These guidelines are nonbinding recommendations, intended to assist lead agencies with navigating the CEQA process. They may be updated as needed in the future, and any updates will likewise be nonbinding and advisory.

3 THRESHOLDS OF SIGNIFICANCE

The Bay Area Air Quality Management District's (Air District's) 2022 California Environmental Quality Act (CEQA) Guidelines (Guidelines) present the recommended thresholds of significance for air quality and climate impacts. Although the air quality thresholds of significance remain unchanged from those adopted in 2010 (see Appendix A), the thresholds of significance for climate impacts from greenhouse gas (GHG) emissions (thresholds of significance for GHG emissions) were updated in 2022 (see Appendix B). The update to the climate impacts thresholds of significance reflects substantive changes to assumptions, underlying data, analytical methodologies, state and local policies and programs, and court decisions regarding GHG emissions since June 2010. Additionally, global climate change poses urgent risks to public health and air quality, exacerbating and bringing existing inequities into focus and prominence. Addressing climate change is a priority of the Air District, State of California, and Bay Area jurisdictions. Taking strong legislative, regulatory, and programmatic action to achieve deep GHG reductions is critical to the health of people and the planet.

The thresholds of significance are presented below. Table 3-1 includes the project-level thresholds of significance for air quality impacts, Table 3-2 the project-level thresholds of significance for climate impacts, Table 3-3 and Table 3-4 the plan-level thresholds of significance for air quality and climate impacts of local long-range and regional plans, respectively.

3.1 FRAMEWORK FOR ANALYZING IMPACTS UNDER CEQA

The central requirement of the CEQA environmental analysis is to determine whether implementing a project will result in any significant adverse impact on the environment, either individually or cumulatively.

This mandate requires the lead agency first to evaluate whether the project will have a significant impact by itself and then to consider whether the project may contribute to a significant cumulative impact in conjunction with other past, present, and reasonably foreseeable future projects that also contribute to the impact.[1]

In the cumulative context, the analysis has two parts. To evaluate cumulative impacts, the lead agency must assess (1) whether the overall cumulative impact will be significant and, (2) if the overall impact is significant, whether the project's incremental contribution will be cumulatively considerable, as explained in more detail below. Section 15064(h)(1) of the CEQA Guidelines states:

> *When assessing whether a cumulative effect requires an EIR [environmental impact report], the lead agency shall consider whether the cumulative impact 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.*

Both parts of this test must be met for a project's impact to be treated as significant under CEQA. If the overall cumulative impact does not rise to the level of a "significant" impact, or if the project's incremental contribution is not cumulatively considerable, then the project's impact is not treated as significant. (See *San Francisco Baykeeper, Inc. v. State Lands Commission* [2015] [242 Cal.App.4th 202, 222] [project not significant if "the cumulative impact is insignificant or if the project's incremental contribution to the impact is not cumulatively considerable"]; see also State CEQA Guidelines Sections 15130[a][3] and 15064[h].)

Cumulatively considerable means that the incremental effect of the specific project under review will be significant when viewed in the context of the overall cumulative problem (State CEQA Guidelines Section 21083[b][2]). Notably, lead agencies must not diminish a project's individual pollution load by comparing its size to a much larger cumulative problem. Such a comparative approach (or "ratio theory") can improperly trivialize the project's emissions as *de minimis* and foreclose the possibility of finding that the project's contribution is cumulatively considerable. Instead, "the greater the existing environmental problems are, the lower the threshold should be for treating a project's contribution to cumulative impacts as significant." (*Communities for a Better Environment v. California Resources Agency* [2002] 103 Cal.App.4th 98, 120.) That said, CEQA does not require that any incremental addition to a significant cumulative impact, no matter how small, must necessarily be treated as cumulatively considerable. The statute does not require a so-called "one additional molecule" standard, and some projects' incremental contributions would be so minor that their impact does not have to be treated as significant even though the projects would add an additional amount to the significant cumulative impact (*Ibid*.; see also State CEQA Guidelines Section 15064[h][4].) The level at which the incremental addition becomes cumulatively considerable will depend on the nature of the particular cumulative impact being evaluated. The ultimate test is whether any additional amount should be considered significant in the context of the existing cumulative effect. (CEQA Section 21083[b][2]).)

[1] A cumulative impact is the change in the environment that results from the incremental impact of the project under review in conjunction with other past, present, and reasonably foreseeable probable future projects (CEQA Guidelines Section 15355).

