



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

CONCEPT PAPER

Concepts to Amend the Air District's Permitting Rules in Response to Localized Differences in Air Quality and Permitting in Overburdened Communities

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I. EXECUTIVE SUMMARY

The Bay Area Air Quality Management District (Air District) staff is developing amendments to its permitting regulation (Regulation 2: Permits) to make the rules within it more health protective, with a particular emphasis on improving air quality at the local level. Regulation 2 includes the Air District's rules that govern New Source Review, which is a comprehensive permitting program that applies to entities within the San Francisco Bay Area when they install new equipment or make modifications to existing equipment that will increase air pollution emissions. When someone wants to install a new source of air pollution or modify an existing source that will increase emissions above the Air District's applicability thresholds, they must obtain a permit from the Air District. To obtain a permit from the Air District, the permit applicant must control emissions if they are above a certain level. Please see Appendix A for an overview of permitting processes at the Air District and at other large California air districts, a review of elements of other permitting programs in different places that try to pay special attention to permitting in overburdened communities, and a review of land use decisions.

Air District staff is evaluating changes to several of the permitting rules in response to community concerns and air pollution in the Bay Area, especially at the community level. Air District staff has prepared this concept paper to provide background information on past and current efforts to resolve issues stemming from permitting in overburdened communities and seeks feedback from the public on the concepts and next steps in this process. After providing an overview of differences in air quality and health vulnerability at the local level and concerns from community members and community advocacy organizations, the document outlines concepts that could be applied to the Air District's permitting rules to improve current permitting practices in overburdened communities, with the goal of achieving greater health protection by reducing exposure among residents to harmful air pollutants and providing increased transparency on the permitting process. Those concepts are the following:

Make the Air District's air toxics permitting rule more stringent, either District-wide or in overburdened communities

Air quality modeling and monitoring shows localized variation in cancer risk due to differences in ambient concentrations of cancer-causing toxic air contaminants. New and modified sources of potentially cancer-causing toxic air contaminant emissions could be required to meet more stringent cancer risk limits (i.e., less than 10 in one million) based on background air pollution and community health vulnerability, which could help reduce cancer risk and overall exposure to air pollution in overburdened communities. For context to inform public feedback, this document presents information on potentially affected projects based on historical information, along with an overview of cancer risk contribution by source category (permitted, non-permitted, stationary, mobile, et cetera). The document also provides information on potential tools to use to evaluate and identify overburdened communities. Staff could utilize these tools to identify areas where more stringent risk limits would be applied.

Enhance public noticing and analysis requirements

Amendments could require permit applicants to report on potential adverse environmental and health impacts of their proposed projects and steps they would take to mitigate those impacts. Alternatively, or in conjunction, the Air District could enhance public noticing requirements in overburdened communities to increase transparency of the permitting process. Such an expansion could empower communities through increased awareness of nearby projects under consideration by the Air District.

Update the health risk screening process for gasoline dispensing facilities

The Air District is evaluating whether to update the methodology to assess health risk from gas stations and other gasoline dispensing facilities (GDFs) that apply for Air District permits. Updating the health risk methodology for gas stations will result in cancer risk estimates for nearby residents that are about 40 percent higher than the current procedures. Although these changes would not prevent gas stations from renewing existing permits, they may prevent throughput increases for some existing gas stations and may limit where new gas stations can be located.

Evaluate methodologies to make permitting more stringent for sources that will emit particulate matter

Also consistent with community concerns as well as recommendations of the Air District's Advisory Council, staff is evaluating how to reduce fine particulate matter emissions from new and modified sources. Staff is assessing limits on allowable particulate matter emissions from new and modified sources, as well as exposure-based limits on proposed sources. Staff is also evaluating the emissions offsets program to account for localized impacts from direct particulate matter emissions.

Staff plans to hold a virtual public workshop to present the concepts described in this document and receive comments from the public on how best to proceed in addressing permitting issues in overburdened communities. The workshop would feature a presentation by staff on areas relevant to addressing community members' concerns and will include time for public comments and a question-and-answer session. The workshop would focus on the topics described in this document.

II. BACKGROUND

The effort to amend the Air District's Permitting Regulation began at the urging of community advocacy organizations to address air quality impacts from permitting activities in overburdened communities. This section describes the history of this current regulatory effort as well as other permitting regulations at different jurisdictions that staff has researched during this process and plans to use in contextualizing the Air District's current permitting regulation.

A. *Concerns from Community Stakeholders*

At the 2018 AB 617 Community Health Protection Program Regional Kick-Off meeting, community advocates stated that the Air District needed to make significant changes to its permitting regulation.¹ Advocates brought up recent high-profile projects for which the Air District issued permits, stating that the Air District, by issuing permits, is allowing areas already overburdened by air pollution and combined effects of cumulative impacts (such as those from land and water pollution, poverty, and economic and social injustices) to be subject to even more pollution. Advocates told Air District leadership that the agency needed to address its permitting program, which permits sources that disproportionately impact communities of color. Advocates and workshop participants urged the Air District to revise its permitting rules so that new sources of air pollution are no longer allowed in communities overburdened by poor air quality. It was emphasized that community members are dying of cancer and that emissions from stationary sources are responsible for higher rates of cancer in overburdened communities. Advocates stated that the communities that face the highest levels of air pollution and the worst health outcomes are generally the communities in which people of color reside in the greatest numbers.

¹ BAAQMD, 2018. AB 617: Community Health Protection Program Regional Kick-off. Meeting recording available: http://baha.granicus.com/MediaPlayer.php?clip_id=3613

In response to community advocates' concerns expressed during this meeting, Air District leadership committed to taking a thorough look at its permitting regulation and processes to assess how to improve them with the goal of reducing pollution and exposure that the most impacted communities experience. The Air District stated that it would collaborate with community advocates and committed to work in the communities and with the experts and residents in those communities to come up with solutions to address concerns regarding air permitting.

B. *Differences in air quality at the local level*

Due to a variety of factors, air quality in the Bay Area often varies between different locations. Air District staff has focused on reducing disparities in access to clean air for decades and has developed programs that are specifically targeted to achieve reductions in air pollution in the Bay Area's communities that are overburdened by poor air quality, which can be compounded by other forms of environmental pollution and health vulnerabilities. Furthermore, the Air District is currently implementing Assembly Bill 617 (AB 617), which includes community-specific planning to address local air quality impacts in the Bay Area's most overburdened communities.

1. Air District AB 617 Priority Communities

In 2018, Air District staff applied air pollution and health information to identify priority communities within the Bay Area for implementation of AB 617. Staff used several screening tools to identify overburdened communities—CalEnviroScreen and the Healthy Places Index, which are described in Section III of this document below.² Staff also considered areas with lower life expectancy and areas that had previously been identified as part of the Air District's Community Air Risk Evaluation (CARE) program, which is a collaborative program between Air District staff, community stakeholders, and industrial stakeholders that the Air District initiated in 2004 to identify and track areas with high concentrations of air pollution and populations most vulnerable to air pollution's health impacts. In these areas with high cumulative exposure burden, staff assessed air pollution information at the zip code level, using modeled concentrations of cancer risk, fine particulate matter, and ozone (also known as "smog"), as well as fine particulate matter and air toxics monitoring data, to prepare the Pollution Index that is visually represented in Figure 1 below.

² BAAQMD, 2018. San Francisco Bay Area Community Health Protection Program: Improving Neighborhood Air Quality. August.

