Community Air Protection Program

2019 Community Recommendations Staff Report

CALIFORNIA
AIR RESOURCES BOARD

November 2019

Contents

I. Introduction 1
II. Staff Recommendation 2
III. Continued Statewide Efforts to Benefit Communities Statewide 5
IV. Community Profiles – by Air District in Alphabetical Order 6
a. The Portside Environmental Justice Neighborhoods 7
b. Southwest Stockton Community 19
c. Eastern Coachella Valley Community 30
d. South East Los Angeles Community 42

List of Figures

Figure 1. 2019 Community Recommendations and 2018 Selections 4
Figure 2. Portside Environmental Justice Neighborhoods Community Details 8
Figure 3. Portside Environmental Justice Neighborhoods Community Photo 9
Figure 4. Average PM2.5 Concentrations for Chula Vista (ARB: 80114) 12
Figure 5. Wind Patterns for Chula Vista (ARB: 80114) 12
Figure 6. Preliminary Source Contributions in the Portside Environmental Justice Neighborhoods Community 13
Figure 7. Projected Emissions Trends for Major Source Categories in the San Diego Air Basin 15
Figure 8. Projected Emission Trends for On-road Vehicle Diesel PM in the San Diego Air Basin (Emissions in Tons per Day from 2016 SIP Inventory) 16
Figure 9. Land Use Map for the Portside Environmental Justice Neighborhoods Community 17
Figure 10. Population Density and Sensitive Receptor for the Portside Environmental Justice Neighborhoods Community 18
Figure 11. Southwest Stockton Community Details 20
Figure 12. Southwest Stockton Community Photo 21
Figure 13. Average PM2.5 Concentrations for Stockton-Hazelton (ARB: 39252) 23
Figure 14. PM2.5 Pollution Roses from Stockton-Hazelton (ARB: 39252) 23
Figure 15. Preliminary Source Contributions in the Southwest Stockton Community 24
Figure 16. Projected Emission Trends for Major Source Categories in the San Joaquin Valley Air Basin 26
Figure 17. Projected Emission Trends for On-road Vehicles Diesel PM in San Joaquin Valley Air Basin 27
Figure 18. Land Use Map for Southwest Stockton Community 28
Figure 19. Population Density and Sensitive Receptor for Southwest Stockton Community 29
Figure 20. Eastern Coachella Valley Community Details 31

Figure 21. Eastern Coachella Valley Community Photo 32
Figure 22. Average PM 10 Concentrations for Torres-Martinez Administration (Tribal) 35
Figure 23. PM10 Pollution Rose Analysis from Torres-Martinez Administration (Tribal) 36
Figure 24. Preliminary Source Contributions in the Eastern Coachella Valley Community 36
Figure 25. Projected Emission Trends for Major Source Categories in the Riverside County Portion of the Salton Sea Air Basin 38
Figure 26. Projected Emission Trends for On-road Vehicle Diesel PM in the Riverside County Portion of the Salton Sea Air Basin 39
Figure 27. Land Use Map for Eastern Coachella Valley Community 40
Figure 28. Population Density and Sensitive Receptor for the Eastern Coachella Valley Community 41
Figure 29. South East Los Angeles Community Details 43
Figure 30. South East Los Angeles Community Photo 44
Figure 31. Average PM2.5 Concentrations near the South East Los Angeles Community (ARB: 70112) 46
Figure 32. Wind Patterns for Compton (ARB: 70112) 47
Figure 33. Preliminary Source Contributions in the South East Los Angeles Community 48
Figure 34. Projected Emission Trends for Major Source Categories in the South Coast Air Basin 50
Figure 35. Projected Emission Trends for On-road Vehicle Diesel PM in the South Coast Air Basin (Emissions in Tons per Day from 2016 SIP Inventory) 51
Figure 36. Land Use Map for the South East Los Angeles Community 52
Figure 37. Population Density and Sensitive Receptor for the South East Los Angeles Community 53

List of Tables

Table 1. 2019 Community Recommendations – In Alphabetical Order by Air District.. 3
Table 2. Key CalEnviroScreen 3.0 Indicators for the Portside Environmental Justice Neighborhoods Community 10
Table 3. Top Source Categories by Stationary, Area, and Mobile for the Portside Environmental Justice Neighborhoods Community..... 14
Table 4. Key CalEnviroScreen 3.0 Indicators for the Southwest Stockton Community, ... 21
Table 5. Top Source Categories by Stationary, Area, and Mobile for Southwest Stockton Community..... 25
Table 6. Key CalEnviroScreen 3.0 Indicators for the Eastern Coachella Valley Community..... 33
Table 7. Top Source Categories by Stationary, Area, and Mobile for Eastern Coachella Valley Community..... 37
Table 8. Key CalEnviroScreen 3.0 Indicators for the South East Los Angeles Community 45
Table 9. Top Source Categories by Stationary, Area, and Mobile for the South East Los Angeles Community..... 49

List of Appendices

Appendix A 2019 Community Nominations A-1
Appendix B California Environmental Quality Act.....B-1
Appendix C Regulatory and Community Air Quality Monitoring Sites C-1
Appendix D Wind and Pollutant Rose Description D-1
Appendix E Preliminary Community Emissions Inventory E-1
Appendix F Satellite-Derived PM2.5 Estimates.....F-1

I. Introduction

In response to Assembly Bill (AB) 617 (C. Garcia, Chapter 136, Statutes of 2017) the California Air Resources Board (CARB) established the Community Air Protection Program (Program). AB 617 requires CARB to annually consider selection of communities for development and implementation of community air monitoring systems[1] and/or community emissions reduction programs.[2] In September 2018, CARB's Governing Board adopted the Community Air Protection Blueprint that established the Program elements to accomplish AB 617 requirements and selected the first ten communities.[3]

CARB staff's recommendation for 2019 community selection is consistent with the requirements for community selection specified in statute and based on a number of factors including the Governing Board's prior direction in 2018, nominations received in 2019, lessons learned from the initial ten communities, and funding levels provided by the legislature for Program implementation.

> CARB Governing Board Direction - During the 2018 community selection, the Governing Board provided guidance on community selection for subsequent years. The Governing Board directed staff to draw from those communities that were priority recommendations from air districts and community based organizations in 2018, but were not selected. In addition to any new communities, the Governing Board also prioritized moving those communities that were previously selected only for air monitoring moving into development of an emissions reduction program, if the recommendation is supported by data and by the community steering committee.
>
> Nominations and Statewide Assessment - CARB received 13 recommendations for individual or combined communities this year. Most of the communities nominated (with the exception of four) were also nominated in 2018 by a community member, air district, community-based organization, or combination

[1] Health and Safety Code § 42705.5(c) requires CARB to select, as specified, the highest priority locations around the State to deploy community air monitoring systems, which shall be communities with high exposure burdens for toxic air contaminants and criteria air pollutants, based on an assessment of the locations of sensitive receptors and disadvantaged communities.
[2] Health & Safety Code § 44391.2(b)(1) and (c)(1) requires that CARB select communities around the State for preparation of community emissions reduction programs based on an assessment and identification of communities with high cumulative exposure burdens for toxic air contaminants and criteria air pollutants. The statute requires the assessment to prioritize disadvantaged communities and sensitive receptor locations as specified.
[3] More information on the Community Air Protection Blueprint and the 2018 Community Selections is available at: https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program.

thereof.[4] CARB and the air districts have worked closely with community members and community based organization to develop priorities for this year's recommendations in consideration of CARB's Governing Board's direction. Based on this process, 9 communities were subsequently recommended to CARB staff by the air districts for consideration in 2019. Community nominations received in 2019 are summarized in Appendix A in this document, all of which were previously included in the statewide assessment completed in 2018.[5]

Ensuring Effective Implementation - One of the lessons learned in the first year of the Program is that building new community partnerships and developing community programs take time. The initial 2018 communities are setting the foundation of the Program. Significant resources will be needed in these communities to effectively implement the work that has begun so that these communities can also serve as models for much broader application throughout the State. In addition, for those districts that had communities selected last year for community air monitoring only, CARB staff believe it is important for those communities to transition to and gain experience with development of a community emissions reduction program prior to selection of additional communities in that air district.

Funding - The State budget maintains the same level of funding in this fiscal year. Funding is critical to successfully develop and carry out the actions that result in measurable emissions and exposure reductions in the communities. To ensure resources are available to support the foundation being constructed with the initial ten communities, CARB staff recommendations are to add no more than three new communities in 2019.

II. Staff Recommendation

Staff have worked with community members, the air districts, community based organizations, and other stakeholders to develop this 2019 recommendation. Staff also hosted a public webinar on October 30, 2019, to discuss the 2019 recommendations. Staff recommends the CARB Governing Board select two new communities in the South Coast Air Quality Management District (SCAQMD) and one new community in the San Joaquin Valley Air Pollution Control District (SJVAPCD) for both community air monitoring systems and community emissions reduction programs. Staff is also recommending that the Portside Environmental Justice Neighborhoods Community in the San Diego Air Pollution Control District (SDAPCD),

[4] The four new communities nominated this year are Bell Haven, Chiriaco Summit, Lathrop and Manteca.

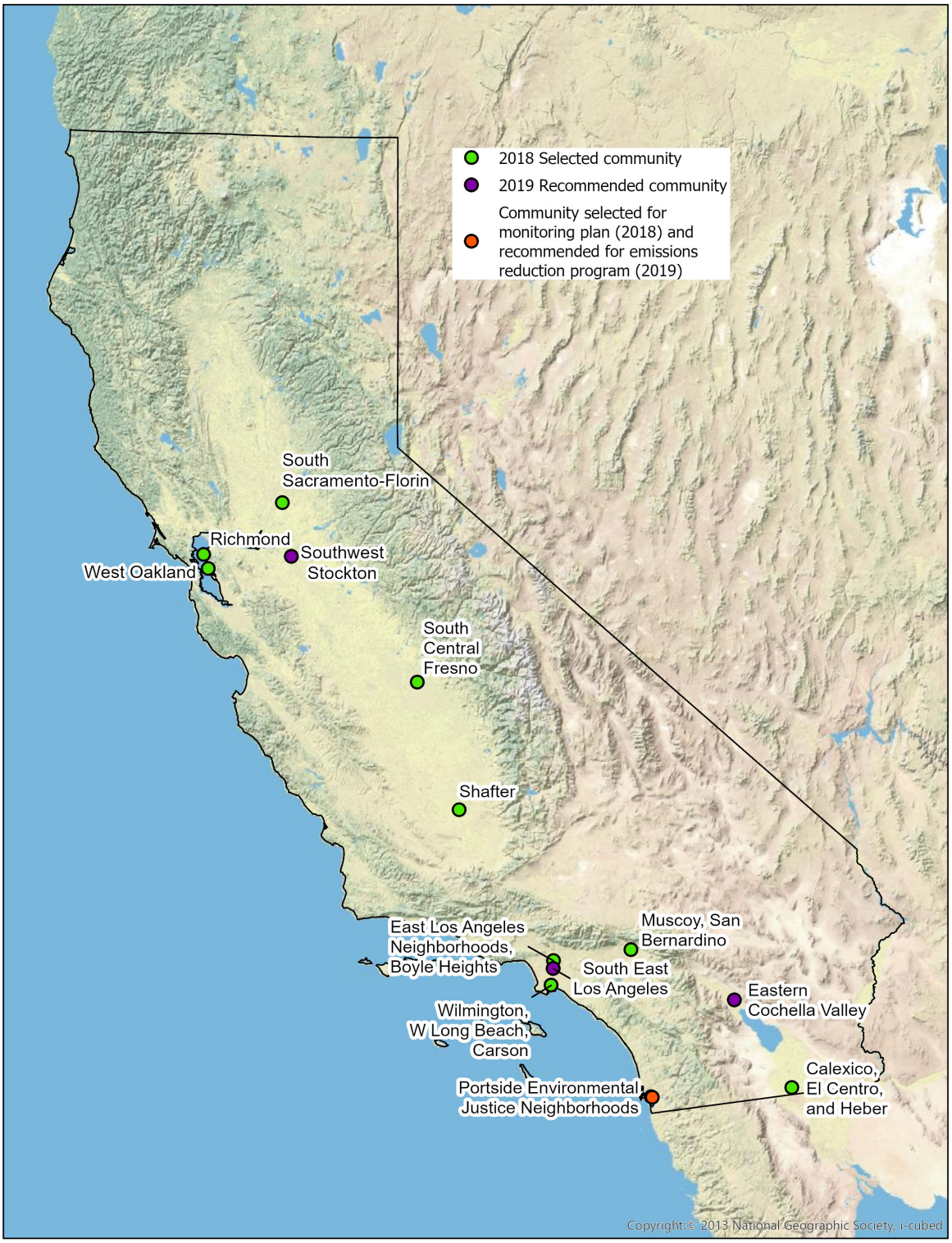
[5] The assessment completed in 2018 was not updated this year because no new data was readily available to integrate in the assessment. More information on the 2018 assessment is available at: https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program.

selected for community air monitoring plan in 2018, transition to development and implementation of a community emissions reduction program. Table 1 provides staff's recommendations, key sources and rationale for selection. Figure 1 shows where the 2019 recommended communities are located as well as the initial communities selected in 2018.

Table 1. 2019 Community Recommendations – In Alphabetical Order by Air District

Community (Air District)	**Action**	**Key Sources**	**Rationale**
Portside Environmental Justice Neighborhoods (San Diego)	Transition to developing a Community Emissions Reduction Program	Port Freeways Small Industry	Consistent with CARB Governing Board direction to place priority on moving monitoring programs to emissions reduction programs. This transition is supported by community steering committee.
Southwest Stockton (San Joaquin Valley)	Develop a Community Air Monitoring Plan and Emissions Reduction Program	Freeways Inland Port Warehouses Rail	Consistent with CARB Governing Board direction to prioritize communities that were recommended by community based organizations last year but not selected. Nominated by Air District Board and community based organizations again in 2019.
Eastern Coachella Valley (South Coast)	Develop a Community Air Monitoring Plan and Emissions Reduction Program	Rural Salton Sea	Consistent with CARB Governing Board direction to prioritize communities that were recommended by community based organizations last year but not selected. Nominated by Air District Board, and again by community based organizations in 2019.
South East Los Angeles (South Coast)	Develop a Community Air Monitoring Plan and Emissions Reduction Program	Industry Urban Freeways Freight	Consistent with CARB Governing Board direction to prioritize communities that were nominated by air districts last year but not selected. Nominated again by the Air District Board this year.

Figure 1. 2019 Community Recommendations and 2018 Selections



Draft community profiles presented in Section IV of this document provide additional community details including a community description, current community engagement, and preliminary air quality and emissions inventory data. Please note the initial, draft community profile provides a very preliminary assessment of the candidate community using readily available information. If the community is selected by the CARB Governing Board, CARB staff and the air districts will utilize community input to refine this analysis and provide the methodology, original or updated data, and updated results to the community steering committee.

III. Continued Statewide Efforts to Benefit Communities Statewide

CARB continues its statewide efforts to achieve emissions reductions in all communities, such that those communities not developing or implementing a community emissions reduction program can benefit. Examples of AB 617 related programs and efforts are listed below. CARB staff also believe that regulatory approaches and other innovative policies being developed for 2018 communities may be applied elsewhere in the State. CARB staff intends to discuss with air district, community, and industry stakeholders feasibility and how to facilitate that progression.

Community Air Grants Program

AB 617 has created opportunities to increase community involvement through grants specifically for community-based organizations. To respond to this charge, CARB created the Community Air Grants Program[6] to provide support for community-based organizations to participate in the AB 617 process, and to build capacity to become active partners with government to identify, evaluate, measure, and ultimately reduce air pollution and exposure to harmful emissions in their communities. In 2018, the Community Air Grants Program received 65 applications and awarded 28 projects totaling $10 million. In summer 2019 the Community Air Grants Program issued a second solicitation for an additional $5 million in funding. Grant awards will be announced by the end of the year. An additional $10 million was provided in the fiscal year 19/20 State budget, which will be the subject of a third solicitation in 2020.

Community Air Protection Funds

Since 2017, in support of AB 617, the Legislature has budgeted $740 million in incentive funding that allow immediate actions to improve the air quality in heavily burdened communities across the State. Grant funds may be used for mobile source projects pursuant to the Carl Moyer or Proposition 1B Programs, and more recently

[6] More information on the Community Air Grants is available at: https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program

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. CARB and the air districts are currently seeking additional guidance from local communities to identify and prioritize potential stationary sources that would benefit from incentives, as well as continued targeting of mobile sources in light of these expanded opportunities.

Other Statewide Efforts

Other efforts outside of AB 617 funding that benefit hundreds of communities statewide include:

- Regulatory actions for clean transportation; such as CARB's Advanced Clean Trucks Regulation, a holistic approach to accelerate a large-scale transition to zero emissions medium and heavy-duty vehicles, through a combination of manufacturer sales requirement and a reporting requirement.[7]
- Air district implementation of best available retrofit control technology.
- A new emissions reporting regulation adopted by the CARB Governing Board, called the Criteria Air Pollutants and Toxic Air Contaminant Reporting (CTR) regulation that is expected to become effective on January 1, 2020. It will require annual reporting of criteria and toxic emissions data using a uniform statewide system. The data collected through this regulation will be an important resource for those in California affected by air pollution and will improve emissions inventory.[8]
- Community Air Quality Portal - a new air quality viewer called AQview, hosted by CARB, which focuses on displaying air quality data collected in AB617 communities.[9]

IV. Community Profiles – by Air District in Alphabetical Order

For the proposed staff recommendations presented in this section, it is important to note that the boundaries for the communities described in each community profile are preliminary and correspond to the air districts' recommended community boundaries. Each community steering committee in consultation with community members, the air district, and interested stakeholders is anticipated to make recommendations that

[7] More information on the Advanced Clean Trucks Regulation is available at: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks

[8] More information on the Criteria Air Pollutants and Toxic Air Contaminant Reporting Regulation is available at: https://ww2.arb.ca.gov/our-work/programs/criteria-and-toxics-reporting

[9] The Community Air Quality Portal and AQview is available at: https://ww2.arb.ca.gov/community-air-quality-portal

further refine the proposed boundaries for its community. The analysis presented in the document is based on the preliminary boundaries presented by the air districts.

a. The Portside Environmental Justice Neighborhoods Community

i. Staff Recommendation – Transition to development and implementation of a Community Emissions Reduction Program, in addition to continued implementation of the 2018 Community Monitoring Plan

The neighborhoods of Barrio Logan, West National City, Logan Heights, and Sherman Heights that constitute the Portside Environmental Justice Neighborhoods Community is located in the SDAPCD. The community has a significant number of sensitive receptors and is impacted by emissions from the local port, freight, rail, and industry contributing to high cumulative air pollution exposure burden. The Portside Environmental Justice Neighborhoods Community was selected in 2018 to develop and implement a community air monitoring plan.

Since then, the community steering committee and SDAPCD have worked to further understand the sources of air pollution impacting their community by collecting emissions data from mobile monitoring and deploying fixed monitors. Together they developed a community air monitoring plan, released in June 2019, to measure a variety of air pollutants including particulate matter, black carbon, toxic metals, and volatile organic compounds using laboratory grade instrumentation.[10] In parallel, mobile monitoring began in March 2019 to collect community-wide data for particulate matter (PM) 2.5 microns or smaller (PM2.5), black carbon, and gaseous species, and a contract to continue collecting this data through March 2020 is underway. The collection of this data will continue to help identify sources of concern within the community. SDAPCD and the community steering committee are also discussing opportunities and priorities for the use of available incentives to fund projects that will provide emissions reductions in the community.

In August 2019, the community steering committee voted in support of the Portside Environmental Justice Neighborhoods Community transitioning to development of a community emissions reduction program. In response, CARB received nomination letters from both SDAPCD and the Environmental Health Coalition. CARB staff recommends the CARB Governing Board select the Portside Environmental Justice Neighborhoods Community for development and implementation of a community emissions reduction program. The community has a high cumulative air pollution

[10] Additional information for the San Diego County Air Pollution Control District, *Community Monitoring – AB 617 Elements and Required Criteria*, Version 1.0. June 2019 available at: https://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/AB_617/AB-617%20Elements%20and%20Required%20Criteria_San%20Diego_June%202019.pdf

exposure burden, a significant number of sensitive receptors, and includes census tracts that have been designated as disadvantaged communities.

ii. Community Description

Figure 2, depicts the preliminary Portside Environmental Justice Neighborhoods Community boundary and includes the cities of Barrio Logan, West National City, Logan Heights, and Sherman Heights. Also highlighted are major freeways, stationary sources, and sensitive receptors such as schools and hospitals.

Figure 2. Portside Environmental Justice Neighborhoods Community Details

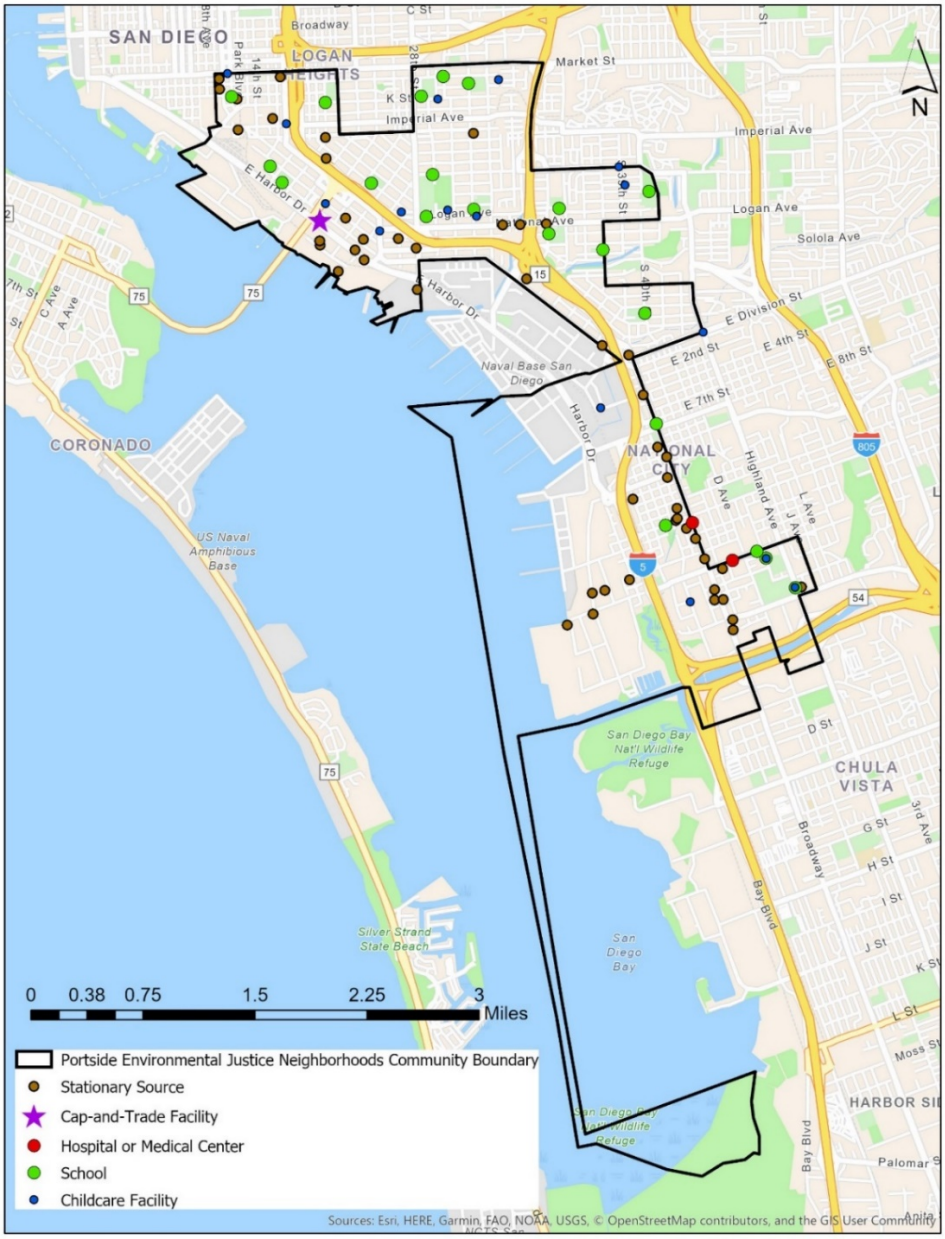


Figure 3 is a photo of the Sherman Heights neighborhood within the Portside Environmental Justice Neighborhoods Community. The community is approximately 8 square miles with a population of about 53,000. The community includes a variety of air pollution sources such as the Port of San Diego, highly industrialized areas, and high truck traffic, including the Interstates 5 and 15. The community has large stationary sources, aircraft parts and auxiliary equipment manufacturing, and a power generation plant.[11] The community also has a number of small stationary sources including metal recyclers, welding shops, and auto body repair and paint shops that are located very close to homes.