Applying these principles, the environmental impact analysis under CEQA is a four-step process:

- Step One: **Determine the level at which an impact on the environmental resource under consideration becomes "significant."** This is the touchstone for assessing whether the project may have a significant impact individually or may contribute to a cumulative impact that is significant. The level at which the impact becomes significant will depend on the nature of the environmental resource being evaluated.
- Step Two: **Evaluate whether the project under review would degrade the environmental resource to such an extent that there would be an impact exceeding the "significant" level determined during Step One**. If implementing the project would cause an impact to exceed that level all by itself, then the project's impact is treated as significant under CEQA, and the project requires preparation of an EIR, implementation of feasible mitigation measures to reduce the impact to a less-than-significant level, and consideration of alternatives that would avoid or lessen any significant impacts. If the project under review would not degrade the environmental resource to such an extent that there would be a significant impact, the analysis proceeds to Step Three.
- Step Three: **Determine whether the contribution of the project combined with the contributions of all other past, present, and reasonably foreseeable future projects would exceed the "significant" level determined during Step One.** If implementing the project would not cause a significant impact by itself, it still must be evaluated to determine whether it would make a cumulatively considerable contribution to a significant cumulative impact. The first element of that analysis is to assess the overall cumulative impact caused by the project in conjunction with other past, present, and reasonably foreseeable future projects affecting the same resource. If the overall cumulative impact exceeds the "significant" level determined during Step One, then the project would contribute to a significant cumulative impact, and the analysis proceeds to Step Four to determine whether that contribution is cumulatively considerable.
- Step Four: **Determine whether the project's incremental contribution is cumulatively considerable.** The final step is to determine whether the project's incremental contribution is cumulatively considerable in light of the overall cumulative impact. If implementing the project would make a cumulatively considerable contribution to a significant cumulative impact, the impact is considered significant under CEQA, and the agency must prepare an EIR, impose feasible mitigation measures to bring the incremental contribution below the cumulatively considerable level, and consider alternatives.

3.2 AIR QUALITY IMPACTS (PROJECT LEVEL)

The San Francisco Bay Area Air Basin is currently designated as a nonattainment area for the California and national ambient air quality standards for ozone and particulate matter. A number of criteria and non-criteria pollutants, such as volatile organic compounds, particulate matter (PM), and nitrogen oxides (NOx), and toxic air contaminants (TACs), also carry local health risks to surrounding communities. With these effects in mind, if a project exceeds the identified project-level thresholds of significance, its emissions would result in a significant adverse air quality impact.

The thresholds of significance for risks and hazards were designed to ensure that no individual project (or source) creates a significant adverse impact and that no sensitive receptor endures a significant adverse

impact from any individual project. Additionally, the thresholds of significance recognize that some areas are already near or at levels of significant impact.

Moreover, the accidental release of acutely hazardous air pollutants can have significant health impacts if acutely hazardous materials are stored or used near receptors. The Air District recommends, at a minimum, that the lead agency in consultation with the administering agency of the Risk Management Prevention Program find any project that would expose receptors to Emergency Response Planning Guidelines (ERPG) exposure level 2[2] would have a significant air quality impact.

For more information on issues associated with locating sensitive land uses in areas with high levels of air pollution (i.e., "receptor thresholds") see Section 3.5 below.

Table 3-1 Air Quality Thresholds of Significance (Project Level)

	Construction Related*	Operational	
Criteria Air Pollutants and Precursors (Regional)			
Pollutant	**Average Daily Emissions (lb/day)**	**Average Daily Emissions (lb/day)**	**Maximum Annual Emissions (tpy)**
ROG	54	54	10
NO_X	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
$PM_{10}/PM_{2.5}$ (fugitive dust)	Best management practices**	None	
Local CO	None	9.0 ppm (8-hour average), 20.0 ppm (1-hour average)	
Local Risks and Hazards			
Risks and hazards for new sources and receptors (cumulative threshold)	Same as operational thresholds	Cancer Risk: > 100 in a million (from all local sources) Non-cancer: > 10.0 Hazard Index (chronic, from all local sources) $PM_{2.5}$: > 0.8 µg/m3 annual average (from all local sources)	*OR* Compliance with Qualified Community Risk Reduction Plan
Risks and hazards for new sources and receptors (individual project)	Same as operational thresholds	Increased Cancer Risk >10.0 in a million Increased Non-cancer > 1.0 Hazard Index (chronic or acute) PM2.5 increase: > 0.3 µg/m^3 annual average	*OR* Compliance with Qualified Community Risk Reduction Plan

[2] ERPG exposure level 2 is defined as "the maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour without experiencing or developing irreversible or other serious health effects or symptoms which could impair an individual's ability to take protective action." See https://response.restoration.noaa.gov/oil-and-chemical-spills/chemical-spills/resources/emergency-response-planning-guidelines-erpgs.html.