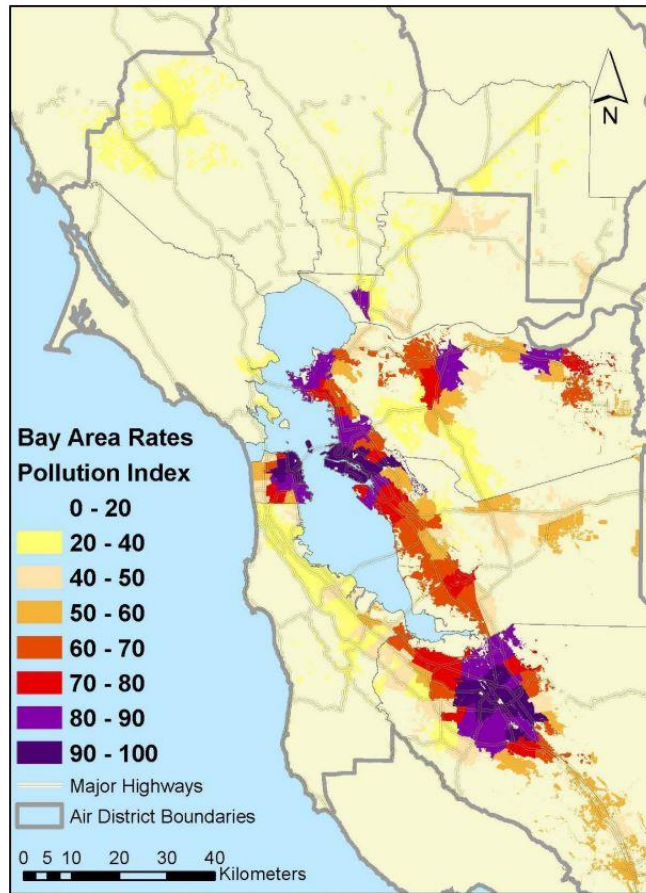


Figure 1 – Bay Area CARE Pollution Index, 2018³

As Figure 1 shows, there are disparities in air quality at the local level—translating to differences in air quality depending on where people in the Bay Area live, work, or go to school. Furthermore, many areas that have a higher pollution index also have a higher health burden index. Health burden, which the Air District based on mortality rates, emergency room visits, and hospitalizations attributed to causes known to be aggravated by air pollution, is shown in Figure 2 below.

³ BAAQMD, 2018. San Francisco Bay Area Community Health Protection Program: Improving Neighborhood Air Quality. August.

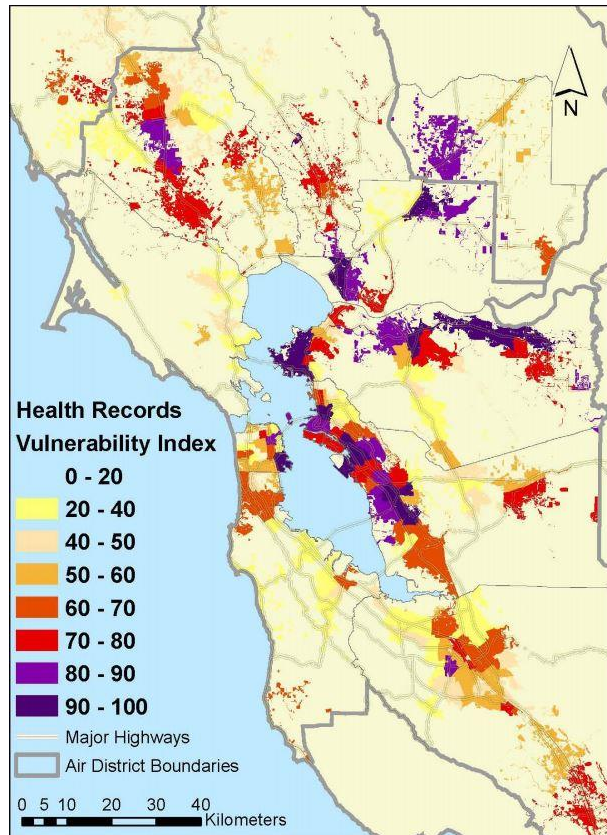


Figure 2 – Bay Area CARE Health Vulnerability Index, 2018⁴

Information obtained through the CARE program and other programs that assess community air quality and health factors demonstrate the disparities between communities in terms of having clean air and the overlap between higher health vulnerability and poor air quality.

2. Ongoing Air District modeling and monitoring results

Additionally, Air District reports of data gathered through other programs and projects also demonstrate that air quality varies geographically. A 2019 report on regional modeling efforts support AB 617 implementation simulated 11 air toxic compounds emissions throughout the Bay Area. The simulation showed that six of the modeled air pollutants account for more than 90 percent of toxic air contaminant emissions in the Bay Area.⁵ One of the major human health outcomes resulting from air toxics exposure is cancer risk. In air permitting, cancer risk is an estimate of the chance that an individual may develop cancer because of exposure to emitted carcinogens at a given receptor location, and considering, where appropriate, age sensitivity factors⁶ to account for inherent increased susceptibility to carcinogens during infancy and

⁴ BAAQMD, 2018. San Francisco Bay Area Community Health Protection Program: Improving Neighborhood Air Quality. August.

⁵ BAAQMD, 2019. Air Toxics Data Analysis and Regional Modeling in the San Francisco Bay Area to Support AB617. April. See page 2.

⁶ Age sensitivity factors are cancer risk adjustment factors that account for children's heightened sensitivity to air toxics. See California Office of Environmental Health Hazard Assessment, 2015. Air Toxics Hot Spots Program—Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments. February. Pages 8/4-8/5.

childhood. To assess cancer risk from all facilities other than gas stations, the Air District follows the procedures described in the Health Risk Assessment Guidelines for the Air Toxics Hot Spots Program adopted by the California Office of Environmental Health Hazard Assessment on March 6, 2015.⁷ The Air District uses the recommended breathing rates described in the Risk Management Guidance for Stationary Sources of Air Toxics adopted by the California Air Resources Board on July 23, 2015.⁸

Modeling results show that of the highest cancer risk in the Bay Area tends to be located where diesel PM concentrations are high.⁹ Figure 3 shows the expected cases of cancer incidences (per million). Figure 4 shows the simulated annual average diesel PM concentrations for 2016.

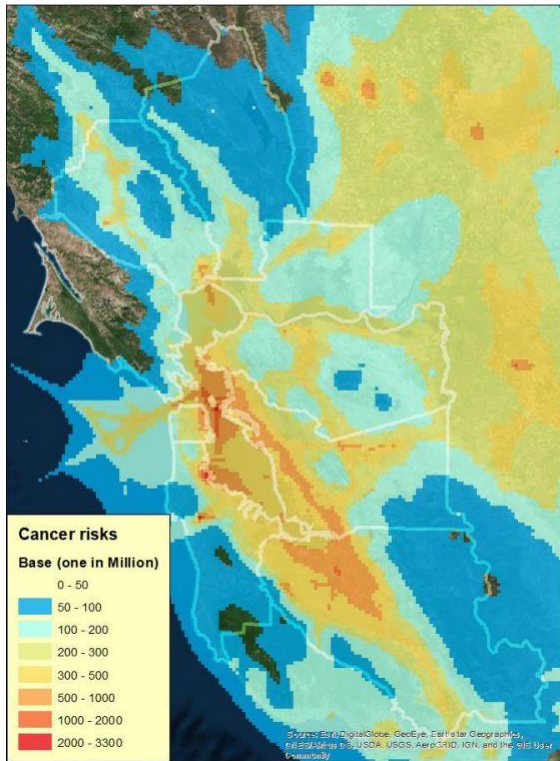


Figure 3 – Expected cases of cancer incidences per million¹⁰

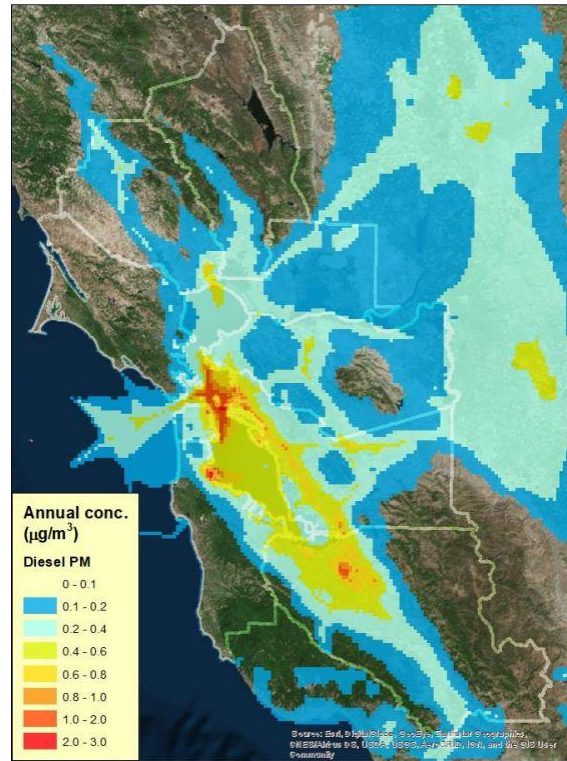


Figure 4 – Simulated annual average diesel PM concentrations for 2016¹¹

In addition to modeling data, the Air District also maintains an ambient air quality monitoring network with over thirty air monitoring stations located throughout the region.¹² The Air District's air quality monitoring network monitors a variety of air pollutants, including:

⁷ BAAQMD, 2016. Air Toxics NSR Program Health Risk Assessment Guidelines. December. See page 2.