Figure 3. Portside Environmental Justice Neighborhoods Community Photo

According to 2017 emissions data reported to CARB by SDAPCD, there are 51 stationary sources within the community, 1 of which is a Cap-and-Trade facility.[12] Sensitive receptors in the community include 24 schools, 16 licensed daycare facilities, and 2 hospitals.[13] This community is considered disadvantaged per SB 535[14] and AB 1550.[15] Key CalEnviroScreen (CES) indicators are highlighted in Table 2 below.

---

[11] Data Source: Based on SDAPCD District reported 2017 facility emissions to CARB.
CARB's Facility Search Engine is available at: https://www.arb.ca.gov/app/emsinv/facinfo/facinfo.php
CARB's Pollution Mapping Tool is available at: https://ww3.arb.ca.gov/ei/tools/pollution_map/

[12] Cap-and-trade is a regulatory approach used to control pollution by setting a firm cap on allowed emissions while employing market mechanisms to achieve emissions reductions while driving costs down. In a cap-and-trade program, a limit, or cap is put on the amount of greenhouse gases that can be emitted.

[13] Data Source: https://www.cde.ca.gov/ds/, http://data-cdphdata.opendata.arcgis.com/, https://ww3.arb.ca.gov/research/apr/past/11-336.pdf

[14] Disadvantaged community designations per Senate Bill (SB) 535 (De León, Chapter 830, Statutes of 2012)

[15] Low-income definitions per Assembly Bill (AB) 1550 (Gomez, Chapter 369, Statutes of 2016)

Table 2. Key CalEnviroScreen 3.0 Indicators for the Portside Environmental Justice Neighborhoods Community[16,17]

Overall Score	PM2.5	DPM	Asthma	Cardiovascular Disease	Poverty	Unemployment	CA Healthy Places Index
99	69	100	97	77	99	97	97

iii. Community Engagement

SDAPCD was proactive in establishing community partnerships prior to the selection of the Portside Environmental Justice Neighborhoods Community in 2018 for a community air monitoring plan. They convened monthly public meetings with a group of stakeholders to discuss sources of air pollution, potential monitoring locations, monitoring equipment, incentive funding opportunities, ways to reduce emissions, and other topics of interest related to the community. This preparatory work helped to develop relationships with the community and gain an understanding of the community's air pollution concerns. SDAPCD subsequently formed a community steering committee that continues to meet monthly, consisting of a diverse group of 26 stakeholders and includes community residents, a medical expert, and representatives from community-based organizations, industry, a local union, and public agencies such as the U.S. Navy, Port of San Diego, transportation agencies, and local cities.[18]

The meetings are conducted with a flexible format, which allows for more collaborative discussion and breakout sessions, as needed. Interpretation services are available for each meeting, meeting materials are posted to the community webpage prior to the meeting, and most materials are also available in Spanish. In October 2019, SDAPCD contracted with a bilingual facilitator for future community steering committee meetings in hopes to create an even greater collaborative process. The work that has been done to develop a community air monitoring plan and better understand the air pollution sources in the community. Data generated will provide a strong framework for the development and implementation of a community emissions reduction program for the Portside Environmental Justice Neighborhoods Community.

[16] Data Source: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30
[17] More information on California Healthy Places Index available at: https://healthyplacesindex.org/
[18] For a full list of community steering committee members for the Portside Environmental Justice Neighborhoods community, visit: https://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/AB_617/PortsideMembers.pdf
For community steering committee meeting agendas, presentations, and notes, visit: https://www.sandiegocounty.gov/content/sdc/apcd/en/community-air-protection-program--ab-617-/ab-617-steering-committee-documents.html

CARB Community Air Grants Awardee

The Community Air Grants fund projects directly related to AB 617, the Environmental Health Coalition received a Community Air Grant in 2018 to implement their proposed project through March 2021.

Environmental Health Coalition was awarded $489,545 for their project located in the City of San Diego and the neighborhoods of City Heights, Sherman Heights, National City, and Barrio Logan. The project goal is to increase the resident's understanding of air quality issues in their communities and resulting health risks by developing leadership and community advocacy related to AB 617, and encourage community-based research on local air quality including the development of resident-scientists. The project has installed low-cost sensors at residences and schools in the project area.

iv. Air Quality Burden Assessment

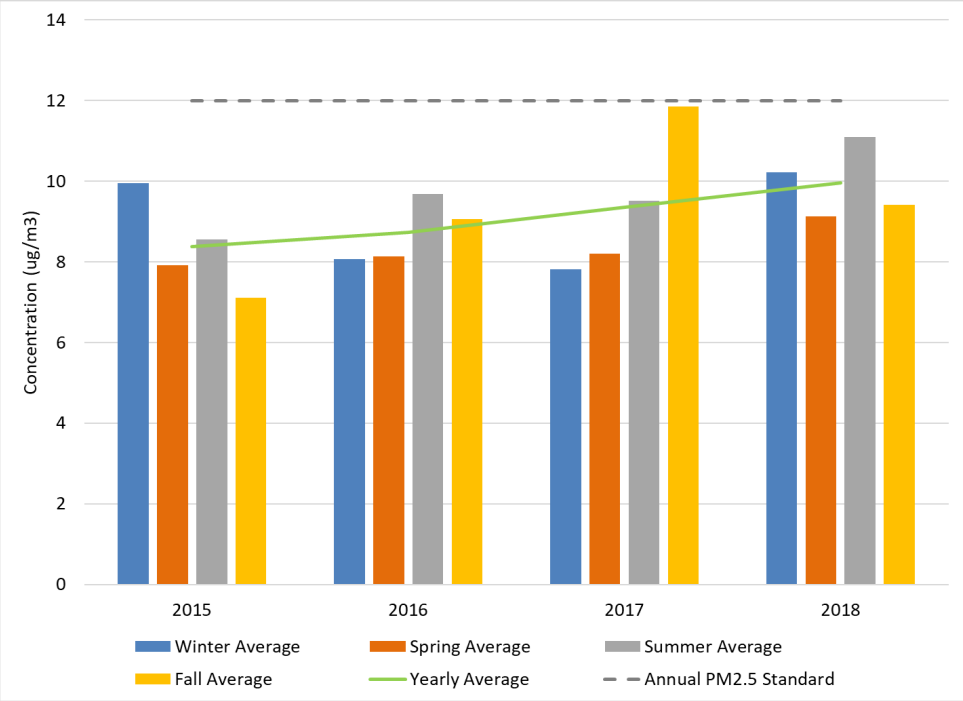
The discussion presented here summarizes the air quality burden in and around the Portside Environmental Justice Neighborhoods Community and highlights the current air quality issues the community is experiencing and supports CARB staff's rationale for recommending this community to be selected for a community emissions reduction program in 2019.

a. Ambient Air Quality Data

The Chula Vista site[19] is the nearest regulatory air quality monitoring station with air quality data for the most recent four years and is approximately 3.5 miles to the east of the community in Chula Vista (Figure C-1 in Appendix C in this document). The average PM2.5 concentrations for 2015 – 2018 in Figure 4 show no discernible seasonal variability.

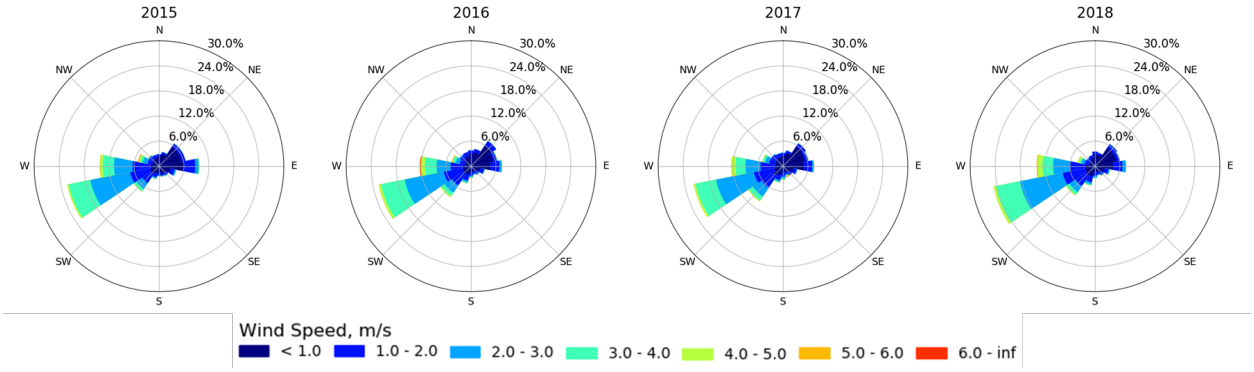
[19] Air Monitoring Site Information for Chula Vista: https://ww3.arb.ca.gov/qaweb/site.php?s_arb_code=80114

Figure 4. Average PM2.5 Concentrations for Chula Vista (ARB: 80114)[20]



The wind rose[21] analysis for Chula Vista in Figure 5 shows that predominant wind comes from the ocean west and south west of the community and therefore the sources located west and south west of the community could have an impact on the community's air quality burden.

Figure 5. Wind Roses for Chula Vista (ARB: 80114)[19]

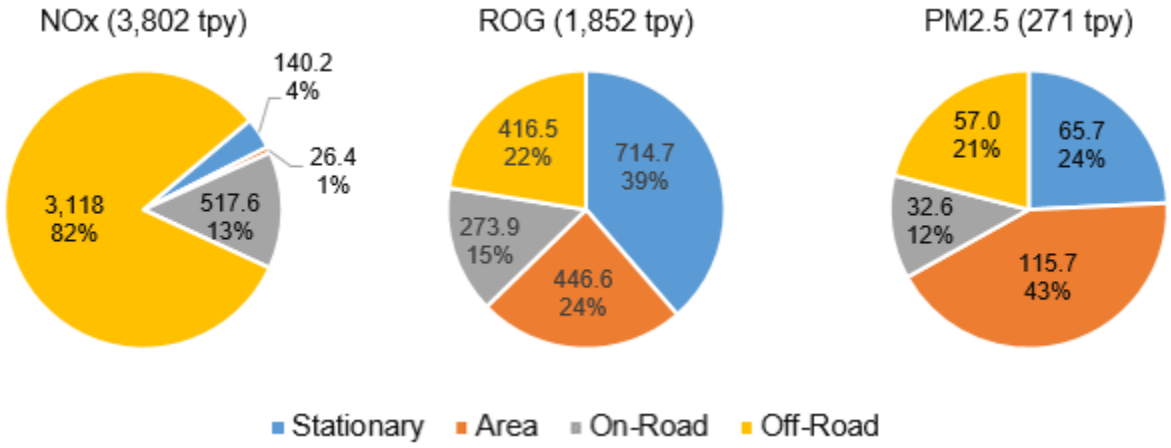


[20] Data Source: https://www.epa.gov/outdoor-air-quality-data
[21] For a description on how to read a wind or pollutant rose see Appendix D in this document.

b. Preliminary Emissions Inventory Estimates

A preliminary emissions inventories based on the proposed community boundary was developed by CARB to quantify emissions of mobile (on-road and off-road), stationary, and area sources in the community. Details on the methodology used are provided in Appendix E in this document. Figure 6 summarizes the draft estimated emissions for key air pollutants, such as nitrogen oxides (NOx), reactive organic gases (ROG), and PM2.5 for this community.

Figure 6. Preliminary Source Contributions in the Portside Environmental Justice Neighborhoods Community
(2017 Emissions in Tons per Year, tpy) [22]



[22] See Appendix E in this document for methodology and additional information on the emissions inventory.

The activities that contribute to these emissions are listed in Table 3 and are detailed in Table E.a.2 in Appendix E, along with an initial estimate and spatial distribution based on a preliminary planning emissions inventory.

Table 3. Top Source Categories by Stationary, Area, and Mobile for the Portside Environmental Justice Neighborhoods Community

(Preliminary Emissions Inventory for 2017)[22]

Stationary Sources			
PM2.5	**Percent**	**ROG**	**Percent**
Electric Utilities	57.9%	Coatings And Related Process Solvents	42.5%
Mineral Processes (Cement, Aggregate)	12.1%	Petroleum Marketing	16.0%
Service And Commercial	11.9%	Adhesives And Sealants	12.9%
Manufacturing And Industrial	6.3%	Printing	7.9%
Cogeneration	5.5%	Degreasing	7.4%
Area Sources			
PM2.5	**Percent**	**ROG**	**Percent**
Cooking (Commercial Charbroiling)	46.8%	Consumer Products	54.9%
Construction And Demolition	37.5%	Architectural Coatings And Related Process Solvents	28.9%
Paved Road Dust	9.5%	Cooking (Commercial Charbroiling)	8.3%
Residential Fuel Combustion	4.9%	Asphalt Paving / Roofing	4.1%
Fires	0.7%	Residential Fuel Combustion	2.6%
Mobile Sources			
PM2.5	**Percent**	**ROG**	**Percent**
Ocean Going Vessels	33.9%	Light Duty Passenger Vehicles	34.6%
Light Duty Passenger Vehicles	25.7%	Off-Road Equipment	20.4%
Off-Road Equipment	15.6%	Ocean Going Vessels	19.2%
Commercial Harbor Craft	6.7%	Recreational Boats	13.6%
Recreational Boats	6.3%	Commercial Harbor Craft	4.0%

Additionally, Figure 7 presents the emissions trends for NOx, ROG, and PM2.5 in the San Diego Air Basin from 2012 through 2030 using projected emissions from the 2016 State Implementation Plan (SIP) emissions inventory.[23] The forecasted emissions from the 2016 SIP provide an initial assessment of future emission trends and air quality benefits in the air basin, reflecting the effects of regional growth assumptions and adopted CARB and District rules as of December 2015, and provides an indication of the emissions trends that will be seen in the community as a result of existing emission reduction programs. 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 Portside Environmental Justice Neighborhoods is selected as a 2019 community.

Figure 7. Projected Emissions Trends for Major Source Categories in the San Diego Air Basin
(Emissions in Tons/Day from 2016 SIP Inventory)[24]

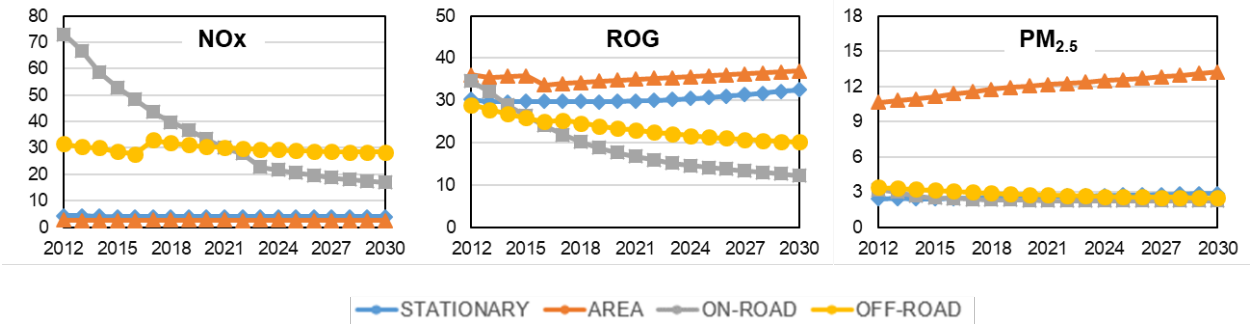
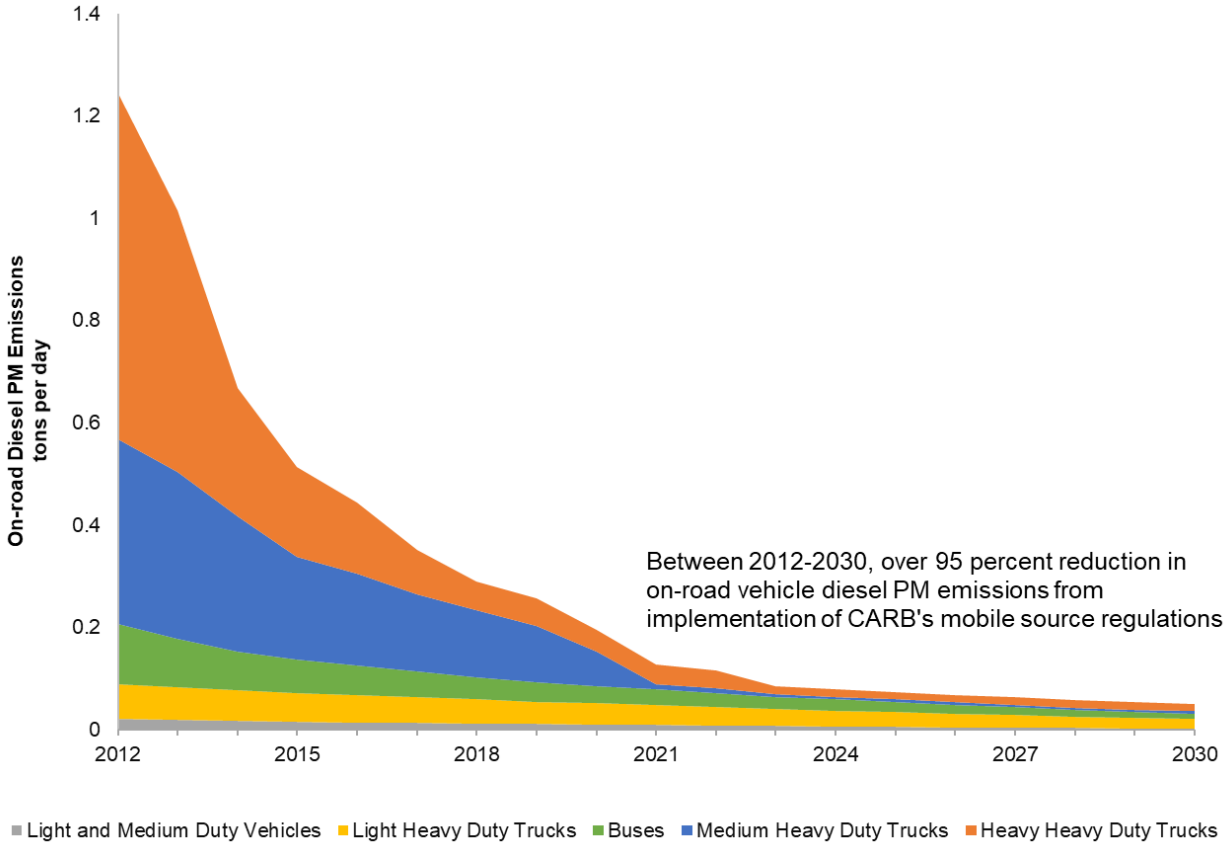


Figure 8 shows the trend of diesel PM emissions from on-road vehicles in the San Diego Air Basin – the emissions are projected to decrease significantly in future years from implementation of adopted mobile source regulations, including the Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants from In-Use Heavy-Duty Diesel-Fueled Vehicles (also known as the Truck and Bus Regulation).[25]

[23] Data Source: https://www.arb.ca.gov/app/emsinv/fcemssumcat/fcemssumcat2016.php
[24] Emissions trend shown in Figure 7 and Figure 8 for the San Diego Air Basin is based on the official 2016 State Implementation Plan inventory (CEPAM v1.05). Note that ocean going vessels and commercial harbor craft emissions within 3 nautical miles are included. https://www.arb.ca.gov/app/emsinv/fcemssumcat/fcemssumcat2016.php.
[25] For more information on the Truck and Bus Regulation, visit: https://ww2.arb.ca.gov/our-work/programs/truck-and-bus-regulation

Figure 8. Projected Emission Trends for On-road Vehicle Diesel PM in the San Diego Air Basin (Emissions in Tons per Day from 2016 SIP Inventory)



c. Proximity-Based Exposure

The community is primarily residential (50 percent) and has about the same acreage of commercial and industrial land use (11 percent and 18 percent, respectively). The map in Figure 9 illustrates the industrial land use categories within the preliminary community boundary. Assessor Parcel Number (APN) data also shows the largest industrial land use is associated with warehousing and distribution (380 acres) followed by manufacturing (155 acres).

