Fourth Annual Community Air Protection Program Recommendations

Staff Report

January 2022



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Introduction

Assembly Bill (AB) 617 (C. Garcia, Stats. of 2017) requires that the California Air Resources Board (CARB or Board) "shall adopt a statewide strategy to reduce emissions of toxic air contaminants and criteria air pollutants in communities affected by a high cumulative exposure burden." (HSC 44391.2(b).). This statutory charge is a powerful directive that CARB's implementation of AB 617 should not be limited to only those communities that are selected by the Board to develop Community Emission Reduction Programs (CERPs) and /or Community Air Monitoring Plans (CAMPs). CARB's governing board and staff recognize that the communities selected to date should serve as models to generate lessons learned and highlight promising engagement practices and emission and exposure reduction strategies that could benefit the hundreds of communities also affected by a high cumulative emissions exposure burden. Implementation of AB 617 is one important tool to work toward environmental justice by focusing attention and resources on communities that are disproportionately impacted by poor air quality and finding new solutions to reduce these impacts.

California's air quality programs continue to significantly improve public health statewide through various measures such as regional air quality planning, advancements in technologybased solutions, and risk reduction efforts near industrial facilities. Despite these statewide efforts, certain communities continue to experience environmental and health inequities from air pollution. For example, communities near ports, rail yards, warehouses, and freeways, continue to experience a higher burden of air pollution than other areas due to multiple sources or higher emissions exposures from cars, trucks, locomotives, and ships. Many of the same communities also experience air pollution impacts from stationary facilities such as oil refineries, chrome platers, metal recycling facilities, and oil and gas operations. Additional exposure to agricultural burning and fugitive dust can add to their cumulative exposure burden. Residents in these communities are often more vulnerable to environmental impacts as the result of health disparities, socio-economic inequities, and poor land use decisions.

AB 617 requires CARB to annually consider selection of communities for development and implementation of CERPs or CAMPs from those affected by a high cumulative exposure burden. Fifteen communities have been selected by the CARB Board since 2018 and are currently implementing or developing plans to satisfy this important component of the Community Air Protection Program (Program).

The annual selection of communities is the centerpiece of the 2018 Community Air Protection Program Blueprint (Program Blueprint)¹—the statewide strategy adopted by CARB that guides AB 617 implementation. The upcoming revisions to the Program Blueprint

¹ CARB's Community Air Protection Blueprint was adopted in September 2018 as the first statewide strategy to address high exposure burdens and meet statutory direction to develop and implement the program for community selection for CAMPs and CERPs. In a process concurrent to community selection, CARB is working with community members, air districts and stakeholders to revise and update the Program Blueprint, for more information see https://ww2.arb.ca.gov/capp-blueprint.

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will emphasize additional strategies beyond the current model of community selection. A subcommittee of the AB 617 Consultation Group (Consultation Group) began a revision of the current Program Blueprint in 2020, taking a list of community concerns and environmental justice (EJ) concepts into account. Within the subcommittee, a group of community and EJ leaders, known as the Writer's Group, stepped forward to draft a People's Blueprint for Community Air Protection (People's Blueprint) in 2021. The Writer's Group draft, now completed, is the starting point for review, discussion, and comment by the full Consultation Group, Air Districts, and the public on updates to the Program Blueprint.

As such, 2022 will be a year of both transforming the Program and carrying forward the community selection process. This staff report outlines CARB staff's approach to community selection for CERPs and CAMPs, keeping in mind the need for a Program re-envisioning to better serve all overburdened communities in the State, including how we will operationalize racial equity in our work to ensure healthy air for all Californians.

Staff have worked with community members, air districts, community-based organizations, and other stakeholders to develop the fourth annual recommendation of new communities to join the Program. Based on criteria set forth in AB 617, the Program Blueprint, Board Direction, and public feedback, staff are recommending:

- The East Oakland Community in the Bay Area Air Quality Management District (Bay Area AQMD) be selected to develop a community emissions reduction program.
- The International Border Community in the San Diego Air Pollution Control District (San Diego APCD) be selected to develop both a community air monitoring plan and a community emissions reduction program.

Program Expansion

During the February 2021 CARB Board meeting, community members voiced concern about the limited number of communities that have been selected each year. They also stated that the current community selection and recommendation process creates a sense of competition between communities. With the hundreds of disadvantaged communities with high emissions exposure burdens statewide and limited resources, CARB staff recognizes the current model of community selection is not a sustainable approach to achieve the goals of the Program. In February 2021, the Board directed staff to consider CARB-wide resources and lessons learned to expand Program benefits using new approaches.

CARB staff are looking at available agency-wide resources to expand Program benefits to more overburdened communities. CARB staff are ready to shift the Program's focus to expansion and are preparing to develop statewide expansion concepts in 2022, informed by a robust engagement process including continued consultation with the Community Air

Protection Consultation Group. The upcoming revisions to the Blueprint² will consider this expansion effort.

Equity

AB 617 is rooted in the goals of equity and environmental justice. The statute requires CARB to consult with environmental justice organizations – among other groups – when developing the Program Blueprint and requires the air districts to consult with individuals and community-based organizations when developing CERPs. The Program Blueprint, and the CARB Board have reflected on this directive and reinforced the idea that community residents should be at the center of decision-making through effective and meaningful collaborations that incorporate their views and priorities into development of the air quality programs that impact their communities. Overall, elevating community members' experiences, relationships, and first-hand knowledge of the impacts of high emissions exposures to air pollution on their communities as well as potential solutions aims to ensure more equitable process and outcomes.

Although the Program Blueprint does not explicitly call out applying the principle of equity, the focus on the community at the center of air district engagement and collaboration is consistent with centering the Program around those most impacted. Experience implementing AB 617 and other programs shows that there is more than one way to collaborate with communities effectively and meaningfully to ensure more equitable process and outcomes. Staff will use their experience over the last four years and the equity principles outlined in the People's Blueprint to create opportunities for engagement and prioritize efforts in communities not selected for CERP or CAMP development. Equity should be explicitly named and embedded in the revised Program Blueprint and in the development and evaluation of expansion strategies.

Recommendations for the Fourth Annual Community Considerations

CARB staff recommendations are based on several factors and build upon the prior years of community selection. These factors include AB 617 and Program Blueprint criteria, CARB Board's direction, nominations received since Program inception, the updated Table of Metrics (version 2.1), lessons learned from the initially selected communities, and funding levels provided by the Legislature.

² In a concurrent process, CARB is working with community members, air districts and stakeholders to revise and update the Program Blueprint, for more information see *https://ww2.arb.ca.gov/capp-blueprint*.

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AB 617 and Program Blueprint Assessment Criteria

AB 617 directs CARB to annually consider high priority communities and through the process outlined in the Program Blueprint (October 2018)³. The Program Blueprint lists the criteria and other factors for consideration to assess and identify locations with high exposure burdens to toxic air contaminants and criteria air pollutants, prioritizing disadvantaged communities.

CARB Board Direction

In the Board meeting considering community selection in 2018⁴, the Board provided guidance on community selection for subsequent years. The Board directed staff to prioritize those communities that were priority recommendations from air districts and community-based organizations in previous years, but not selected. In addition to any new communities, the Board also prioritized transitioning those communities that were selected for air monitoring only to develop CERPs, if the recommendation is supported by data and by the community steering committee.

In the 2019 Board meeting⁵ considering the second annual community selection, the Board requested a way to recognize communities repeatedly recommended by the community and/or air districts. In response, staff prepared the Community Strongly Supported list, which recognizes the strong advocacy from the community and/or the district (See Table A 1 in Appendix A).

In the Board meeting to consider the third annual community selections in 2020 ⁶, communities voiced concern about the limited number of communities able to be selected. In response, the Board directed staff to consider alternative approaches, CARB-wide resources, and lessons learned, to expand program benefits to more communities.

Nominations and Statewide Assessment

Since the inception of the Program, CARB has received hundreds of recommendations for communities, most of which meet the statutory requirements for selection. CARB staff considers these nominations as part of the 2021 statewide assessment⁷, an update of the first statewide assessment originally developed in 2018. CARB staff updated the assessment this year with the release of CalEnviroScreen 4.0 (CES 4.0). and other updated data, as available.

³ Program Blueprint available at https://ww2.arb.ca.gov/capp-blueprint

⁴ CARB Board Meeting for September 27, 2018 is available at https://ww2.arb.ca.gov/2018-board-meetings

⁵ CARB Board Meeting information for December 13, 2019, is available at: https://ww2.arb.ca.gov/2019-boardmeetings

⁶ CARB Board Meeting for February 25, 2021 is available at https://ww2.arb.ca.gov/2021-board-meetings

⁷ For information on Table of Metrics Update November 2021, see

http://ww2.arb.ca.gov/resources/documents/table-metrics-update-november-2021

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The 2021 statewide assessment, consistent with statute 44391.2(b)(1), is a quantitative means to describe the cumulative air pollution burden of a community and includes a variety of readily available data sources, such as CES, emissions inventory for mobile, areawide and stationary sources, and Healthy Places Index. This information complements the more detailed local community-level assessments.

To date, the public has nominated over 120 unique communities⁸ and even though new communities are nominated every year, the universe of communities has remained consistent. From air districts and community organizations, CARB staff have a broad list of about 400 candidate communities identified for inclusion in the Program, with the majority designated as disadvantaged communities. CARB staff and the air districts have worked closely with community members and community-based organizations to develop priorities over the years in consideration of CARB Board's direction. Based on this process, CARB staff received four (4) recommendations for individual or combined communities this year via submissions by local air districts. Three (3) of the communities nominated were also nominated by community members, air districts, community-based organizations, or a combination thereof.

Program Funding

The current Fiscal Year 2021-2022 maintains the same level of implementation funding as prior fiscal years. Figure 1 below shows the implementation funding over the last four years for six air districts that have developed or are developing CERPs and/or CAMPs and shows in the "other district category" the 29 other participating air districts that do not have communities selected for CAMPS or CERPs⁹. This flat implementation funding requires air districts and CARB to rethink how they administer the programs with constrained resources to better serve all communities with high exposure burdens for toxic air contaminants and criteria air pollutants. In addition, air districts must consider how best to implement CERPs in existing communities, work with newly selected communities on an annual basis, and engage with other emissions-burdened communities. This requires air districts and CARB to stretch their resources among several competing efforts.

Continued and increased support is needed to effectively implement the work that has begun development and to support new work in more communities. Adding communities without increased funding restricts the resources that can go to each community already in the program.

⁸ For community nominations since 2018, see https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program/community-selection/community-nominations.

⁹ Other air districts use AB 617 funds towards a variety of projects to support the community goals of AB 617, including: outreach, development and deployment of air monitoring, and expansion of existing programs that benefit disadvantaged or burdened communities. Some air districts are using their funds on specific emission reduction projects such as, woodstove replacements, green waste disposal and air filtration projects.

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Figure 1. Air District Implementation Funds per Year

Figure 2 below shows the number of community plans the air districts have developed across the State. Currently, the initial 2018 selected communities completed their second year of CERP implementation, 2019 communities are just finishing their first year of implementation, and 2020 communities are working to develop their plans.

Thirteen communities have developed both CAMPs and CERPs. Sacramento Metropolitan Air Quality Management District (Sacramento Metro AQMD) developed and is implementing a CAMP for South-Sacramento Florin. Bay Area AQMD developed and is implementing a CERP for West Oakland. Air districts have continuously expressed the need for more funds and time to administer the Program, as the amount of funding they receive does not cover all their costs, and adding additional communities forces them to spread their resources further. All three third-year selected communities submitted a request for more time to develop their community plans.



Figure 2. AB617 Communities and their Status.

Funding is critical to successfully develop and carry out the actions in these plans to achieve measurable emissions and exposure reductions in the communities. To ensure resources are available to support existing and new communities, CARB staff recommends limiting the number of new communities selected. Adding new communities will require balancing of resources to avoid adverse impacts to work in existing communities.

This year, two air districts recognized that they are at capacity for resources to implement the Program; the South Coast Air Quality Management District (South Coast AQMD) and the San Joaquin Valley Air Pollution Control District (San Joaquin Valley APCD) did not recommend any new communities. Sacramento Metropolitan AQMD recommended communities for consideration only if additional resources were to become available. A fourth air district, Imperial County Air Pollution Control District (APCD) first recommended a community and then withdrew the nomination when it became clear that additional funding for program administration was not provided in the proposed budget. These challenging decisions make clear that both additional resources are necessary for supporting the needs of impacted communities and that the program must be re-envisioned to support other approaches.