⁸ BAAQMD, 2016. Air Toxics NSR Program Health Risk Assessment Guidelines. December. See page 2.

⁹ BAAQMD, 2019. Air Toxics Data Analysis and Regional Modeling in the San Francisco Bay Area to Support AB617. April. See page 33.

¹⁰ BAAQMD, 2019. Air Toxics Data Analysis and Regional Modeling in the San Francisco Bay Area to Support AB617. April. See page 34.

¹¹ BAAQMD, 2019. Air Toxics Data Analysis and Regional Modeling in the San Francisco Bay Area to Support AB617. April. See page 25.

¹² BAAQMD, 2019. Air Toxics Data Analysis and Regional Modeling in the San Francisco Bay Area to Support AB617. April. See page 11.

- Ozone
- Oxides of nitrogen
- Black carbon
- Sulfur dioxide
- Particulate matter (including PM₁₀, PM_{2.5}, and PM_{0.1} (ultrafine particles))
- Lead
- Hydrogen sulfide
- Air toxics (which consist of 22 gaseous toxic compounds that are monitored at 23 toxics monitoring sites located throughout the Bay Area)¹³

Air District staff utilized air monitoring data to evaluate the simulated air toxics data described above in Figures 3 and 4.¹⁴

Finally, Air District modeling and monitoring data show that cancer-risk weighted air toxics trends are declining regionally, and that the most significant driver of air toxics emissions in the Bay Area come from mobile source emissions. Since 1990, the estimated lifetime cancer risk for Bay Area residents over a 70-year lifespan from all toxic air contaminant emissions combined declined from 4,100 cases to around 600 cases per million people today.¹⁵ Diesel PM still accounts for the majority of toxic air contaminant emissions in the Bay Area and the majority of toxic emissions still result from mobile source emissions.¹⁶ As the maps above illustrate, however, there remain pockets of the Bay Area where air quality poses a higher risk to people.

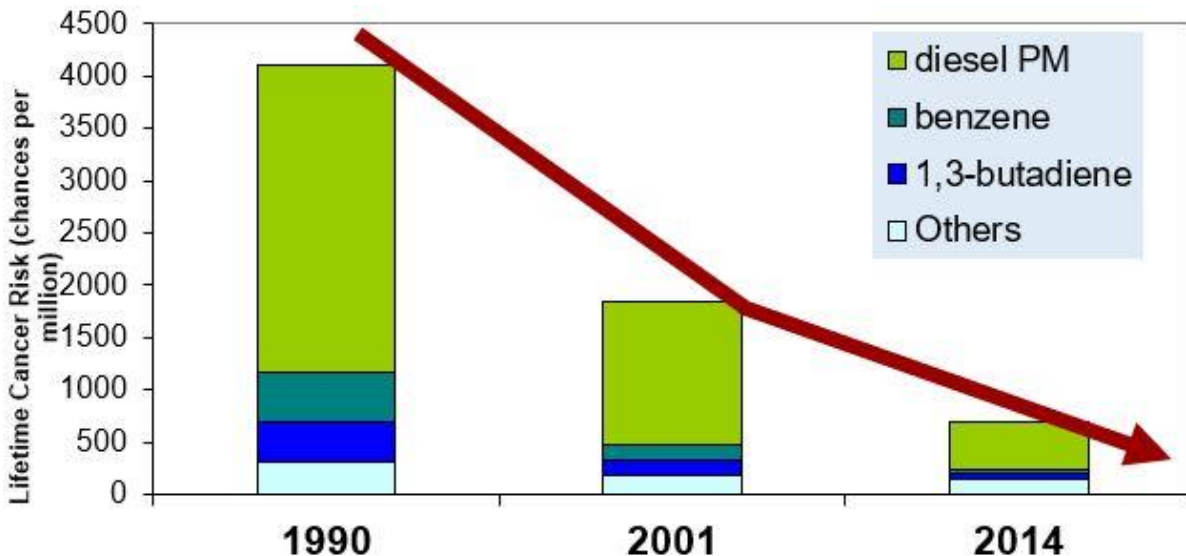


Figure 5 – Bay Area Lifetime Residential Cancer Risk* from TAC Exposure

* Cancer risk is based on average ambient air monitoring data and the population wide risk assessment methodology presented in OEHHA’s 2015 HRA Guidelines.

¹³ BAAQMD, 2019. 2018 Air Monitoring Network Plan. July. See page 174.

¹⁴ BAAQMD, 2019. Air Toxics Data Analysis and Regional Modeling in the San Francisco Bay Area to Support AB617. April. See page 27.

¹⁵ BAAQMD, 2017. Final 2017 Clean Air Plan: Spare the Air – Cool the Climate. April. See page 2/25.

¹⁶ BAAQMD, 2017. Final 2017 Clean Air Plan: Spare the Air – Cool the Climate. April. See pages 2/22 and 2/25.

Elevated cancer risk is often concentrated in areas that have higher numbers of stationary sources and high-traffic roadways, such as freeways, as well as marine ports and airports. Cancer risk in the Bay Area is driven by a variety of operations and activities, as Figure 6 shows below. Through updates to its Permitting Regulation, the Air District can increase the stringency of rules governing air pollutants that potentially contribute to cancer risk, although there are many sources of cancer risk that the Air District does not directly regulate nor permit, such as on-road mobile sources (trucks and cars) and many types of construction equipment, ships, and commercial boats—which make up the majority of cancer-risk contributors in the Bay Area.

Figure 6: Cancer-Risk Weighted Toxic Air Contaminant Emissions by Emission Source Category, 2015¹⁷

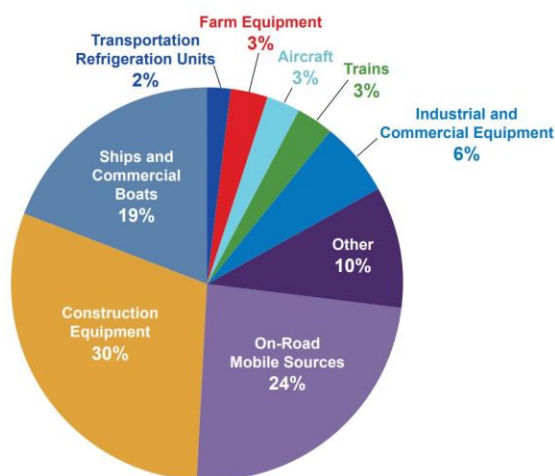
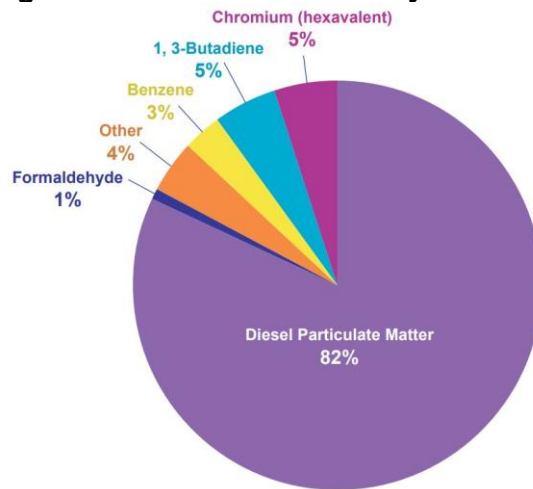


Figure 7 below shows the pollutants most responsible for cancer risk from air pollution in the Bay Area—a figure that is dominated by diesel particulate matter, which is an air pollutant that is emitted when diesel fuel is burned, such as in a motor vehicle, ship, or train engine, or by a diesel-fuel powered generator. As more stringent emissions standards for vehicles become effective,¹⁸ Air District staff expects diesel particulate matter emissions to decline as dirtier engines are phased out, which in turn will further reduce overall cancer risk from air pollution.