	Construction Related*	Operational
Accidental release of acutely hazardous air pollutants		
	None	Storage or use of acutely hazardous materials locating near receptors or new receptors locating near stored or used acutely hazardous materials considered significant
Odors		
	None	Five confirmed complaints per year averaged over 3 years

Notes: µg/m3 = micrograms per cubic meter; CO = carbon monoxide; lb/day = pounds per day; NO_X = oxides of nitrogen; $PM_{2.5}$= fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM_{10} = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; ppm = parts per million; ROG = reactive organic gases; TACs = toxic air contaminants; tpy = tons per year; VMT =vehicle miles traveled.

The air quality project-level thresholds of significance were adopted by the Air District's Board of Directors on June 2, 2010.

* The Air District recommends for construction projects that require less than 1 year to complete, lead agencies should annualize impacts over the scope of actual days that peak impacts would occur rather than over the full year. Additionally, for phased projects that results in concurrent construction and operational emissions. Construction-related exhaust emissions should be combined with operational emissions for all phases where construction and operations overlap.

** PM_{10}/$PM_{2.5}$ (fugitive dust) is also recognized to impact local communities. The Air District strongly recommends implementing all feasible fugitive dust management practices especially when construction projects are located near sensitive communities, including schools, residential areas, or other sensitive land uses. These measures are detailed in Chapter 5, Section 5.2.2 Construction-Related Criteria Air Pollutant Emissions.

3.3 CLIMATE IMPACTS FROM GREENHOUSE GAS EMISSIONS (PROJECT LEVEL)

Evaluating climate impacts under CEQA can be challenging because global climate change is inherently a cumulative problem. Climate change is not caused by any individual emission source but by a large number of sources around the world emitting GHGs that collectively create a significant cumulative impact. Climate change impacts may include an increase in extreme heat days, higher concentrations of air pollutants, sea level rise, impacts on water supply and water quality, increased frequency of wildfires, public health impacts, impacts on ecosystems, impacts on agriculture, and other environmental impacts. No single project could generate enough GHG emissions to noticeably change the global climate. The combination of GHG emissions from past, present, and future projects contribute substantially to the phenomenon of global climate change and its associated environmental impacts.

The Air District's approach to developing thresholds of significance for climate impacts is to use a "fair share" approach for determining whether an individual project's GHG emissions would be cumulatively considerable.[3] If a project would contribute its "fair share" of what is needed to achieve the State's long-term GHG reduction goals, then the lead agency can find that the project is adequately contributing to solving the problem of global climate change and that project's impact is not significant. Using this

[3] The California Supreme Court endorsed this approach in *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 62 Cal.4th 204.

approach, the Air District has identified the necessary design elements required of new land use projects and plans being built today in order to achieve California's long-term climate goal of carbon neutrality by 2045. If these design elements are incorporated into the design and construction of a project, then the project would contribute its portion of what is necessary to achieve California's long-term climate goals—its "fair share"—and a lead agency reviewing the project under CEQA can conclude that the project would not make a cumulatively considerable contribution to global climate change. Alternatively, a project for which these design elements are not implemented could still be determined to make a less-than-significant contribution of GHG emissions by demonstrating consistency with a local GHG reduction strategy that is consistent with state guidance (State CEQA Guidelines Section 15183.5[b]). Table 3-2 summarizes the thresholds of significance for project-level climate impacts from GHG emissions.

Table 3-2 Climate Impact Thresholds of Significance (Project Level)

Thresholds of Significance for Land Use Projects (Must Include A or B)
A. Projects must include, at a minimum, the following project design elements: 1. Buildings a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development). b. The project will not result in any wasteful, inefficient, or unnecessary energy use as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines. 2. Transportation a. The project will achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target that reflects the recommendations provided in the Governor's Office of Planning and Research's *Technical Advisory: Evaluating Transportation Impacts in CEQA*: i. Residential projects: 15 percent below the existing VMT per capita ii. Office projects: 15 percent below the existing VMT per employee iii. Retail projects: no net increase in existing VMT b. The project will achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.
B. Projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Note: The project-level thresholds of significance for climate impacts were adopted by the Air District's Board of Directors on April 20, 2022.

