chapter 8**

### **Cumulative Air Quality Impacts**

#### **8.1 Cumulative Impacts and CEQA**

Section 15064(i)(1) of the CEQA Guidelines lays out the procedure for consideration of cumulative impacts at the Initial Study stage, and provides:

“When assessing whether a cumulative effect requires an EIR, the lead agency shall consider whether the cumulative impact [of a project] is significant and whether the effects of the project are cumulatively considerable. An EIR must be prepared if the cumulative impact may be significant and the project’s incremental effect, though individually limited, is cumulatively considerable. “‘Cumulatively considerable’ means that the incremental effects of an individual project are considerable when viewed in connection with the effect of past projects, the effects of other current projects, and the effects of probable future projects [as defined in § 15130].”

The Guidelines specifically recognize that a project can be rendered less than cumulatively considerable, and thus not significant, through mitigation measures included in the project and described in a mitigated negative declaration. (See § 15064(i)(2).)

The Guidelines state further that the incremental contribution of a project will not be considered cumulatively considerable if the project “will comply with requirements in a previously approved plan or mitigation program,” such as a formally adopted and enforceable air quality plan, that contains requirements that will avoid or substantially lessen the cumulative problem (Guidelines, §15064(i)(3). This is important because the District participates in a regional plan for attaining and maintaining the national and state ambient air quality standards for ozone that takes incremental emissions of ROG and NOx from economic growth into account.

The guidelines also clarify that incremental impacts that are so small as to be “de minimis” may be determined to be not cumulatively considerable and to not trigger the obligation to do an EIR. A de minimis contribution is one that leaves environmental conditions “essentially the same” whether or not the project is implemented. (Guidelines, § 15064(i)(4).)

Because mitigation can be so important in determining the outcome of the cumulative impacts analysis, the District recommends that lead agencies and project proponents contact the District as early as possible in the development process regarding cumulative impacts.

#### **8.2 Significance Criteria**

The District’s primary criterion for determining whether a project has significant cumulative impacts is whether the project is consistent with an approved plan or mitigation program of District-wide or regional application in place for the pollutants emitted by the project. This criterion is applicable to both the construction and operation phases of a project.

**8.2.1 ROG and NO<sub>x</sub>.** The Sacramento Regional Ozone Air Quality Attainment Plan (AQAP) was developed for application in the Sacramento Region, including the Mountain Counties Air Basin portion of El Dorado County, to bring the region into attainment as required by the federal and California Clean Air Acts. The AQAP assumes annual increases in air pollutant emissions resulting from regional growth. However, the AQAP also assumes the incremental increase in emissions will be partially offset through the implementation of stationary, area, and indirect source control measures contained within the AQAP. These measures consist of the District’s rules and regulations and other development- and transportation-related mitigation measures. If a project can demonstrate consistency with the AQAP for ROG and NO<sub>x</sub> emissions, it can be categorized as not having a significant cumulative air quality impact with respect to ozone.

Development projects in the Mountain Counties Air Basin portion of the county are considered consistent with the AQAP if:

1. the project does not require a change in the existing land use designation (e.g., a general plan amendment or rezone), and projected emissions of ROG and NO<sub>x</sub> from the proposed project are equal to or less than the emissions anticipated for the site if developed under the existing land use designation;
2. the project does not exceed the “project alone” significance criteria;
3. the lead agency for the project requires the project to implement any applicable emission reduction measures contained in and/or derived from the AQAP (see Appendix E); and
4. the project complies with all applicable district rules and regulations.

For projects in the Lake Tahoe Air Basin to be determined as not having a significant cumulative air quality impact, consistency with the applicable TRPA air quality plans and mitigation requirements must also be shown, as set forth in the TRPA Regional Plan for the Lake Tahoe Basin, the TRPA Regional Transportation Plan-Air Quality Plan for the Lake Tahoe Region, and TRPA ordinances relating to air quality.