¹⁷ BAAQMD, 2017. Final 2017 Clean Air Plan: Spare the Air – Cool the Climate. April. See page 2/22.

¹⁸ See, e.g., California Air Resources Board Advanced Clean Fleet regulation, which is “a medium and heavy-duty zero-emission fleet regulation with the goal of achieving a zero-emission truck and bus California fleet by 2045 everywhere feasible and significantly earlier for certain market segments such as last mile delivery and drayage applications.” Website: <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets>

Figure 7: Cancer-Risk Weighted Emission Estimates by Toxic Air Contaminant, 2015¹⁹



Cancer risk in the Bay Area is anticipated to decline further as major contributors reduce their emissions.

Particulate Matter

The Air District's modeled and observed fine particulate matter (PM_{2.5}) emissions also reveal that fine particulate matter (PM_{0.1}) concentrations vary throughout the Bay Area, with more urbanized areas generally experiencing elevated levels of ambient particulate matter compared to more rural areas. Figure 8 below shows the spatial distribution of simulated and observed annual average PM_{2.5} concentrations modeled at the 1-kilometer grid level, with monitoring station observations included.

¹⁹ BAAQMD, 2017. Final 2017 Clean Air Plan: Spare the Air – Cool the Climate. April. See page 2/21.

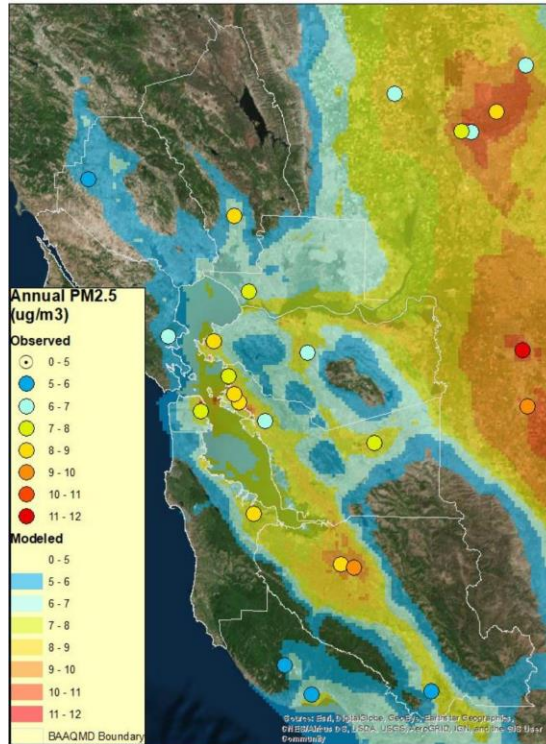


Figure 8 – Spatial distribution of simulated and observed annual average PM_{2.5} concentrations within the 1-km modeling domain.²⁰

In December 2020, the Air District Advisory Council published its Particulate Matter Reduction Strategy Report, which made multiple statements based on the Advisory Council’s review of the current body of scientific evidence on the health risks of particulate matter.²¹ In its report, the Advisory Council stated that particulate matter is the most important health risk driver in Bay Area air quality, both fine particulate matter (PM_{2.5}) as a criteria pollutant and diesel particulate matter as a toxic air contaminant. The Advisory Council also stated that while a large fraction of PM_{2.5} is regionally contributed, substantially elevated PM_{2.5} exposures can occur in locations adjacent to local particulate matter sources. Therefore, controlling emissions in these local impacted areas is of primary importance. To address particulate matter pollution, the Advisory Council stated that the Air District should prioritize achieving reductions in areas that are known to be most impacted, with particular emphasis on strategies to reduce exposure and improve public health and health equity in the most impacted areas.

C. *Concept Development Processes*

1. *Internal Discussion*

Following the 2018 AB 617 Community Health Protection Program Regional Kick-off meeting, Air District staff met internally to discuss potential changes to the permitting regulation and processes. Staff convened an internal workgroup consisting of staff members from multiple divisions within the Air District with the purpose of formulating ideas to improve the Air District’s permitting regulation regarding new and modified sources in and near impacted communities. The

²⁰ BAAQMD, 2019. Fine Particulate Matter Data Analysis and Regional Modeling in the San Francisco Bay Area to Support AB617. January. See page ES-2.

²¹ BAAQMD, 2020. Advisory Council Particulate Matter Reduction Strategy Report. December.

workgroup discussed benefits and challenges to implementing changes to the regulation and related operations such as enforcement and monitoring. Through the process, the workgroup focused on changes to the permitting regulations that address toxic air contaminants and particulate matter emissions.

2. Community Engagement

Staff also met with community advocates in regions throughout the Bay Area to receive feedback on how to improve the Air District’s permitting regulation. During these meetings, which were separate from AB 617 community meetings and wholly focused on the topic of the Air District’s permitting processes, staff heard suggestions from community advocates on what the Air District should prioritize in making changes to the permitting regulation. Table 1 below names the organizations that Air District staff met with to discuss the permitting regulation, either in one-on-one meetings or in group meetings with other community stakeholders present. Air District staff also met more than once with some advocacy groups in response to the groups’ interest in meeting again. The discussion below summarizes the organizations with which staff met and the feedback staff received on how to improve the Air District’s permitting regulation.

Table 1 – Community Outreach Activities

| Geographic Region | Community Organization/Neighborhood Name |
|-----------------------|--|
| Carquinez Corridor | All Positives Possible |
| | Fresh Air Vallejo |
| | Bayo Vista (neighborhood residents) |
| Suisun Bay | La Clínica |
| Eastern San Francisco | Bayview Hunters Point Community Advocates |
| East Oakland | Communities for a Better Environment (East Oakland and Richmond) |
| | Rose Foundation/New Voices Are Rising |
| | Regional Asthma Management & Prevention |
| Tri-Valley | Tri-Valley Air Quality Alliance |
| South Bay | Breathe California |
| North Bay | Daily Acts |

Although there are differences in the types of projects community members want to prevent from locating in or near their neighborhoods, community members and advocates from all the community groups with whom staff met want the permitting rules to be more stringent. Some community advocates have called for a complete permitting moratorium in certain parts of the Bay Area. Some have also said that overburdened communities need enhanced regulatory protections. Most advocates stated that there needs to be a cumulative impacts consideration in the Air District’s permitting regulation—that the Air District needs to take into account the proximity of a proposed project to other existing sources of air pollution, although there was some variability in terms of what should be considered or prioritized in the cumulative impacts analysis. Also, community focus on permitting varies regionally in terms of the projects that are most problematic for community health. In some communities, particularly those that are located near large stationary sources such as petroleum refineries, community advocacy organizations and some community members call for facilities to be permanently closed or prevented from expanding or adding new sources. Some community advocates stated that no large new facilities should be allowed to emit air pollutants in overburdened communities. In contrast, other communities are focused on large residential projects, highway expansion projects, or other project types that are not within the Air District’s permitting authority. Some community advocates also said that there needs to be an emphasis on making existing sources reduce pollution they currently emit.

Furthermore, some advocates committed that there needs to be an evaluation of community vulnerability before the Air District issues permits. And finally, community members expressed the need for the Air District to prioritize cleaner businesses over industries that pollute the air, and that the Air District should require permit applicants plant vegetation, install vegetative barriers, and construct green spaces. In terms of relative risk posed by permitted sources, some community advocates did not want to disincentivize local establishments such as restaurants and grocery stores, particularly if a large nearby stationary source can continue to operate.