Therefore, while CARB is not recommending the North Imperial County Corridor at this time, CARB staff will continue working with Imperial County APCD and Comite Civico del Valle on this nomination. At the heart of this Program is the community scale approach in developing CERPs and CAMPs. The scope of the focus area in the nomination needs to be re-evaluated with this community-scale approach in mind. The North Imperial County Corridor region shares similar air pollution concerns as the two AB 617 communities along its borders: Eastern Coachella Valley to the north and the Calexico, El Centro, and Heber corridor to the south. Key air pollution concerns across these communities are associated with trucks, agriculture equipment and practices, the Salton Sea, and fugitive emissions from south of the U.S.-Mexico border. As with all the AB 617 communities, residents in the North Imperial County Corridor community have a greater health burden. The asthma, cardiovascular diseases, cancer risk, and cancer burden scores are in the 99th, 92nd, 99th, and 88th

percentiles, respectively. This community also has some of the highest rates of poverty and unemployment within the state.

Overview of AB 617 Communities

Figure 3 shows the 15 communities currently in the Program that represent a regionally diverse set of communities throughout the State. Each community has unique air pollution concerns and have been selected to help build a model for other communities.

Figure 3. Map of AB 617 Communities.



Table 1 gives a high-level summary of the existing communities and the top concerns identified by CSCs, which informs the development of each CERP. To further illustrate how diverse the existing communities are: the most densely populated community of Southeast Los Angeles has 21,600 people per square mile, compared to the least dense community of Eastern Coachella Valley with 475 people per square mile. Both communities also vary significantly in terms of air quality concerns and priorities. Southeast Los Angeles residents

are more concerned about emissions coming from truck traffic and freeways, railyards, locomotives, rendering facilities, lack of green spaces, metals, and industrial facilities. Eastern Coachella Valley residents are concerned about emissions from the Salton Sea, pesticides, fugitive dust, open burning, illegal dumping, diesel-powered mobile sources, and power plants.

	Table	1. AB	617	Community	Profiles.
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Air District	Community	People per square mile	Top Community Steering Committee Concerns
Ray Area	Richmond, N. Richmond, San Pablo	6,393	freeways, industry, port, rail, refinery
bay Area	West Oakland	9,500	freeways, permitted stationary sources, heavy duty trucks, port, construction, backyard burning, commercial cooking
Imperial County	Calexico, El Centro, Heber	2,000	mobile sources, wood burning, fugitive dust, agricultural burning, schools
Sacramento Metropolitan	South Sacramento – Florin	9,455	wood burning, freeways
San Diego Portside Environmental Justice Neighborhoods 14,625		14,625	port, freight, rail, small industry
	Arvin, Lamont	4,083	agriculture, rural, warehouses, oil and gas
	Shafter 1,600		agriculture, oil and gas, rural
San Joaquin Valley	South Central Fresno 4,857		community measures, heavy duty measures, land use measures, outreach, stationary sources, passenger vehicles
	Stockton	8,688	heavy duty measures, stationary sources, community measures, outreach, mobile sources, passenger vehicles, land use measures

Air District	Community	People per square mile	Top Community Steering Committee Concerns
	East Los Angeles Neighborhoods, Boyle Heights	15,526	neighborhood/freeway traffic, railyards, metal processing facilities, rendering facilities, auto body shops, schools/childcare centers/community centers/libraries/public housing projects, industrial facilities
	Eastern Coachella Valley	476	Salton Sea, pesticides, fugitive dust, open burning and illegal dumping, diesel mobile sources, power plant
South Coast	Muscoy, San Bernardino	8,588	neighborhood truck traffic, warehouses, bus yard, railyards, concrete/asphalt batch/rock/aggregate plants, exposure reduction at schools/childcare centers/community centers/homes
	Southeast Los Angeles	21,625	truck traffic and freeways, rendering facilities, green spaces, metals, railyards and locomotives, industrial facilities
	South Los Angeles	17,864	mobile sources, auto body shops, oil and gas, toxics, other industrial facilities
	Wilmington, West Long Beach, Carson	6,514	refineries, ports, neighborhood truck traffic, oil drilling and production, railyards, schools/childcare centers/homes

Statewide Benefits

In addition to specific actions in selected communities, CARB has continued with broader efforts to improve air quality so all highly burdened communities will see ongoing benefits. These efforts are summarized in this statewide benefits section and include CARB and air district measures, statewide and local climate investments, and enforcement of emissions rules and regulations throughout the State.

Resources

Online Resources

The Office of Community Air Protection (OCAP) developed **the Community Air Protection Program Resource Cente**r¹⁰ as a centralized hub to share data, guidance, and tools to

¹⁰ Community Air Protection Program Resource Center. Available at: https://ww2.arb.ca.gov/ocap_resource_center

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support communities in a single location that the public can access online. Information on the Resource Center can serve as:

- An introduction to community air quality
- A resource to developing emission reduction strategies
- Technical assistance
- A centralized hub for updates on AB 617 implementation

OCAP staff continuously update the Resource Center with new documents, materials, and data as they become available. The updated resources include community specific information. OCAP staff also document best practices and lessons learned from implementing AB 617 programs. The Resource Center includes information on air monitoring, air quality background, AB 617 community-specific information and details, emissions inventories, enforcement, funding, permitting, and the Technology Clearinghouse. Two interactive tools added this year are the AB 617 **CommunityHub**¹¹ and the **Technology Clearinghouse**¹².

The **AB 617 CommunityHub** is an online dashboard that provides visual summaries of key AB 617 efforts on community air monitoring, direct links to community specific air monitoring and community emissions reduction programs, an updated list of strategies, summary of current incentive investments, updates on enforcement activities in communities, and expected emissions reductions based on the information provided in the community emissions reduction programs and community-specific annual reports and progress trackers.

The **Technology Clearinghouse** continues to evolve. It currently provides information about emissions limits and associated control technologies for emissions sources statewide. This year, the Clearinghouse has added a residential appliance tool that allows users to explore emissions related to indoor appliance use. To further enhance public transparency and address community feedback, CARB and California Air Pollution Control Officers Association (CAPCOA) published a *new webpage*¹³ *that answers questions related to stationary source permitting* raised by community advocates.

AB 617 has also led CARB staff to focus on enhancing transparency. The **Enforcement Data Visualization System**¹⁴ is a map-based tool for users to visualize CARB's enforcement activities throughout the State, including field inspections and case settlements. Users can view inspection results and settlement details for different years, enforcement programs, program categories, and can sort information by regions, including statewide, air districts, designated AB 617 communities, as well as custom-defined areas drawn by users on the

¹¹ Community Hub is available at: https://ww2.arb.ca.gov/capp-communities

¹²Technology Clearinghouse is available at: https://ww2.arb.ca.gov/our-work/programs/technologyclearinghouse

¹³ Stationary Source Permitting – Community Questions is available at: https://ww2.arb.ca.gov/Permitting-Questions

¹⁴ The Enforcement Data Visualization System is accessible at *https://webmaps.arb.ca.gov/edvs/*

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map. The **Enforcement Data Visualization System** can also facilitate tracking enforcement activity in disadvantaged communities, including enforcement components of AB 617 community emission reduction programs, and provide community members a user-friendly way to access CARB's enforcement information within their communities. The system currently includes enforcement data from year 2015 to 2020 and is updated annually when new data is available.

Updated Table of Metrics

In 2018, CARB staff developed a statewide assessment of cumulative air pollution exposure of communities statewide. This assessment was to help inform staff's recommendation to the Board for the adoption of the first Program Blueprint and first set of selected communities. This statewide assessment, along with the detailed analysis from local air districts, provides a comprehensive profile of the community.

The Table of Metrics¹⁵ is a compilation of the statewide assessment data that can aid in the community-level analysis by air districts and community-based organizations. CARB staff compiled the updated Table of Metrics from the most recent publicly available data sources (descriptions of how we use each metric are available in Appendix G), including:

- CalEnviroScreen (CES) 4.0¹⁶
- California Healthy Places Index (HPI)¹⁷
- California Emissions Projection Analysis Model (CEPAM) and California Emission Inventory Development and Reporting System (CEIDARS)
- CARB Pollution Mapping Tool
- Schools, childcare facilities, hospitals, and clinics layers from the California State Geoportal

Before nominating the ten 2018 AB 617 communities in the first year of the program, CARB staff released the initial version of the Table of Metrics (1.0). In July 2021, CARB staff updated the Table of Metrics (2.0) to incorporate the then-recently released draft version of CES 4.0 released by Office of Environmental Health Hazard Assessment (OEHHA) alongside updates to existing data metrics. The Table of Metrics (2.1) was updated again in November 2021 to incorporate the changes that came with the finalized CES 4.0.

CARB staff also added metrics for cancer risk and burden to the Table of Metrics in response to requests from communities for more information on health risks. OEHHA has updated the CES 4.0 – where most metrics on the Table of Metrics originate –with the most recent

https://ww2.arb.ca.gov/resources/documents/table-metrics-update-november-2021

¹⁵ Table of Metrics (version 2.1). CARB. November2021. Available at:

¹⁶ CalEnviroScreen 4.0. Office of Environmental Health Hazard Assessment. October 2021. Available at: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

¹⁷ The California Health Places Index. Public Health Alliance of Southern California. April 2021. Available at: https://healthyplacesindex.org/data-reports/

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available data. In addition, OEHHA's CES 4.0 also includes improved data and methods for particulate matter 2.5 microns or smaller (PM2.5) and Diesel PM (DPM) values¹⁸.

While some of the communities on the continually supported list fell off the top 25% scoring areas from CES 3.0 to the most recent CES 4.0 update, CARB staff does not intend to exclude any of these communities from consideration.

Grants and Supplemental Environmental Projects and Incentive Funding

Community Air Grants

As a part of the Program efforts, and pursuant to AB 617, CARB created the Community Air Grants Program¹⁹. The purpose of the Community Air Grants is to provide community-based organizations with logistical and technical assistance to support their efforts in improving local air quality. Projects are intended to further the purposes of AB 617 by designing and executing projects that build capacity in communities through supporting community-based organizations' and community members' participation in the Program. In 2018, the Community Air Grants Program received 65 applications and awarded 28 projects totaling \$10 million. In 2019, the Community Air Grants Program received 48 applications and awarded 29 projects totaling \$5 million. In summer 2021, the Community Air Grants Program issued a third solicitation for an additional \$10 million in funding and received 60 applications Grant awards will be announced in early 2022.

Supplemental Environmental Projects

CARB's Supplemental Environmental Project Policy²⁰ allows community-based projects to be funded from a portion of the penalties received during settlement of enforcement actions. A Supplemental Environmental Project can improve public health, reduce pollution, increase environmental compliance, and bring public awareness to neighborhoods most burdened by environmental harm. CARB has a policy that allows a Supplemental Environmental Project to be funded from a portion of a penalty payment to mitigate the effects of a particular violation.

CARB has updated the Supplemental Environmental Project Policy to incorporate the requirements of Assembly Bill 1071 (Atkins, ch. 585, Stats. 2015). The Policy now includes: a public process to solicit potential Supplemental Environmental Projects from disadvantaged communities, allowing the amount of the Supplemental Environmental Project to be up to 50% of the settlement penalties, and maintaining an annual list of Supplemental

¹⁸ CalEnviroScreen 4.0. Office of Environmental Health Hazard Assessment. October 2021. Available at: https://oehha.ca.gov/media/downloads/calenviroscreen/report/calenviroscreen40reportf2021.pdf#page=9

¹⁹ Community Air Grants information available at: https://ww2.arb.ca.gov/capp-cag

²⁰ Supplemental Environmental Projects information and how to prepare projects for the list available at: https://ww2.arb.ca.gov/our-work/programs/supplemental-environmental-projects-sep/about

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Environmental Projects that may be selected to settle a portion of an enforcement action. A consideration in project selection is the relationship between the location of the violation and location of the proposed Supplemental Environmental Project with priority given to projects in disadvantaged communities.