The residential areas in the community are mostly outside of the industrial areas. However, a comparison of the maps in Figure 9 and Figure 10 show there are industrially zoned areas directly adjacent to some of the most densely populated areas in the community, such as the area near State Route 54 in West National City and areas along the Interstate 5. Additional resources on land use planning information are available in the Resource Center on CARB's Community Air Protection Program website.[26]

[26] 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

Figure 9. Land Use Map for the Portside Environmental Justice Neighborhoods Community[27]

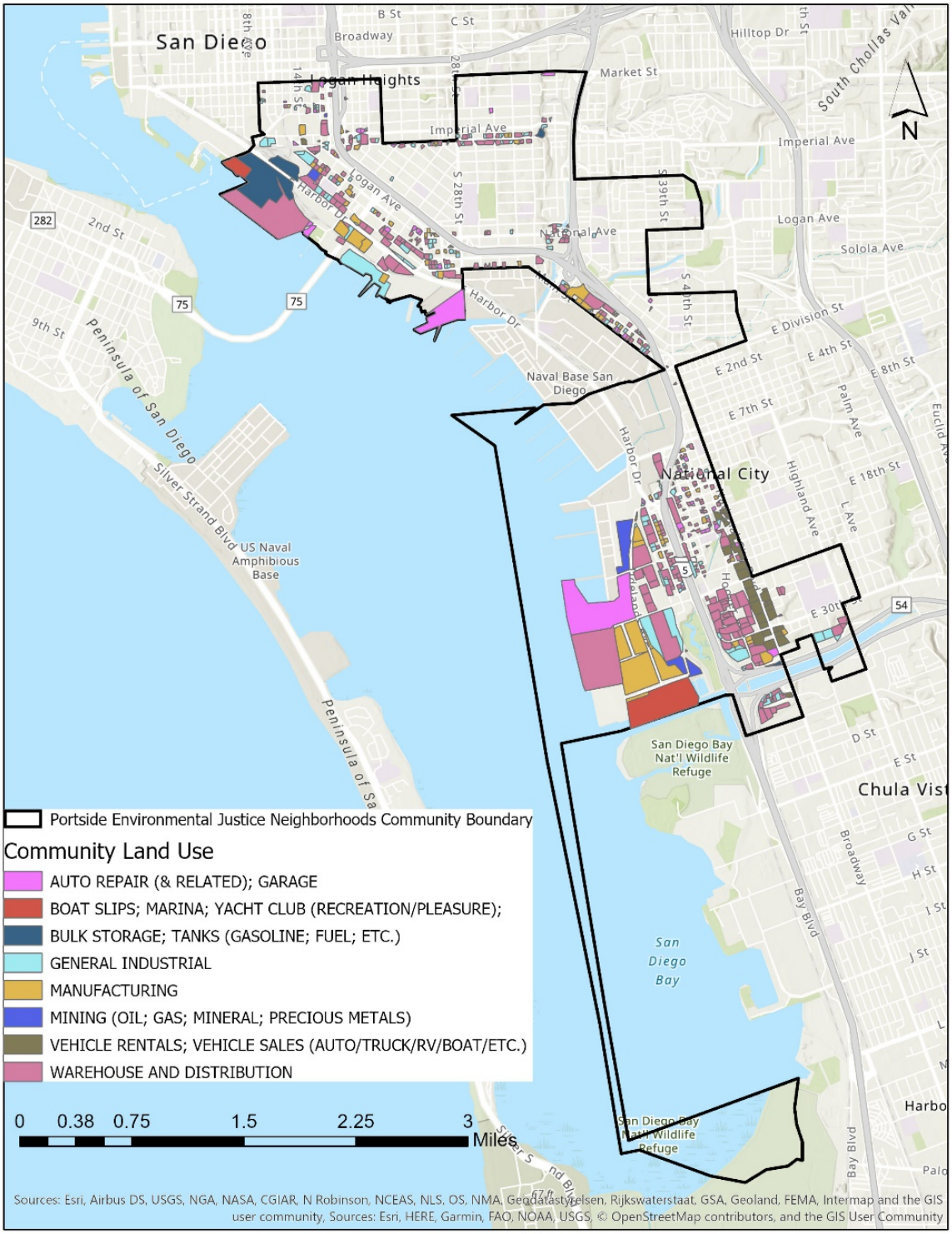
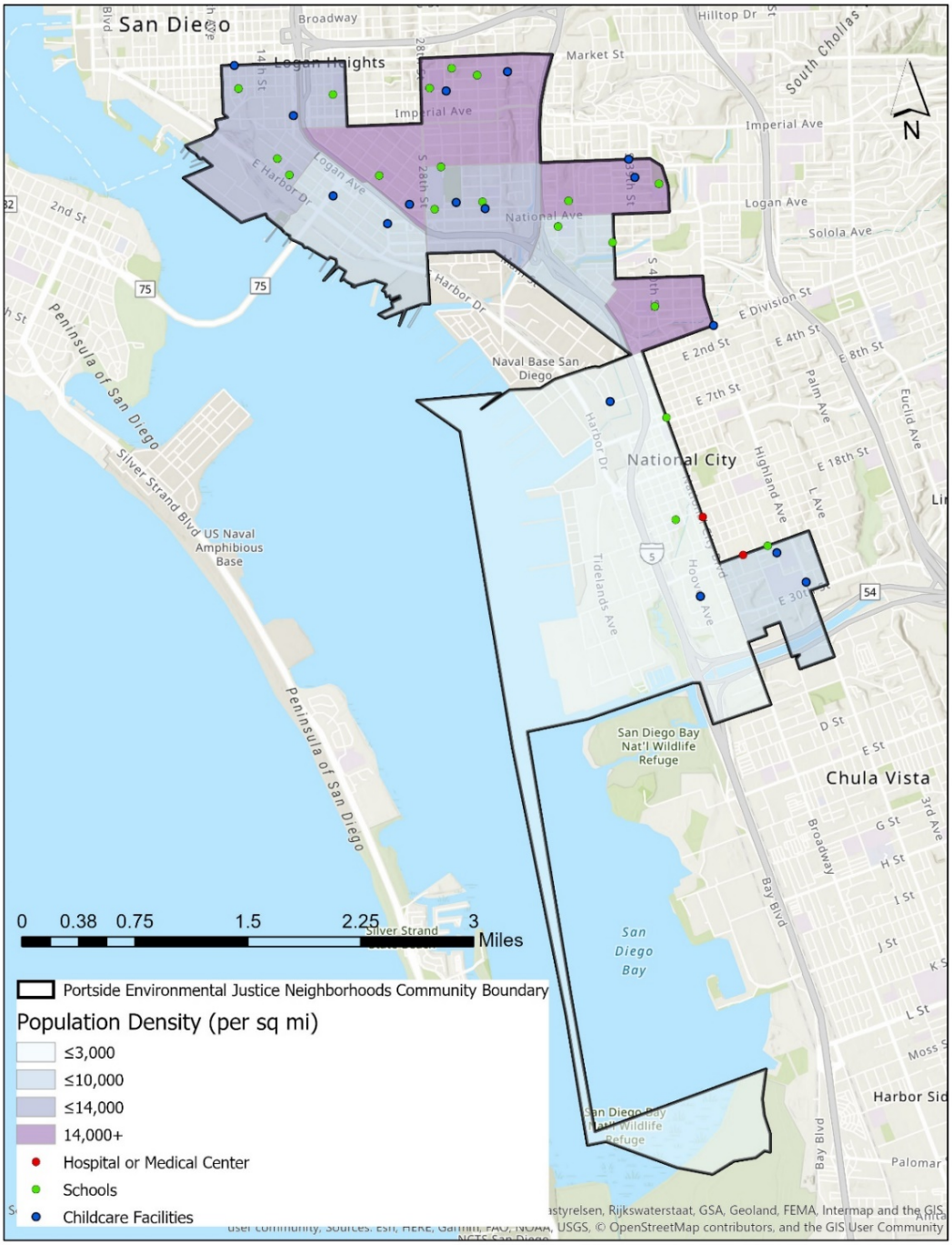


Figure 10. Population Density and Sensitive Receptor for the Portside Environmental Justice Neighborhoods Community

(APN Land Use and CES Population)[28,29]



[27] Data Source: https://www.digmap.com/platform/smartparcels/
[28] Data Source: https://www.cde.ca.gov/ds/, http://data-cdphdata.opendata.arcgis.com/, https://ww3.arb.ca.gov/research/apr/past/11-336.pdf
[29] Data Source: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30

b. Southwest Stockton Community

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

The Southwest Stockton Community is located at the northern end in the SJVAPCD. Sources impacting the community include major freeways such as Interstate 5 and Highway 99, the Port of Stockton, industrial facilities, and railyards offering a wide array of opportunities for emission reductions. The Southwest Stockton Community has a high cumulative exposure burden, a significant number of sensitive receptors and the census tracts of the entire community have been designated as disadvantaged communities. The community was nominated in 2018 by local community and environmental justice groups. CARB has received similar support for nomination this year as well. SJVAPCD held public workshops to provide the methodology for community identification and prioritization and solicited community input on 2019 community nominations. This public process was used to identify Southwest Stockton as a recommended community and was approved by the SJVAPCD Board on September 19, 2019. CARB staff recommends that the CARB Governing Board select Southwest Stockton Community for development of a community emissions reduction program and community air monitoring plan.

ii. Community Description

Figure 11 depicts the preliminary Southwest Stockton Community boundary and highlights schools, hospitals, licensed daycares, and stationary sources. Also shown are the Port of Stockton and the major highways within the community.

Figure 11. Southwest Stockton Community Details

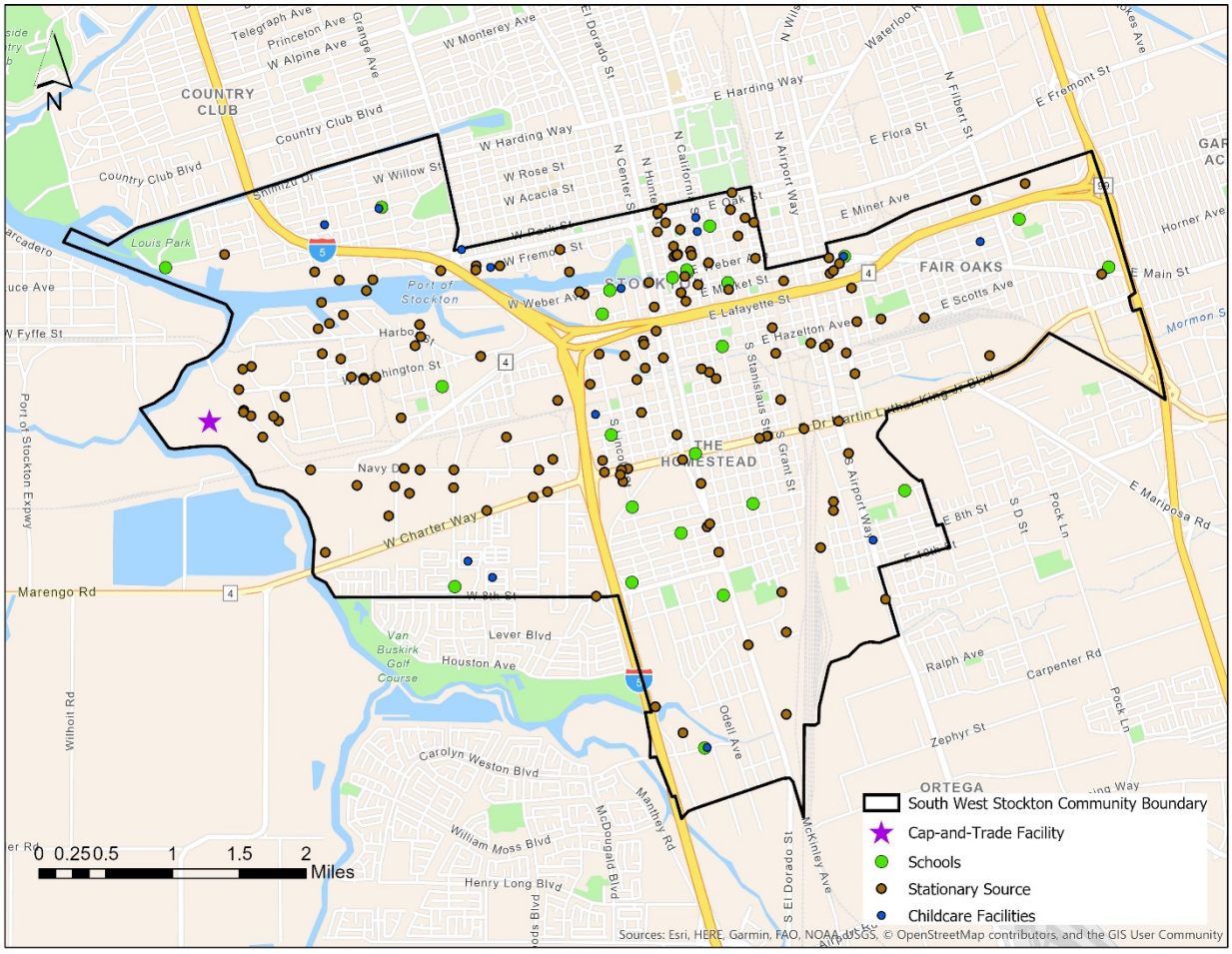


Figure 12 provides a photo of Southwest Stockton Community. This community is approximately 12.2 square miles with a population of 51,000. The community is impacted by freight transportation along Interstate 5, Highway 99, port traffic, and the rail lines that bisect the community. The community is bracketed by Interstate 5, which runs through the western side of the community, and by Highway 99, which creates part of the community's eastern border. Additionally, State Route 4 runs through the center of the community and links Interstate 5 and Highway 99.

Figure 12. Southwest Stockton Community Photo

According to 2017 emissions data reported to CARB by SJVAPCD,[30] there are 170 stationary sources within the community, 1 of which is a Cap-and-Trade facility.[31] The sensitive receptors in the community include 24 schools and 15 licensed daycare facilities.[32] This community is considered disadvantaged per SB 535[33] and AB 1550.[34] Key CES 3.0 indicators are listed in Table 4 below.

Table 4. Key CalEnviroScreen 3.0 Indicators for the Southwest Stockton Community[35],[36]

Overall Score	PM2.5	DPM	Asthma	Cardiovascular Disease	Poverty	Unemployment	CA Healthy Places Index
100	94	74	100	97	99	100	100

[30] Data Source: Based on Air District reported 2017 facility emissions to CARB.
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/

[31] Cap-and-trade is a regulatory approach used to control pollution by setting a firm cap on allowed emissions while employing market mechanisms to achieve emissions reductions while driving costs down. In a cap-and-trade program, a limit, or cap is put on the amount of greenhouse gases that can be emitted.

[32] Data Source: https://www.cde.ca.gov/ds/, http://data-cdphdata.opendata.arcgis.com/, https://ww3.arb.ca.gov/research/apr/past/11-336.pdf

[33] Disadvantaged community designations per Senate Bill (SB) 535 (De León, Chapter 830, Statutes of 2012)

[34] Low-income definitions per Assembly Bill (AB) 1550 (Gomez, Chapter 369, Statutes of 2016)

[35] Data Source: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30

[36] More information on California Healthy Places Index available at: https://healthyplacesindex.org/

iii. Community Engagement

The nomination of Southwest Stockton has received broad support. Local environmental justice groups including but not limited to the San Joaquin Valley AB 617 Environmental Justice Steering Committee, the Catholic Charities of the Diocese of Stockton, Little Manila Rising, the Environmental Justice Coalition for Water, Third City Coalition, as well as the Mayor of Stockton have all voiced their support for the nomination.[37]

There are several community centric environmental actions already underway in the Southwest Stockton Community. Several community groups in San Joaquin Valley, including those operating in Stockton have received grants to enhance community engagement in the Stockton area on environmental justice issues.[38] The City of Stockton received a Transformative Climate Communities Planning Grant that helped create the Rise Stockton Initiative. The Rise Stockton Initiative is a community collaboration meant to help implement the neighborhood-level plan for sustainable development and facilitates community participation in climate and pollution related topics.[39] Finally, the California's Environmental Justice Task Force selected the City of Stockton for an Environmental Justice Initiative, which helps coordinate State agencies increase compliance with environmental laws within the specific communities and provide them with meaningful opportunities for input on potential environmental justice concerns and the implementation of proposed remedies.

iv. Air Quality Burden Assessment

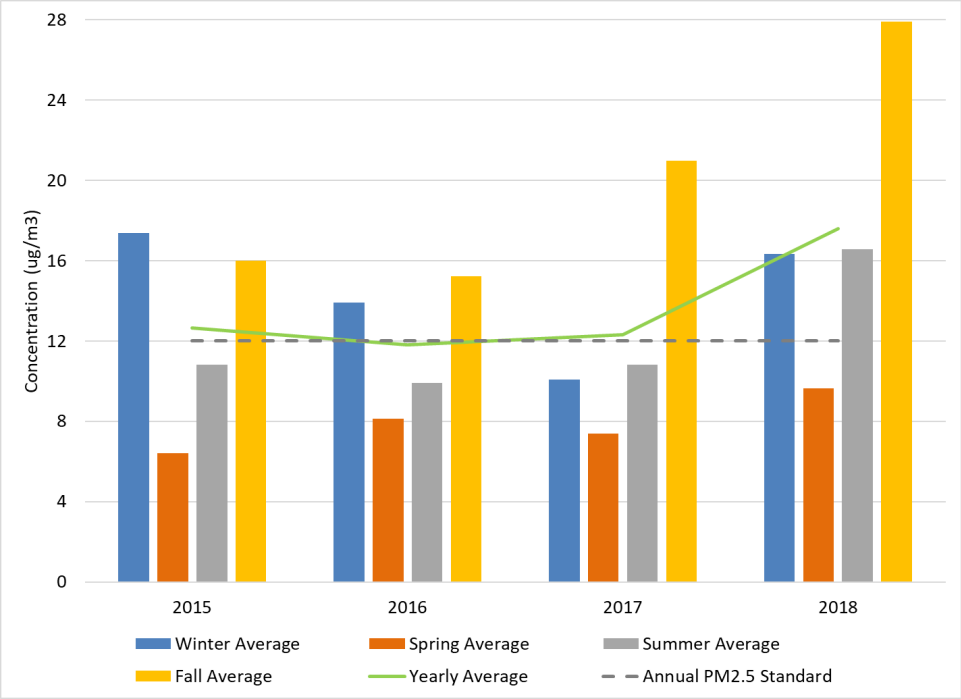
The discussion presented here summarizes the air quality burden in and around the Southwest Stockton Community and highlights the current air quality issues the community is experiencing and supports CARB staff's rationale for recommending this community to be selected in 2019.

a. Ambient Air Quality Data

The Stockton-Hazelton site[40] is the nearest regulatory air quality monitoring station and is in the eastern side of the community. (Figure C-2 in Appendix C in this document). Figure 13 shows that during 2015 – 2018, the average PM2.5 concentrations typically peaked in the fall (Oct – Dec) and winter (Jan – Mar) months.

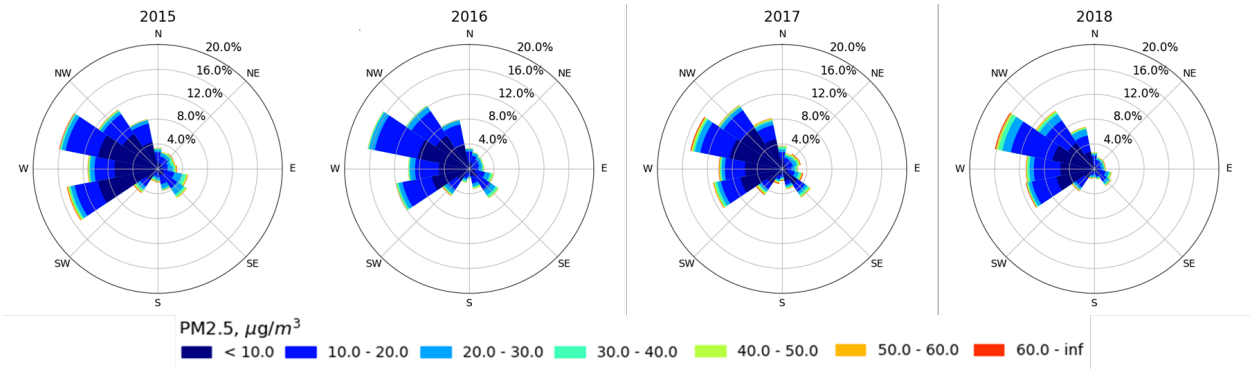
[37] http://community.valleyair.org/community-identification
[38] https://calepa.ca.gov/envjustice/funding/smallgrants/2019-environmental-justice-small-grants-project-summaries/
[39] https://risestockton.org/
[40] Air Monitoring Site Information for Stockton-Hazelton: https://ww3.arb.ca.gov/qaweb/site.php?s_arb_code=39252

Figure 13. Average PM2.5 Concentrations for Stockton-Hazelton (ARB: 39252)[41]



Pollution rose[42] analysis of the data for Stockton-Hazelton in Figure 14 for the same period shows that upwind sources west northwest of the community may have a contribution to community's air quality burden. Seasonally, the PM2.5 levels in fall months are likely impacted by factors such as wildfire (Fall 2018) as well as local emissions.

Figure 14. PM2.5 Pollution Roses from Stockton-Hazelton (ARB: 39252)



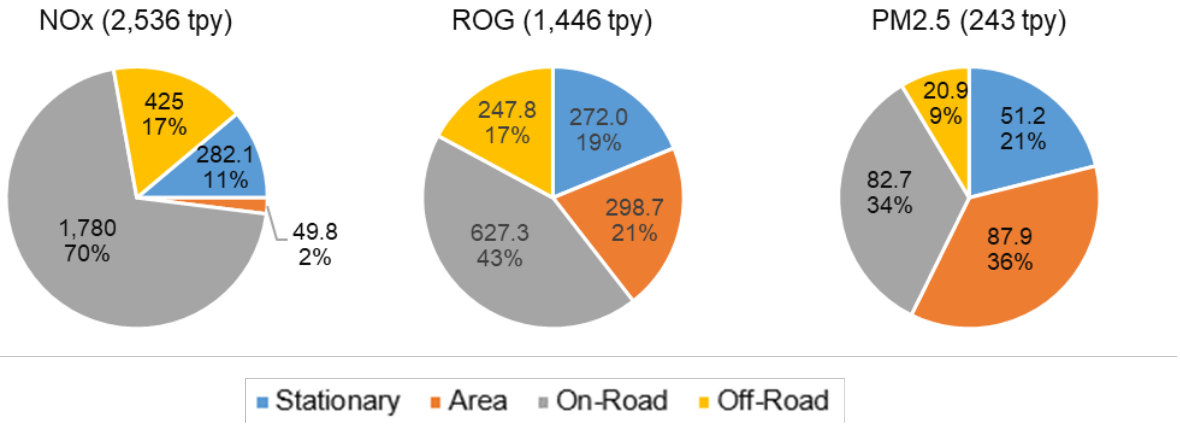
[41] Data Source: https://www.epa.gov/outdoor-air-quality-data
[42] For a description on how to read a wind or pollutant rose see Appendix D in this document.

For the Southwest Stockton Community preliminary community wide PM2.5 concentrations were derived qualitatively showing where the more impacted PM2.5 areas are throughout the community, see Appendix F in this document for details.

b. Preliminary Emissions Inventory Estimates

A preliminary emissions inventory based on the proposed community boundary was developed by CARB to quantify emissions of mobile, stationary and area sources in the community. Details on the methodology are provided in Appendix E in this document. Figure 15 summarizes the draft estimated emissions of key air pollutants, such as NOx, ROG, and PM2.5 for this community.

Figure 15. Preliminary Source Contributions in the Southwest Stockton Community
(2017 Emissions in Tons per Year, tpy) [43]



[43] See Appendix E in this document for methodology and additional information on the emissions inventory.

The activities that contribute to these emissions are listed in Table 5 and are detailed in Table E.b.2 in Appendix E along with an initial estimation and spatial distribution based on a preliminary planning emissions inventory.

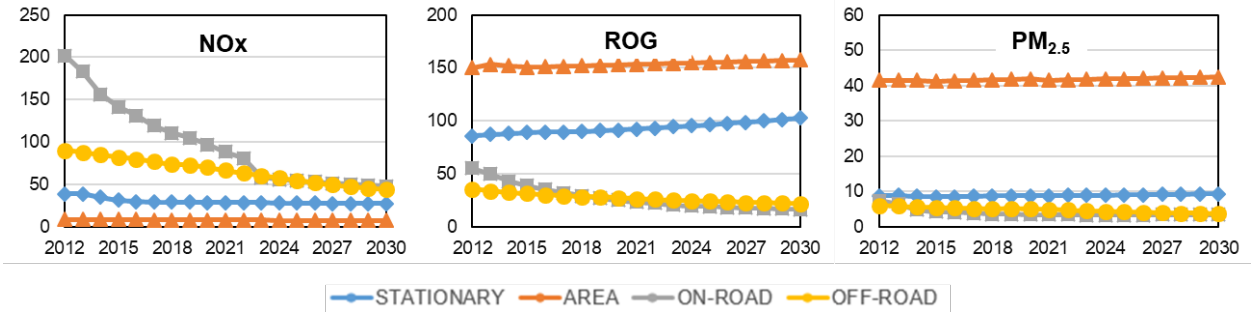
Table 5. Top Source Categories by Stationary, Area, and Mobile for Southwest Stockton Community

(Preliminary Emissions inventory for 2017)[43]

Stationary Sources			
PM2.5	**Percent**	**ROG**	**Percent**
Wood and Paper	28.9%	Coatings and Process Solvents	38.7%
Coatings and related process solvents	17.9%	Petroleum Marketing	23.1%
Electric Utilities	15.5%	Printing	10.7%
Mineral Processes	11.9%	Degreasing	8.2%
Manufacturing and Industrial	11.1%	Adhesives and Sealants	3.1%
Area Sources			
PM2.5	**Percent**	**ROG**	**Percent**
Cooking	46.8%	Consumer Products	55.1%
Residential Fuel Combustion	18.4%	Architectural Coatings and Related Process Solvents	29.1%
Paved Road Dust	18.3%	Residential Fuel Combustion	8.9%
Construction and Demolition	15.2%	Asphalt Paving / Roofing	3.8%
Farming Operations	0.7%	Cooking	2.2%
Mobile Sources			
PM2.5	**Percent**	**ROG**	**Percent**
Light and Medium Duty Vehicles	42.1%	Light and Medium Duty Vehicles	58.9%
Heavy-Heavy Duty Vehicles	19.5%	Recreational Boats	17.2%
Medium Heavy Duty Vehicles	11.7%	Off-Road Equipment	7.5%
Recreational Boats	8.9%	Light Heavy Duty Vehicles	4.9%
Off-Road Equipment	7.1%	Heavy-Heavy Duty Vehicles	4.5%

Additionally, Figure 16 presents the emission trends for NOx, ROG, and PM2.5 in the San Joaquin Valley Air Basin from 2012 through 2030 using projected emissions from the 2016 SIP emissions inventory.[44] The emissions reflect the effects of adopted District and CARB rules as of December 2015, as incorporated in the 2016 SIP. The forecasted emissions from the 2016 SIP provide an initial assessment of future emission trends and air quality benefits in the air basin, reflecting the effects of regional growth assumptions and adopted CARB and District rules as of December 2015, and provides an indication of the emissions trends that will be seen in the community as a result of existing emission reduction programs. 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 Southwest Stockton is selected as 2019 community.