Community members also expressed the need for the Air District to act quickly. Community advocates (and some community members with whom Air District staff met who are not actively involved in advocacy) stated that people in the communities are dying of cancer and that regulatory updates need to be expedited. Most community members expressed that it is the Air District's responsibility to update its permitting regulation because the regulation is not adequately health protective. Community members overall provided a big-picture perspective on how they have determined that the Air District's permitting rule is not protecting overburdened communities, and what overall steps the Air District should take to change the regulation.

Air District staff noted the following overall suggestions from community advocates:

- Incorporate into the permitting regulation a way to assess the impacts on the surrounding community from a proposed project;
- Make the requirements for permitting more stringent, especially in overburdened communities; and
- Consider that some communities already experience unacceptably high background air pollution, which leads to elevated health risk in the community.

The concepts for consideration described in section III of this document are the staff's first steps toward addressing these requests, but staff requests feedback from the public on these concepts. Staff also recommends readers consult Appendix B, which discusses additional efforts that may address concerns raised by community members and changes to the permitting program that staff does not recommend at this time.

III. DRAFT CONCEPTS FOR REVISING THE AIR DISTRICT'S PERMITTING REGULATION

Based on input from community advocates and the public regarding ongoing permitting activities in overburdened communities as well as information that demonstrates variation in air quality and health vulnerability at the community level, Air District staff has been working with community stakeholders to develop recommendations for changes to the Permitting Regulation that prioritize environmental justice considerations and promote health and environmental equity in the Bay Area. California law gives the Air District the power to make changes to its permitting rules.²² The Air District's public workshop on the concepts described in this section will enable staff to present ideas to update key permitting rules, consistent with the feedback received from critical community stakeholder organizations who have worked collaboratively with the Air District and have urged staff to have more opportunities for community involvement in the rule development process.

²² See California Health and Safety Code Sections 40000, 40001, and 40702.

A. *Air Toxics Permitting: Reducing Cancer Risk*

Much community feedback has focused on the role air pollution plays in contributing to cancer risk. Community members and the public cite real life examples of living with cancer and caring for friends, neighbors, and loved ones who have become ill with—and died from—cancer. The fundamental issue is what to do about permitting in areas where there is already too much air pollution.²³ The Air District could deny all permits in areas with the highest levels of air pollution. But, this would create its own set of problems. No available air permits would mean that some things the community would find valuable would be unable to locate here. For example, grocery stores often have backup generators, which would not be allowed under this scenario. Similarly, no gas stations would be allowed. Currently, the Air District only issues air permits when the cancer risk that a project would pose to the public is small. Cancer risk in the Bay Area from toxic air emissions is around 600 cases per million on average, as mentioned above. The Air District only gives permits to applications that will have a very small cancer risk (10 in one million), so that people can safely live and work in the nearby area. Applications with a cancer risk of more than 10 in one million are not granted.

The Air District can make its cancer risk limit even more strict than it is now. Air District staff seeks input from the public on whether it should do so. Also, staff seeks input on whether a stricter cancer risk limit should be applied Bay Area-wide or only in overburdened communities. Staff also seeks feedback on how to define an overburdened community, as discussed in Section III.B.

Below, staff provides context on the types of projects that would probably be affected by a more stringent rule.

1. *Historic Review Analysis*

Staff presents the information below to examine the types of projects that would likely be affected if the cancer limit in the permitting rules is made more stringent. Staff examined the types of project applications that have been submitted since the last time the air toxics permitting rule was updated (2016). The tables below show the findings of some of the most common types of projects, along with the numbers of risk assessments prepared for project types that community organizations have highlighted as problematic in their communities: cement manufacturing and processing facilities, and crematories. Additionally, the tables show project types throughout the entire Bay Area and project types in areas generally located within the areas identified through the Air District's CARE Pollution Index, shown as Figure 1 above, which are categorized in the tables below as "impacted communities."²⁴

Staff selected several potential cancer risk limits that could be applied Bay Area-wide or solely in overburdened communities:

- The six in one million cancer risk value is about one percent of the average Bay Area background cancer risk, according to the most recent available information.²⁵

²³ Note that permitting only addresses new and modified sources of air pollution. The Air District's other rules and permit conditions are the regulatory mechanisms used to control emissions when sources are not subject to the requirements for new or modified sources found in the permitting rules.

²⁴ Note that because a health assessment was completed does not necessarily mean that a permit was issued for the project, nor does it mean that there was only one risk assessment completed per project. For the purpose of the historic review analysis, however, an analysis of risk assessments is the best way to approximate project types and cancer risks.

²⁵ BAAQMD, 2017. Final 2017 Clean Air Plan: Spare the Air – Cool the Climate. April. See page 2/26.

- The five in one million cancer risk value is twice as stringent as the current project cancer risk limit, which is 10 in one million.
- The three in one million cancer risk value is consistent from a risk minimization standpoint with existing California law and Air District requirements to reduce cancer risk at large facilities.²⁶

These ranges should provide context for public discussion around whether and how the Air District should proceed with a rule development effort that makes the cancer risk permitting limit more stringent.

Projects with Cancer Risk of 3-10 in One Million

Throughout the entire Bay Area, about one third (32 percent) of the nearly one thousand cancer risk assessments since 2016 were for permit applications with cancer risk of three to ten in one million. Of those projects, about one in ten (10 percent) were in impacted communities.

Table 2 breaks down the projects by type, showing that applicants submitted applications for similar projects in impacted communities compared to the Bay Area at large. The differences are that:

- Applications for diesel engine projects made up a smaller share of applications in impacted communities than they do in the Bay Area as a whole.
- Applications for gas stations made up a larger share of applications in impacted communities than they do in the Bay Area as a whole.
- Applications for soil vapor extraction projects, which remove contaminants from the soil, made up a larger share of applications in impacted communities than they do in the Bay Area as a whole.
- Applications for asphalt and cement plant projects made up a larger share of applications in impacted communities than they do in the Bay Area as a whole.
- Applications for crematory projects made up the same share of applications in impacted communities as they did in the Bay Area as a whole.

Table 2: Cancer Risk Assessments for Projects with Cancer Risk of 3-10 in One Million²⁷

| Project Type | Percent of Projects with Cancer Risk Between 3 and 10 in One Million, Bay Area-wide | Percent of Projects with Cancer Risk between 3 and 10 in One Million, Within Impacted Communities |
|-----------------------|--|--|
| Diesel Engines | 61% | 49% |
| Gas Stations | 18% | 21% |
| Soil Vapor Extraction | 3% | 7% |
| Asphalt/Cement Plant | 3% | 4% |
| Crematory | 2% | 2% |

²⁶ See Assembly Bill 2588 and Air District Regulation 11, Rule 18.

²⁷ This historic review includes HRAs with cancer risk greater than 3 in one million and less than or equal to 10 in one million.

Projects with Cancer Risk of 5-10 in One Million

Throughout the entire Bay Area, about one fifth (18 percent) of the nearly one thousand cancer risk assessments since 2016 were for permit applications with cancer risk of five to ten in one million. Of those projects, about one in twenty (6 percent) were in impacted communities.

Table 3 breaks down the projects by type, showing that applicants submitted similar applications for projects in impacted communities compared to the Bay Area at large. The differences are that:

- Applications for diesel engine projects made up a smaller share of applications in impacted communities than they do in the Bay Area as a whole.
- Applications for gas stations made up a larger share of applications in impacted communities than they do in the Bay Area as a whole.
- Applications for soil vapor extraction projects, which remove contaminants from the soil, made up a larger share of applications in impacted communities than they do in the Bay Area as a whole.
- There were no asphalt or cement plant applications in this range in impacted communities.
- Applications for crematory projects made up a larger share of applications in impacted communities than they do in the Bay Area as a whole.