Community Air Protection Funds

Since 2017, in support of AB 617, the Legislature has budgeted a total of \$964 million in incentive funding for immediate actions to improve air quality in heavily emissions burdened communities across the State. Grant funds may be used for mobile source projects pursuant to the Carl Moyer or Proposition 1B Programs. More recently, the State budget also allowed funding to be used for upgrades at local industrial facilities that reduce emissions of toxic or smog-forming pollutants, construction of zero-emission charging stations, or the support of local measures that air districts and communities identify through community emissions reduction programs. In response, CARB staff have developed updated guidance, incorporating this flexibility to allow the local air districts to work with their communities and submit new types of stationary source and community-identified projects for CARB. CARB has approved a variety of new kinds of projects submitted by air districts already, and CARB's approval of these new projects, as well as details of each new project are posted on CARB's website.²¹

The Community Air Protection incentives have no dedicated funding source. The funding amount appropriated from the Greenhouse Gas Reduction Fund varies from year-to-year. There are over 50 programs competing for Greenhouse Gas Reduction Funds' money and the amount for the AB 617 Program can fluctuate greatly with no guaranteed annual funding from the Legislature. Due to the ongoing public health crisis, the Legislature postponed appropriations of additional Greenhouse Gas Reduction Fund money in Fiscal Year 2020-21 but included a new appropriation of Greenhouse Gas Reduction Fund money in the State Budget for Fiscal Year 2021-22, recently signed into law by the Governor. This latest Greenhouse Gas Reduction Fund appropriation included an additional \$260 million in Community Air Protection incentives.

CARB Regulatory Actions

CARB continues its statewide efforts to improve air quality in all communities, so that communities not developing or implementing CERPs can benefit. CARB's regulatory strategies include Mobile Source and Fuel Regulations, Air Toxics Hot Spots Program, Mobile and Stationary Airborne Toxic Control Measures, air district rules and enforceable agreements with railyards.

²¹ Information on Stationary Source and Community-Identified Projects are available at https://ww2.arb.ca.gov/our-work/programs/community-air-protection-incentives/stationary-source-andcommunity-identified

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AB 617 requires new, community-focused actions that go beyond existing State and regional programs to reduce exposure to air pollution in communities affected by a high cumulative exposure. CARB staff is continuing to prioritize work to drive cleaner technology, implement operational changes, and reduce exposure in air emissions burdened communities statewide.

Regulations are at the core of CARB's air quality improvement efforts. Appendix F of the Program Blueprint identifies statewide actions focusing on reducing emissions from sources that directly affect communities. CARB staff have initiated development on the following regulatory measures:

Cargo Handling Equipment Regulation – CARB staff is assessing the availability and performance of zero-emission technology to further reduce emissions associated with this source. Mobile cargo handling equipment is any motorized vehicle used to handle cargo or perform routine maintenance activities at California's ports and intermodal rail yards. The type of equipment includes yard trucks (hostlers), rubber-tired gantry cranes, container handlers, forklifts, etc. The Mobile Cargo Handling Equipment (CHE) Regulation was adopted in 2005 to reduce toxic and criteria emissions to protect public health, amended in 2011, and fully implemented by the end of 2017.

Commercial Harbor Craft Regulation – CARB staff is developing amendments to this regulation that reduces toxic and criteria pollutant emissions from harbor craft. CARB's existing commercial harbor craft regulation was adopted in 2007, amended in 2010, and will be fully implemented by the end of 2022. In December 2018, March 2020, September 2020, and March 2021, CARB hosted public meetings to discuss the draft concepts and requirements that led to the formal proposal in September 2021. The Board heard the proposal in November 2021 and is anticipating taking final action in Spring 2022.

Reducing Rail Emissions in California – In the absence of federal action to address harmful emissions from locomotives, CARB is developing the In-Use Locomotive Regulation to reduce criteria pollutants, toxic air contaminants, and greenhouse gas emissions. The In-Use Locomotive Regulation is intended to be implemented statewide and aims to address regional pollution and long-standing environmental justice concerns with communities near railyards and other locomotive operations. Board consideration is tentatively scheduled for 2022.

Chrome Plating Control Measure Amendments – This strategy will amend the current regulation on chrome plating to further reduce toxic air contaminants at chrome plating facilities, with a focus on alternative technology. In September 2020, a meeting of the technical work group was held to discuss concepts. A tentative Air Toxics Control Measure (ATCM) timeline is to finalize concepts in late 2021 and hold workshops for regulation in winter and spring of 2022.

CARB staff have developed a website²² to give an overview of the CARB and air district community emissions reductions program strategies. Other strategies recognized include enforcement of CARB and air district regulations, In-Use Testing, Supplemental Environmental Projects, and incentive programs.

Enforcement

CARB's Enforcement Division is working to address environmental injustice in all disadvantaged communities. Over the past five years, the Enforcement Division has focused statewide enforcement efforts on disadvantaged communities and will continue to expand the scope of services provided in these communities. Each year thousands of diesel truck, ship, and equipment inspections are conducted by (CARB/air district) enforcement staff, with typically 70% of inspections in disadvantaged communities. Enforcement Division continually works to address community complaints and has recently expanded the review of stationary source programs to ensure those programs are effective, especially in disadvantaged communities.

Through discussions within disadvantaged communities, Enforcement Division gained a deeper understanding of the disruption, noise, and air pollution that truck idling causes. In addition to inspections, staff conduct outreach in disadvantaged communities to discourage idling. CARB provides a webpage²³ to house outreach materials, and developed a community-oriented, anti-idling fact sheet (in English and Spanish) for distribution in communities. The fact sheet describes what idling is, what CARB's regulations are, and what people can do about idling in their communities. CARB staff have also developed complaint reporting business cards that include information on where to report complaints and the type of information that would be useful to provide when reporting complaints. These cards are available in both English and Spanish. Lastly, staff continue to work towards getting additional, school appropriate "No Idling" signs for distribution in AB 617 communities.

Part of achieving environmental justice is making sure that communities are represented in decision-making processes for how environmental programs are prioritized, developed, and implemented. This work has started in AB 617 communities, but CARB staff have room to improve, prioritizing community needs and communicating the results of staff's work and what those results mean for the community going forward.

The Enforcement Division is starting to build a collaborative process with communities to better prioritize the Division's work; and then derive lessons learned from that work to develop approaches and policies that benefit all disadvantaged communities across the State. This work is already underway in many different communities: Arvin-Lamont, Avenal,

²² Community Air Protection Program Resource Center. Available at: https://ww2.arb.ca.gov/ocap_resource_center

²³ The Community Outreach and Enforcement webpage is available at https://ww2.arb.ca.gov/ourwork/programs/community-outreach-and-enforcement

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Imperial Valley, Stockton, Portside Communities, South LA, Southeast LA, and West Oakland. Some of these communities are AB 617 communities, while others are not.

The environmental issues disadvantaged communities face are challenging to address. Sometimes, community concerns can be addressed through enforcement because they are driven by non-compliant operation of vehicles, equipment, and/or stationary sources. However, in many cases these sources cause a cumulative impact that is significant even if all sources are in compliance. These cumulative impacts are caused by past land-use and zoning decisions and policies that will require time and creativity to address. Going forward the Enforcement Division will be working to provide a more comprehensive suite of services to communities including mobile source enforcement and supplemental environmental projects, odor investigations and stationary source inspections, and multimedia / interagency enforcement coordination, special projects, data collection, and expanded training.

Staff Recommendations

Staff has worked with community members, air districts, community-based organizations, and other stakeholders to develop the 2021 recommendation of new communities and will continue to work with these groups leading up to the Board meeting in February 2022. Staff posted a web-based presentation in August 2021 to describe the recommendation process. Staff also held a virtual public meeting on December 7, 2021, to discuss the 2021 community recommendations. Community residents, community-based organizations, air districts, contractors, and members of the public participated in question-and-answer format workshop with agency staff about which communities to recommend and to provide support for staff recommendations. The communities nominated during the community meeting were East Oakland Community, the San Diego Border Community, and several Central Valley communities, including La Viña, South Madera, and South Modesto. There were also some process improvement observations and suggestions provided for the Program. A recording of the December 7, 2021, public meeting is available on CARB's Community Selection Process and 2021 Community Recommendations page. During the December 2021 workshop, CARB staff included a recommendation for the North Imperial County Corridor Community. After it became clear that additional funding for program administration was not provided in the proposed budget to support the North Imperial County Corridor Community, the Imperial County APCD requested that the recommendation not go forward.

Based on criteria set forth in AB 617 and the Program Blueprint, public feedback in Board meeting testimony and virtual meetings, and CARB staff analysis conducted to characterize the emissions burden of communities throughout the State in the statewide assessment, staff is recommending:

- The East Oakland Community in the Bay Area AQMD be selected to develop a community emissions reduction program.
- The International Border Community, San Ysidro and Otay Mesa in the San Diego County APCD be selected to develop both a community air monitoring system and emissions reduction program.

Table 2 includes the community actions, key sources, and rationale for recommendation. Community profiles presented in Sections 6 and 7 provide additional community details including a community description, current community engagement, and preliminary air quality and emissions inventory data. These community profiles provide a preliminary assessment of the recommended community using readily available information.

Following Board selection of a community, CARB and air districts will collaborate with community members to refine the analysis on their community profile and provide the methodology, original or updated data²⁴, and updated results to aid the community steering committee in developing an air monitoring plan, an emission reductions plan, or both.

Community (Air District)	Action	Key Emission Sources	Rationale		
East Oakland (Bay Area)	Develop a Community Emissions Reduction Program	Power plants, foundries, and waste processing facilities, airport, large distribution centers, freeways and roadways, trucks, transit buses, industrial equipment, freight, and passenger rail.	 Consistent with CARB Board direction to prioritize communities recommended by community-based organizations in previous years but not selected yet. East Oakland is a priority community for the Bay Area AQMD, supported by the community in every year of the program. 		
International Border Community- San Ysidro, Otay Mesa (San Diego)	Develop a Community Air Monitoring Plan and Emissions Reduction Program	Two international Port of Entries – at San Ysidro and Otay Mesa; truck traffic, freeways,	 Consistent with CARB Board direction to prioritize communities recommended by community-based organizations in previous years but not selected yet. Nominated this year and in 2019 by San Diego APCD. 		

Table 2. Community Recommendations- In Alphabetical Order by Air District.

²⁴ AB 617 Community Planning Emission Inventory: Inventory Years. Available at https://ww2.arb.ca.gov/sites/default/files/2020-07/AB% 20617% 20Calandar% 20Years% 20far% 20Cammunity% 20Planning% 20Emia

^{07/}AB%20617%20Calendar%20Years%20for%20Community%20Planning%20Emission%20Inventories%202020-02-26.pdf.

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East Oakland Community

Staff Recommendation – Community Emissions Reduction Program

During the August 12, 2021, AB 617 Public Workshop²⁵, the Bay Area AQMD nominated the East Oakland Community in Alameda County for the AB 617 program. In 2018, the Bay Area AQMD included East Oakland in its list of future years nominations. Data shows residents of this community have lower life expectancies and higher mortality rates from lung diseases due to constant exposure to air pollution²⁵. This community has a higher rate of asthma emergency room visits and cardiovascular disease than most of California. It also has some of the highest unemployment and housing cost burdens and some of the lowest educational attainment and life expectancy in the State²⁶.

Residents of East Oakland have been advocating for the Bay Area AQMD to nominate their community since the inception of the AB 617 program. CARB has also acknowledged East Oakland on its list of Communities Strongly Supported²⁷. CARB staff supports this nomination and recommends the Board select the East Oakland Community for the development and implementation of a community emissions reduction program.

Community Description

Figure 4 shows the areas in the proposed East Oakland Community. While the community boundary is not finalized, it would likely span 19 square miles and has an approximate population of 220,400. According to the Bay Area AQMD's nomination, the East Oakland community is home to major goods movement and transportation corridors, as well as air pollution sources associated with industry and the trucking industries. There are 78 schools, 21 senior care facilities, 44 daycare facilities, and 55 hospitals or clinics²⁸ in this area, all of which are sensitive receptors to air pollution. Neighborhoods that will likely be included in this community include Melrose, Highland-Elmhurst, Sobrante Park, Brookfield Village-Columbia Gardens, Stonehurst, and Coliseum-Rudsdale-Lockwood-Havenscourt.

²⁷ CARB. List of Communities Strongly Supported. August 2021. Available at:

https://ww2.arb.ca.gov/sites/default/files/2021-09/Communities%20strongly%20supported.pdf

²⁵ Bay Area Air Quality Management District. AB 617 Public Workshop: August 12, 2021. Available at: https://www.youtube.com/watch?v=a0sfxqyb_jQ

²⁶ CalEnviroScreen 4.0. The CES 4.0 Score is the highest overall percentiles of a census tract found within the boundary. Available at https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

²⁸ Data Source: public school - https://gis.data.ca.gov/datasets/CDEGIS::california-schools-2019-20/about, private school - https://gis.data.ca.gov/datasets/CDEGIS::california-private-schools/explore, childcare facilities https://gis.data.ca.gov/datasets/CDEGIS::california-early-learning-and-care-sites/about, healthcare facilities https://gis.data.ca.gov/datasets/CDPHDATA::cdph-licensing-and-certification-healthcare-facilities/about, elderly care facilities - https://data.ca.gov/dataset/community-care-licensing-residential-elder-care-facility-locations

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Fourth Annual Community Air Protection Program Recommendations Staff Report – January 2022 Please submit any written comments on this Staff Report by January 31, 2022 to: https://www.arb.ca.gov/lispub/comm/bclist.php Figure 5 shows a neighborhood in the proposed East Oakland Community. As per 2019 emissions data²⁹, there are 232 permitted stationary sources within the community area. Power plants, foundries, and waste processing facilities are among the largest emitters in the community. Other notable sources of air pollution include the Oakland International Airport, large distribution centers, high-volume freeways and roadways (I-880, I-238, I-580, and Highway 92), trucks, transit buses, industrial equipment, freight, and passenger rail.