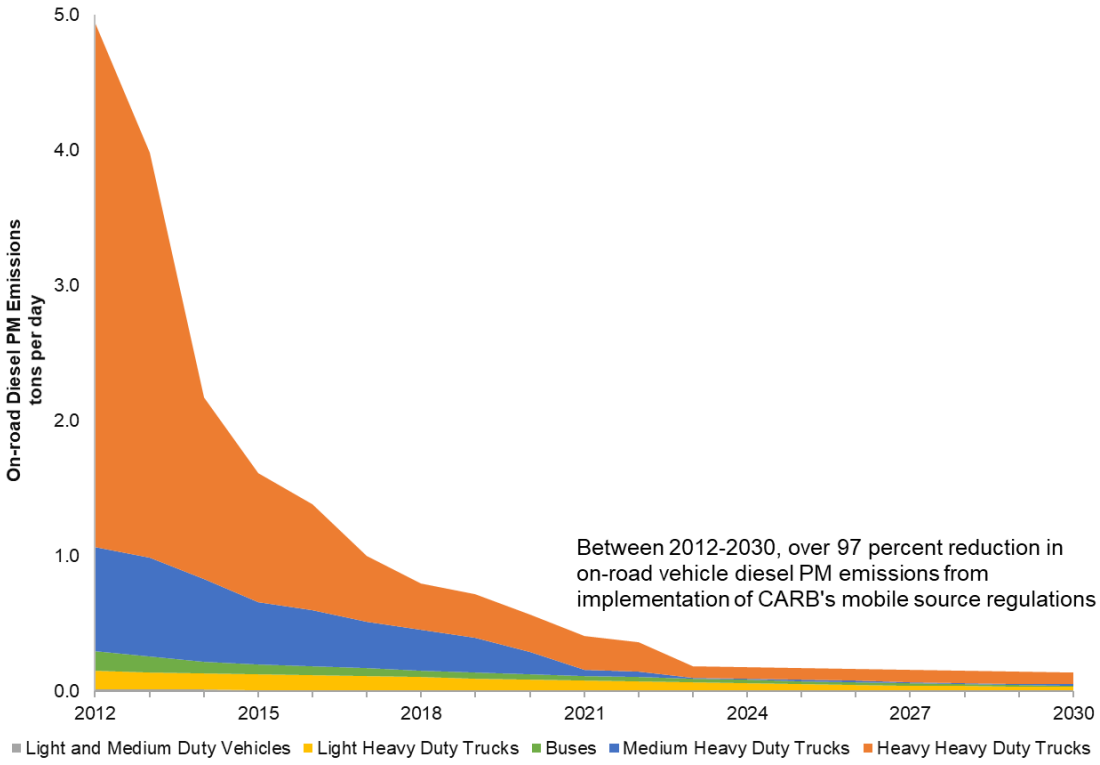
Figure 16. Projected Emission Trends for Major Source Categories in the San Joaquin Valley Air Basin
(Emission in Tons per Day from 2016 SIP Inventory)[45]



[44] Data Source: https://www.arb.ca.gov/app/emsinv/fcemssumcat/fcemssumcat2016.php
[45] Emission trend shown in Figure 16 and Figure 17 for the San Joaquin Valley Air Basin is based on the official 2016 State Implementation Plan inventory (CEPAM v1.05). Note that Ocean Going Vessels and Commercial Harbor craft emissions within 3 nautical miles is included here. https://www.arb.ca.gov/app/emsinv/fcemssumcat/fcemssumcat2016.php

Figure 17 shows the trend of diesel PM emissions from on-road vehicles in the San Joaquin Valley Air Basin – the emissions are projected to decrease significantly in future years from implementation of adopted mobile source regulations, including CARB's Truck and Bus Regulation.[46]

Figure 17. Projected Emission Trends for On-road Vehicles Diesel PM in San Joaquin Valley Air Basin
(Emissions in Tons per Day from 2016 SIP Inventory)



c. Proximity-Based Exposure

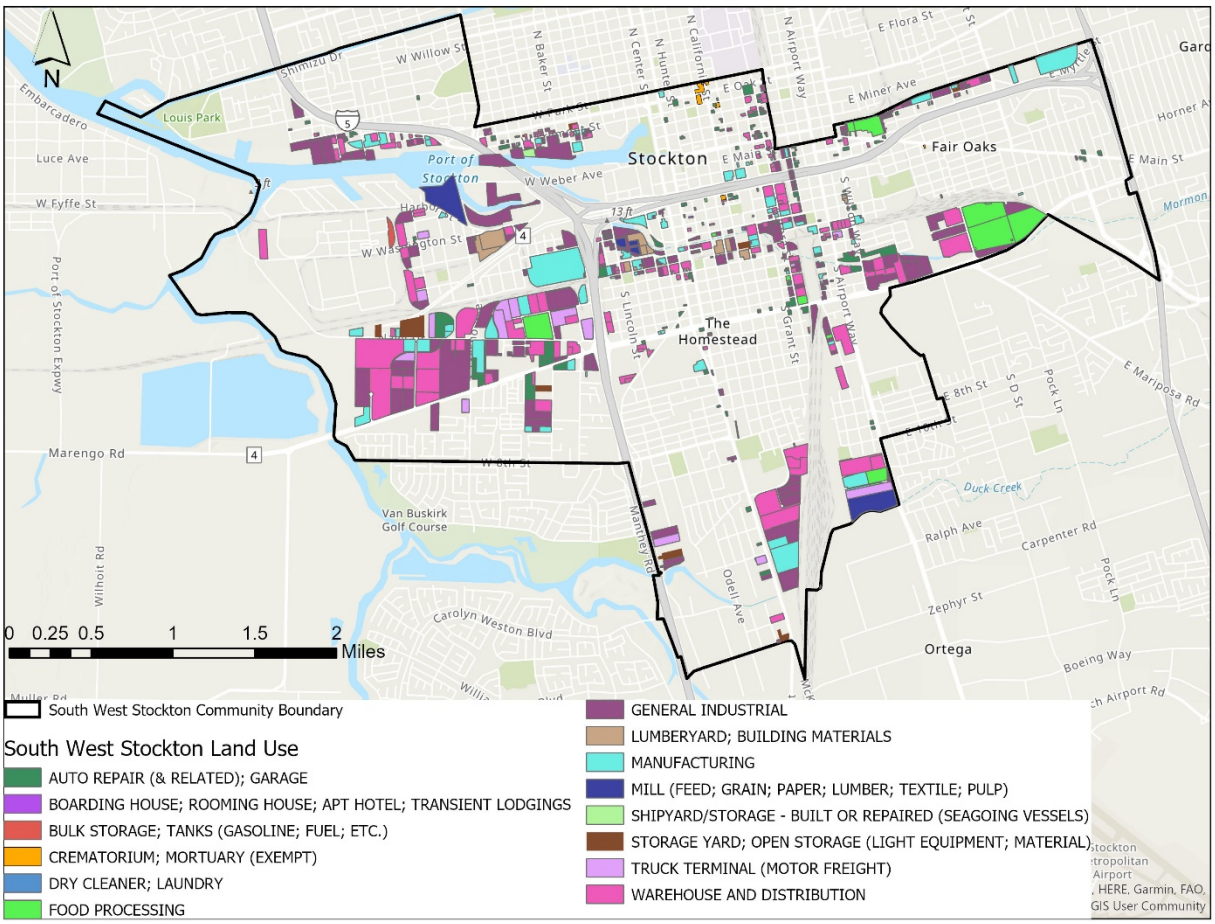
The community is around 27 percent residential and has about the same acreage of commercial and industrial land use (17 percent and 16 percent, respectively). The map in Figure 18 illustrates the industrial land use categories within the preliminary community boundary. APN data also shows the largest industrial land use is associated with mixed industrial uses (heavy, multitenant, vacant) (408 acres), followed by warehousing and distribution (343 acres) and general manufacturing (178 acres).

The residential areas in the community are mostly located in the central and northern portion of the community, with the industrial areas being primary located in the south-western and eastern portions of the community. However, a comparison of the maps

[46] More information on the Truck and Bus Regulation available at: https://ww2.arb.ca.gov/our-work/programs/truck-and-bus-regulation

in Figure 18 and Figure 19 show that there are areas within the community where the industrially zoned areas are directly adjacent to or surround residential areas. This is particularly clear in western and south-western portion of the community, such as the areas around Washington Elementary School and San Joaquin Elementary on South Fresno Ave. Additional resources on land use planning information are available in the Resource Center on CARB's Community Air Protection Program website.[47]

Figure 18. Land Use Map for Southwest Stockton Community[48]

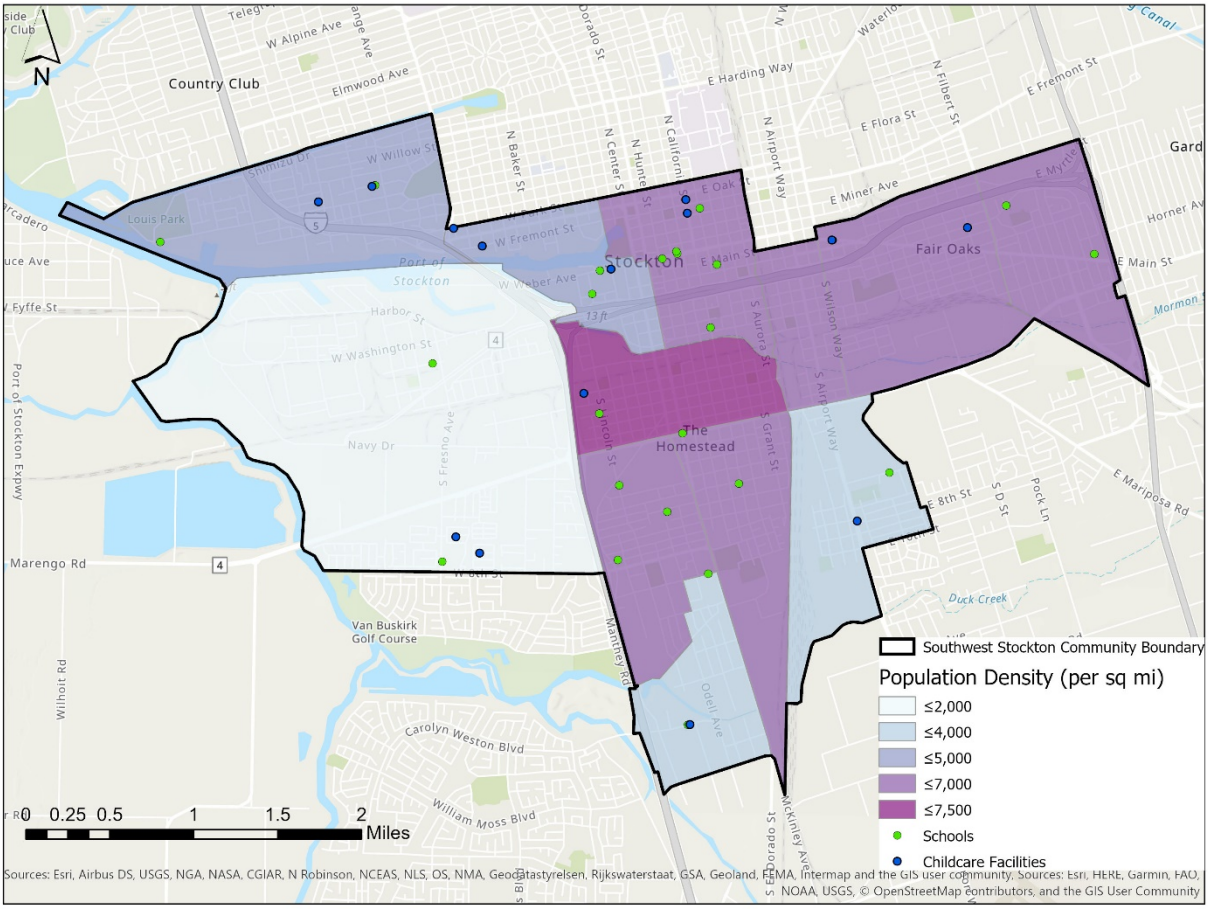


[47] For additional information regarding CARB's Community Air Protection Program and the online Resource Center visit: https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program

[48] Data Source: https://www.digmap.com/7platform/smartparcels/

Figure 19. Population Density and Sensitive Receptor for Southwest Stockton Community

(APN Land Use and CES Population) [49,50]



[49] Data Source: https://www.cde.ca.gov/ds/, http://data-cdphdata.opendata.arcgis.com/, https://ww3.arb.ca.gov/research/apr/past/11-336.pdf

[50] Data Source: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30

c. Eastern Coachella Valley Community

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

The Eastern Coachella Valley Community includes the city of Coachella and the unincorporated areas of Indio, Thermal, Oasis, Mecca, and North Shore. The Community is located in Riverside County in the SCAQMD. Key sources impacting the community include fugitive dust from construction activities, unpaved roads and parking lots, and agricultural activities (including pesticide application and agricultural burning). AB 617 provides an opportunity to address these local sources and reduce the community's cumulative exposure to air pollution. This will build on and complement other efforts to address dust and odors from the receding Salton Sea.

The Eastern Coachella Valley Community has a high cumulative exposure burden, a significant number of sensitive receptors, and includes census tracts that have been designated as disadvantaged communities. The residents of Eastern Coachella Valley have been actively engaging with SCAQMD and CARB as well as other agencies to improve air quality within the community. The community has been recommended by community-based organizations such as Leadership Counsel for Justice and Accountability, Comité Cívico del Valle and La Union Hace La Fuerza. SCAQMD has also nominated the Eastern Coachella Valley Community for development of a community air monitoring plan and community emissions reduction program. On September 6, 2019, the SCAQMD Board approved the Eastern Coachella Valley Community to be nominated to the CARB Governing Board as one of the 2019 communities. CARB staff recommends the Eastern Coachella Valley Community for deployment of community air monitoring and development of a community emissions reduction program.

ii. Community Description

As shown in Figure 20, the Proposed Eastern Coachella Valley Community includes the City of Coachella and unincorporated areas of Indio, Thermal, Oasis, Mecca, and North Shore within the preliminary community boundary. Also shown are stationary sources, schools, and hospitals/medical facilities.

Figure 20. Eastern Coachella Valley Community Details

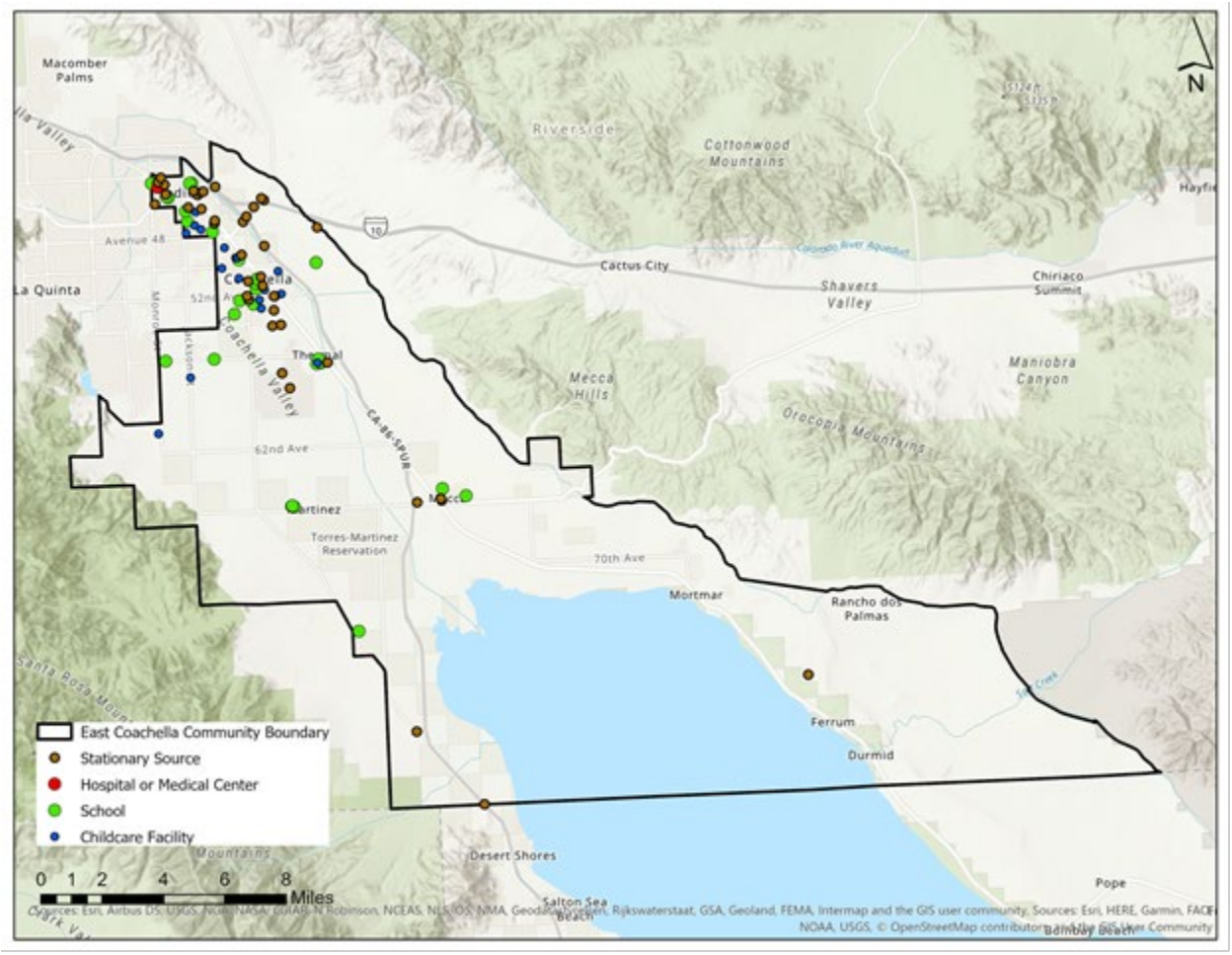
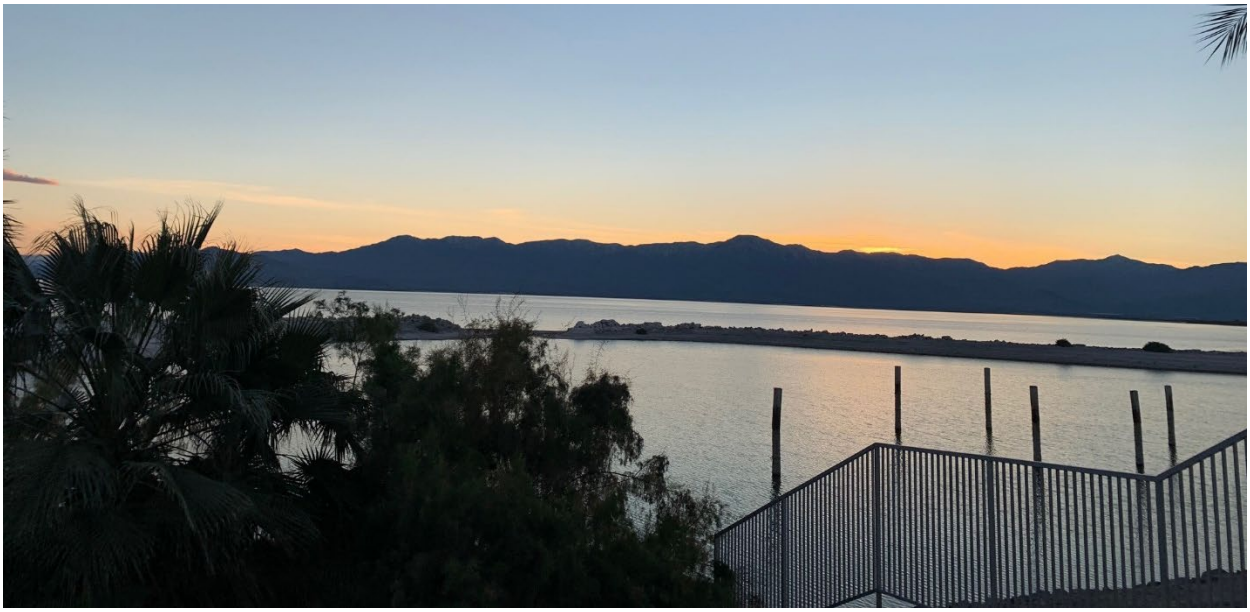


Figure 21 is a photo of the Salton Sea at North Shore in the Eastern Coachella Valley Community. The community is approximately 298 square miles and has a population of approximately 81,000 people. This is a rural community surrounded by agricultural fields. The community is also impacted by fugitive dust from construction activities, unpaved roads and parking lots, and exposure from dust and odors from the receding Salton Sea.

Figure 21. Eastern Coachella Valley Community Photo



According to 2017 emissions data reported to CARB by SCAQMD[51], there are 41 stationary sources within the community, none of which is a Cap-and-Trade facility[52]. As shown in Figure 20, the density of stationary sources is interspersed along the northern portion of the community. Sensitive receptors in the community include 29 schools, 17 licensed daycare facilities, and 1 hospital/medical facility[53] that are primarily located in the northern portion of the community along State Route 111,

[51] Data Source: _Based on Air District reported 2017 facility emissions to CARB.
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/

[52] Cap-and-trade is a regulatory approach used to control pollution by setting a firm cap on allowed emissions while employing market mechanisms to achieve emissions reductions while driving costs down. In a cap-and-trade program, a limit, or cap is put on the amount of greenhouse gases that can be emitted.

[53] Data Source: https://www.cde.ca.gov/ds/, http://data-cdphdata.opendata.arcgis.com/, https://ww3.arb.ca.gov/research/apr/past/11-336.pdf

which is the main north-south route and retail corridor through the Coachella Valley. This community is considered disadvantaged per SB 535[54] and AB 1550.[55] Key CES 3.0 indicators are listed in Table 6 below.

Table 6. Key CalEnviroScreen 3.0 Indicators for the Eastern Coachella Valley Community[56,57]

Overall Score	DPM	Pesticide	Asthma	Cardiovascular Disease	Poverty	Unemployment	CA Healthy Index
91	79	95	73	81	99	99	96

iii. Community Engagement

SCAQMD has worked with school districts and environmental justice organizations since 2007 to install air filtration systems in schools and community centers to remove ultrafine particulate matter and black carbon. Air filtration technologies such as high performance panel filters and stand-alone units have been successfully demonstrated in classroom environments to achieve at least a 90 percent average removal efficiency of ultrafine PM and black carbon. SCAQMD has installed air filtration in seven schools and community centers in the Eastern Coachella Valley Community[58].

CARB Community Air Grants Awardees

The Community Air Grants fund projects directly related to AB 617, the community based groups below received a Community Air Grant in 2018 to implement their proposed projects through March 2021.

- Comité Civico Del Valle was awarded $500,000 for their project located in the Imperial Valley and Eastern Coachella Valley to expand their existing monitoring network, by adding 15 particulate matter monitors covering the Salton Sea Air Basin. The project has completed the development of a pilot methane monitor to provide methane monitoring in the area. The program will continue to educate residents on air pollution.

[54] Disadvantaged community designations per Senate Bill (SB) 535 (De León, Chapter 830, Statutes of 2012)
[55] Low-income definitions per Assembly Bill (AB) 1550 (Gomez, Chapter 369, Statutes of 2016)
[56] Data Source: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30
[57] More information on California Healthy Places Index available at: https://healthyplacesindex.org/
[58] SCAQMD's 2019 Eastern Coachella Valley community recommendations, http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2019/2019-sep6-022.pdf?sfvrsn=6

- Leadership Counsel for Justice and Accountability was awarded a $150,000 to focus on the Eastern Coachella Valley and the San Joaquin Valley to increase community participation in implementation of AB 617 components (e.g., data gathering, data analysis, air monitoring, emission reduction plans). This project worked with community residents and local partners to undertake a process to develop a community driven nomination document for the 2019 community recommendations.