Table 3: HRAs for Projects with Cancer Risk of 5-10 in One Million²⁸

| Project Type | Percent of Projects with Cancer Risk Between 5 and 10 in One Million, Bay Area-wide | Percent of Projects with Cancer Risk between 5 and 10 in One Million, Within Impacted Communities |
|-----------------------|--|--|
| Diesel Engines | 57% | 45% |
| Gas Stations | 23% | 25% |
| Soil Vapor Extraction | 5% | 12% |
| Asphalt/Cement Plant | 1% | 0% |
| Crematory | 2% | 3% |

Projects with Cancer Risk of 6-10 in One Million

Throughout the entire Bay Area, about 15 percent of the nearly one thousand cancer risk assessments since 2016 were for permit applications with cancer risk of six to ten in one million. Of those projects, one in twenty (5 percent) were in impacted communities.

Table 4 breaks down the projects by type, showing that applicants submitted similar applications for projects in impacted communities compared to the Bay Area at large. The differences are that:

- Applications for diesel engine projects made up a smaller share of applications in impacted communities than they do in the Bay Area as a whole.
- Applications for gas stations made up an equal share of applications in impacted communities as the Bay Area as a whole.

²⁸ This lookback includes HRAs with cancer risk greater than 5 in one million and less than or equal to 10 in one million.

- Applications for soil vapor extraction projects, which remove contaminants from the soil, made up a larger share of applications in impacted communities than they do in the Bay Area as a whole.
- There were no asphalt or cement plant applications in this range in impacted communities.
- Applications for crematory projects made up a larger share of applications in impacted communities than they do in the Bay Area as a whole.

Table 4: HRAs for Projects with Cancer Risk of 6-10 in One Million²⁹

| Project Type | Percent of Projects with Cancer Risk Between 6 and 10 in One Million, Bay Area-wide | Percent of Projects with Cancer Risk between 6 and 10 in One Million, Within Impacted Communities |
|-----------------------|---|---|
| Diesel Engines | 53% | 42% |
| Gas Stations | 25% | 25% |
| Soil Vapor Extraction | 6% | 13% |
| Asphalt/Cement Plant | 1% | 0% |
| Crematory | 2% | 4% |

Benefits and Drawbacks to Making the Limit More Stringent

There are benefits and drawbacks to making the cancer risk limit more stringent. A more stringent cancer risk limit means that permit applications with a higher cancer risk that would have previously been granted would no longer be granted, which would have a positive overall impact on air quality. However, the cancer risk limit is already very low, and lowering it further could make it very difficult for projects that community members may want in their community to locate there.

2. Prevalence of Diesel Engines

As shown in Tables 2 through 4 above, diesel engines comprise the largest share applications for projects with cancer risk. The exhaust from diesel engines contains diesel particulate matter, which causes cancer.³⁰ Diesel engines provide electricity for a variety of operations, some of which are required for safety or provide essential public services. Examples of uses for diesel engines include—but are not limited to—the following:

- Diesel-powered fire pumps, which power emergency sprinkler systems in some buildings;
- Prime power supply for operations at landfills, shore terminals, and other locations; and
- Emergency power supply for a variety of uses, including:
 - Fire stations
 - Cellphone antennae
 - Retirement homes
 - Hospitals
 - Data centers

²⁹ This lookback includes HRAs with cancer risk greater than 6 in one million and less than or equal to 10 in one million.

³⁰ BAAQMD, 2020. Staff presentation, Diesel Free by '33: Why Replacing Diesel is a Public Health Priority. September.

- Wineries
- Residential housing complexes
- Hotels
- Water, stormwater, and wastewater conveyance systems
- Airport operations
- Healthcare service providers

In terms of cancer risk, diesel engines vary widely—engine size, the number of engines applied for in the permit, and proximity to people living or working nearby all factor into the cancer risk. Diesel engines are used for backup—also called “emergency” or “standby”—purposes, such as when utility-provided electricity is unavailable, or as a main source of energy at a particular location, in the case of “prime” diesel engines. The Air District receives more applications for emergency backup diesel engines than it does for prime diesel engines—and there are far more permitted backup engines in the Bay Area than any other engine type: of over 9,300 permitted engines in the Bay Area, more than 8,500 of the generators, or 91 percent, are categorized as “backup.”³¹ The overwhelming majority of permitted engines burn diesel fuel. Backup diesel engines under the Air District’s permitting rules are exempted from emissions compliance when the engine is used for emergency use, initial start-up testing, or from emission testing of emergency standby engines required by the Air District Air Pollution Control Officer.³²

Backup diesel engines will likely continue to comprise a significant portion of the permit applications that the Air District receives, especially as users of emergency backup engines such as data centers continue to be constructed in the region. Additionally, Public Safety Power Shutoffs (PSPS) to protect the public from wildfire events may drive more applications for backup power supplies from diesel generators. While a historic review over the past several years does not reveal a clear trend of increasing diesel engine applications, diesel generators with less than or equal to 50 brake horsepower are exempted from the Air District’s permitting requirements, and these smaller units are the ones that are in high demand to power homes and small businesses during PSPS events.³³

B. *Reducing Cancer Risk in Overburdened Communities*

In recognizing the differences in air quality between locations, Air District staff seeks public feedback on options to make permitting requirements more stringent in areas that are recognized as being already overburdened by elevated background pollution or health vulnerabilities. As mentioned above, Air District modeling shows variability in cancer risk, owing to cancer-causing air pollutant emissions from motor vehicles, ships, construction operations, and sources of air pollution permitted by the Air District. Based on the variability in cancer risk throughout the region, Air District staff poses for discussion lowering the allowable project cancer risk to less than the current value of 10 in a million at permitting projects in overburdened communities. Tables 2 through 4 above, which summarize the lookback analysis results in terms of cancer risk level by project type, would be useful in determining any potential new standard for project risk in overburdened communities. In this section, staff will describe some of the different ways to define overburdened communities.

³¹ 2020 Air District permitted facility information.

³² See Section 2-5-111: Limited Exemption, Emergency Standby Engines.

³³ See Section 2-1-114: Exemption, Combustion Equipment. See also Section 2-5-113: Exemption: Small Internal Combustion Engines and Gas Turbines.

1. Bay Area Air Quality Management District Processes to Identify CARE Communities and AB 617 Communities

The Air District has been refining processes to identify communities impacted by air pollution for nearly two decades. The CARE Program described above defined impacted communities (which this document equates with the term “overburdened communities”) using a variety of air pollution and health indicators. The most recent version of CARE considers both air pollution and health vulnerabilities in creating a regionwide health vulnerability index, which is shown in Figure 2 above.

CARE Version 2 considers several different types of air pollution: toxic air contaminant emissions, fine particulate matter emissions (PM_{2.5}), and ozone concentrations. Staff utilized air pollution modeling and monitoring to determine areas in the Bay Area that experience high levels of background air pollution.³⁴ The methodology also looks at health vulnerability—in particular, health vulnerability to air pollution. Staff obtained health records on death rates, hospital admissions, and emergency room visits within communities.³⁵ Staff then utilized tools that predict increases in health impacts that are associated with increased air pollution.³⁶

Using this information, staff created the Pollution-Vulnerability Index for areas that bear the highest ozone, fine particulate matter, and carcinogenic TAC emissions and have elevated health vulnerability.³⁷ Staff prepared maps of the areas most impacted based on their Pollution-Vulnerability Index score. The results were used to identify CARE communities, many of which had already been identified using a prior methodology that evaluated carcinogenic TAC emissions, poverty level, and age.³⁸

The CARE program methodology described above was utilized to select communities for inclusion in the Air District’s AB 617 program on the basis that these communities have a “high cumulative exposure burden.”³⁹ Staff used CARE program analysis on air pollution and health vulnerability to identify communities with high pollution exposure and elevated sensitivity to air pollution.⁴⁰ To recommend communities for community monitoring and emissions reduction program planning, staff also considered other factors, including the concentration of stationary sources, community input, and other socioeconomic factors and health data available from statewide health screening tools.⁴¹ Staff used the screening tools CalEnviroScreen, the Healthy Places Index, and the California Environmental Justice Screening Method, which are described below, to supplement the CARE program impacted communities designation in submitting recommendations for AB 617 monitoring and emissions reduction planning.⁴²

³⁴ BAAQMD, 2014. Identifying Areas with Cumulative Impacts from Air Pollution in the San Francisco Bay Area, Version 2. March. Page 14.