Figure 5. East Oakland Community Photo

The majority of the census tracts that make up the proposed East Oakland Community are considered disadvantaged per SB 535³⁰ and are low-income per AB 1550³¹. Table 3 shows that this community has an overall CalEnviroScreen4.0 (CES) score in the 98th percentile. This community has the worst diesel particulate matter (DPM) and asthma scores in the State,

²⁹ Data Source: Based on Air District reported 2019 facility emissions to CARB. Air Districts report criteria and toxics emissions from facilities to CARB's California Emission Inventory Development and Reporting System (CEIDARS). Facilities report GHG emissions to CARB's Greenhouse Gas Mandatory Reporting Regulation. Facility Search Engine: https://www.arb.ca.gov/app/emsinv/facinfo/facinfo.php. Pollution Mapping Tool: https://ww3.arb.ca.gov/ei/tools/pollution_map/; https://www.arb.ca.gov/ei/tools/pollution_map/v30beta.htm.

³⁰ Disadvantaged community designations per Senate Bill (SB) 535 (De León, Chapter 830, Statutes of 2012).

³¹ Low-income definitions per Assembly Bill (AB) 1550 (Gomez, Chapter 369, Statutes of 2016).

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where both metrics are at the 100th percentile. East Oakland also ranks at the 98th percentile statewide in terms of cancer risk and cancer burden and has a Healthy Places Index at the 94th percentile. Residents also face significant economic challenges as indicated by high poverty and unemployment CES scores of 97th and 95th percentiles, respectively.

Overall CES 4.0 Score	PM2.5	DPM	Asthma	Cardiov ascular Disease	Poverty	Unempl oyment	Cancer Risk	Cancer Burden	CA Healthy Places Index
98	47	100	100	90	97	95	98	98	94

Table 3. Key Table of Metrics Indicators for East Oakland^{32,33}.

Community Engagement

There have been decades of leadership and community capacity building, interneighborhood coalitions, and collaborations among East Oakland community members. The East Oakland Neighborhoods Initiative³⁴ is one such partnership between the City of Oakland Planning Bureau and twelve community-based organizations. This initiative aims to reach out to community members to identify their primary concerns, goals, and priorities for East Oakland and share the findings with residents and stakeholders. In addition to being a priority community for Bay Area AQMD, East Oakland also has community support from other organizations including Communities for a Better Environment, New Voices are Rising, and Alameda Public Health.

Air Quality Burden Assessment

This section summarizes the air quality issues in and around the proposed East Oakland Community to support CARB staff's rationale for recommending this community to CARB Board for selection.

Ambient Air Quality Data

The Oakland-East (ARB #: 60347) site is a regulatory air quality monitoring station on the east side of the community (Figure C- 1 in Appendix C). Figure 6 shows PM2.5 concentrations at the monitoring station were highest during the 3rd or 4th quarter of each year between 2017

³² Data Source: https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40. More information on California Healthy Places Index available at: https://healthyplacesindex.org/.

³³ The CES 4.0 Score and CA Healthy Places Index are the highest overall percentiles of a census tract found within the boundary

³⁴ East Oakland Neighborhoods Initiative webpage available at *https://www.oaklandca.gov/topics/east-oakland-neighborhoods-initiative*

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to 2020 and could be attributable to wildfire season^{35,36}. It is noteworthy that the annual average concentration of PM2.5 never exceeded the National Ambient Air Quality Standards (NAAQS) of 12μ g/m³.



Figure 6. Average PM2.5 Concentration for Oakland-East (ARB #: 60347)³⁷

Figure 7 shows the annual average concentration of toxic air contaminants: 1,3 - butadiene, benzene, carbon tetrachloride, ethylbenzene, m/p –xylene, o – xylene, and toluene. Prolonged exposure to these toxics at elevated concentrations may increase the chances of carcinogenic and non-carcinogenic health issues³⁸. The chronic non-cancer Reference Exposure Level (REL) threshold are 3.6 parts per billion - Carbon (ppb-C) for 1,3-butadiene, 5.6 ppb-C for benzene, 6.4 ppb-C for carbon tetrachloride, 3,686 ppb-C for ethylbenzene, 1,290 ppb-C for the xylenes, and 780 ppb-C for toluene³⁹. None of the annual average concentration of the air toxics measured at Oakland-East exceeded their respective chronic REL threshold. While concentrations of air toxics were higher in 2019 compared to 2018, they

³⁵ Analysis of 2018 Camp Fire wildfire smoke on PM2.5. Available at: https://ww2.arb.ca.gov/news/new-analysisshows-spikes-metal-contaminants-including-lead-2018-camp-fire-wildfire-smoke

³⁶ Bay Area AQMD extends Spare the Air Alert for smoke. September 11, 2020. Available at: https://www.baaqmd.gov/news-and-events/page-resources/2020-news/091120-sta

³⁷ Air Monitoring Site Information for the Oakland East (ARB #: 60347) monitoring station: https://www.arb.ca.gov/qaweb/iframe_site.php?s_arb_code=60347. PM2.5 concentrations available at: https://www.arb.ca.gov/aqmis2/aqmis2.php. Data retrieved on 8/30/2021.

³⁸ More information on Hazardous Air Pollutants available at https://www.epa.gov/haps and https://www.epa.gov/haps/initial-list-hazardous-air-pollutants-modifications

³⁹ OEHHA Acute, 8-hour and Chronic Reference Exposure Level (REL) Summary:

https://oehha.ca.gov/air/general-info/oehha-acute-8-hour-and-chronic-reference-exposure-level-rel-summary

The Chronic non-Cancer REL is reported in micrograms per cubic meter (ug/m3). RELs were to parts per billion – carbon (ppb-C) for ease of comparison with monitoring data.

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decreased in 2020. Aside from m/p-xylene measurements from 2018 to 2019, all yearly changes in average annual concentration were below 1 ppb-C. Interestingly, the trends shown by these air toxics are opposite of the annual average PM2.5 concentration. It must be noted that the air toxics measurements are taken once every twelve days in the form of 24-hour average concentrations, and this would create significant gaps in data between measurements.





The Oakland-East monitoring station does not have meteorological monitors. To better understand the sources of the PM concentrations captured by the monitoring station, Staff retrieved and analyzed the wind speed and direction data from the closest meteorological station at the Oakland International Airport (Figure C- 1 in Appendix C), which is just 3-miles southwest of the International Blvd monitoring station. As evident from the pollution roses⁴¹ in Figure 8, the most dominant wind directions in the region are westerly and northwesterly winds. The sea breeze blowing from San Francisco Bay is the most dominant wind. The monitoring station captured high concentrations of PM2.5 (>60 µg/m3) from all directions in 2018 and 2020 whereas high concentration episodes were more common when the wind was blowing from the north-northwest quadrant in 2017 and from the northwest in 2019.

⁴⁰ Air Monitoring Site Information for Oakland East (ARB #: 60347):

https://www.arb.ca.gov/qaweb/iframe_site.php?s_arb_code=60347. Annual concentration of toxics retrieved from https://aqs.epa.gov/aqsweb/airdata/download_files.html on November 29th, 2021.

⁴¹ For a description on how to interpret a wind or a pollution rose, see Appendix D in this document.

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Figure 8. Pollution Roses for Oakland-East (ARB #: 60347). Wind Speed and Direction from Oakland International Airport⁴².

⁴² Data source: http://erddap.cencoos.org/erddap/tabledap/noaa_nos_co_ops_9414863.html

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Preliminary Emissions Inventory Estimates

A preliminary emissions inventory⁴³ based on the proposed community boundary was developed by CARB to quantify emissions of mobile (on-road and off-road), stationary, and areawide sources in the community. Details on the methodology used are provided in Appendix E in this document. Figure 9 summarizes the draft estimated emissions for key air pollutants, such as nitrogen oxides (NOx), reactive organic gases (ROG), and particulate matter 2.5 microns or smaller (PM2.5) for this community.

Figure 9. Preliminary Source Contributions in the East Oakland Community. (2020 Preliminary Emissions in Tons/Year, tpy)



The activities that contribute to these emissions are listed in Table 4 and are detailed in Table E.a.2 in Appendix E, along with an initial spatial distribution based on a preliminary planning emissions inventory.

Table 4. ⁻	Top Source	Categories k	by Stationary,	Areawide,	and Mobile	for the East
Oakland	Community	. (Preliminary	Emission Inv	entory for	2020)44	

Stationary Sources						
PM2.5	Percent	ROG	Percent			
Mineral Processes	56%	Coatings and Related Process Solvents	30%			
Food and Agriculture	19%	Petroleum Marketing	17%			

 ⁴³ An emission inventory estimates the amount of air pollutants released into the atmosphere by emission sources in a specific geographical area and over a certain time period. Emission inventories are developed with the best data available and are updated over time to reflect sound science and robust new data.
 ⁴⁴ See Appendix E in this document for methodology and additional information on the emissions inventory. For more details on source categories and associated activities (emission inventory codes), see documentation at https://ww3.arb.ca.gov/ei/documentation.htm

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Stationary Sources			
PM2.5	Percent	ROG	Percent
Metal Processes	19%	Adhesives and Sealants	16%
Service and Commercial	2%	Printing	7%
Manufacturing and Industrial	2%	Degreasing	6%
Area Sources ⁴⁵			
PM2.5	Percent	ROG	Percent
Residential Fuel Combustion	50%	Consumer Products	63%
Paved Road Dust	27%	Architectural Coatings and Related Process Solvents	26%
Cooking	14%	Other (Miscellaneous Processes)	6%
Construction and Demolition	5%	Residential Fuel Combustion	4%
Other (Miscellaneous Processes)	2%	Asphalt Paving / Roofing	1%
Mobile Sources ⁴⁶			
PM2.5	Percent	ROG	Percent
Aircraft	32%	Light Duty Vehicles	32%
Off-Road Equipment	22%	Off-Road Equipment	28%
Light Duty Vehicles	17%	Aircraft	26%
Heavy Heavy Duty Vehicles	13%	Medium Duty Vehicles	5%
Light Heavy Duty Vehicles	5%	Fuel Storage and Handling	3.0%

Figure 10 presents the emissions trends for NOx, PM2.5, and ROG in the San Francisco Bay Area Air Basin from 2010 through 2030 using the latest State Implementation Plan (SIP)

⁴⁵ District and CARB methodologies for estimating area source emissions: *https://ww2.arb.ca.gov/index-methodologies-major-category*

⁴⁶ Documentation on mobile sources: https://ww2.arb.ca.gov/sites/default/files/2021-

^{08/}emfac2021_technical_documentation_april2021.pdf; https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-road-documentation-0

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emission inventory⁴⁷. The forecasted emissions provide an initial assessment of future emission trends and air quality benefits in the air basin from existing emission reduction programs and reflects the effects of the regional growth assumptions and adopted CARB and District rules received by September 2021. A community-scale forecasted inventory will be developed to evaluate the air quality benefits of adopted rules as well as ongoing and potential future rulemaking activities if the community is selected by the CARB Board.





Figure 11 shows the trend of diesel particulate matter (diesel PM or DPM) emissions from onroad vehicles in the San Francisco Bay Area Air Basin⁵. The emissions are projected to decrease significantly in future years from the implementation of adopted mobile source regulations, including the Regulation to Reduce Emissions of DPM, NOx, and Other Criteria Pollutants from In-Use Heavy-Duty Diesel-Fueled Vehicles (also known as the Truck and Bus Regulation)⁴⁸. CARB has several mobile source regulations under rulemaking that when adopted will provide for additional reductions in DPM emissions in the community.

⁴⁷ Based on the latest SIP inventory with a 2017 base year (CEPAM 2019SIP v1.03).