- Twenty-Nine Palms Band of Mission Indians was awarded $395,386 to set up a particulate matter (PM10/PM2.5) and ozone monitoring station at the Cabazon Tribal Government complex, located in Coachella. This project is the process of establishing a website to publically share this monitoring data. This advances the project objective to help build capacity to assess changes in air quality.

iv. Air Quality Burden Assessment

The discussion presented here summarizes the air quality burden in and around the Eastern Coachella Valley Community and highlights the current air quality issues the community is experiencing and supports CARB staff's rationale for recommending this community to be selected in 2019.

a. Ambient Air Quality Data

In 2004 and 2005 SCAQMD conducted MATES III air sampling for toxic air contaminates. Results showed that manganese had higher levels in PM10 at Indio. Generally higher concentrations occurred in the eastern portion of the SCAQMD, likely from geologic sources.[59] The receding shoreline of the Salton Sea has also become a source of fugitive dust, as well as odor complaints from hydrogen sulfide (H2S), a product of organic decay that has a rotten-egg odor. A H2S monitoring network was created to inform the community of H2S levels. Monitoring data is collected and available online from Saul Martinez Elementary School in Mecca and Torres Martinez Desert Cahuilla Indian Tribal[60] land near the north end of the Salton Sea community.

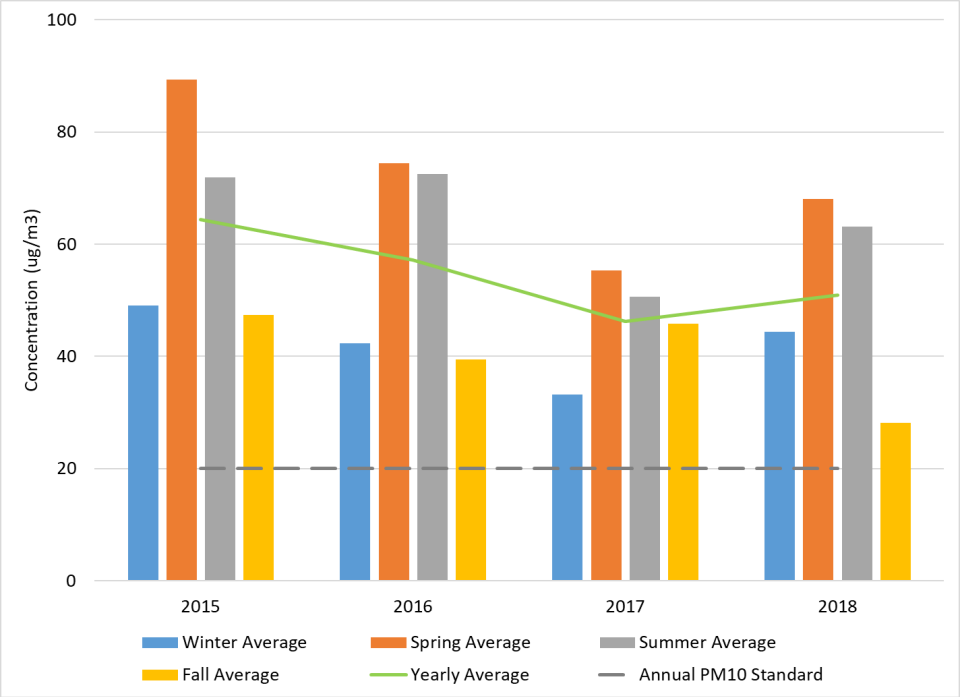
The PM10 and wind data from Torres-Martinez Administration (Tribal)[61] monitoring station (see Figure C-3 in Appendix C for monitoring site locations) in the Eastern Coachella Valley Community was used for air quality assessment. Figure 22 shows that during 2015-2018, the average PM10 concentrations peaked in the spring (Mar - May) and summer (Jun – Aug) and are consistently above the annual PM10 standard.

[59] SCAQMD's 2019 Eastern Coachella Valley community recommendations, http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2019/2019-sep6-022.pdf?sfvrsn=6

[60] Air monitoring sites-interactive map: https://ww3.arb.ca.gov/qaweb/mapdemo/map_module.php

[61] Site information for Torres-Martinez: https://ww3.arb.ca.gov/qaweb/site.php?s_arb_code=33601

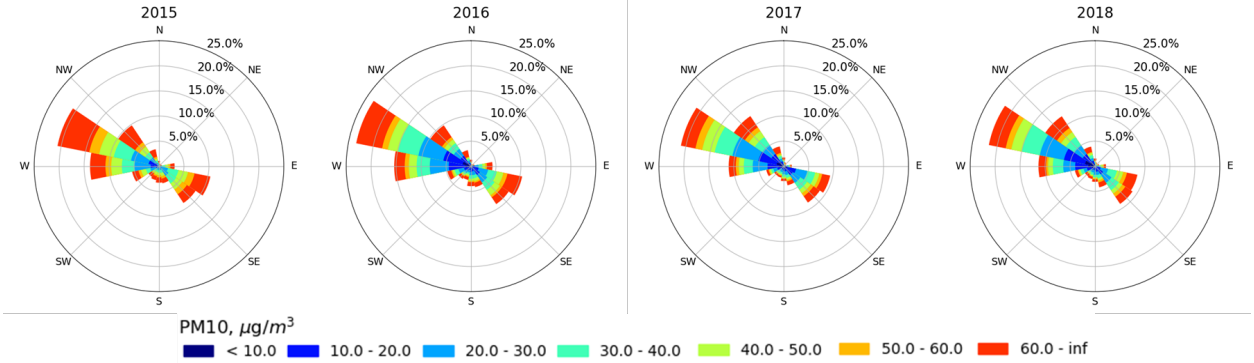
Figure 22. Average PM 10 Concentrations for Torres-Martinez Administration (Tribal)[61]



The pollution rose[62] analysis in Figure 23 shows predominant wind direction is from the west northwest with strongest winds developing when the wind is from this direction, likely from the channeling of air through the narrow San Gorgonio Pass, where winds can exceed 40 miles per hour and flows southeast.[63] Another wind pattern in the region is when the winds are from the southeast, which could lead transport dust from the Salton Sea.

[62] For a description on how to read a wind or pollutant rose see Appendix D in this document.
[63] High Wind Fugitive Dust Mitigation Plan for the South Coast Air Basin and the Coachella Valley Portions of the Salton Sea Air Basin. http://www.aqmd.gov/docs/default-source/public-notices/exceptional-events/final-high-wind-fugitive-dust-mitigation-plan-submitted-to-carb-09_18_20.pdf?sfvrsn=6

Figure 23. PM10 Pollution Rose from Torres-Martinez Administration (Tribal)

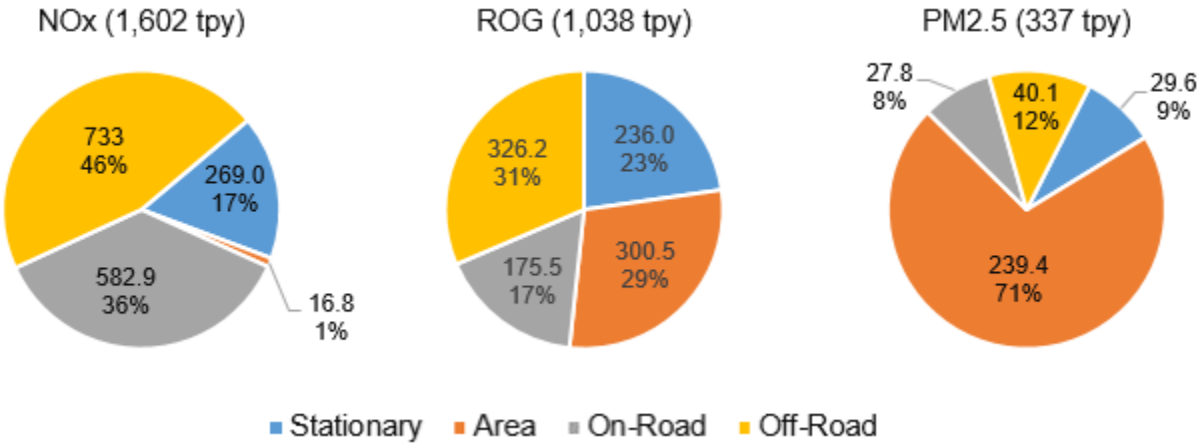


b. Preliminary Emissions Inventory Estimates

A preliminary emissions inventory based on the proposed community boundary was developed by CARB to quantify emissions of mobile, stationary and area sources in the community. Details on the methodology are provided in Appendix E in this document. Figure 24 summarizes the draft estimated emissions of key air pollutants, such as NOx, ROG, and PM2.5 for this community.

Figure 24. Preliminary Source Contributions in the Eastern Coachella Valley Community

(2017 Emissions in Tons per Year, tpy) [64]



[64] See Appendix E in this document for methodology and additional information on the emissions inventory.

The activities that contribute to these emissions are listed in Table 7 and are detailed in Table E.c.2 in Appendix E, including an initial estimation and spatial distribution based on a preliminary planning emissions inventory.

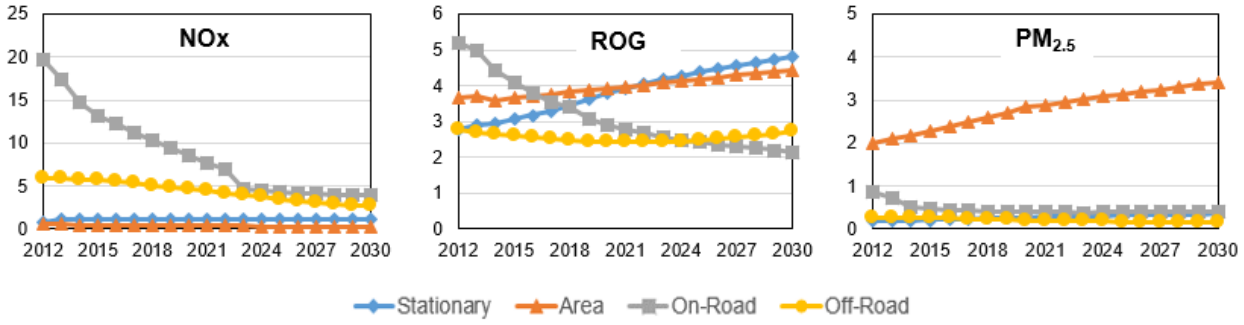
Table 7. Top Source Categories by Stationary, Area, and Mobile for Eastern Coachella Valley Community

(Preliminary Emissions Inventory for 2017)[64]

Stationary Sources			
PM2.5	**Percent**	**ROG**	**Percent**
Other (Industrial Processes)	44.5%	Coatings and Related Process Solvents	28.9%
Wood and Paper	23.8%	Degreasing	17.3%
Coatings and Related Process Solvents	9.1%	Adhesives and Sealants	15.3%
Mineral Processes	7.9%	Manufacturing and Industrial	10.4%
Manufacturing and Industrial	5.5%	Petroleum Marketing	7.6%
Area Sources			
PM2.5	**Percent**	**ROG**	**Percent**
Construction and Demolition	44.6%	Consumer Products	53.0%
Paved Road Dust	20.4%	Pesticides/Fertilizers	27.8%
Fugitive Windblown Dust	10.7%	Architectural Coatings and Related Process Solvents	8.1%
Farming Operations	9.4%	Residential Fuel Combustion	5.4%
Unpaved Road Dust	5.6%	Farming Operations	2.1%
Mobile Sources			
PM2.5	**Percent**	**ROG**	**Percent**
Light Duty Vehicles	21.9%	Light Duty Vehicles	30.1%
Off-Road Equipment	17.8%	Recreational Boats	29.4%
Recreational Boats	14.9%	Off-Road Equipment	19.0%
Heavy-Heavy Duty Vehicles	12.2%	Farm Equipment	4.7%
Trains	9.8%	Trains	3.8%

Additionally, Figure 25 presents the emission trends for NOx, ROG, and PM2.5 in the Riverside County portion of the Salton Sea Air Basin from 2012 through 2030 using projected emissions from the 2016 SIP emissions inventory.[65] The forecasted emissions from the 2016 SIP provide an initial assessment of future emission trends and air quality benefits in the air basin, reflecting the effects of regional growth assumptions and adopted CARB and District rules as of December 2015, and provides an indication of the emissions trends that will be seen in the community as a result of existing emission reduction programs. 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 Eastern Coachella Valley is selected as 2019 community.

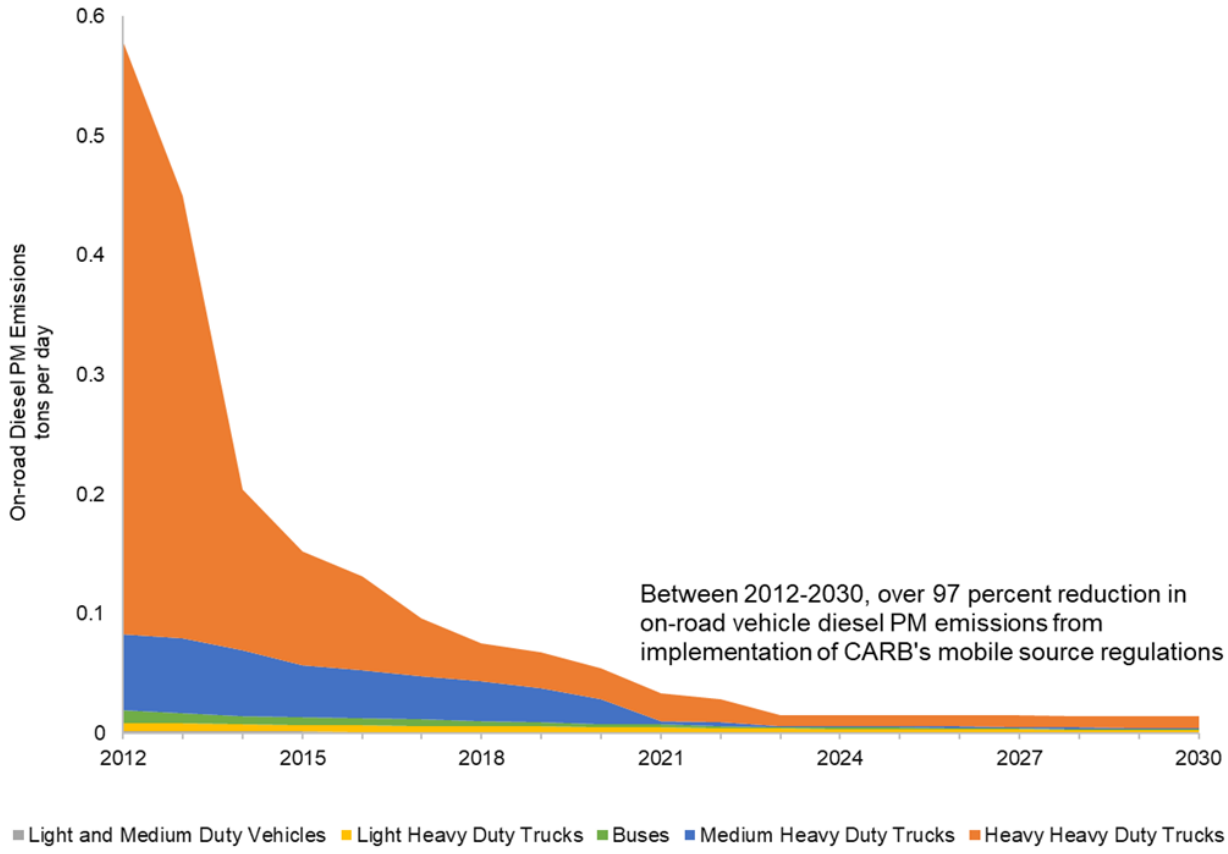
Figure 25. Projected Emission Trends for Major Source Categories in the Riverside County Portion of the Salton Sea Air Basin
(Emission in Tons per Day from 2016 SIP Inventory)[66]



[65] Data Source: https://www.arb.ca.gov/app/emsinv/fcemssumcat/fcemssumcat2016.php
[66] Emission trend shown in Figure 25 and Figure 26 for the Riverside County portion of the Salton Sea Air Basin is based on the official 2016 SIP emission inventory (CEPAM v1.05). https://www.arb.ca.gov/app/emsinv/fcemssumcat/fcemssumcat2016.php

Figure 26 shows the trend of diesel PM emissions from on-road vehicles in the Riverside County Portion of the Salton Sea Air Basin – the emissions are projected to decrease significantly in future years from implementation of adopted mobile source regulations, including CARB's Truck and Bus Regulation. [67]

Figure 26. Projected Emission Trends for On-road Vehicle Diesel PM in the Riverside County Portion of the Salton Sea Air Basin
(Emissions in Tons per Day from 2016 SIP Inventory)[66]



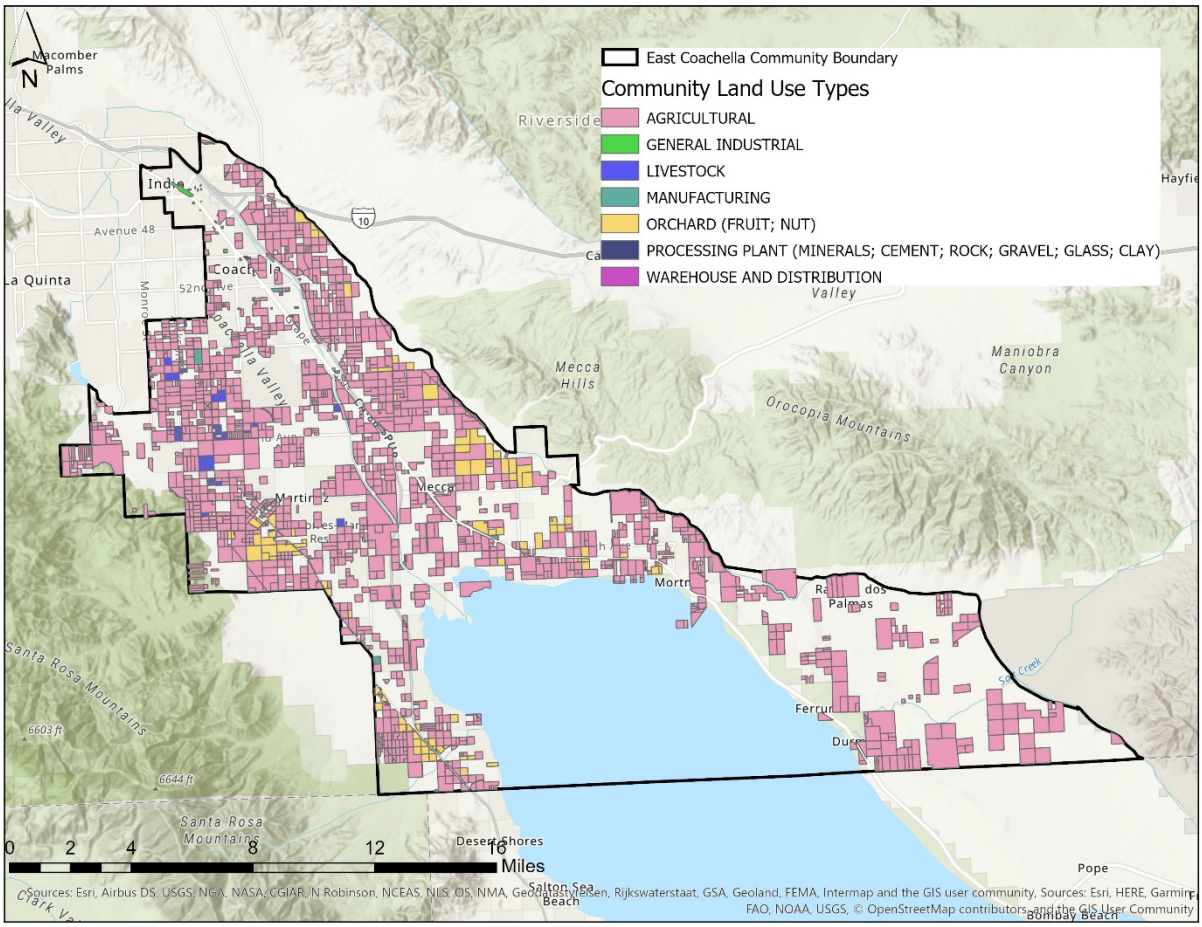
c. Proximity Based Exposure

The community is primarily rural, 27 percent agricultural, 23 percent water, 3 percent transportation, communication and utility, 2 percent residential, and 2 percent commercial. The map in Figure 27 illustrates the industrial land use categories within the preliminary community boundary and the prominence of agricultural and orchard land use categories throughout the community. APN data also shows pockets of livestock areas and limited industrial land use.

[67] More information on the Truck and Bus Regulation available at: https://ww2.arb.ca.gov/our-work/programs/truck-and-bus-regulation

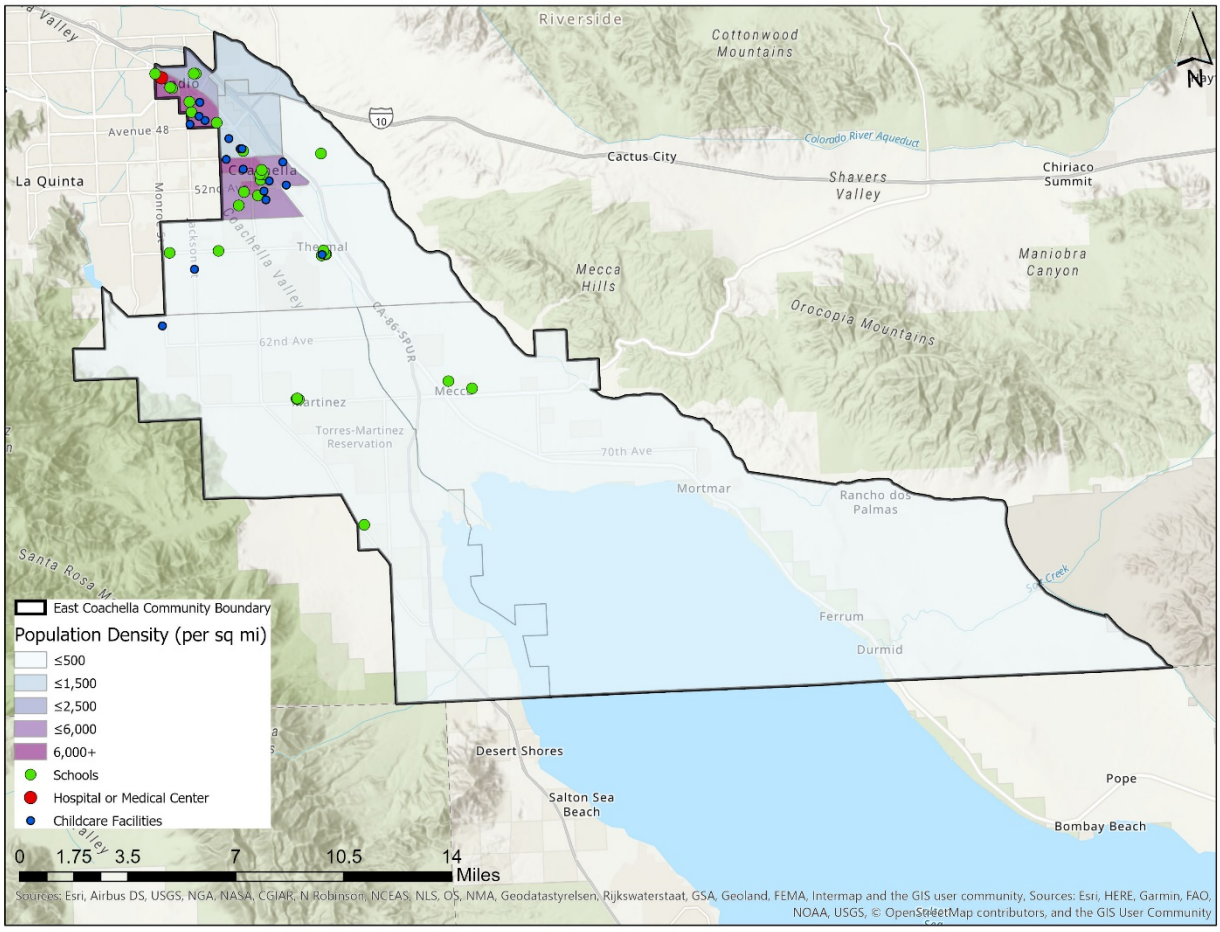
The residential areas in the community are mostly located in the northern portion of the community, with the per capita of 6,000 people per square mile primarily on the eastern side of State Route 111. Comparison of the maps in Figure 27 and Figure 28 show that the residential areas are surrounded by agricultural zoned areas. The population throughout the remainder of the community is rural Additional resources on land use planning information are available in the Resource Center on CARB's Community Air Protection Program website.[68]

Figure 27. Land Use Map for Eastern Coachella Valley Community



[68] 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

Figure 28. Population Density and Sensitive Receptor for the Eastern Coachella Valley Community
(APN Land Use and CES Population) [69,70]



[69] Data Source: https://www.cde.ca.gov/ds/, http://data-cdphdata.opendata.arcgis.com/, https://ww3.arb.ca.gov/research/apr/past/11-336.pdf
[70] Data Source: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30

d. South East Los Angeles Community

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

The South East Los Angeles Community is comprised of South Gate, Florence-Firestone (eastern portion), Walnut Park, Huntington Park (western portion), Cudahy, and Bell Gardens (southern portion) and is located in the SCAQMD. Sources impacting the community include major freeways such as interstates 710 and 105, the Alameda Corridor, industrial facilities that routinely process chemicals, warehouses, manufacturers, auto body shops and three Superfund sites.