³⁵ BAAQMD, 2014. Improving Air Quality & Health in Bay Area Communities: Community Air Risk Evaluation Program Retrospective & Path Forward (2004-2013). April. Page 40.

³⁶ BAAQMD, 2014. Improving Air Quality & Health in Bay Area Communities: Community Air Risk Evaluation Program Retrospective & Path Forward (2004-2013). April. Page 40.

³⁷ BAAQMD, 2014. Identifying Areas with Cumulative Impacts from Air Pollution in the San Francisco Bay Area, Version 2. March. Page 23.

³⁸ BAAQMD, 2014. Improving Air Quality & Health in Bay Area Communities: Community Air Risk Evaluation Program Retrospective & Path Forward (2004-2013). April. Page 37.

³⁹ AB 617. Legislative Counsel’s Digest, Section (2).

⁴⁰ Bay Area Air Quality Management District, 2018. San Francisco Bay Area Community Health Protection Program: Improving Neighborhood Air Quality. August. Page v.

⁴¹ BAAQMD, 2018. San Francisco Bay Area Community Health Protection Program: Improving Neighborhood Air Quality. August. Page v.

⁴² BAAQMD, 2018. San Francisco Bay Area Community Health Protection Program: Improving Neighborhood Air Quality. August. Page 17.

2. CalEnviroScreen

CalEnviroScreen is the commonly used name for the California Communities Environmental Health Screening Tool, which is a mapping tool developed and maintained by the California Office of Environmental Health Hazard Assessment. CalEnviroScreen 3.0, which is the current edition of the tool, provides numerical scores for census tracts throughout the state based on environmental, health, and socioeconomic factors. The purpose of using maps enables comparisons between different communities to prioritize need for additional pollution abatement programs. CalEnviroScreen 3.0 multiplies pollution burden by population characteristics within a census tract to determine a score, which is then displayed upon a statewide map.⁴³

CalEnviroScreen 3.0 bases its scores on indicators, which fall into four different categories—two for pollution burden, and two for population characteristics. Pollution burden indicator categories are exposures and environmental effects, while population characteristics indicator categories are sensitive populations and socioeconomic factors. The indicators within each category are shown in Table 5 below.

Table 5: CalEnviroScreen 3.0 Indicators⁴⁴

| Pollution Burden | | Population Characteristics | |
|--------------------------------|----------------------------------|--|--|
| Exposures | Environmental Effects | Sensitive Populations | Socioeconomic Factors |
| Ozone Concentrations | Cleanup sites | Asthma Emergency Department Visits | Educational Attainment |
| PM2.5 Concentrations | Groundwater Threats | Cardiovascular Disease (emergency department visits for heart attacks) | Housing Burdened Low Income Households |
| Diesel PM Emissions | Hazardous Waste | Low Birth-Weight Infants | Linguistic Isolation |
| Drinking Water Contaminants | Impaired Water Bodies | | Poverty |
| Pesticide Use | Solid Waste Sites and Facilities | | Unemployment |
| Toxic Releases from Facilities | | | |
| Traffic Density | | | |

For scoring purposes, CalEnviroScreen 3.0 will generally treat census tracts with many high indicators as more cumulatively impacted than tracts that have fewer, albeit higher, indicators.⁴⁵ This can lead to some areas appearing to be less impacted than others, which is a function of how the scoring is done.

3. Healthy Places Index

The California Healthy Places Index was developed by the Public Health Alliance of Southern California. The index includes diverse non-medical economic, social, political and environmental

⁴³ California Office of Environmental Health Hazard Assessment, 2017. CalEnviroScreen 3.0: Update to the California Communities Environmental Health Screening Tool. January. Page 6.

⁴⁴ California Office of Environmental Health Hazard Assessment, 2017. CalEnviroScreen 3.0: Update to the California Communities Environmental Health Screening Tool. January. Page 6.

⁴⁵ California Office of Environmental Health Hazard Assessment, 2017. Responses to Major Comments on the CalEnviroScreen 3.0 Public Review Draft. Pages 20, 22.

factors that influence physical and cognitive function, behavior and disease. The total score is used to screen place for places with high health burden. Like CalEnviroScreen 3.0, the Healthy Places Index also compares data at the census tract level to enable comparisons of community conditions at the neighborhood level. The Healthy Places Index scores census tracts using eight indicator themes: economic, education, transportation, social, neighborhood, clean environment, housing, and healthcare access, each of which include sub-categories that provide the basis for the indicator score. Table 6 below provides additional specifics on the indicators used by the Healthy Places Index. The Healthy Places Index uses several of the same indicators as CalEnviroScreen 3.0, although CalEnviroScreen 3.0 indicators consider additional pollution burden indicators. A comparison between the most disadvantaged quartile of census tracts on a statewide basis identified through CalEnviroScreen 3.0 and the Healthy Places Index showed that CalEnviroScreen 3.0 identified more census tracts as disadvantaged within the Bay Area than the Healthy Places Index identified.⁴⁶ However, the Air District’s use of the Healthy Places Index is only to make comparisons between communities within the Bay Area.

Table 6: Healthy Places Index Indicators

| Indicator Theme | Indicators | | | | |
|--------------------------|---|----------------------|------------------------|--|----------------------|
| Economic | Above Poverty | Employed | Median Income | | |
| Education | Bachelor’s Education | Preschool Enrollment | High School Enrollment | | |
| Healthcare Access | Insured Adults | | | | |
| Housing | Low-Income Homeowner Severe Housing Cost Burden | Homeownership | Housing Habitability | Low-Income Renter Severe Housing Cost Burden | Uncrowded Housing |
| Neighborhood | Tree Canopy | Supermarket Access | Retail Density | Park Access | Alcohol Availability |
| Clean Environment | Safe Drinking Water – Contaminants | Clean Air – Ozone | Clean Air – PM2.5 | Clean Air – Diesel PM | |
| Social | Voting | Two Parent Housing | | | |
| Transportation | Automobile Access | Active Commuting | | | |

4. Environmental Justice Screening Method

The Environmental Justice Screening Method was developed for the California Air Resources Board to examine cumulative impacts and social vulnerability within California regions, as well as to identify overburdened communities. The Air District has utilized the hazard proximity portion of this analysis tool to identify areas that have sensitive receptors near sources of significant emissions, since neither CalEnviroScreen 3.0 nor the Healthy Places Index include

⁴⁶ Public Health Alliance of Southern California, 2018. Healthy Places Index Technical Report. July. Page 66.

this measure of exposure to air pollution.⁴⁷ Besides the proximity to hazards and sensitive land uses indicator, the Environmental Justice Screening Method also scores census tracts based on the following indicators:

- Health risk and exposure,
- Social and health vulnerability
- Climate change vulnerability, and
- Water quality and system-level vulnerability⁴⁸

The Environmental Justice Screening Method uses many of the same indicators that are used by CalEnviroScreen 3.0 and the Healthy Places Index, although the climate change vulnerability indicator is unique to it.

5. Planning Healthy Places

The Air District created a mapping tool for the Planning Healthy Places document to prioritize risks from toxic air contaminant emissions and fine particulate matter emissions from stationary sources and mobile sources given their localized health impacts.⁴⁹ The Planning Healthy Places mapping tool divided sources of toxic air contaminants and fine particulate matter into two large categories: “large and/or complex” sources of air pollution, where further study is recommended, and areas where modeled cancer risk and fine particulate matter concentrations are high or would likely be high.

For the “large and complex” sources of air pollution, the Air District used the following methodology to map areas where further study is necessary:

- ½ mile border around all major airports;
- ½ mile border around all petroleum refineries;
- ½ mile around the Port of Oakland, and 1,000 feet around all other seaports;
- 1,000 feet around railyards (except Caltrain yards in San Jose and San Francisco, which are in the category below)
- 150 feet around medium-sized gasoline dispensing facilities; and
- 300 feet around large gasoline dispensing facilities.