⁴⁸ For more information on the Truck and Bus Regulation, visit: <u>https://ww2.arb.ca.gov/our-work/programs/truck-and-bus-regulation</u>

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Proximity-Based Exposure

The proposed East Oakland Community spans approximately 12,000 acres (approximately 19 square miles). Residential land use within this area is about 45 percent, followed by 28 percent for industrial and 15 percent for commercial purposes. As shown in Figure 12, industrial activities are most prominent on the western end of the community and along the San Francisco Bay. According to Assessor Parcel Number (APN) data, the most significant industrial land uses in the community are associated with light industrial operations (3,080 acres), general industrial (750 acres), and general industrial and transportation (329 acres). Residential zones are located on the north and east sides of the community and are generally not adjacent to industrial zones. However, comparison of Figure 12 and Figure 13 shows that some of the industrial zones along Interstate 580, Castro St, and Richmond Parkway are directly adjacent to some of the most densely populated areas in the community.

Additional resources on land use planning information are available on CARB's Community Air Protection Program Resource Center⁴⁹.





 ⁴⁹ For additional information regarding CARB's Community Air Protection Program and the online Resource Center visit: https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program
 ⁵⁰ Data Source: https://www.digmap.com/platform/smartparcels/, https://www.cde.ca.gov/ds/, http://datacdphdata.opendata.arcgis.com/, https://ww3.arb.ca.gov/research/apr/past/11-336.pdf

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Figure 13. Population Density and Sensitive Receptors for the Proposed East Oakland Community⁵¹.

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Community Air Grants

The following grants were awarded in 2019:

- Communities for a Better Environment (CBE) was awarded \$99,998 for their project, "CBE Communities 2020 617 Engagement for Clean Air Project", which supports community engagement and participation in AB 617 processes in South East Los Angeles, Wilmington, Richmond, and Rodeo. CBE also supports the development of air regulatory for air pollution sources in East Oakland through engagement on air regulatory advocacies. The goal of the project is to increase AB 617 awareness and engagement for residents and increase leadership development in communities to effectively engage in decision-making.
- The Rose Foundation was awarded \$45,015 in 2019. This project serves the Oakland and Richmond areas with the goal of strengthening youth engagement in AB 617 related planning and community outreach. Some specific measures of this project include: (i) broadening community knowledge about air pollution and its health impacts in the area, (ii) encouraging participation in AB 617 planning and participation by young people and community members, and (iii) building a broad base of support for action to address long-standing pollution problems.
- Strategic Energy Innovations was awarded \$90,829 for their project, "Air Quality Education: East Bay." The project engages middle and high school students in Oakland, Antioch, and Pittsburg on air quality education and action planning by utilizing the Kids Making Sense air quality education program. Kids Making Sense teaches students about monitoring and improving air quality in their communities. This program allows students to learn about PM pollution, its sources, health effects, and actions that can be taken to reduce air pollution.

The following grants were awarded in 2018:

• Rose Foundation was awarded \$149,915 for the "Just Breathing" Project which increases participation in AB 617 implementation among Oakland youth, their families, friends, and other community members. The project brings youth and community perspectives into the planning process to build a genuine partnership process with agencies and local government in improving air quality. Young community leaders develop their skills and confidence through direct trainings, hands-on activities, and mentorship with community leaders.

Supplemental Environmental Project

In 2019 and 2020, Supplemental Environmental Project funds of \$1,067,886 were awarded to IQAir Foundation to install air filtration systems as part of the Schools Oakland Supplemental

⁵¹ Data Source: https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40

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Environmental Project. Communities for a Better Environment, in collaboration with IQ Air North America, Inc. proposed the installation and maintenance of high-performance air filtration systems (~89% reduction of PM and black carbon) in schools located in communities impacted by air pollution within the Oakland Unified School District. A total of 11 schools across Oakland will benefit from this project, which is expected to last 5 years and includes a maintenance plan to replace the filter. This Supplemental Environmental Project has received funding from three different enforcement cases between September 2019 and April 2020.

International Border Community

Staff Recommendation – Community Air Monitoring Plan and Community Emissions Reduction Program

The proposed International Border Community area in San Diego County is within the San Diego APCD's area of jurisdiction. During the July 22, 2021, San Diego-Tijuana Air Quality Task Force meeting, the San Diego APCD reiterated its interest to nominate this community for the AB 617 program. The San Diego APCD, Casa Familiar, and residents have supported the nomination of this community since the inception of AB 617.⁵²

CARB staff supports the nomination of the proposed International Border Community and recommends the CARB Board select this community to develop and implement a community air monitoring plan and an emissions reduction program.

Community Description

The areas likely to be included in the proposed International Border Community (Figure 14) span approximately 23.5 square miles. This community has an approximate population of 64,400 and includes about 8 schools, 1 senior care facility, 5 daycare facilities, and 7 hospitals or clinics. This community covers San Ysidro and Otay Mesa and is located at the U.S-Mexico International Border. Emissions from sources in the Tijuana Metropolitan Area likely add to this community's air quality burden⁵³.

 ⁵² List of Communities Strongly Supported by CARB. August 2021. Available at: https://ww2.arb.ca.gov/sites/default/files/2021-09/Communities%20strongly%20supported.pdf
 ⁵³ San Diego APCD. San Diego-Tijuana Air Quality Task Force Meeting July 2021. Available at: https://www.youtube.com/watch?v=Jk5CGL5vyx8&t=2509s

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Figure 14. Proposed International Border Community Detail.

According to 2019 emissions data⁵⁴, there are 27 stationary sources within this community and most of these are power generation facilities, gasoline dispensing facilities, or coating operations. Furthermore, several major freeways (I-5, I-805, and I-905) surround this community, which adds to the mobile source air pollution burdens.

The proposed International Border Community has two international Port of Entries (POE) – at San Ysidro and at Otay Mesa. The San Ysidro POE (Figure 15) is the busiest land POE in the Western Hemisphere. Every day, as many as 50,000 vehicles and 25,000 pedestrians

⁵⁴ Data Source: Based on Air District reported 2019 facility emissions to CARB. Air Districts report criteria and toxics emissions from facilities to CARB's California Emission Inventory Development and Reporting System (CEIDARS). Facilities report GHG emissions to CARB's Greenhouse Gas Mandatory Reporting Regulation, Facility Search Engine: https://www.arb.ca.gov/app/emsinv/facinfo/facinfo.php. Pollution Mapping Tool: https://ww3.arb.ca.gov/ei/tools/pollution_map/

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cross this POE⁵⁵. In recent years, the San Ysidro POE has grown to be the third-busiest commercial POE on the Border. The Otay Mesa POE is the busiest heavy-duty truck crossing in the state and one of the busiest in the country⁵⁶. San Diego APCD has indicated that this community faces some of the worst DPM pollution in the state due to high volumes of truck traffic that crosses the international border daily.



Figure 15. International Border Community Photo.

Most of the census tracts that make up this proposed community are considered disadvantaged per SB 535⁵⁷ and low-income per AB 1550⁵⁸. As shown in Table 5, the overall CES score of the census tracts that make up the International Border Community is at the 83rd percentile. Table 5 also shows exceedingly high CES scores at the 99th and 92nd percentiles, for PM2.5 and diesel PM respectively. Residents also face significant health challenges for asthma, cardiovascular disease, cancer risk, and cancer burden that are all

⁵⁵ San Diego APCD. PM2.5 Monitoring at the San Ysidro Port-of-Entry. Available at

https://www.sdapcd.org/content/dam/sdapcd/documents/monitoring/San-Ysidro-Project-Report.pdf ⁵⁶ San Diego APCD. 5-Year Air Quality Monitoring Network Assessment 2020. May 27, 2020. Available at https://www.sdapcd.org/content/dam/sdapcd/documents/monitoring/2020-Network-Assessment.pdf

⁵⁷ Disadvantaged community designations per Senate Bill (SB) 535 (De León, Chapter 830, Statutes of 2012).

⁵⁸ Low-income definitions per Assembly Bill (AB) 1550 (Gomez, Chapter 369, Statutes of 2016).

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above the 75th percentile. Residents also face significant economic challenges as reflected by the poverty and unemployment scores of 93rd and 96th percentile, respectively.

CA Overall Cardiov Unempl Cancer Cancer Healthy CES PM2.5 DPM Asthma ascular Poverty Burden Places oyment Risk Disease Score Index 99 92 78 80 93 96 89 97 90 83

Table 5. Key Table of Metric Indicators for the International Border Community^{59,60}.

Community Engagement

San Diego APCD nominated the International Border Community and the Portside Environmental Justice Neighborhood community for the AB 617 program in 2018. Residents from the San Ysidro area have expressed concerns over the air quality impacts from the POE in their community⁶¹. San Diego APCD has worked with local communities and environmental groups, such as Casa Familiar, to develop monitoring plans in the San Ysidro and Otay Mesa^{62,63}. State and local air agencies worked with Casa Familiar and academia to conduct a study that concluded that PM emitted from local and regional sources, especially those from the Tijuana Metropolitan Area, greatly impacted the proposed International Border Community⁶³. During CARB's December 7, 2021, Public Meeting on Draft Recommendations, several community residents expressed support for the nomination.

Air Quality Burden Assessment

The discussion presented here summarizes the air quality burden in and around the proposed International Border Community and highlights the current air quality issues the community is experiencing to support CARB staff's rationale for recommending this community to develop and implement a community air monitoring plan and an emissions reduction program.

⁵⁹ Data Source: https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40. More information on California Healthy Places Index available at: https://healthyplacesindex.org/

⁶⁰ The CES 4.0 Score and CA Healthy Places Index are the highest overall percentiles of a census tract found within the boundary.

⁶¹ Data Source: Based on Air District reported 2019 facility emissions to CARB. Air Districts report criteria and toxics emissions from facilities to CARB's California Emission Inventory Development and Reporting System (CEIDARS). Facilities report GHG emissions to CARB's Greenhouse Gas Mandatory Reporting Regulation, Facility Search Engine: https://www.arb.ca.gov/app/emsinv/facinfo/facinfo.php. Pollution Mapping Tool: https://ww3.arb.ca.gov/ei/tools/pollution_map/

⁶² San Diego APCD. PM2.5 Monitoring at the San Ysidro Port-of-Entry. Available at https://www.sdapcd.org/content/dam/sdapcd/documents/monitoring/San-Ysidro-Project-Report.pdf

⁶³ Casa Familiar. Air pollution study in San Ysidro. Available at https://www.casafamiliar.org/san-ysidro-airmonitoring-study/

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Ambient Air Quality Data

The Otay Mesa-Donovan site (ARB #: 80140) is located at the east side of the International Border Community (Figure C-2 in Appendix C) and is equipped with a California Approved Sampler for continuous PM2.5 measurement. Figure 16 shows that the annual average concentration of PM2.5 at Otay Mesa-Donovan has been increasing since 2017 and was above the federal annual standards of 12.0 μ g/m3 between 2017 to 2020. Acclima, a company that specializes in taking hyperlocal air quality measurements, conducted three separate 3-month-long street-level monitoring campaigns on mobile platforms in Otay Mesa during the Spring (March to June), Summer (June to September), and Fall (September to December) of 2019⁶⁴. During all three campaigns, they consistently measured high concentrations of PM2.5 (up to 20 μ g/m3) and black carbon (up to 2 μ g/m3) in Otay Mesa, especially during the Fall campaign. Findings from Acclima study indicate the community may be significantly burdened by diesel source emissions⁶⁴.

The San Ysidro Blvd monitoring station (Figure C-2 in Appendix C) is located 1.3 miles northwest of the San Ysidro POE and by the San Diego Freeway. As this station was set up in 2021, no PM2.5 measurements or data is available for this monitoring station prior to 2020. However, we can infer San Ysidro's PM2.5 levels through Acclima's street-level monitoring campaigns. Acclima consistently found higher PM2.5 concentrations in San Ysidro compared to the other San Diego communities where they monitored⁶⁵. San Diego APCD has also reported that, on average, the PM2.5 concentration at the San Ysidro POE is higher than the rest of the San Diego air basin and may be attributable to the emissions from across the border and less so from idling vehicles at the POE⁶⁶.

⁶⁶ San Diego APCD. PM2.5 Monitoring at the San Ysidro Port-of-Entry. Available at https://www.sdapcd.org/content/dam/sdapcd/documents/monitoring/San-Ysidro-Project-Report.pdf

⁶⁴ Acclima. San Diego Communities Interactive Street-level Air Quality Report. Available at: https://insights.aclima.io/san-diego

⁶⁵ Acclima. San Diego Communities Interactive Street-level Air Quality Report. Available at: https://insights.aclima.io/san-diego

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Figure 16. Average PM2.5 Concentrations for Otay Mesa-Donovan (ARB #: 80140)⁶⁷.