3.4 PLAN-LEVEL THRESHOLDS OF SIGNIFICANCE

Plan-level thresholds of significance were developed to assist lead agencies with determining significance for long-range local and regional plans. Local long-range plans are discretionary, program-level planning activities, such as general plans and general plan elements, specific plans, area plans, community plans, congestion management plans, and annexations of lands and service areas.

Regional plans are different from long-range local plans because of their unique characteristics and because they do not establish land use designations. Regional plans include the Regional Transportation Plan (i.e., Plan Bay Area) prepared by the Metropolitan Transportation Commission/Association of Bay Area

Governments. Thresholds of significance for long-range plans and for regional plans are presented in Table 3-3 and Table 3-4, respectively.

Table 3-3 Local Long-Range Plan Thresholds of Significance

	Construction Related	Operational
Criteria Air Pollutants (Regional)	None	1. Consistency with current air quality plan control measures, and 2. Project VMT or vehicle trip increase less than or equal to projected population increase
Local Risks and hazards	None	1. Overlay zones around existing and planned sources of TACs (including adopted Risk Reduction Plan areas), and 2. Overlay zones of at least 500 feet from all freeways and high-volume roadways
Accidental release of acutely hazardous air pollutants	None	None
Odors	None	Identify the location, and include policies to reduce the impacts, of existing or planned sources of odors
Climate Impacts	None	1. Meet State's goals to reduce emissions to 40% below 1990 levels by 2030 and carbon neutrality by 2045; or 2. Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b)

Notes: TAC = toxic air contaminant; VMT = vehicle miles traveled.

The plan-level thresholds of significance for criteria air pollutants, risks and hazards, accidental release of acutely hazardous air pollutants, and odors were adopted by the Air District's Board of Directors on June 2, 2010. The plan-level threshold of significance for climate impacts was adopted by the Air District's Board of Directors on April 20, 2022.

Table 3-4 Regional Plan Thresholds of Significance

Pollutant	Construction Related	Operational
Criteria air pollutants, risks and hazards, and greenhouse gases	None	No net increase in emissions

Note: The plan-level thresholds of significance for regional plans were adopted by the Air District's Board of Directors on June 2, 2010.

3.5 APPLICATION OF RISK AND HAZARDS THRESHOLDS TO NEW RECEPTORS

The risk and hazard thresholds apply in determining whether a new source of pollution will result in unacceptable risks to the community. In some instances, they may also be applied to determine if there will be unacceptable risks to *new receptors* of air pollution—i.e., future users of a project, including future residents and workers. The following addresses how analysis of the environment's impact on a project's future users fits into the CEQA framework and when it may be appropriate to use the risks and hazards thresholds to evaluate impacts on a project's future users.

CEQA generally does not require analysis of how the environment may impact a project's future users, including residents and workers (*California Building Industry Assn. v. Bay Area Air Quality Management*

Dist. (2015) 62 Cal.4th 369, 386 (*CBIA*)). Thus, in most situations, it would be improper under CEQA to assess the effect of existing air pollution on future users of a project. Although a lead agency may not require an EIR or mitigation solely on the basis that future project users may be exposed to air pollution that exceeds the receptor thresholds, they can consider how existing conditions may impact future project users. (*Id.*, at p. 387 fn. 12.). Additionally, lead agencies can consider other regulatory authorities outside of CEQA, such as police powers, when seeking to address concerns related to future project users.

Moreover, there are several statutory exceptions to the general rule. As noted in *CBIA*, CEQA requires analysis of new receptors being exposed to existing environmental hazards "in several specific contexts involving certain airport (State CEQA Guidelines Section 21096) and school construction projects (State CEQA Guidelines Section 21151.8), and some housing development projects (State CEQA Guidelines Sections 21159.21[f], [h]; 21159.22[a], [b][3]; 21159.23[a][2][A]; 21159.24[a][1], [3]; 21155.1[a][4], [6])." (*Id*. at 391.) Additionally, in *CBIA*, the Supreme Court explained that it is proper for environmental review to analyze a project's potential to exacerbate existing conditions (*id*. at 388-389). "Because this type of inquiry still focuses on the project's impacts on the environment—how a project might worsen existing conditions—directing an agency to evaluate how such worsened conditions could affect a project's future users or residents is entirely consistent with this focus and with CEQA as a whole." (*Id*. at 389.) Accordingly, in these situations, a lead agency may choose to rely on the receptor thresholds to not only analyze the impact of the project on the environment, but also to analyze impacts on future users. (See *California Building Industry Assn. v. Bay Area Air Quality Management Dist*. (2016) 2 Cal.App.5th 1067, 1082-1087.)