BAAQMD CEQA GUIDELINES
Risk and Hazard Screening Analysis Process Flow Chart

The District's CEQA community risk and hazards screening tools are provided for lead agencies to consider in deciding whether there should be further environmental review of a project. The screening tools are intentionally conservative, such that if a project passes the initial screen, no additional review related to the impact is necessary. The screening tools provide conservative estimates and are not based on actual Health Risk Screening Assessments. The screening tools are not intended to discourage infill development or affordable housing. If a project does not pass the initial screen, a more refined analysis should be conducted. It is anticipated that most projects that do not pass the initial screen will pass the screen with more refined analysis. The screening tools will continue to be updated to reflect the best available data. Contact the District for additional guidance on the tools and for conducting a more refined screening analysis.

This flow chart outlines the District's recommended screening analysis process. The screening tools provide estimates for $PM_{2.5}$ concentrations, cancer risk, chronic hazard risk, and acute hazard risk. For additional guidance on any of the steps refer to the Recommended Methods for Screening and Modeling Local Risk and Hazards (Modeling Report) (http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx) or contact District staff.

The following tools will be needed for the screening analysis:

- Google Earth, a free program – http://www.google.com/earth/index.html
- Stationary Source Screening Analysis Tool – County specific Google Earth (KML) files that map all the stationary sources permitted by the District with risk and hazard estimates (tool does not estimate acute hazards since the screening levels were found to be significantly below the thresholds), http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx
- Highway Screening Analysis Tool – County specific Google Earth (KMZ) files that map all the highway links in the region with risk and hazard modeling estimates by distance, http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx
- Roadway Screening Analysis Tables – County specific tables containing estimates of risk and hazard impacts from roadways by AADT and distance (tables do not estimate acute or chronic hazards since the screening levels were found to be significantly below the thresholds), http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx
- Local road traffic count data from the California Environmental Health Tracking Program – http://www.ehib.org/traffic_tool.jsp

Please note that risk reduction strategies may be considered and implemented at each step of the screening process. Risk reduction strategies include, but are not limited to:

- ✓ Setback/site design to reduce potential impacts to receptors through the use of parking lots, landscaping, or open space.
- ✓ Phase project to be built when the forecasted model year for roadways generates reduced impacts.
- ✓ Confirm that dry cleaners will be phasing out perc by project build out date.
- ✓ Install emission controls on back-up generators.

Contact District staff for additional risk reduction strategies as needed.

District staff will continue to update and expand screening tables and technical support tools. To report any errors or corrections in the District's tools, please contact District staff.

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BAAQMD Risk and Hazard Screening Analysis Process Flow Chart:

1. Identify emission sources within 1,000 feet of project's fence line.

Permitted Sources:

- Install Google Earth and download the county-specific Google Earth kml permitted source files from the District's website. The kml files map the stationary sources permitted by the District and provide conservative screening values for $PM_{2.5}$, cancer risk and chronic hazard index.
- Input the project's address into the Google Earth search bar. Use the ruler function to identify permitted sources within 1,000 ft.

Highways:

- Download the county-specific Google Earth kmz highway files from the District's website and identify the highway links within 1,000 ft. The kmz files are available for 6 or 20 feet elevations to reflect whether receptors are located on the first floor or above in a project.

Major Roadways:

- Identify the major roadways with at least 10,000 average annual daily traffic (AADT) within 1,000 ft. AADT data is available from local transportation agencies; or from the California Environmental Health Tracking Program, http://www.ehib.org/traffic_tool.jsp

Are there any sources within 1,000 feet of the project?

Yes

No

2. Conduct initial conservative screening .

Permitted Sources:

- Click on the points in Google Earth to see estimated $PM_{2.5}$, cancer risk , and hazard values for the identified permitted sources.
- Contact District staff for permitted sources with no data or note "Contact District Staff."

Highways:

- Click on the Google Earth highway links to see estimated $PM_{2.5}$, cancer risk, and hazard values based on the highway's distance from the project and east/west or north/south direction from the project.

Major Roadways:

- Download the county-specific Roadway Screening Analysis Tables from the District's website. Look-up $PM_{2.5}$ and cancer risk values based on the roadway's AADT, distance from the project, and east/west or north/south direction from the project.

Determine Impacts:

- Compare each source's estimated risk, $PM_{2.5}$, and hazard to the single source thresholds; and sum all sources' risks, $PM_{2.5}$, and hazards within 1,000 feet for comparison to the cumulative thresholds.

Are the risk and hazard estimates below the thresholds?

No

Yes

3. Conduct advanced screening for more refined estimates.

Permitted Sources:

- Contact District staff for refined estimates for sources as needed. The District can provide tips for scaling concentrations based on distance.

Highways and Major Roadways:

- Highway and roadways risk and $PM_{2.5}$ values can be scaled to reflect actual AADT and distances from the project.
- To modify the values based on AADT, divide the actual AADT by the AADT in the screening table. Multiply that value with the risk in the screening table: (Actual AADT/Screening AADT) x Screening Value = Actual AADT Value. See Section 3.1.2 in the Modeling Report for additional guidance.
- To refine estimates based on the exact distance of the roadway to the project see Section 3.1.2 in the Modeling Report.

Determine Impacts:

- Compare each source's estimated risk, hazard, and $PM_{2.5}$ to the single source thresholds; and the sum of all the sources' risk, hazard, and $PM_{2.5}$ with the cumulative thresholds.

Are the risk and hazard estimates below the thresholds?

No

Yes

4. Conduct refined modeling analysis.

Permitted Sources:

- If the results of the refined screening exceed any thresholds, the user may opt to conduct site-specific air modeling analysis. See Section 4.0 in the Modeling Report for additional guidance.
- Contact District staff for data on modeling data for permitted sources. A public records request may need to be submitted to receive specific permit files.

Highways and Major Roadways:

- Risk, $PM_{2.5}$, and hazard values for highways and major roadways may be further refined with modeling using local traffic and meteorology data. See Section 4.0 in the Modeling Report for additional guidance.

Determine Impacts:

- Compare each source's estimated risk and hazard to the single source thresholds; and the sum of all the sources' risk and hazards with the cumulative thresholds.

Are the risk and hazard estimates below the thresholds?

Yes

No

Project can assume no significant impact for risk and hazards. No further analysis needed.

Implement risk reduction strategies.

Bay Area Air Quality Management District