As shown in Figure 17, the monthly average black carbon concentrations at the San Ysidro Blvd monitoring station were higher than the other stations in the San Diego air basin from August 2020 through April 2021 and from October 2021 to November 2021. High black carbon concentrations during the cooler fall and winter months could be attributable to reduced dispersion and possibly increase in wood burning⁶⁸. At the July 22, 2021, San Diego-Tijuana Air Quality Task Force Meeting, the San Diego APCD also reported that, between the 4th quarter of 2019 and the 4th quarter of 2020, the black carbon concentration measured at the San Ysidro Blvd monitoring station was considerably higher than those from monitoring stations outside the International Border Community area⁶⁹. Since commercial trucks are rerouted to the Otay Mesa POE, traffic emissions from border crossing are unlikely the main source of the black carbon concentration measured.

⁶⁷ Air Monitoring Site Information for Otay Mesa-Donovan (ARB #: 80140):

https://www.arb.ca.gov/qaweb/iframe_site.php?s_arb_code=80140. PM2.5 concentrations available at: https://www.arb.ca.gov/aqmis2/aqmis2.php retrieved on August 30th, 2021.

⁶⁸ CARB. Black Carbon and the Regional Climate of California. Available at:

https://ww2.arb.ca.gov/sites/default/files/classic/research/apr/past/08-323.pdf

⁶⁹ San Diego APCD. San Diego-Tijuana Air Quality Task Force Meeting July 2021. Available at: https://www.youtube.com/watch?v=Jk5CGL5vyx8&t=2509s

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Figure 17. Black Carbon Concentrations at Five San Diego APCD Monitoring Stations⁷⁰

Figure 18 shows the pollution roses⁷¹ for Otay Mesa-Donovan PM2.5 concentration. The monitoring station primarily experiences northwesterly winds, followed by southeasterly winds. The highest concentrations of PM2.5 are observed when the wind is southeasterly. Traffic at the POE and facilities on the Mexican side of the border are the most significant sources on the south side of the monitoring station. San Diego APCD also reported a similar observation on wind patterns and PM2.5 concentrations in their study⁷². San Diego APCD identified emissions from facilities south of the U.S.-Mexico International Border as a more significant source of PM2.5 than the traffic at the POE⁷³.

⁷⁰ San Diego air district black carbon concentrations available at: *https://aqview.arb.ca.gov/data.html*. Downloaded on December 2nd, 2021.

⁷¹ For a description on how to interpret a wind or pollutant rose, see Appendix D in this document.

⁷² The Community of San Ysidro/Otay Mesa. San Diego APCD Submittal for Community Air Monitoring. https://www.sdapcd.org/content/dam/sdc/apcd/PDF/AB_617/San%20Diego%20County%20APCD%20Commun ity%20Monitoring%20Air%20District%20Submittals%207%2031%2018.pdf#page=21

⁷³ San Diego APCD. PM2.5 Monitoring at the San Ysidro Port-of-Entry. Available at https://www.sdapcd.org/content/dam/sdapcd/documents/monitoring/San-Ysidro-Project-Report.pdf

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Figure 18. Pollution Rose for Otay Mesa-Donovan (ARB #: 80140)⁷⁴.

⁷⁴ Wind data retrieved from http://erddap.cencoos.org/erddap/tabledap/noaa_nos_co_ops_9414863.html on August 30th, 2021. PM2.5 concentrations available at: https://www.arb.ca.gov/aqmis2/aqmis2.php retrieved on August 30th, 2021.

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Preliminary Emissions Inventory Estimates

Preliminary emissions inventory⁷⁵ based on the proposed community boundary was developed by CARB to quantify emissions of mobile (on-road and off-road), stationary, and areawide sources in the community. Details on the methodology used are provided in Appendix E in this document. Figure 19 summarizes the draft estimated emissions for key air pollutants, such as nitrogen oxides (NOx), reactive organic gases (ROG), and particulate matter 2.5 microns or smaller (PM2.5) for this community.

Figure 19. Preliminary Source Contributions in the International Border Community. (2020 Preliminary Emissions in Tons/Year, tpy)



The activities that contribute to these emissions are listed in Table 6 and are detailed in Table E.b.2 in Appendix E, along with an initial spatial distribution based on a preliminary planning emissions inventory.

Table 6. Top Source Categories by Stationary, Areawide, and Mobile for the Internationa
Border Community. (Preliminary Emission Inventory for 2020) ⁷⁶

Stationary Sources								
PM2.5	Percent	ROG	Percent					
Fuel Combustion (Other)	55%	Petroleum Marketing	38%					
Electric Utilities	36%	Coatings and Related Process Solvents	20%					

⁷⁵ An emission inventory estimates the amount of air pollutants released into the atmosphere by emission sources in a specific geographical area and within a certain time period. Emission inventories are developed with the best data available and are updated over time to reflect sound science and robust new data.
⁷⁶ See Appendix E in this document for methodology and additional information on the emissions inventory. For more details on source categories and associated activities (emission inventory codes), see documentation at https://ww3.arb.ca.gov/ei/documentation.htm

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Stationary Sources									
PM2.5	Percent	ROG	Percent						
Service and Commercial	6%	Chemical	11%						
Manufacturing and Industrial	2%	Adhesives and Sealants	11%						
Metal Processes	1%	Printing	8%						
Areawide Sources ⁷⁷									
PM2.5	Percent	ROG	Percent						
Construction and Demolition	76%	Consumer Products	53%						
Cooking	13%	Architectural Coatings and Related Process Solvents	21%						
Paved Road Dust	6%	Asphalt Paving / Roofing	19%						
Residential Fuel Combustion	3%	Cooking	3%						
Managed Burning and Disposal	1%	Farming Operations	2%						
Mobile Sources ⁷⁸									
PM2.5	Percent	ROG	Percent						
Off-Road Equipment	42%	Light Duty Vehicles	39%						
Light Duty Vehicles	23%	Off-Road Equipment	28%						
Aircraft	19%	Aircraft	18%						
Medium Duty Vehicles	4%	Medium Duty Vehicles	8%						
Light Heavy Duty Vehicles	4%	Fuel Storage and Handling	3%						

Additionally, Figure 20 presents the emissions trends for NOx, PM2.5, and ROG in the San Diego Air Basin from 2010 through 2030 using projected emissions from the latest State

⁷⁷ District and CARB methodologies for estimating area source emissions: https://ww2.arb.ca.gov/indexmethodologies-major-category

⁷⁸ Documentation on mobile sources: https://ww2.arb.ca.gov/sites/default/files/2021-

^{08/}emfac2021_technical_documentation_april2021.pdf; https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-road-documentation-0

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Implementation Plan (SIP) emissions inventory⁷⁹. The forecasted emissions provide an initial assessment of future emission trends and air quality benefits in the air basin from existing emission reduction programs and reflects the effects of regional growth assumptions and adopted CARB and District rules received by September 2021. A community-scale forecasted inventory will be developed to evaluate the air quality benefits of adopted rules, and ongoing and potential future rulemaking activities if the International Border Community is selected by the CARB Board.





Figure 21 shows the trend of diesel particulate matter (diesel PM or DPM) emissions from onroad vehicles in the San Diego Air Basin. The emissions are projected to decrease significantly in future years from the implementation of adopted mobile source regulations, including the Regulation to Reduce Emissions of DPM, NOx, and Other Criteria Pollutants from In-Use Heavy-Duty Diesel-Fueled Vehicles (also known as the Truck and Bus Regulation) CARB has several mobile source regulations under rulemaking that will further decrease DPM emissions in the community.

⁷⁹ Based on the latest SIP inventory with a 2017 base year (CEPAM 2019SIP v1.03).

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■ Light Duty ■ Light Heavy Duty ■ Medium Duty ■ Medium Heavy Duty ■ Heavy Heavy Duty ■ Bus

Proximity-Based Exposure

The proposed International Border Community spans over 15,040 acres (approximately 23.5 square miles). The community's public, semi-public, or education land use is about 39 percent, followed by 37 percent for agricultural use and 32 percent for residential use. The map in Figure 22 illustrates the land use categories within the proposed community area. Industrial zones are mostly located in Otay Mesa. Assessor Parcel Number (APN) data also shows the largest industrial land use is associated with light industrial operations (3,080 acres), followed by general industrial (750 acres), and general industrial and transportation (329 acres).

The residential zones in the community are mostly outside of the industrial zones. A comparison of the maps in Figure 22 and Figure 23 show that industrial zones are concentrated in Otay Mesa, whereas the residential areas are concentrated in San Ysidro with areas along Interstate 5 and Interstate 805 being most densely populated. During the December 2021, CARB Public Meeting on Draft Recommendations⁸⁰, an attendee did

⁸⁰ Link to December 7th, 2021, Community Recommendation and Selection virtual meeting recording. Available at https://ww2.arb.ca.gov/capp-selection?utm_medium=email&utm_source=govdelivery

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express that Otay Mesa was undergoing rapid development, both residentially and commercially, that would change the community outlook in near future. Additional resources on land use planning information are available in the Resource Center on CARB's Community Air Protection Program⁸¹ website.





⁸¹ Community Air Protection Program website available at: https://ww2.arb.ca.gov/capp

⁸² Data Source: https://www.digmap.com/platform/smartparcels/, https://www.cde.ca.gov/ds/, http://data-cdphdata.opendata.arcgis.com/, https://ww3.arb.ca.gov/research/apr/past/11-336.pdf

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Figure 23. Population Density and Sensitive Receptor for the Proposed International Border Community⁸³.

Community Air Grant

Casa Familiar was awarded \$492,269 in 2018 to provide residents with the necessary data to better understand air quality impacts. The grantee is developing a community led air monitoring network that will measure and inform the level of certain pollutants in the impacted areas of San Ysidro. The project uses data to develop public health initiatives and plans to reduce exposure, raise awareness, and engage with government and community stakeholders. Residents of San Ysidro will benefit from improved access to air quality information, and greater community-engagement.

⁸³ Data Source: https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40

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Supplemental Environmental Project

Casa Familiar was awarded Supplemental Environmental Project Funding of \$150,505 in 2018 to implement the San Ysidro Community Air Monitor Network Supplemental Environmental Project. The project funds will be used to sustain an existing 12 air monitor network along the U.S. - Mexico border. The air monitors measure PM2.5, CO, NO, NO₂, and O₃ and relay real-time data to community members via an online platform. Casa Familiar partnered with the University of Washington and San Diego State University to identify areas within San Ysidro that were impacted by air pollution from vehicular border crossings and quantify them.

Appendix A Communities Strongly Supported

By District	
Bay Area AQMD	Sac Metro AQMD
•East Contra Costa County •East Oakland •Eastern San Francisco •San José •Tri-Valley •Vallejo	 Norwood Old North Sacramento Del Paso Heights San Diego APCD International Border Community- Otay Mesa, San Ysidro San Joaquin Valley APCD La Viña Madera
Imperial County APCD	South Coast AQMD
•Imperial County Northern Corridor- Bombay Beach, Brawley, Calipatria, Desert Shores, Imperial, Niland, Salton City, Salton Sea Beach, Seeley, Westmorland	 Maywood, Commerce (east), Vernon, Bell Pacoima, North Hollywood, Sun Valley, San Fernando

Table A 1. Communities Strongly Supported (8/2021).

Table A 1 shows communities with strong support from air districts and communities to be recommended for selection and/or other strategies in upcoming years.

This list has not changed since it was originally released except for the communities selected in 2020 being removed.

Appendix B California Environmental Quality Act

California Environmental Quality Act

CARB has determined that the statewide assessment completed in 2018 and the 2021 community recommendations are exempt from the California Environmental Quality Act (CEQA) under the "general rule" or "common sense" exemption (California Code of Regulations, title 14, section 15061(b)(3)). The commonsense exemption states a project is exempt from CEQA if "the activity is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA."

CARB's statewide assessment completed in 2018, updated in November 2021, and the 2021 community recommendations is administrative in nature in that it merely provides CARB's assessment to identify communities with high cumulative pollution exposure burdens and to identify the communities CARB staff is recommending the CARB Board select for deployment of air monitoring or development of an emissions reduction program. The assessment and selection of communities will have no potential for material impact on the environment. After the communities are selected, individual strategies will be developed by the air districts that will involve extensive decision-making processes, including the involvement of community steering committees, and cannot be forecasted with reasonable specificity. The specific strategies adopted by the air districts will vary based on the local air quality needs, topography, and meteorology, existing emissions reducing measures and community engagement. Moreover, the air districts (as CEQA lead agencies) are required to conduct CEQA compliance, as applicable.