The South East Los Angeles Community has a high cumulative exposure burden, a significant number of sensitive receptors, and census tracts that have been designated as disadvantaged communities. Parts of the community have recently been a focus of air quality studies with the deployment of purple air sensors by SCAQMD in partnership with Community Environmental Health Assessment Team (CEHAT) and by Coalition for Clean Air, which focuses on the air quality surrounding the Alameda Corridor. Additionally, SCAQMD's Multiple Air Toxics Exposure Study IV (MATES IV) and the ongoing MATES V will provide data to understand and mitigate the high cumulative exposure burdens from the community's multiple toxic air pollution sources. On September 6, 2019, SCAQMD Board approved the South East Los Angeles Community to be nominated to the CARB Governing Board as one of the 2019 communities. CARB staff supports the nomination and recommends selection of the South East Los Angeles Community for development and implementation of a community air monitoring plan and community emissions reduction program.

ii. Community Description

As shown in Figure 29, the Proposed South East Los Angeles Community includes the cities of South Gate, Huntington Park (western portion), Cudahy, and the southern portion of Bell Gardens and the unincorporated areas of Florence-Firestone (eastern portion) and Walnut Park within the preliminary community boundary. Also shown are stationary sources, schools, daycare facilities and hospitals/medical centers.

Figure 29. South East Los Angeles Community Details

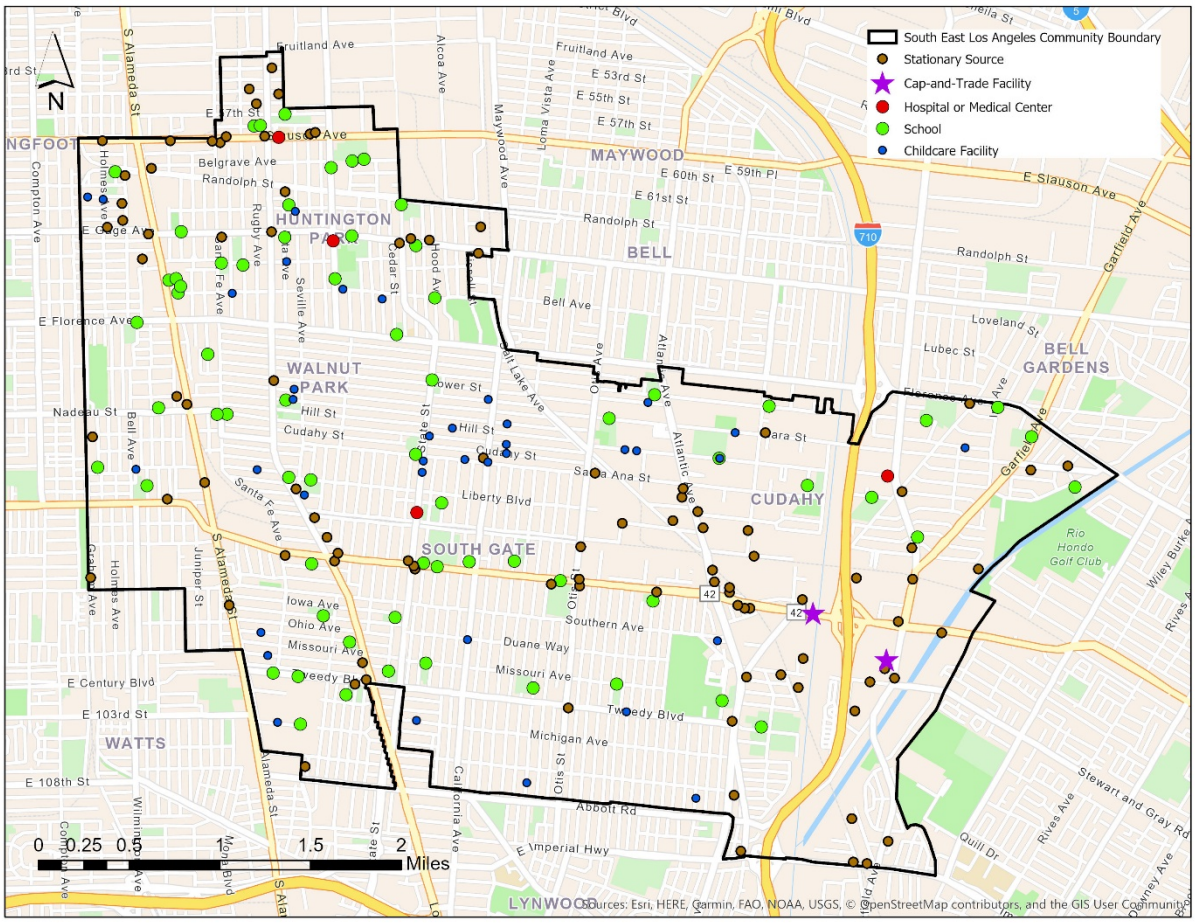


Figure 30 is a photo of a park in Bell Gardens next to Interstate 710 in the South East Los Angeles Community. This community is approximately 14 square miles with a population of 220,000. The community is impacted by freight transportation along the Alameda corridor, a belowground cargo rail line and links the ports of Los Angeles and Long Beach with the railyards near downtown Los Angeles. Alameda Boulevard is highly traveled by heavy-duty trucks and vehicles due to industrial facilities located along the Boulevard. Heavy-duty trucks and trains are known sources of diesel PM. Additionally, the community is bounded by Interstate 105 to the south, Interstate 110 to the west and Interstate 710 to the east. Interstate 710 is particularly dominated by heavy-duty diesel freight traffic.

Figure 30. South East Los Angeles Community Photo

According to CARB's 2017 emissions data reported to CARB by SCAQMD[71], there are 98 stationary sources within the community, 2 of which are also Cap-and-Trade facilities.[72] Sensitive receptors in the community include 72 schools, 38 licensed daycare facilities,[73] and 4 hospitals/medical facilities. This community is considered disadvantaged per SB 535[74] and AB 1550.[75] Key CES 3.0 indicators are listed in Table 8 below.

[71] Data Source: Based on Air District reported 2017 facility emissions to CARB.
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/

[72] Cap-and-trade is a regulatory approach used to control pollution by setting a firm cap on allowed emissions while employing market mechanisms to achieve emissions reductions while driving costs down. In a cap-and-trade program, a limit, or cap is put on the amount of greenhouse gases that can be emitted.

[73] Data Source: https://www.cde.ca.gov/ds/, http://data-cdphdata.opendata.arcgis.com/, https://ww3.arb.ca.gov/research/apr/past/11-336.pdf

[74] Disadvantaged community designations per Senate Bill (SB) 535 (De León, Chapter 830, Statutes of 2012)

[75] Low-income definitions per Assembly Bill (AB) 1550 (Gomez, Chapter 369, Statutes of 2016)

Table 8. Key CalEnviroScreen 3.0 Indicators for the South East Los Angeles Community[76, 77]

Overall Score	PM2.5	DPM	Asthma	Cardiovascular Disease	Poverty	Unemployment	CA Healthy Places Index
100	84	79	89	92	99	98	98

iii. Community Engagement

In order to develop local leadership, the California Department of Public Health worked with the City of South Gate and volunteers to establish the South Gate CEHAT in 2015. CEHAT is composed of city residents, business owners, community activists, members of civic groups, and State, local and federal government.[78] Together they surveyed local residents to understand their concerns regarding environmental and health issues. The results showed that 95 percent of households have never heard about superfund sites and they were unaware of three superfund sites within the city. The survey led to an increase in United States Environmental Protection Agency (U.S. EPA) outreach to inform residents of the superfund cleanup process and opportunities for public participation.[79] More recently, CEHAT teamed up with SCAQMD to deploy low cost sensors to measure PM2.5 in South Gate through the U.S. EPA STAR Grant titled "Engage, Educate and Empower California Communities on the Use and Applications of 'low-cost' Air Monitoring Sensors."[80]

In 2018, the Los Angeles County Department of Regional Planning partnered with Communities for a Better Environment to hold ground-truthing events in Florence-Firestone. The purpose of these events was to inform the development of the Green Zones Program which can enhance public health and land use compatibility in the unincorporated communities that experience a disproportionate pollution burden.[81] The Green Zones Program includes elements of land use policy, community engagement, mapping of toxic hotspots, and prevention and mitigation of environmental impacts.

[76] Data Source: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30
[77] More information on California Healthy Places Index available at: https://healthyplacesindex.org/
[78] https://blogs-origin.cdc.gov/yourhealthyourenvironment/2016/02/11/community-environmental-health-activism-in-south-gate-los-angeles-county-ca/
[79] https://semspub.epa.gov/work/09/100006123.pdf
[80] https://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/10742/report/0
[81] http://planning.lacounty.gov/greenzones

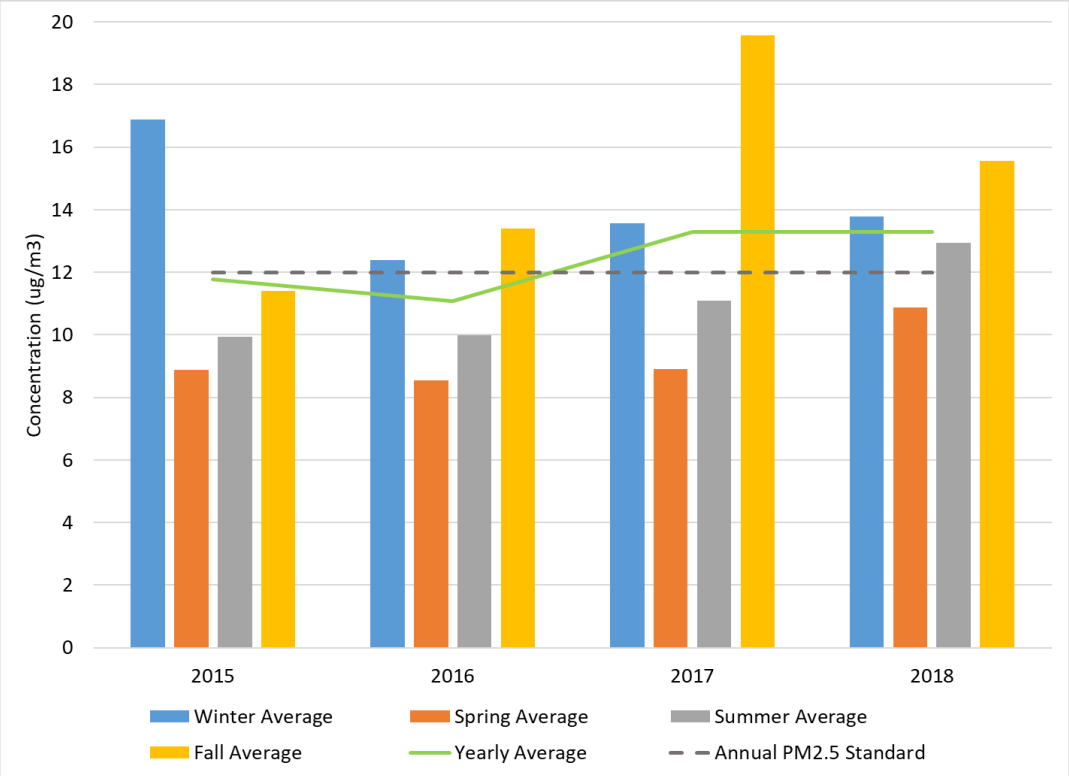
iv. Air Quality Burden Assessment

The discussion presented here summarizes the air quality burden in and around the South East Los Angeles Community and highlights the current air quality issues the community is experiencing and supports CARB staff's rationale for recommending this community to be selected in 2019.

a. Ambient Air Quality Data

The Compton site[82] is the nearest regulatory air quality monitoring station and is approximately two miles to the south of the community in Compton (Figure C-4 in Appendix C). Figure 31 shows that during 2015 – 2018, the average PM2.5 concentrations peaked in the fall (Oct – Dec) and winter (Jan – Mar) months.

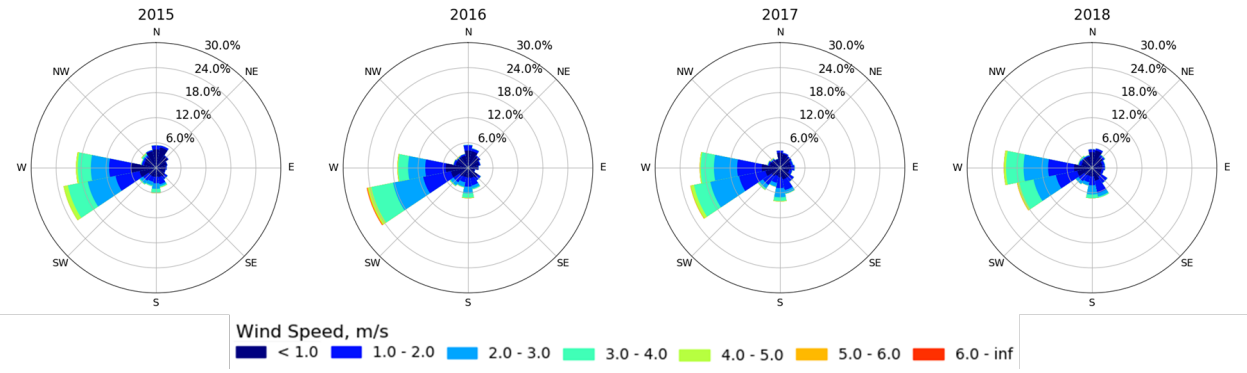
Figure 31. Average PM2.5 Concentrations near the South East Los Angeles Community (ARB: 70112)[83]



[82] Air Monitoring Site information for Compton: https://ww3.arb.ca.gov/qaweb/site.php?s_arb_code=70112
[83] Data Source: https://www.epa.gov/outdoor-air-quality-data

Wind rose[84] analysis that provides a concise and graphical representation of how wind speed and direction are typically distributed at a particular location is presented in Figure 32 for Compton site. The data shows that predominant wind direction is from the west or west southwest direction. This implies that the sources in west or southwest of the community could have an impact on community's air quality burden.

Figure 32. Wind Roses for Compton (ARB: 70112)



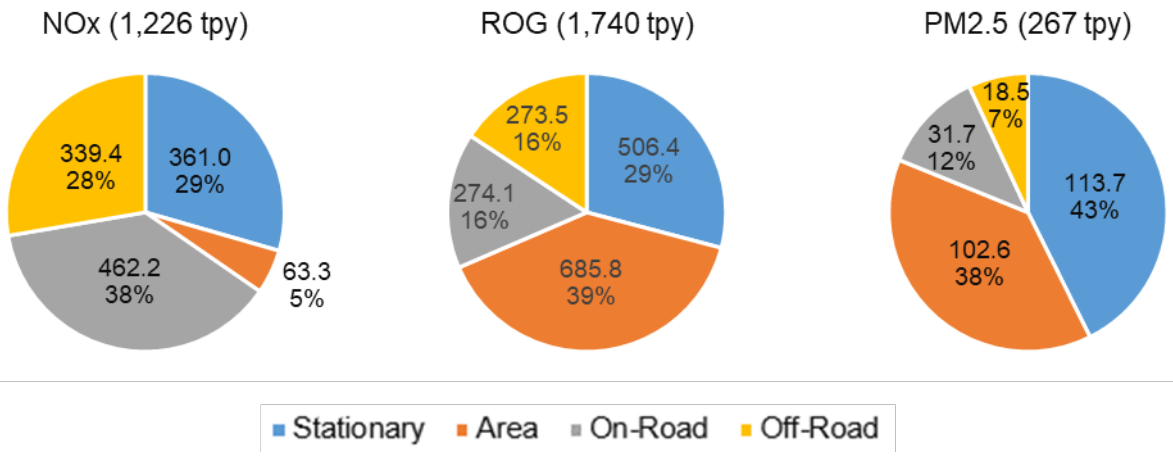
For the South East Los Angeles Community preliminary community wide PM2.5 concentrations were derived qualitatively showing where the more impacted PM2.5 areas are throughout the community, see Appendix F in this document for details.

[84] For a description on how to read a wind or pollutant rose see Appendix D in this document.

b. Preliminary Emissions Inventory Estimates

A preliminary emissions inventory based on the proposed community boundary was developed by CARB to quantify emissions of mobile, stationary and area sources in the community. Details on the methodology are provided in Appendix E in this document. Figure 33 summarizes the draft estimated emissions of key air pollutants, such as NOx, ROG, and PM2.5 for this community.

Figure 33. Preliminary Source Contributions in the South East Los Angeles Community
(2017 Emissions in Tons per Year, tpy) [85]



[85] See Appendix E in this document for methodology and additional information on the emissions inventory.

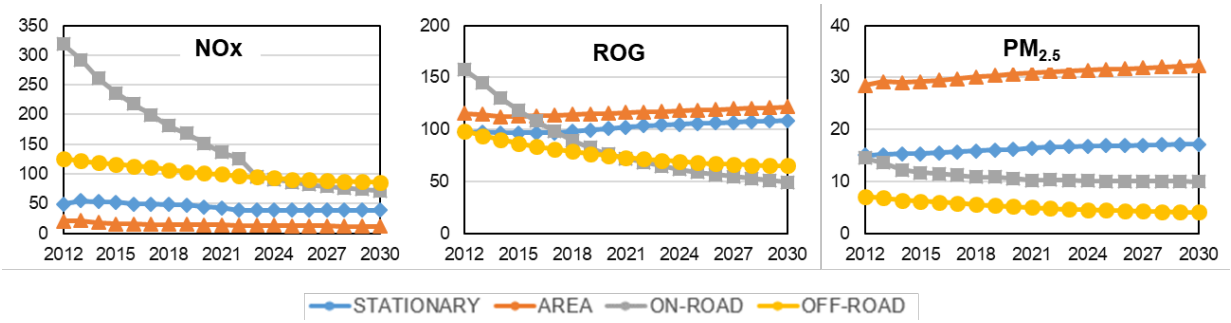
The activities that contribute to these emissions are listed in Table 9 and are detailed in Table E.d.2 in Appendix E, along with an initial estimation and spatial distribution of based on a preliminary planning emissions inventory.

Table 9. Top Source Categories by Stationary, Area, and Mobile for the South East Los Angeles Community
(Preliminary Emissions Inventory for 2017) [85]

Stationary Sources			
PM2.5	**Percent**	**ROG**	**Percent**
Other (industrial processes)	20.1%	Degreasing	23.1%
Electric Utilities	17.6%	Coatings and Process Solvents	20.3%
Wood and Paper	17.5%	Petroleum Marketing	16.8%
Manufacturing and Industrial	15.0%	Manufacturing and Industrial	10.5%
Mineral Processes (Cement, Aggregate)	8.8%	Other (Industrial processes)	8.6%
Area Sources			
PM2.5	**Percent**	**ROG**	**Percent**
Cooking (Commercial Charbroiling)	53.5%	Consumer Products	77.6%
Residential Fuel Combustion	26.9%	Architectural Coatings and Related Process Solvents	11.8%
Paved Road Dust	12.3%	Residential Fuel Combustion	8.8%
Construction and Demolition	5.6%	Cooking (Commercial Charbroiling)	0.7%
Fires	1.5%		
Mobile Sources			
PM2.5	**Percent**	**ROG**	**Percent**
Light Duty Passenger Vehicles	49.5%	Light Duty Passenger Vehicles	46.1%
Off Road Equipment	32.6%	Off-Road Equipment	36.4%
Medium-Heavy Duty Vehicles	5.6%	Fuel Storage and Handling	7.4%
Heavy-Heavy Duty Vehicles	5.0%	Recreational Boats	3.5%
Trains	4.0%	Light-Heavy Duty Vehicles	1.6%

Additionally, Figure 34 presents the emission trends for NOx, ROG, and PM2.5 in the South Coast Air Basin from 2012 through 2030 using projected emissions from the 2016 SIP emissions inventory.[86] The forecasted emissions from the 2016 SIP provide an initial assessment of future emission trends and air quality benefits in the air basin, reflecting the effects of regional growth assumptions and adopted CARB and District rules as of December 2015, and provides an indication of the emissions trends that will be seen in the community as a result of existing emission reduction programs. 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 South East Los Angeles is selected as 2019 community.

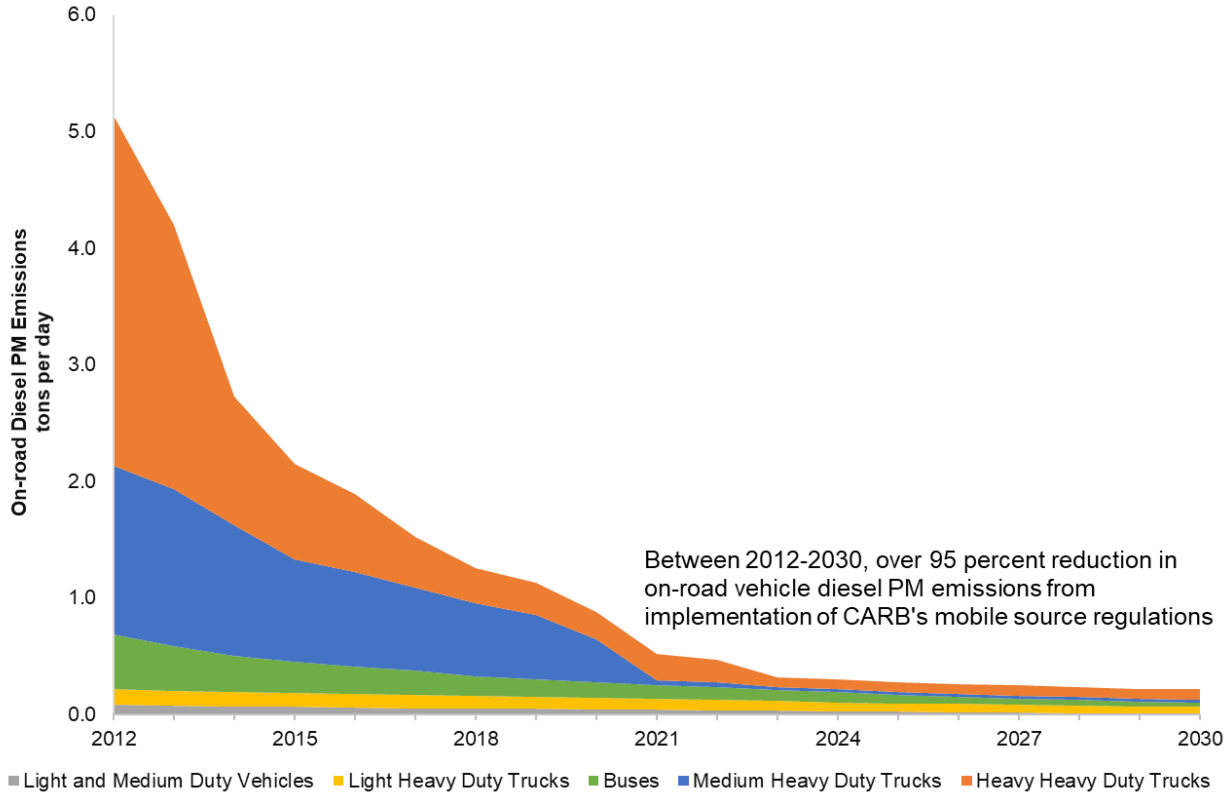
Figure 34. Projected Emission Trends for Major Source Categories in the South Coast Air Basin
(Emissions in Tons per Day from 2016 SIP Inventory)[87]



[86] Data Source: https://www.arb.ca.gov/app/emsinv/fcemssumcat/fcemssumcat2016.php
[87] Emission trend shown in Figure 34 and Figure 35 for the South Coast Air Basin is based on the official 2016 State Implementation Plan inventory (CEPAM v1.05). Note that Ocean Going Vessels and Commercial Harbor craft emissions within 3 nautical miles is included here. https://www.arb.ca.gov/app/emsinv/fcemssumcat/fcemssumcat2016.php.