**8.2.2 Other Pollutants.** For other pollutants such as CO, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub>, and TACs, there is no applicable air quality plan containing growth elements. Accordingly, the District applies the following pollutant-specific criteria for determining the significance of cumulative impacts:

CO: CO is an attainment pollutant in El Dorado County, and local CO concentrations are expected to decline even further in the future as more stringent CO standards for motor vehicles take effect. The District does not consider CO to be an area-wide or regional pollutant that is likely to have cumulative effects. Accordingly, CO emissions for a project will ordinarily be considered not cumulatively significant as long as “project alone” emissions are not significant as determined under Chapters 4 and 6 of this Guide. However, should the District determine that the possibility exists for CO “hotspots” caused by the proposed project in conjunction with other nearby projects, the District may require modeling of combined CO emissions. For example, modeling will ordinarily be required if the proposed project and one or more other large projects jointly change traffic density levels to service level E or lower on the same roadway links or at the same intersection(s), or if a project will increase traffic on a road already at service level E or lower. Contiguous location of industrial CO sources would be another instance where the

District may require modeling of combined effects. If modeling shows a violation of an applicable AAQS for CO, further mitigation would have to be implemented to prevent the predicted violation in order for the project to be deemed not significant with respect to cumulative impacts.

PM<sub>10</sub>, SO<sub>2</sub>, and NO<sub>2</sub>: Both the Mountain Counties and Lake Tahoe Air Basin portions of the county are nonattainment for the state 24-hour PM<sub>10</sub> standard, which dictates the use of a relatively sensitive criterion for identifying cumulative effects on PM<sub>10</sub> ambient concentrations. PM<sub>10</sub> directly emitted from a project can have area-wide impacts and can be cumulatively significant even if not significant on a project-alone basis. The County is in attainment for the SO<sub>2</sub> and NO<sub>2</sub> ambient air quality standards, but SO<sub>2</sub> and NO<sub>2</sub> can also contribute to area-wide PM<sub>10</sub> impacts through their transformation into sulfate and nitrate particulate aerosols. There is no approved regional plan for attainment of the PM<sub>10</sub> standard, and there is no readily available model for predicting the combined ambient effects of directly emitted PM<sub>10</sub>, SO<sub>2</sub>, or NO<sub>2</sub> emissions from individual impacts. Accordingly, the District will apply an alternative “de minimis” criterion under § 15064(i)(4) of the CEQA Guidelines, as follows:

A project will be considered not significant for cumulative impacts of PM<sub>10</sub>, SO<sub>2</sub>, and/or NO<sub>2</sub> if the following conditions are met:

1. For projects that are principally industrial projects, or where the majority of the emissions of these pollutants is attributable to stationary sources of air pollution subject to District regulation:
  - a. The project is not significant for “project alone” emissions of these pollutants;
  - b. The project complies with all applicable rules and regulations of the District; and
  - c. Project emissions of these pollutants are not projected to cause ambient concentrations that would exceed the applicable federal Prevention of Significant Deterioration (PSD) Class III increments (Class II increments in the Lake Tahoe Air Basin) as set forth in 40 CFR § 52.21(c), and as demonstrated through dispersion modeling approved by the District (e.g., the EPA SCREEN3 model).

If the initial modeling results do not show compliance with the applicable PSD increments, additional mitigation may be undertaken.

2. For projects that are principally development projects, or where the majority of the emissions of these pollutants is attributable to motor vehicle sources:
  - a. The project is not significant for “project alone” emissions of these pollutants;
  - b. The project complies with all applicable rules and regulations of the District; and
  - c. The project is not cumulatively significant for ROG, NO<sub>x</sub>, and CO based on the criteria set forth above.

The District will consider other reasonable approaches to examination of the cumulative impact of these pollutants on a case-by-case basis. Mixed used projects that are combined industrial and development projects should be analyzed by using the first approach for the industrial portion and the second approach for the development portion.

TACs: Emissions of toxic air contaminants are typically localized and not region-wide. Except in cases where there is information indicating the possible commingling of toxic pollutants from projects that are contiguous or nearby, the District considers implementation of the “project alone” mitigation requirements, and compliance with all applicable emission limits and mitigation measures required by EPA, CARB, District rules and regulations, and local ordinances, as set out in Chapter 7, sufficient for a finding of not significant for cumulative impacts of TACs. However, the District may require appropriate modeling and risk assessment for combined ambient concentrations of TACs where it determines there is a reasonable possibility of inter-project or area-wide toxic effects. For example, if two large developments are contiguous or nearby, and involve grading of ultramafic soils at about the same time, the District would typically require modeling of asbestos emissions; the same would apply to particulate emissions from nearby operations involving constant use of Diesel-powered vehicles or equipment (e.g., warehousing or vehicle fleet yards).