Based on CARB's review it can be seen with certainty that there is no possibility that CARB's statewide assessment completed in 2018, updated in November 2021, and the 2021 community recommendations may result in a significant adverse impact on the environment; therefore, this activity is exempt from CEQA. If the proposal is finalized, a Notice of Exemption will be filed with the Office of the Secretary for the Natural Resources Agency

Appendix C Regulatory and Community Air Quality Monitoring Sites



Figure C- 1. Location of Air Quality Monitoring Sites Near and Within the Proposed East Oakland Community Area

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N Chula Vista Otay Mesa-Donovan (ARB#:80140) Imperia Beach San Ysidro Nido de la Águilas UNITED STATE Pega Ciudad ndustrial" ulpancing Libertad on Dorado Ejido Matamoros Parque Agleca S Frace Seco Jardines del Sol El Lago Buenos Aires Su ccionamiento cc Costa Azul Emperad Las Obrera 2da Sección [] International Border Community - Preliminary Area Air Monitor Miles Sánchez Taboada ParquesanGIS, Bureau of Land Manage nt, Esri, HERE, Garmin, INCREMENT P. USGS, METI/NASA, EPA, USDA Preliminary Community Areas Shown. Sánche

Figure C- 2. Location of Air Quality Monitoring Sites Near and Within the Proposed International Border Community.

Appendix D Wind or Pollution Rose Description

The wind rose in each section of this staff report shows the general direction the wind is coming from, how frequently the wind came from that direction, and the wind speed related to that wind direction and frequency. The vector originating out from the center of the circular format of the wind rose shows the direction the winds blew from and the length of vector from the center of the circle shows how often the wind blew from that direction. The color of the vector relates to the wind speed for wind roses. For example, the wind rose below shows that during this sampling period, the wind blew from the south-southeast approximately 16 percent of the time. The color scale shows that during the period when the wind was blowing from this direction, the wind speed was predominantly between 2 - 3 m/s and 3 - 4 m/s. The bottom left corner of the wind rose shows the percentage of calm winds within the data set. Calm winds defined as wind speed equals to zero and are excluded from the wind rose plots because direction vectors are not present in calm winds.



Figure D- 1. Wind Rose Diagram

The pollution rose located in each section of this staff report show the general direction the wind is coming from, how frequently the wind came from that direction, and the pollution

Fourth Annual Community Air Protection Program Recommendations Staff Report – January 2022 Please submit any written comments on this Staff Report by January 31, 2022 to: https://www.arb.ca.gov/lispub/comm/bclist.php levels related to that wind direction and frequency. The vector originating out from the center of the circular format of the pollution rose shows the direction the winds blew from and the length of vector from the center of the circle shows how often the wind blew from that direction. The color of the vector relates to the pollution levels for pollution roses. For example, the wind rose below shows that during this sampling period, the wind blew from the northeast approximately 17 percent of the time. The color scale shows that during the period when the wind was blowing from this direction, the pollutant level was predominantly between 10 μ g/m³ to 20 μ g/m³. The bottom left corner of the pollution rose shows the percentage of calm winds within the data set. Calm winds defined as wind speed equals to zero and are excluded from the pollution rose also shows the maximum concentration of the measured pollutant during calm winds.



Figure D- 2. Pollution Rose Diagram

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Appendix E Preliminary Community Emissions Inventories

An emission inventory estimates the amount of air pollutants released into the atmosphere by emission sources in a specific geographical area and within a certain time period. Emission inventories are developed with the best data available and are updated over time to reflect sound science and robust new data.

A preliminary screening-level emissions inventory was developed for proposed communities using best available data for stationary, areawide, and mobile sources. A brief description of these source categories and types of sources that are included is available at CARB's emissions inventory data website.⁸⁴

A preliminary stationary source emissions inventory for this community was developed using the 2019 facility specific emissions reported to CARB by the local air district into CARB's California Emission Inventory Development and Reporting System (CEIDARS).⁸⁵ For area source and off-road mobile (also referred as other mobile) source inventory, the 2020 projected emissions from the latest State Implementation Plan emissions inventory (2017 base year) was gridded at a 1 kilometer (km) by 1 km resolution, and total emissions for the community was developed by summing the emissions from the individual grids (see Figure E.a.1, for example). Gridded on-road mobile source inventory was developed using 2020 vehicle miles traveled data from regional Metropolitan Planning Organization(s)⁸⁶ in their adopted Regional Transportation Plan/ Sustainable Communities Strategy, and county-level aggregated emissions factors and vehicle distribution from CARB's on-road mobile source model (EMFAC2021).⁸⁷

The results presented in Appendix E are preliminary estimations of the air emissions in the community. Note that this preliminary emissions inventory presents aggregated emissions for the 1-km grids covering the proposed community. This includes emissions for grids fully within the community boundary and partially intersecting the community boundary. Emissions were not area-weighted for grids that are only partially within the community area. If the community is selected by the CARB Board, a refined and more comprehensive community-level emissions inventory will be developed for the approved community boundary boundary during the community emissions reduction program development process in 2022.

⁸⁷ Data Source: https://ww2.arb.ca.gov/sites/default/files/2021-08/emfac2021_technical_documentation_april2021.pdf

⁸⁴ https://ww3.arb.ca.gov/ei/emissiondata.htm. The emissions used to develop the preliminary inventory are based on the latest SIP inventory with a 2017 base year (CEPAM 2019SIP v1.03).

⁸⁵ The facility locations were mapped, and all facilities that are located within the 1-km grids are included in the preliminary emission inventory.

⁸⁶ Metropolitan Transportation Commission for the East Oakland Community and the San Diego Association of Governments for the International Border Community.

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East Oakland Community Preliminary Emissions Inventory

Figure E.a.1. 1 km x 1 km Grids Used to Develop the East Oakland Community Preliminary Emissions Inventory



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Appendix E-3

Figure E.a.2. Proposed East Oakland Community PM2.5 Emissions (2020 Preliminary Emissions Inventory)





Figure E.a.3. Proposed East Oakland Community ROG Emissions (2020 Preliminary Emissions Inventory)

Appendix E-5



Figure E.a.4. Proposed East Oakland Community Diesel PM Emissions (2020 Preliminary Emissions Inventory)

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Mulford

Mulford Gardens

Monarch Bay Golf Club San Leandro

Sa

Table E.a.1. Preliminary Emissions Estimate for the East Oakland Community (2020 Preliminary Emissions Inventory)

Stationa	ry (tons/yea	ar)	Areawide (t	ons/year)		Mobile (tons/year)			
PM2.5	ROG	DPM	PM2.5	ROG	DPM	PM2.5	ROG	DPM	
117.8	427.2	0.3	113.8	724.1	0.0	47.7	868.8	14.4	
% of Community Total									
42%	21%	2%	41 %	36%	0%	17%	43 %	98 %	

Table E.a.2. Detailed Preliminary Emissions Inventory for the East Oakland Community(2020 Emissions in tons per year)

Source Category	NOx	TOG	ROG	SOx	PM ₁₀	PM _{2.5}	DPM			
Stationary Sources										
Fuel Combustion	106.4	8.8	4.8	63.0	5.0	5.0	0.3			
Electric Utilities	0.5	0.1	0.0	0.0	0.0	0.0	0.0			
Manufacturing and Industrial	69.7	2.7	1.3	59.8	1.8	1.8	0.0			
Food and Agricultural Processing	4.6	0.4	0.2	0.1	0.3	0.3	0.0			
Service and Commercial	23.0	5.0	2.8	3.2	2.8	2.8	0.1			
Other (Fuel Combustion)	8.6	0.7	0.5	0.0	0.2	0.2	0.2			
Waste Disposal	14.6	624.1	15.4	0.3	1.4	1.3	0.0			
Incinerators	14.4	20.7	10.1	0.3	1.4	1.2	0.0			
Landfills	0.0	601.5	4.0	0.0	0.0	0.0	0.0			
Other (Waste Disposal)	0.0	0.1	0.0	0.0	0.0	0.0	0.0			

⁸⁸ For more details on source categories and associated activities (emission inventory codes), see documentation at https://ww3.arb.ca.gov/ei/documentation.htm

NOx: nitrogen oxides; TOG: total organic gases; ROG: reactive organic gases; SOx: sulfur oxides; PM₁₀: particulate matter 10 microns or smaller; PM_{2.5}: particulate matter 2.5 microns or smaller; DPM: diesel particulate matter

Source Category	NOx	TOG	ROG	SOx	PM ₁₀	PM _{2.5}	DPM	
Sewage Treatment	0.2	0.0	0.0	0.0	0.0	0.0	0.0	
Soil Remediation	0.0	1.8	1.3	0.0	0.0	0.0	0.0	
Cleaning and Surface Coatings	0.0	327.5	266.0	0.0	0.0	0.0	0.0	
Laundering	0.0	3.3	3.2	0.0	0.0	0.0	0.0	
Degreasing	0.0	75.6	26.2	0.0	0.0	0.0	0.0	
Coatings and Related Process Solvents	0.0	134.4	129.4	0.0	0.0	0.0	0.0	
Printing	0.0	28.5	28.5	0.0	0.0	0.0	0.0	
Adhesives and Sealants	0.0	73.1	66.1	0.0	0.0	0.0	0.0	
Other (Cleaning and Surface Coatings)	0.0	12.6	12.6	0.0	0.0	0.0	0.0	
Petroleum Production and Marketing	0.0	216.5	70.5	0.0	0.0	0.0	0.0	
Petroleum Marketing	0.0	216.5	70.5	0.0	0.0	0.0	0.0	
Industrial Processes	11.0	77.9	70.5	3.0	162.3	111.5	0.0	
Chemical	0.0	6.1	5.7	0.0	0.4	0.4	0.0	
Food and Agriculture	0.2	16.2	14.6	0.0	37.5	22.5	0.0	
Mineral Processes	1.7	19.7	19.7	3.0	32.9	22.4	0.0	
Metal Processes	3.0	6.0	5.5	0.0	90.6	65.3	0.0	
Wood and Paper	0.0	0.0	0.0	0.0	0.2	0.1	0.0	
Other (Industrial Processes)	6.1	30.0	25.0	0.0	0.8	0.8	0.0	
Total Stationary Sources	131.9	1255.0	427.2	66.3	168.8	117.8	0.3	
Areawide Sources								
Solvent Evaporation	0.0	791.8	652.8	0.0	0.0	0.0	0.0	
Consumer Products	0.0	583.0	457.5	0.0	0.0	0.0	0.0	

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Source Category	NOx	TOG	ROG	SOx	PM ₁₀	PM _{2.5}	DPM
Architectural Coatings and Related Process Solvents	0.0	201.2	188.8	0.0	0.0	0.0	0.0
Pesticides/Fertilizers	0.0	2.2	2.2	0.0	0.0	0.0	0.0
Asphalt Paving / Roofing	0.0	5.4	4.3	0.0	0.0	0.0	0.0
Miscellaneous Processes	100.5	122.1	71.3	2.0	344.4	113.8	0.0
Residential Fuel Combustion	99.4	58.2	26.3	2.0	58.3	56.5	0.0
Construction and Demolition	0.0	0.0	0.0	0.0	56.0	5.6	0.0
Paved Road Dust	0.0	0.0	0.0	0.0	207.1	31.1	0.0
Unpaved Road Dust	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fugitive Windblown Dust	0.0	0.0	0.0	0.0	0.4	0.1	0.0
Fires	0.8	2.9	2.5	0.0	2.4	2.2	0.0
Cooking	0.0	1.3	0.9	0.0	15.7	15.7	0.0
Other (Miscellaneous Processes)	0.3	59.6	41.7	0.0	4.6	2.7	0.0
Total Areawide Sources	100.5	913.8	724.1	2.0	344.3	113.8	0.0
OnRoad Mobile Sources							
Light Duty Vehicles	178.5	298.4	278.9	3.9	21.5	7.9	0.1
Light Heavy Duty Vehicles	56.5	17.2	15.5	0.4	4.8	2.2	0.8
Medium Duty Vehicles	47.6	51.3	47.2	0.8	3.2	1.2	0.0
Medium Heavy Duty Vehicles	81.4	5.8	4.8	0.3	2.8	1.7	1.3
Heavy Heavy Duty Vehicles	286.7	15.7	8.4	1.2	12.2	6.3	3.8
Bus	13.3	2.7	1.9	0.1	1.0	0.4	0.2