Figure 35 shows the trend of diesel PM emissions from on-road vehicles in the South Coast Air Basin – the emissions are projected to decrease significantly in future years from implementation of adopted mobile source regulations, including CARB's Truck and Bus Regulation. [88]

Figure 35. Projected Emission Trends for On-road Vehicle Diesel PM in the South Coast Air Basin
(Emissions in Tons per Day from 2016 SIP Inventory)



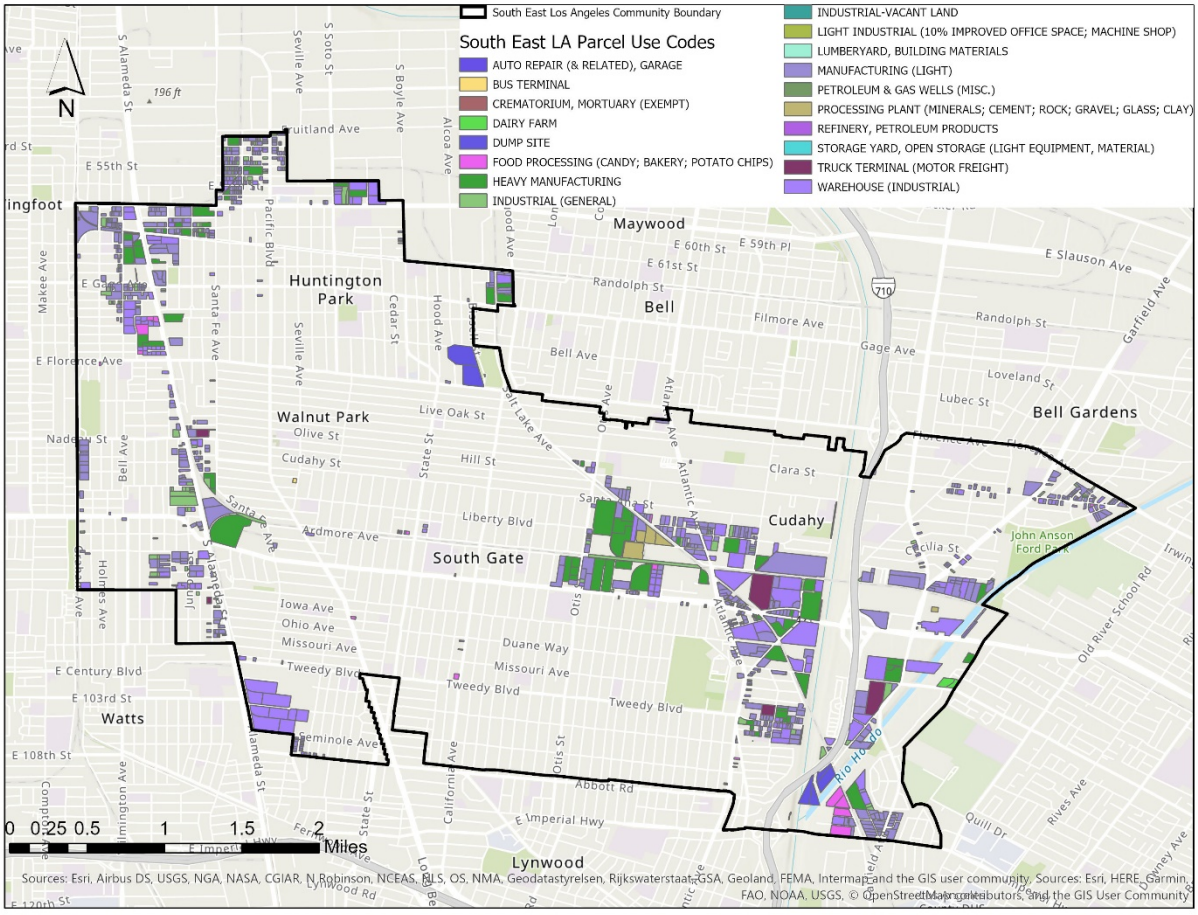
c. Proximity-Based Exposure

The community is primarily residential (71 percent) and has about the same acreage of commercial and industrial land use (10 percent and 11 percent, respectively). The map in Figure 36 illustrates the industrial land use categories within the preliminary community boundary. APN data also shows the largest industrial land use is associated with manufacturing (510 acres), followed by warehousing and distribution (295 acres) and general industrial (176 acres).

[88] More information on the Truck and Bus Regulation available at: https://ww2.arb.ca.gov/our-work/programs/truck-and-bus-regulation

The residential areas in the community are mostly outside of the industrial areas. However, a comparison of the maps in Figure 36 and Figure 37 show there are industrially zoned areas directly adjacent to some of the most densely populated areas in the community such as those in Cudahy near the 710 freeway and in the Huntington Park and Florence-Firestone areas near the Alameda Corridor. Additional resources on land use planning information are available in the Resource Center on CARB's Community Air Protection Program website.[89]

Figure 36. Land Use Map for the South East Los Angeles Community[90]

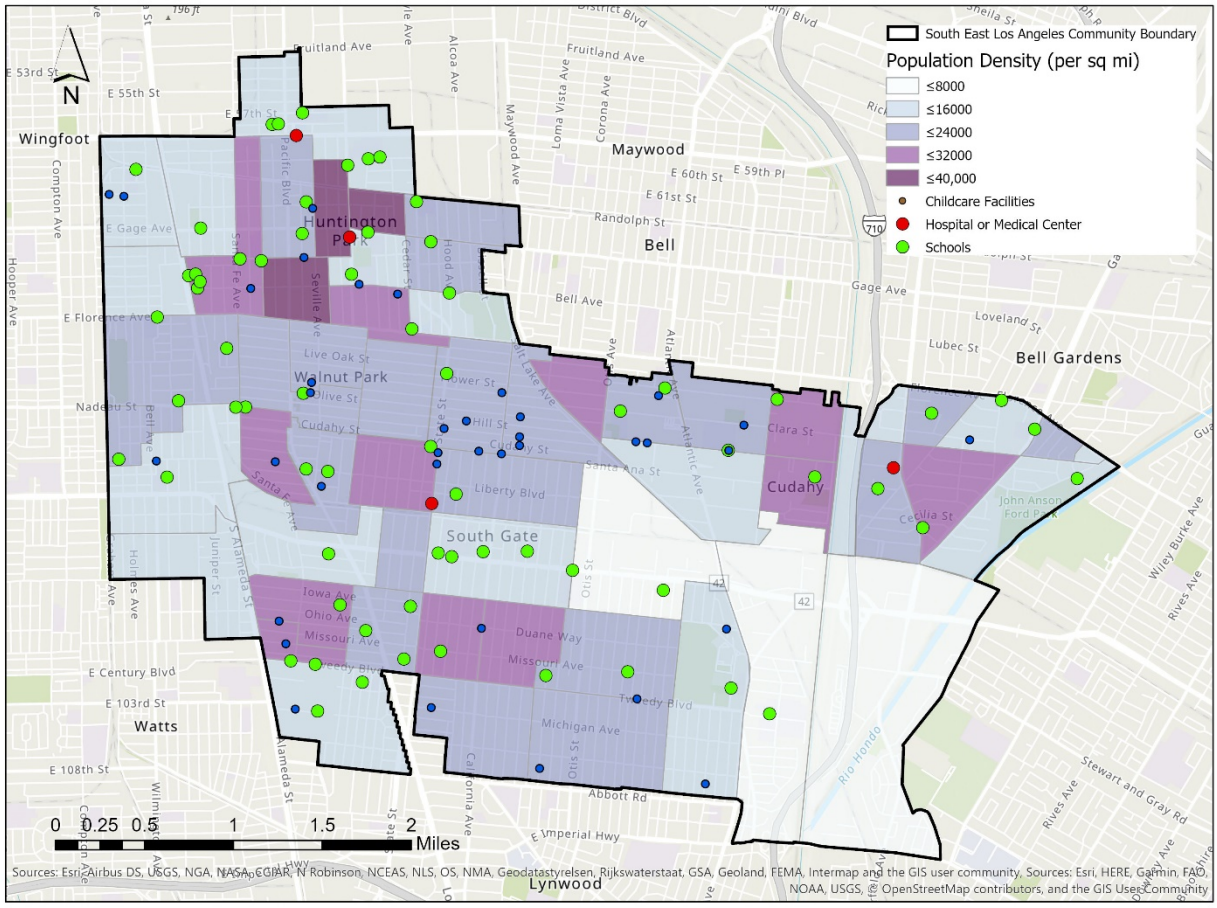


[89] For additional information regarding CARB's Community Air Protection Program and the online Resource Center visit: https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program

[90] Data Source: https://www.digmap.com/7platform/smartparcels/

Figure 37. Population Density and Sensitive Receptor for the South East Los Angeles Community

(APN Land Use and CES Population) [91,92]



[91] Data Source: https://www.cde.ca.gov/ds/, http://data-cdphdata.opendata.arcgis.com/, https://ww3.arb.ca.gov/research/apr/past/11-336.pdf

[92] Data Source: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30

Appendices

Appendices Figures and Tables

List of Appendices Figures

Appendix C

Figure C-1. Location of Air Quality Monitoring Sites: Chula Vista (ARB: 80114), Sherman Elementary and 10th Avenue Marine Terminal C-2

Figure C-2. Location of Stockton-Hazelton Air Quality Monitoring Site (ARB: 39252) C-3

Figure C-3. Location of Air Quality Monitoring Sites: Indio-Jackson, Torres-Martinez, Mecca- Saul Martinez, Salton Sea Park (Tribal) C-4

Figure C-4. Location of Compton Air Quality Monitoring Site (ARB: 70112) C-5

Appendix D

Figure D-1. Wind Rose Diagram D-2

Appendix E

Figure E.a.1. 1 km x 1 km Grids Used to Develop the Portside Environmental Justice Neighborhoods Community Preliminary Emissions Inventory..... E-3

Figure E.a.2. Proposed Portside Environmental Justice Neighborhoods Community PM2.5 Emissions Totals (2017 Emissions Inventory) E-4

Figure E.a.3. Proposed Portside Environmental Justice Neighborhoods Community ROG Emissions Totals (2017 Emissions Inventory) E-5

Figure E.a.4. Proposed Portside Environmental Justice Neighborhoods Community Diesel PM Emissions Totals (2017 Emissions Inventory) E-6

Figure E.b.1. 1 km x 1 km Grids Used to Develop Southwest Stockton Community Preliminary Inventory E-10

Figure E.b.2. Proposed Southwest Stockton Community PM2.5 Emission Totals (2017 Emissions Inventory) E-11

Figure E.b.3. Proposed Southwest Stockton Community ROG Emission Totals (2017 Emissions Inventory) E-12

Figure E.b.4. Proposed Southwest Stockton Community Diesel PM Emission Totals (2017 Emissions Inventory) E-13

Figure E.c.1. 1 km x 1 km Grids Used to Develop Eastern Coachella Valley Community Preliminary Inventory E-16

Figure E.c.2. Proposed Eastern Coachella Valley Community PM2.5 Emission Totals (2017 Emissions Inventory) E-17

Figure E.c.3. Proposed Eastern Coachella Valley Community ROG Emission Totals (2017 Emissions Inventory) E-18

Figure E.c.4 Proposed Eastern Coachella Valley Community Diesel PM Emission Totals (2017 Emissions Inventory E-19

Figure E.d.1. 1 km x 1 km Grids Used to Develop South East Los Angeles Community Preliminary Inventory E-22
Figure E.d.2. Proposed South East Los Angeles Community PM2.5 Emission Totals (2017 Emissions Inventory) E-23
Figure E.d.3. Proposed South East Los Angeles Community ROG Emission Totals (2017 Emissions Inventory) E-24
Figure E.d.4. Proposed South East Los Angeles Community Diesel PM Emission Totals (2017 Emissions Inventory) E-25

Appendix F
Figure F-1. Satellite-derived Annual PM2.5 Concentration for Southwest Stockton Community (2015 Satellite Data) F-3
Figure F-2. Satellite-derived Annual PM2.5 Concentration for South East Los Angeles Community (2015 Satellite Data) F-4

List of Appendices Tables

Appendix A
Table A - 1. Community Nominations Received in 2019 ..... A-2

Appendix E
Table E.a.1. Preliminary Emissions Estimate for the Portside Environmental Justice Neighborhoods Community (2017 Emissions Inventory) E-7
Table E.a.2. Detailed Preliminary Emissions Inventory for the Portside Environmental Justice Neighborhoods Community (Emissions in Tons per Year) . E-8
Table E.b.1. Preliminary emissions estimate for community (2017 Emissions Inventory) E-13
Table E.b.2. Detailed Preliminary Emissions Inventory for Southwest Stockton Community (Emissions in Tons per Year) E-14
Table E.c.1. Preliminary emissions estimate for Eastern Coachella Valley Community (2017 Emissions Inventory) E-19
Table E.c.2. Detailed 2017 Preliminary Emissions Inventory for Eastern Coachella Valley Community E-20
Table E.d.1. Preliminary emissions estimate for the South East Los Angeles Community (2017 Emissions Inventory) E-25
Table E.d.2. Detailed Preliminary Emissions Inventory for South East Los Angeles Community E-26

Appendix A
2019 Community Nominations

2019 Community Nominations

Since the release of the 2018 Community Recommendations Staff Report[93] (Staff Report) CARB has received the following community nominations for focused action from community members, community groups, and local air districts. Air quality, socio-economic, and other metrics for these communities can be found in the Table of Metrics in Appendix B of the 2018 Staff Report under the city/area listed below.

All communities have been recommended for both a community air monitoring program and community emissions reduction program, with the following exceptions: Richmond and Portside Environmental Justice Neighborhoods nominations are both for a community emissions reduction program. Community A - South Natomas and Community B - Norwood, Old Sacramento and Del Paso Heights were both nominated for a community air monitoring plan.

Table A - 1. Community Nominations Received in 2019

Community Nomination	Air District Nominated	Community Nominated	Air District	City/Area	City/Area in the 2018 Table of Metrics (Ref. #)
Bell Haven		X	Bay Area	Bell Haven	Menlo Park (46)
Richmond		X	Bay Area	Richmond	Richmond (72)
Imperial County Northern Corridor*	X		Imperial County	Bombay Beach	Winterhaven (117)
				Brawley	Brawley (109)
				Calipatria	Calipatria (111)
				Desert Shores	Thermal Imperial County (115)
				Niland	Calipatria (111)
				Salton City	Thermal Imperial County (115)
				Salton Sea Beach	
				Seeley	El Centro (112)
				Westmorland	Westmorland (116)
Community A-South Natomas	X		Sacramento	South Natomas	South Natomas Nomination (394)
Community B-Norwood, Old North Sacramento, Del Paso Heights	X		Sacramento	Norwood	Sacramento (392)
				Old North Sacramento	Sacramento (392)
				Del Paso Heights	Sacramento (392)

Table A - 1. Community Nominations Received in 2019 (Continued)

[93] The 2018 Community Recommendations Staff Report is available at: https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program.

Community Nomination	Air District Nominated	Community Nominated	Air District	City/Area	City/Area in the 2018 Table of Metrics (Ref. #)
Portside Environmental Justice Neighborhoods	X	X	San Diego	Barrio Logan	Portside Environmental Justice Neighborhoods Nomination (144)
				Logan Heights	
				Sherman Heights	
				West National City	
International Border Community	X	X	San Diego	Otay Mesa	San Ysidro, Otay Mesa Nomination (150)
				San Ysidro	
Arvin, Lamont	X	X	San Joaquin Valley	Arvin	Arvin (485)
				Lamont	Lamont (527)
La Viña		X	San Joaquin Valley	La Viña	Madera (539)
Lathrop, Manteca		X	San Joaquin Valley	Lathrop	Lathrop (528)
				Manteca	Manteca (540)
Southwest Stockton	X	X	San Joaquin Valley	Southwest Stockton	Stockton (571)
South East Los Angeles	X	X	South Coast	Bell Gardens (southern portion)	Bell (600)
				Cudahy	
				Florence-Firestone (eastern portion)	South Gate, Huntington Park, Florence-Firestone, Walnut Park Nomination (767)
				Huntington Park (western portion)	
				South Gate	
				Walnut Park	
Chiriaco Summit**		X	South Coast	Chiriaco Summit	Coachella (621)
Eastern Coachella Valley	X	X	South Coast	Coachella	Coachella (621)
				Indio	
				Mecca	Mecca (695)
				North Shore	Coachella (621)
				Oasis	
				Thermal	Thermal Riverside County (780)

* The Imperial County Northern Corridor nomination was submitted in partnership by Comité Civico del Valle & Imperial County Air Pollution Control District.
** Chiriaco Summit is included in an Eastern Coachella Valley community nomination but is not included in the air district nomination.

Appendix B
California Environmental Quality Act

California Environmental Quality Act

CARB has determined that the statewide assessment completed in 2018 and the 2019 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 common sense 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 and the 2019 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 Governing 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 and the 2019 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: Chula Vista (ARB: 80114), Sherman Elementary and 10th Avenue Marine Terminal

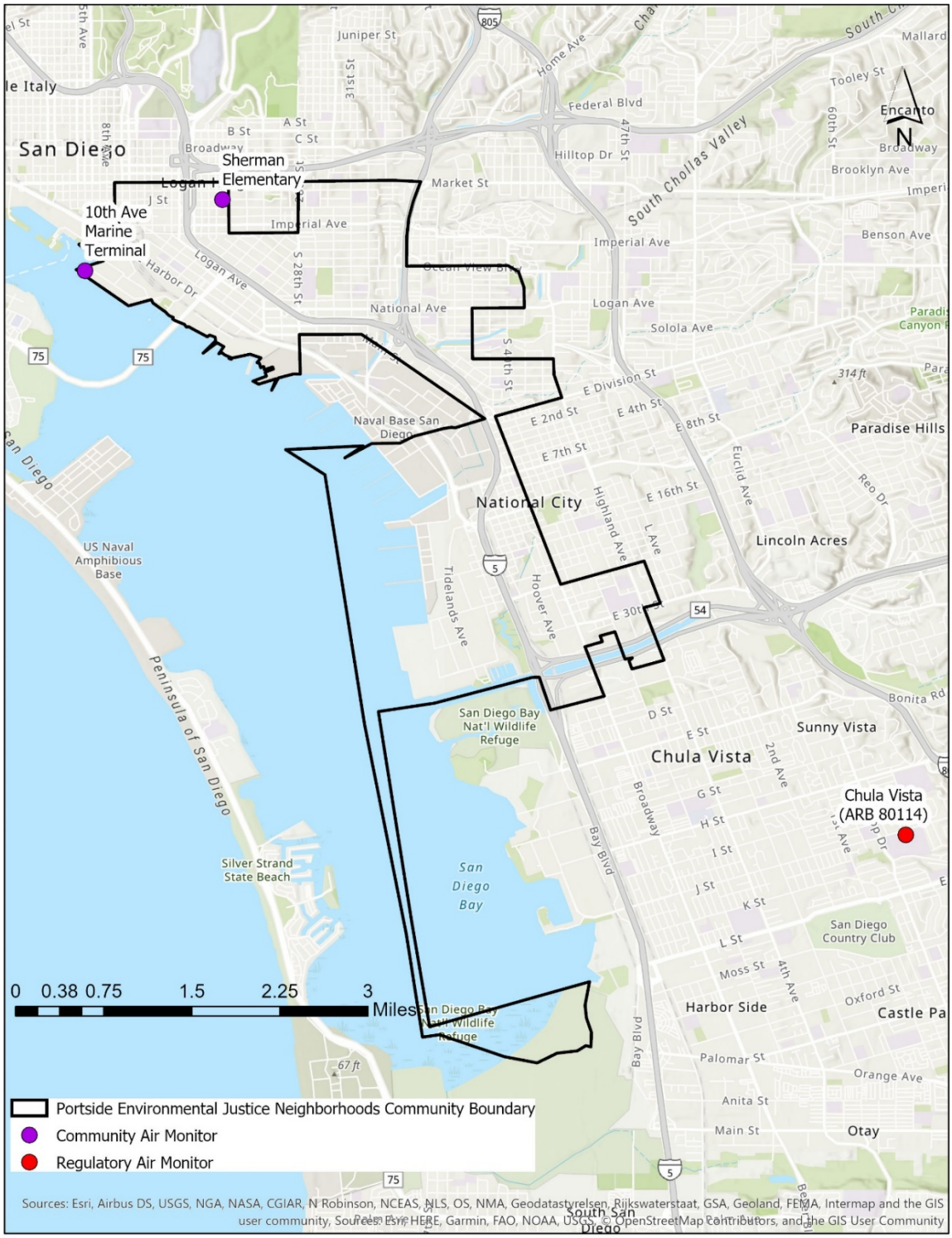


Figure C - 2. Location of Stockton-Hazelton Air Quality Monitoring Site (ARB: 39252)

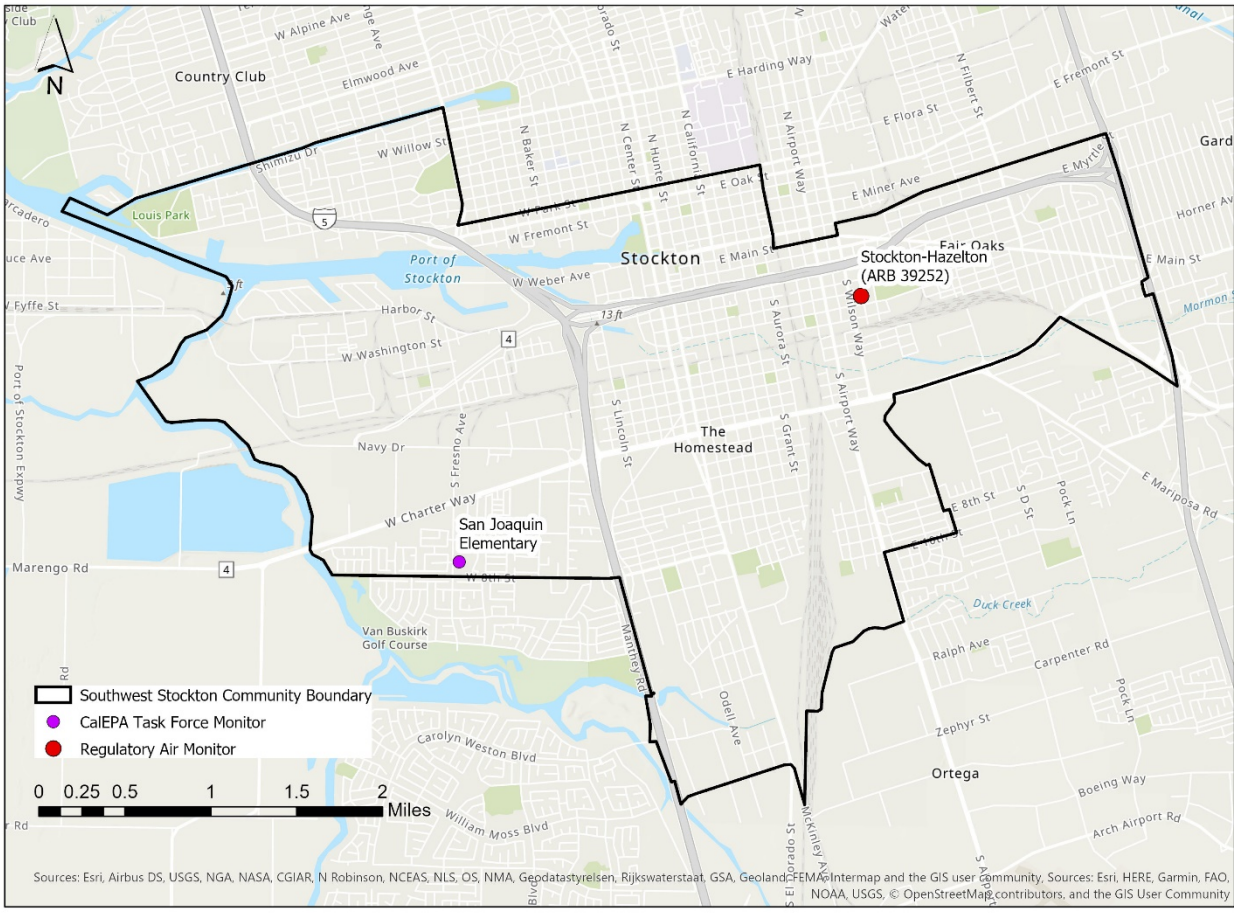


Figure C - 3. Location of Air Quality Monitoring Sites: Indio-Jackson, Torres-Martinez, Mecca- Saul Martinez, Salton Sea Park (Tribal)