If the modeling shows that the combined concentration from multiple projects creates a composite cancer risk of more than one in one million (more than 10 in one million if T-BACT is applied), or a non-cancer hazard index greater than 1, then each project that contributes to this risk will be considered significant for cumulative impacts of TACs, except that in the event that the project-alone risk cancer risk is less than 1.0 in one million, and the non-cancer hazard index is less than 0.5, a project will be considered to be a de minimis contributor to the cumulative risk, and will be considered as not significant. In the event the above significance levels are exceeded, further mitigation may be able to reduce cumulative effects below the level of significance.

### **8.3 Estimating Cumulative Emissions**

The following information must be provided to the lead agency and the District for an adequate analysis of cumulative impacts:<sup>1</sup>

1. Either one of the following two elements:
  - a. A list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the agency, or
  - b. A summary of projections contained in an adopted general plan or related planning document that is designed to evaluate regional or area-wide conditions;
2. A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and
3. An analysis of the cumulative impacts of the relevant projects.

The following describes the District’s recommended procedures for fulfilling these requirements.

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<sup>1</sup> CEQA Guidelines § 15130

**8.3.1 Ozone Precursors (ROG, NO<sub>x</sub>).** The lead agency or project applicant should provide the analysis outlined in paragraphs A-D below to determine if the significance criteria listed above in section 8.2 will be exceeded.

A. General Plan Amendment/Rezone - The lead agency should determine if the project requires a general plan or zoning amendment. If the project requires an amendment, the URBEMIS emission estimate model or Table D-3 (Appendix D) should be used to estimate the project's transportation-related ROG and NO<sub>x</sub> emissions for both the existing and proposed general plan or zoning designations. A similar estimate of any ROG and NO<sub>x</sub> directly emitted from operations before and after the amendment should be made. If the combined transportation-related and direct emissions are estimated to be greater for the proposed land use designation, the project will have a significant cumulative air quality impact. Mitigation measures are provided in Chapter 5 and Appendix E to reduce this impact below the significance level. If on-site mitigation measures cannot reduce the emissions to less than significance, then off-site mitigation measures described below should be considered. If the project does not require a general plan or zoning amendment, continue to "B" below.

B. Project Alone - The URBEMIS emission estimate model or Table D-3 (Appendix D) should be used to estimate the project's long-term transportation-related operational emissions of ROG and NO<sub>x</sub> (see Chapter 5 for methodology). A similar estimate of any directly emitted ROG and NO<sub>x</sub> should be made. An individual project exceeding the project-alone significance threshold in Chapter 5 is considered cumulatively significant due to the existing nonattainment classification of the air basin. This means that even small amounts of air pollution will contribute to air quality degradation. Mitigation measures are provided in Chapter 5 and Appendix E to reduce this impact below the significance level. If on-site mitigation measures cannot reduce the emissions to less than significance, then off-site mitigation measures described in Appendix E should be considered. Credit may also be taken for mitigation measures implemented in regional programs by other agencies. If the project's estimated emissions are below the project-alone significance criteria, continue to "C" below.

C. All AQAP Control Measures Implemented; Compliance with All District Rules and Regulations Demonstrated - The lead agency should determine if the project is implementing all applicable emission control measures adopted in or derived from the AQAP. These measures are listed in Chapter 5 and Appendix E. (Projects in the Lake Tahoe Air Basin must also show implementation of all applicable TRPA control measures and mitigation.) If the measures are not part of the project description, the lead agency should require the project to amend its application or require compliance with the emission control measures as a condition of approval. If the lead agency does not require the project to implement feasible emission control measures, the project will result in a significant cumulative impact. A similar determination regarding compliance with all applicable District rules and regulations should be made. If the lead agency is requiring the project to implement all feasible emission control measures, and compliance with District rules and regulations can be demonstrated, continue to "D" below.

D. Lead Agency Determination - For projects in which the lead agency (e.g., school district, special district) is not the local governmental jurisdiction (i.e., city or county government), the lead agency should determine through a review of recently approved projects if the jurisdiction in which the project is located is implementing the emission control measures contained within

the AQAP. If the local jurisdiction is requiring projects to implement all feasible emission control measures, then the project will not result in significant cumulative air quality impacts.

**8.3.2 Other Pollutants.** For CO, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub>, and TACs, the method for estimating emissions is expressed above in the statement of the applicable significance criteria. The District should be consulted if additional information is required.

#### **8.4 Mitigation Recommendations**

Chapter 5 and Appendix E describe the District's recommended feasible mitigation strategies for cumulative air quality impacts. These measures have been implemented by other projects within the Sacramento Region. A project applicant may propose different or additional measures that achieve the same emission reductions as those identified by the District, but in such case must receive the District's approval.