Source Category	NOx	TOG	ROG	SOx	PM ₁₀	PM _{2.5}	DPM			
Total On-road Mobile Sources	663.9	391.2	356.6	6.7	45.4	19.7	6.2			
Other Mobile Sources										
Aircraft	647.3	228.2	222.2	61.2	15.5	15.1	0.0			
Trains	16.4	0.4	0.3	0.0	0.3	0.3	0.3			
Recreational Boats	0.3	14.1	13.0	0.0	0.1	0.1	0.0			
Off-Road Recreational Vehicles	0.0	3.1	3.1	0.0	0.0	0.0	0.0			
Off-Road Equipment	186.4	260.3	243.1	0.5	10.9	10.5	5.7			
Off-Road Equipment (PERP)	57.3	6.3	5.5	0.1	2.2	2.1	2.2			
Commercial Harbor Craft	1.2	0.1	0.1	0.0	0.0	0.0	0.0			
Fuel Storage and Handling	0.0	25.0	25.0	0.0	0.0	0.0	0.0			
Total Other Mobile Sources	908.9	537.4	512.2	61.8	29.0	28.0	8.2			
Total Community Emissions	1805	3097	2020	137	588	279	15			
International Border Community Preliminary Emissions Inventory

Figure E.b.1. 1 km x 1 km Grids Used to Develop the International Border Community Preliminary Emissions Inventory



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Figure E.b.2. Proposed International Border Community PM2.5 Emissions (2020 Preliminary Emissions Inventory)



Figure E.b.3. Proposed International Border Community ROG Emissions (2020 Preliminary Emissions Inventory)

eetwater Vall Lincoln Acres **DPM** Emissions 54 (in percentile) Otay Lakes akes <21% (min: 0.0007 tpy) Cockatoo Grove Sunny Vista 21 - 40% Chula Vista 125 EHSt 41 - 60% Canyo Lower 61 - 80% Telegraph Otav San Reservoir ≥81% (max: 0.97 tpy) Cany Diego Poggi Bay FW Otay Valley Regional Park San Diego Bay Nat'l Wildlife Refuge Harbor Side Castle Park Otay 805 Mounta Rock M 2225 ft Mountain Main St Otay Otay Valley Oneal Canyon Palm Ave Palm Ave Imperial Nestor Beach do de las Áquilas Tiju Aerop Intl Abelardo L Ciudad Rodríguez Libertad Industrial Chilpancingo Tijuana Eiido Rincón Dorado Matamoros Via Rapiga Ponience Fracc Secc Agua Caliente Jardines del Sol Fraccionamiento Cumbres del Sol Ejido Fi Fracc Mariano Villa Las Cumbres Matamoros Sec Centro

Figure E.b.4. Proposed International Border Community Diesel PM Emissions (2020 Preliminary Emissions Inventory)

Table E.b.1. Preliminary Emissions Estimate for the International Border Community(2020 Preliminary Emissions Inventory)

Stationary (tons/year)			Areawide (t	ons/year)		Mobile (tons/year)			
PM2.5	ROG	DPM	PM2.5	ROG	DPM	PM2.5	ROG	DPM	
19.3	236.8	0.3	111.5	289.3	0.0	16.0	301.7	5.4	
% of Community Total									
13%	29%	6%	76%	35%	0%	11%	36%	94%	

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Table E.b.2. Detailed Preliminary Emissions Inventory for the International Border Community (2020 Emissions in tons per year)⁸⁹

Source Category	NOx	TOG	ROG	SOx	PM ₁₀	PM _{2.5}	DPM		
Stationary Sources									
Fuel Combustion	36.5	34.6	4.2	0.8	19.2	19.1	0.4		
Electric Utilities	6.0	3.6	0.3	0.2	7.0	7.0	0.0		
Manufacturing and Industrial	3.5	0.1	0.1	0.4	0.3	0.3	0.2		
Food and Agricultural Processing	0.1	0.3	0.3	0.1	0.1	0.1	0.0		
Service and Commercial	1.4	0.9	0.4	0.0	1.1	1.1	0.0		
Other (Fuel Combustion)	25.6	29.7	3.1	0.2	10.7	10.6	0.1		
Waste Disposal	0.0	1.2	0.9	0.0	0.0	0.0	0.0		
Other (Waste Disposal)	0.0	1.2	0.9	0.0	0.0	0.0	0.0		
Cleaning and Surface Coatings	0.0	117.3	107.4	0.0	0.0	0.0	0.0		
Laundering	0.0	1.9	0.3	0.0	0.0	0.0	0.0		
Degreasing	0.0	18.3	14.2	0.0	0.0	0.0	0.0		
Coatings and Related Process Solvents	0.0	49.4	48.1	0.0	0.0	0.0	0.0		
Printing	0.0	18.7	18.7	0.0	0.0	0.0	0.0		
Adhesives and Sealants	0.0	28.1	25.2	0.0	0.0	0.0	0.0		
Other (Cleaning and Surface Coatings)	0.0	0.9	0.9	0.0	0.0	0.0	0.0		

⁸⁹ For more details on source categories and associated activities (emission inventory codes), see documentation at https://ww3.arb.ca.gov/ei/documentation.htm

NOx: nitrogen oxides; TOG: total organic gases; ROG: reactive organic gases; SOx: sulfur oxides; PM₁₀: particulate matter 10 microns or smaller; PM_{2.5}: particulate matter 2.5 microns or smaller; DPM: diesel particulate matter

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Source Category	NOx	TOG	ROG	SOx	PM ₁₀	PM _{2.5}	DPM		
Petroleum Production and Marketing	0.0	596.3	89.1	0.0	0.0	0.0	0.0		
Petroleum Marketing	0.0	596.3	89.1	0.0	0.0	0.0	0.0		
Industrial Processes	0.1	36.9	35.2	0.0	0.4	0.2	0.0		
Chemical	0.0	27.0	27.0	0.0	0.0	0.0	0.0		
Food and Agriculture	0.0	0.1	0.1	0.0	0.1	0.0	0.0		
Mineral Processes	0.1	0.0	0.0	0.0	0.3	0.2	0.0		
Other (Industrial Processes)	0.0	9.7	8.1	0.0	0.0	0.0	0.0		
Total Stationary Sources	36.5	786.3	236.8	0.8	19.6	19.3	0.4		
Areawide Sources									
Solvent Evaporation	0.0	311.2	267.7	0.0	0.2	0.2	0.0		
Consumer Products	0.0	191.2	151.8	0.0	0.0	0.0	0.0		
Architectural Coatings and Related Process Solvents	0.0	65.2	61.1	0.0	0.0	0.0	0.0		
Pesticides/Fertilizers	0.0	0.9	0.9	0.0	0.0	0.0	0.0		
Asphalt Paving / Roofing	0.0	53.8	53.8	0.0	0.2	0.2	0.0		
Source Category	NOx	TOG	ROG	SOx	PM10	PM2.5	DPM		
Miscellaneous Processes	13.8	104.2	21.6	0.25	917.3	111.2	0.0		
Residential Fuel Combustion	13.4	9.9	4.5	0.2	3.8	3.7	0.0		
Farming Operations	0.0	79.7	6.4	0.0	0.0	0.0	0.0		
Construction and Demolition	0.0	0.0	0.0	0.0	849.8	84.9	0.0		
Paved Road Dust	0.0	0.0	0.0	0.0	43.4	6.5	0.0		
Unpaved Road Dust	0.0	0.0	0.0	0.0	3.5	0.4	0.0		

Source Category	NOx	TOG	ROG	SOx	PM ₁₀	PM _{2.5}	DPM		
Fugitive Windblown Dust	0.0	0.0	0.0	0.0	1.3	0.2	0.0		
Fires	0.2	0.6	0.5	0.0	0.8	0.7	0.0		
Managed Burning and Disposal	0.2	0.6	0.5	0.1	0.8	0.7			
Cooking	0.0	13.4	9.7	0.0	14.2	14.2	0.0		
Other (Miscellaneous Processes)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Areawide Sources	13.8	415.4	289.3	0.2	917.6	111.5	0.0		
On-Road Mobile Sources									
Light Duty Vehicles	75.6	128	118.6	1.8	9.7	3.7	0.1		
Light Heavy Duty Vehicles	17.6	4.4	3.9	0.1	1.3	0.6	0.3		
Medium Duty Vehicles	23.7	25.4	23.1	0.5	1.8	0.7	0.0		
Medium Heavy Duty Vehicles	10.7	0.9	0.8	0.0	0.4	0.2	0.2		
Heavy Heavy Duty Vehicles	28.2	1.6	0.8	0.1	1.1	0.6	0.4		
Bus	11.0	3.8	1.5	0.1	0.5	0.2	0.1		
Total On-road Mobile Sources	166.5	164.1	148.6	2.6	14.7	6.0	1.0		
Other Mobile Sources									
Aircraft	200.7	57.0	54.5	17.9	3.0	3.0	0.0		
Trains	2.5	0.0	0.0	0.0	0.0	0.0	0.0		
Recreational Boats	0.0	4.8	4.5	0.0	0.0	0.0	0.0		
Off-Road Recreational Vehicles	0.0	1.1	1.1	0.0	0.0	0.0	0.0		
Off-Road Equipment	138.3	89.4	83.0	0.2	6.9	6.6	4.1		

Source Category	NOx	TOG	ROG	SOx	PM ₁₀	PM _{2.5}	DPM
Off-Road Equipment (PERP)	7.4	0.8	0.7	0.0	0.3	0.3	0.3
Farm Equipment	1.0	0.3	0.2	0.0	0.1	0.1	0.1
Fuel Storage and Handling	0.0	9.1	9.1	0.0	0.0	0.0	0.0
Total Other Mobile Sources	349.7	162.6	153.1	18.1	10.3	10.0	4.4
Total Community Emissions	567	1,528	828	22	962	147	5.8

Appendix F CalEnviroScreen 4.0 PM2.5 Estimates

Ground-based air quality monitoring stations can measure PM2.5 concentrations and compositions with a high degree of accuracy. However, these air quality stations are available in a limited number of locations.

To estimate the spatial variability of PM2.5 concentrations for the entire community, publicly available data was used to understand how the air pollution is spread throughout the community. Recently released CalEnviroScreen 4.0 evaluates PM2.5 by extracting quarterly average values from the air monitors for 2015-2017 and averaging them across the three years. An estimate of the PM2.5 concentrations for each census tract within 50 km of an air monitoring station was generated using air monitoring data and satellite-based annual average PM2.5 concentrations, with higher weight assigned for monitoring data if grid is closer to air monitoring stations. If an air monitor is not present within 50 km from the centroid of a census tract, satellite observations were solely used to estimate the PM2.5 concentrations.⁹⁰

Figure F -1 for the Proposed East Oakland Community and Figure F – 2 for the Proposed International Border Community shows the 3-year average annual mean concentration of PM2.5 retrieved from CalEnviroScreen 4.0. As mentioned earlier, a more refined approach using air quality measurements and community scale inventory will be utilized to identify sources of concern and their estimated emissions in each community if the community is selected by the CARB Board.

⁹⁰ More information on CalEnviroScreen 4.0 PM2.5 Concentrations. Available at: https://oehha.ca.gov/media/downloads/calenviroscreen/document/calenviroscreen40reportd12021.pdf

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Figure F- 1. Annual mean PM2.5 Concentration for each census tract in the Proposed East Oakland Community⁹¹

⁹¹ Data source: https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40

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Figure F- 2. Annual mean PM2.5 Concentration for each census tract in the Proposed International Border Community⁹²

⁹² Data source: https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40

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Appendix G Table of Metrics

In 2018, CARB staff developed a Statewide Assessment of the cumulative air pollution exposure burdens in impacted communities to help support staff's community recommendation to the CARB Board. CARB updated this table of metrics (version 2.1)⁹³ in November 2021 with newly available data. Quantitative factors for the Statewide Assessment are drawn from multiple data sources to include information on sensitive receptors, hazard proximity, and additional socioeconomic and health indicators. Some of the data sources used to develop the Statewide Assessment include CalEnviroScreen (CES) 4.0, California Healthy Places Index (HPI), California Emissions Projection Analysis Model (CEPAM) Base Year-2017 SIP, CARB Pollution Mapping Tool, California State Geoportal layers, and CARB's emissions inventory.

Figure G- 1 shows the updated list of all the communities included in the Statewide Assessment: those that were nominated by communities, air district recommendations, and/or SB 535 disadvantaged communities. Our intent is for the communities included in Figure G- 1 to be either selected by the CARB Governing Board for inclusion in the Program or remain as a candidate for future year consideration. Annually, these candidate communities will be reevaluated along with any new communities identified through community nominations, air district recommendations, or the Statewide Assessment process.

⁹³ Table of Metrics (2.1) CARB. November 2021. Available

at: https://ww2.arb.ca.gov/resources/documents/table-metrics-update-november-2021

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Figure G- 1. Updated list of Candidate Communities.