For the areas based on screening levels, the Air District identified areas that:

- Exceed an ambient cancer risk of 100 in a million;
- Exceed a fine particulate matter concentration of 0.8 micrograms per cubic meter;
- Are within 500 feet of a freeway;
- Are within 175 feet of a roadway with more than 30,000 average annual daily traffic trips; or
- Are within 500 feet of a ferry terminal.

Staff presents these different ways to identify overburdened communities in the Bay Area because there is no single method to compare communities based on pollution and health vulnerability. These five methods have been used by other government agencies in California, including the Air District, for a variety of programs, and are some of the best-known evaluators

⁴⁷ BAAQMD, 2018. San Francisco Bay Area Community Health Protection Program: Improving Neighborhood Air Quality. August. Page 21.

⁴⁸ Morello-Frosch, Rachel et al., 2016. Update and Statewide Expansion of the Environmental Justice Screening Method (EJSM). California Air Resources Board Contract No. 11-336. Page 22.

⁴⁹ BAAQMD, 2016. Planning Healthy Places. May. Appendix C: Technical Notes.

of cumulative impacts in a community. The potential advantage of using a mapping tool is that it is a clear way to identify overburdened communities, which then enables the Air District to target policies accordingly. In turn, mapping tools based on environmental and public health indicators may provide clarity for permit applicants regarding where policies may be more stringent due to elevated levels of pollution or community sensitivity that is recognized by the Air District. Staff is soliciting feedback regarding methods of analysis to identify overburdened communities—in terms of air pollution (with particular attention to cancer risk from toxic air contaminants as well as pollution from particulate matter and ozone), other environmental factors, and health vulnerability at the community level. Identification of overburdened communities could enable the Air District to tailor its permitting rules to be responsive to background air pollution and community health vulnerability. For example, the Air District could require that permit applicants satisfy more stringent cancer risk limits in communities it recognizes as overburdened by air pollution and health vulnerability.

The alternative to more stringent sub-regional permitting requirements is to recommend a change to the Permitting Regulation that is uniform throughout the Air District’s regulatory jurisdiction. The Permitting Regulation, through each of its component rules, currently applies District-wide; it does not employ different requirements that vary by location. Staff presented an analysis of the number and types of HRAs between several cancer risk categories in Tables 2 through 4 above to compare the number and types of projects potentially affected by a more stringent risk limit, either Bay Area-wide or in communities that have been identified by the Air District as being impacted by air pollution and health vulnerability.

C. Enhance Noticing and Analysis Requirements

Recognizing the need for greater transparency into projects affecting our most vulnerable communities, the Air District issues public notices prior to approving an application for projects that are located within 1,000 feet of a K-12 school. To qualify for the existing public noticing requirement, a proposed project must result in an increase of a toxic air contaminant or a hazardous air pollutant.

An expansion of the public noticing requirements beyond the existing regulatory requirement and Air District policies may be considered under the following scenarios:

- a) Lowered cancer risk (as described in Section B, “Reducing Cancer Risk in Overburdened Communities”);
- b) New and modified projects in or within a specified distance of an overburdened community that result in an increase of a toxic air contaminant, hazardous air pollutant, or an air pollutant designated by the APCO.

As with existing public noticing requirements, the costs of noticing may be borne by the project applicant. The goal of the proposed public notice expansion is to provide increased transparency and to equip community members with the necessary information to actively participate in both the Air District permitting process and other public approval processes such as at the City or County which may hold greater authority over land-use decisions.

D. Updating the Air District's Health Risk Assessment Guidelines for Gasoline Dispensing Facilities

Bay Area-wide, gas stations and other gasoline dispensing facilities (collectively, gas stations) comprise about 14 percent of permitting health risk screening analyses.⁵⁰ Gas stations account for more than one in five Air District-permitted facilities.⁵¹ Gas station emissions include toxic air contaminants such as benzene that can pose a significant health risk to nearby residents and workers. The Air District regulates gas station permitting under the toxic air contaminant permitting rule.

Under this rule, new gas stations and existing gas stations proposing modifications are required to apply for and obtain an Authority to Construct and a Permit to Operate. During the review and evaluation, the Air District performs a Health Risk Screening Analysis (HRSA), which models cancer risk based on various factors including the proposed project location, nearby residents and workers, weather patterns and emissions data from the California Office of Environmental Health Hazard Assessment (OEHHA).

In 2015, the OEHHA approved and adopted updated Health Risk Assessment Guidelines (2015 Guidelines) that are used in the Air District's modeling of cancer risk at gas stations. The 2015 Guidelines adjusted multiple additional factors used to prepare HRSA, including emission rates, that will result in higher calculated cancer risks to nearby residents and workers. Under this concept, the Air District would update and incorporate the 2015 Guidelines to its evaluation of new and modified gas station projects.

By incorporating the 2015 Guidelines, it is expected that cancer risk estimates for residents will increase 40 percent higher as compared to existing procedures and would exceed existing emissions and cancer risk limits. These projects that exceed existing emissions and cancer risk limits would be rejected by the Air District, and a permit to operate would not be granted.

Existing permitted gas stations would not be affected unless there was a modification to the site. As a result of incorporating the 2015 Guidelines, the Air District expects the availability of gas stations to decrease in the region.

E. Potential Future Efforts to Address Fine Particulate Matter in Permitting

Also consistent with community concerns as well as the recommendations of the Air District's Advisory Council, staff is evaluating how to reduce fine particulate matter emissions from new and modified sources. In December 2020, the Air District Advisory Council included the following recommended actions in its report to address local health impacts from particulate matter:⁵²

- Recommended Action #8. Develop strategies to consider cumulative community [particulate matter] impacts in permitting processes.
- Recommended Action #9. Modify Air District permitting regulations to address hyper-localized hot-spot and cumulative [particulate matter] health risks.
- Recommended Action #10. Evaluate current efforts to prevent "piecemealing" in the permitting process and take actions as needed.

⁵⁰ BAAQMD, 2020. 2019 Annual Report. Page 9.

⁵¹ BAAQMD, 2020. 2019 Annual Report. Page 9.

⁵² BAAQMD, 2020. Advisory Council Particulate Matter Reduction Strategy Report. December.

Staff currently envisions several possibilities for updating the permitting regulation to be more health protective as it relates to emissions of fine particulate matter. First, the Air District may regulate particulate matter like air toxics are currently regulated in permitting: above a particulate matter emissions threshold, additional pollution abatement would be required, and above an emissions limit, a permit application would be denied. Second, the Air District could consider population exposure impacts separate from or in conjunction with background levels of air pollution when evaluating permit applications that would contribute particulate matter emissions. In this example, applications to emit more than a threshold quantity of particulate matter may require consideration of background pollution levels in the potentially affected area and/or consideration of community health (examples include high mortality and high poverty) and the contribution to particulate matter exposures due to a proposed project.

During outreach meetings, several community advocates expressed concern over the use of offsets to reduce particulate matter emissions and recommended that the Air District not prioritize allowing additional offsets to permit applicants. Staff understands these concerns and is evaluating the feasibility of lowering the offsets thresholds, and, separately, tying offsets to the distance from the proposed new or modified source.

IV. NEXT STEPS

Air District staff seeks feedback from community and industry stakeholders as well as the general public regarding the draft concepts for amending the permitting regulation. After presenting concepts in a public setting, staff will consider comments received verbally and in writing. Staff will then proceed to develop draft rule amendment language, which will be presented to the public prior to the development of a proposal that would be presented to the Air District Board of Directors for consideration for adoption.

Additionally, Air District staff identified additional non-regulatory measures that are relevant to reducing air quality at the local levels. The Air District utilizes regulatory and non-regulatory measures to improve air quality, and seeks to address disparities in access to air quality identified through this process through the following channels:

- Evaluating potential impacts to the Air District's CEQA Guidelines and Thresholds;
- Developing a publicly-accessible database that allows members of the public to see emissions by facility and each facility's relative contribution to local and regional air quality;
- Linking incentives programs more closely with the latest information on where air quality is worst to expedite emissions reductions; and
- Advocating directly and/or supporting advocacy at the State level to require land use entities consider air quality in land use permitting decisions.

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