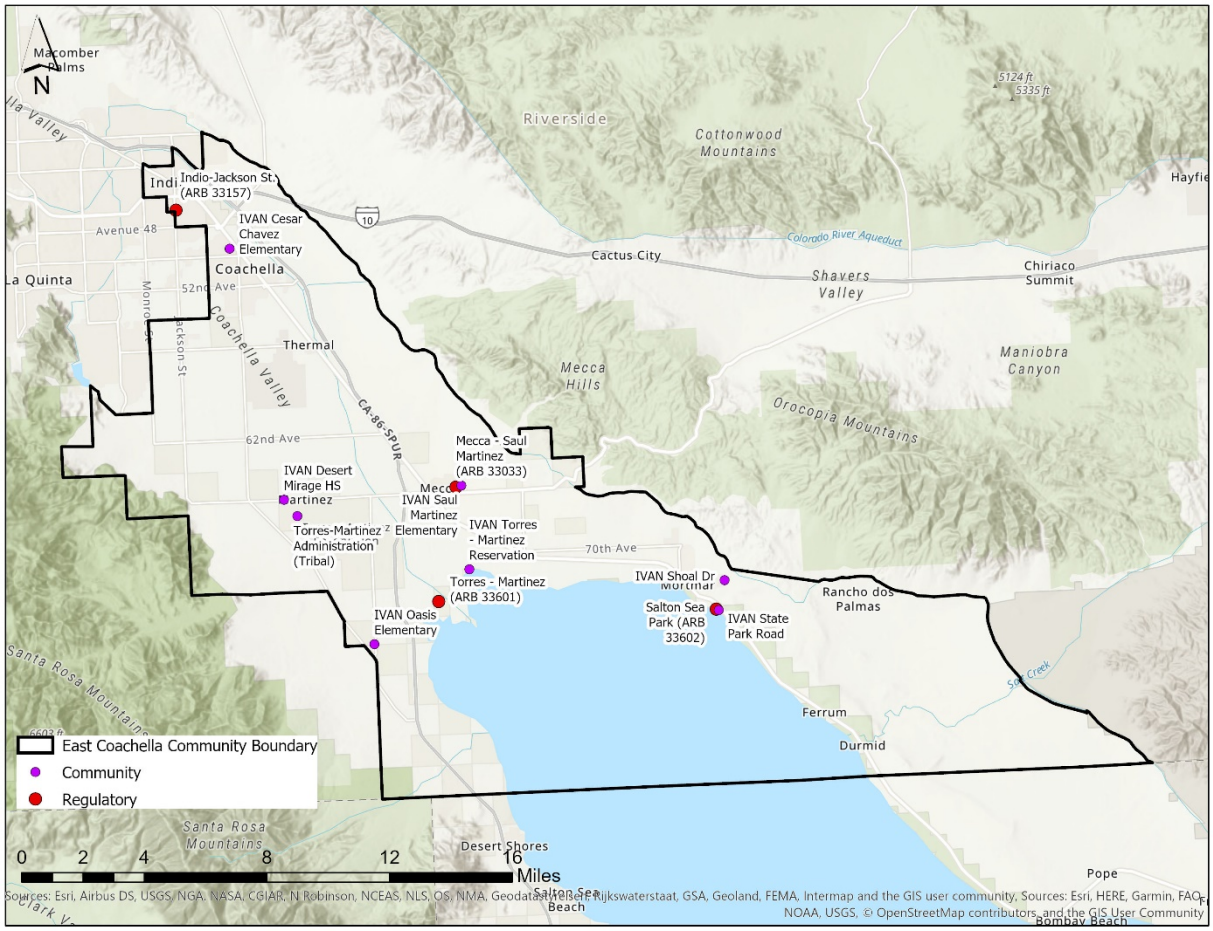
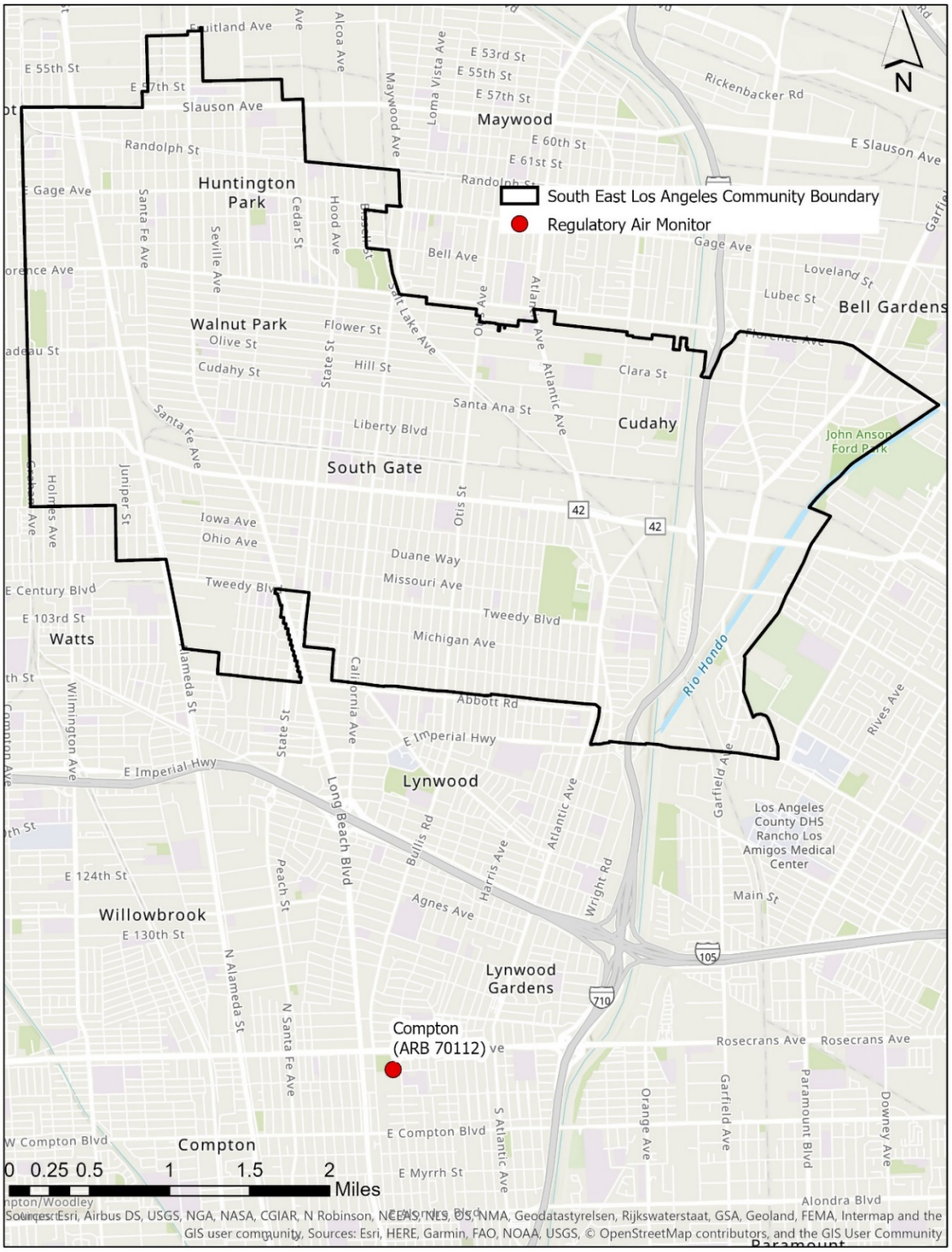


Figure C - 4. Location of Compton Air Quality Monitoring Site (ARB: 70112)

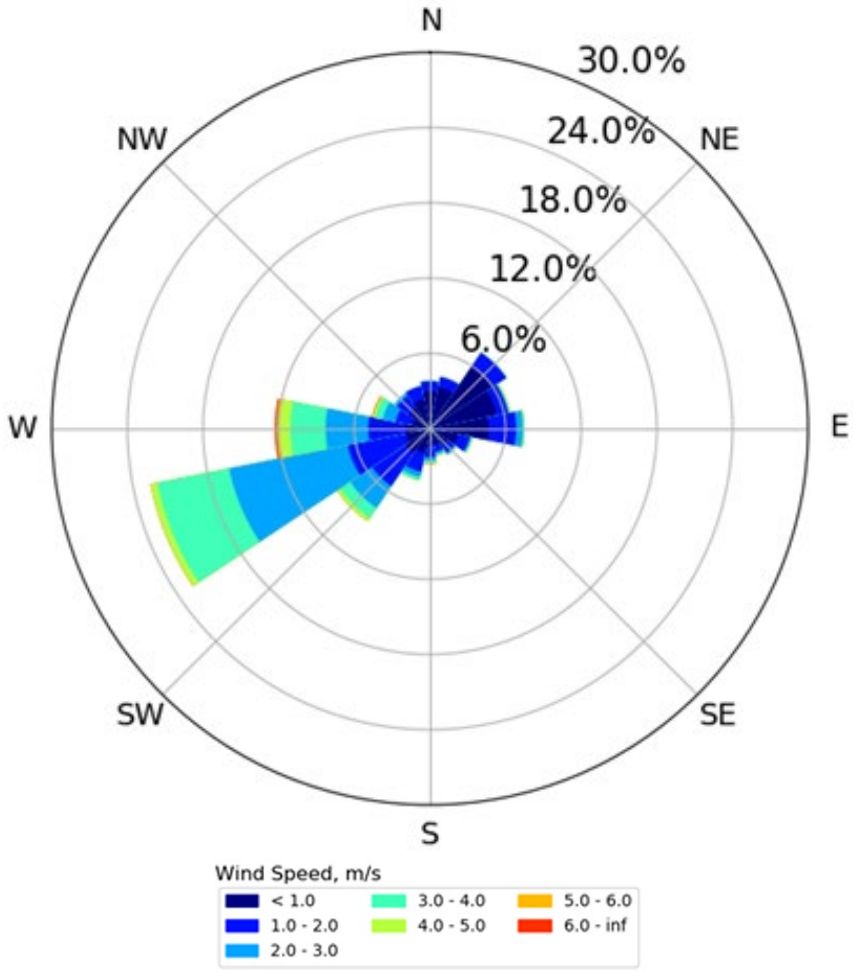


Appendix D
Wind or Pollution Rose Description

The wind or 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 wind speed (for wind rose), or pollution levels (for pollution rose) related to that wind direction and frequency.

The vector originating out from the center of the circular format of the wind/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 wind speed for wind roses, or pollution levels for pollution roses. For example, the wind rose below shows that during this sampling period, the wind blew from the west southwest approximately 23 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.

Figure D-1. Wind Rose Diagram



Appendix E
Preliminary Community Emissions Inventory

A preliminary screening-level emissions inventory was developed for each community using best available data for stationary, area, and mobile sources. A brief description of these source categories and types of sources that are included in them is available at CARB's emissions inventory data website.[94]

Preliminary stationary source emissions inventory for this community was developed using the 2017 facility specific emissions reported to CARB by the local air district.[95] For area source and off-road mobile source inventory, the 2017 projected emissions from the adopted 2016 State Implementation Plan emissions inventory (2016 SIP with a 2012 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 2017 vehicle miles traveled data from regional Metropolitan Planning Organization(s)[96] 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 (EMFAC2017).[97]

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. 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 boundary. A refined and more comprehensive community-level emissions inventory will be developed with the community and associated air district as a part of a community emissions reduction program, if selected by CARB's Board in 2019.

[94] Data Source: https://ww3.arb.ca.gov/ei/emissiondata.htm. The emissions shown here are from the adopted 2016 State Implementation Plan emission inventory.
[95] The facility locations were mapped, and all facilities that are located within the 1-km grids are included in the preliminary emission inventory.
[96] San Diego Association of Government, the Southern California Association of Governments, San Joaquin Council of Governments
[97] Data Source: https://www.arb.ca.gov/emfac/2017/

a. Portside Environmental Justice Neighborhoods Community Preliminary Emissions Inventory

Figure E.a.1. 1 km x 1 km Grids Used to Develop the Portside Environmental Justice Neighborhoods Community Preliminary Emissions Inventory

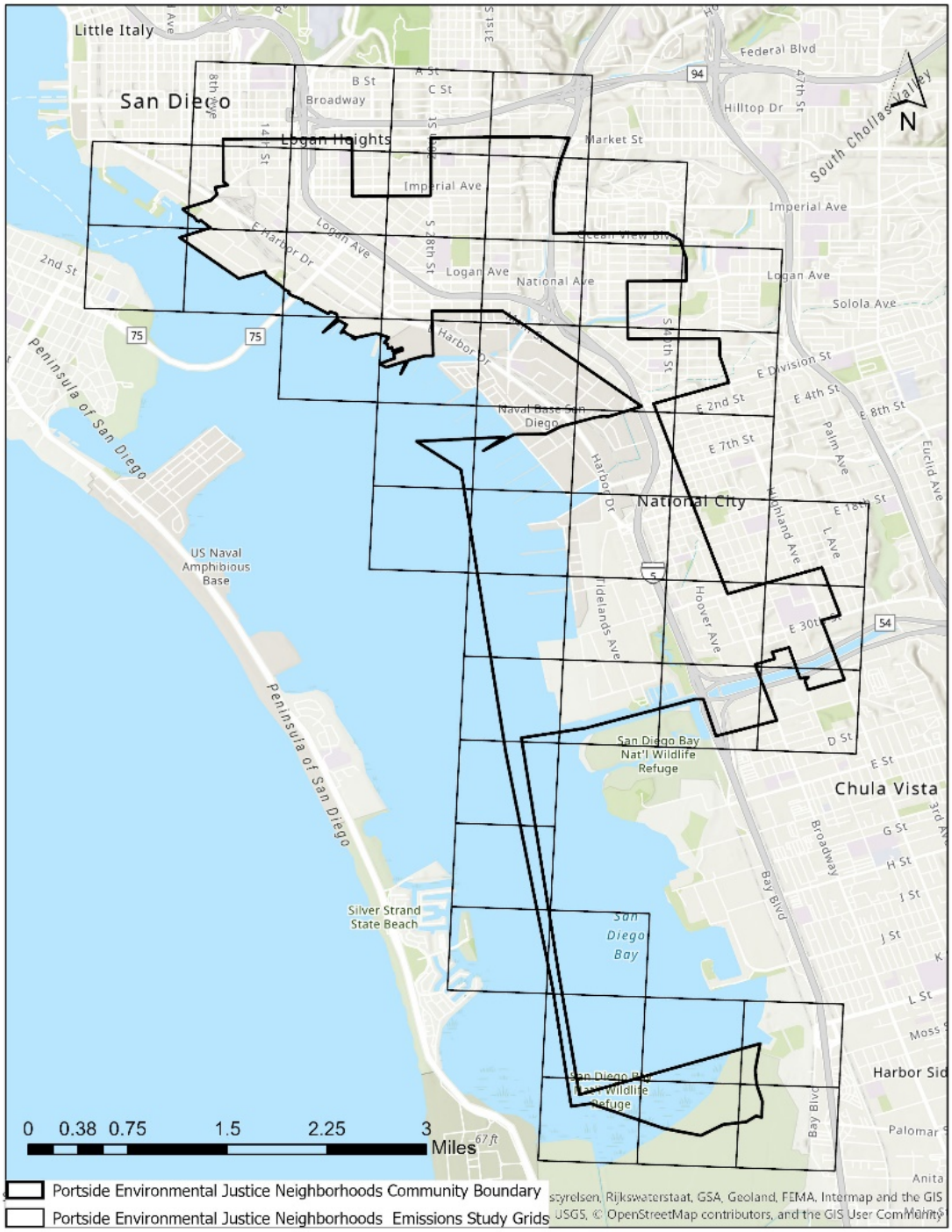


Figure E.a.2. Proposed Portside Environmental Justice Neighborhoods Community PM2.5 Emissions Totals (2017 Emissions Inventory)

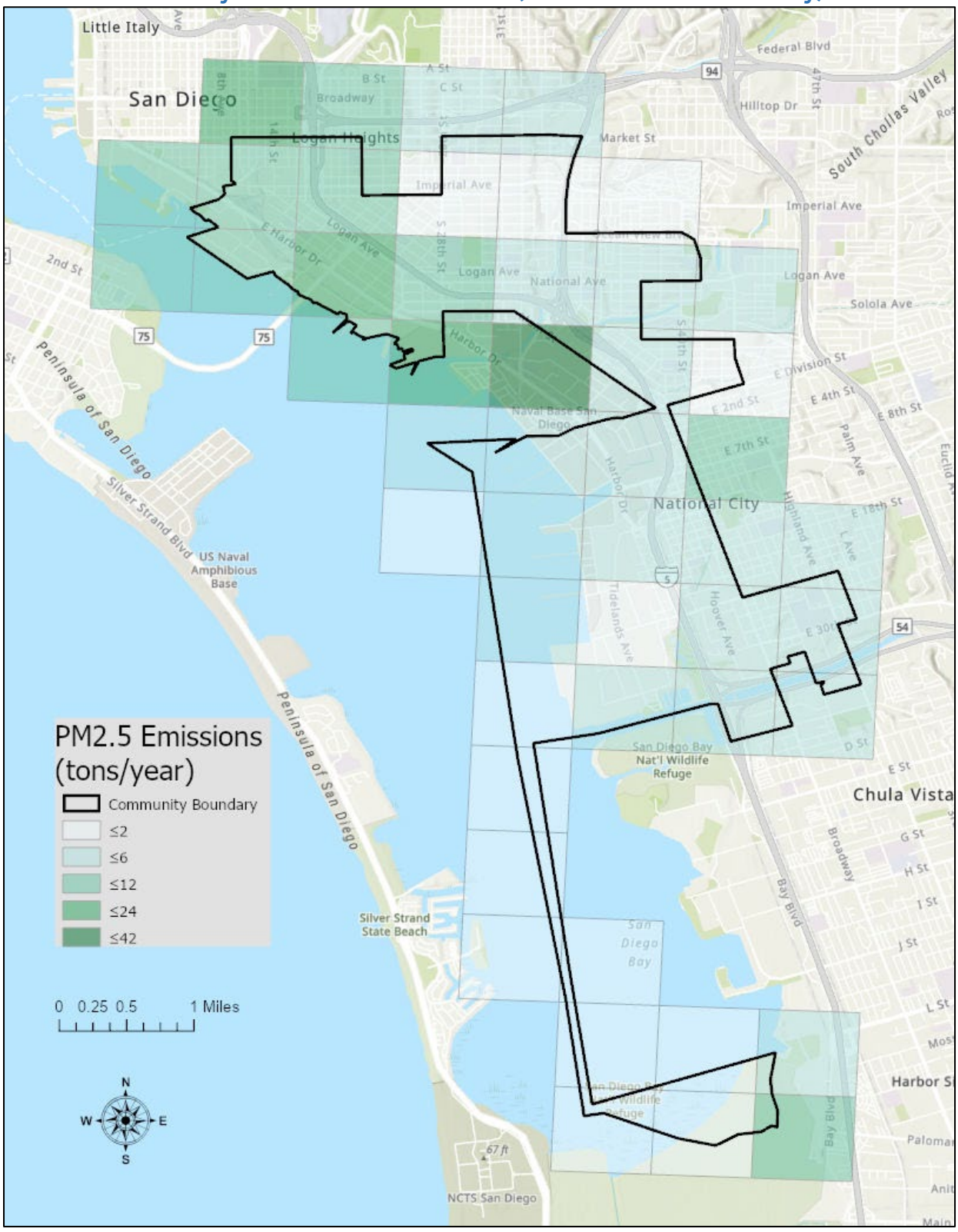


Figure E.a.3. Proposed Portside Environmental Justice Neighborhoods Community ROG Emissions Totals (2017 Emissions Inventory)

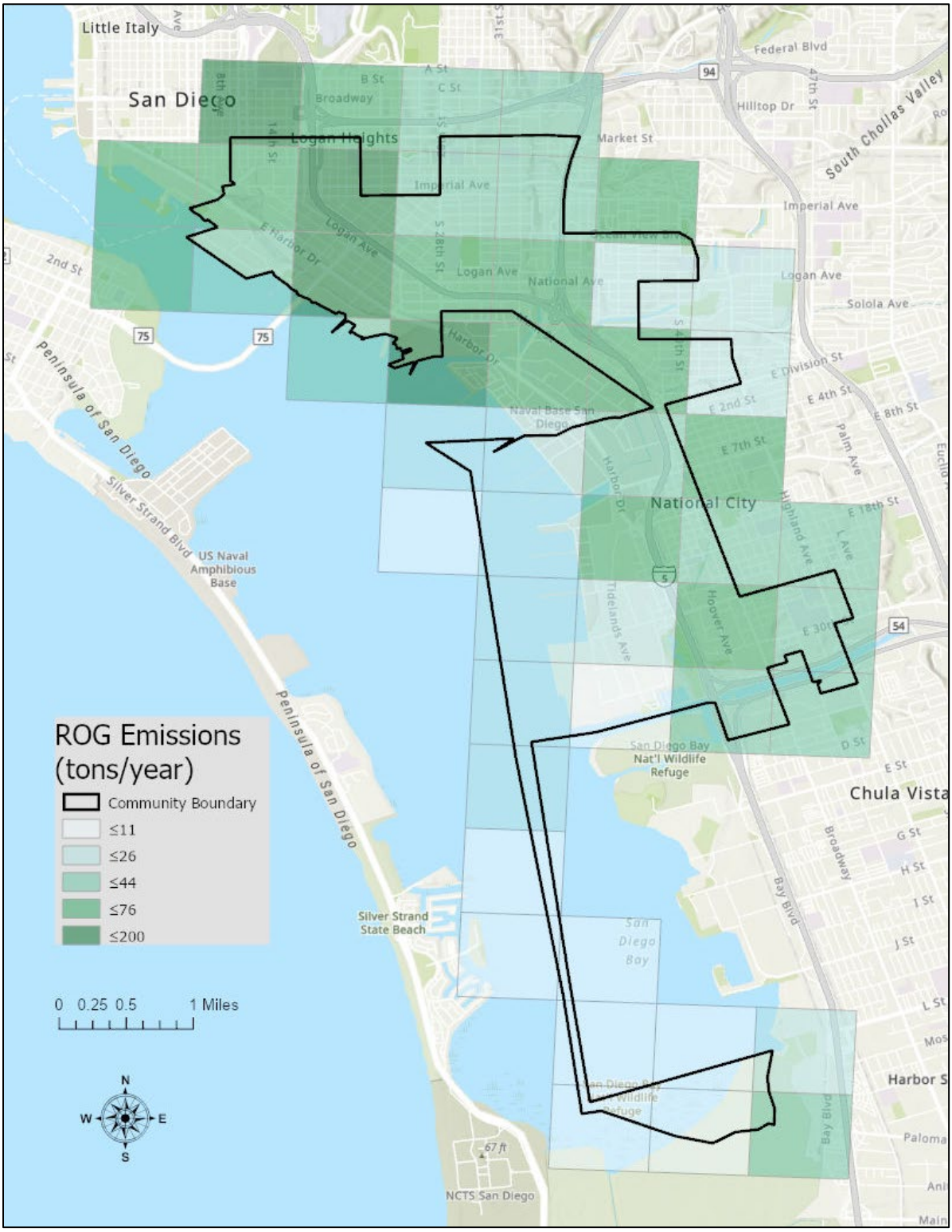


Figure E.a.4. Proposed Portside Environmental Justice Neighborhoods Community Diesel PM Emissions Totals (2017 Emissions Inventory)

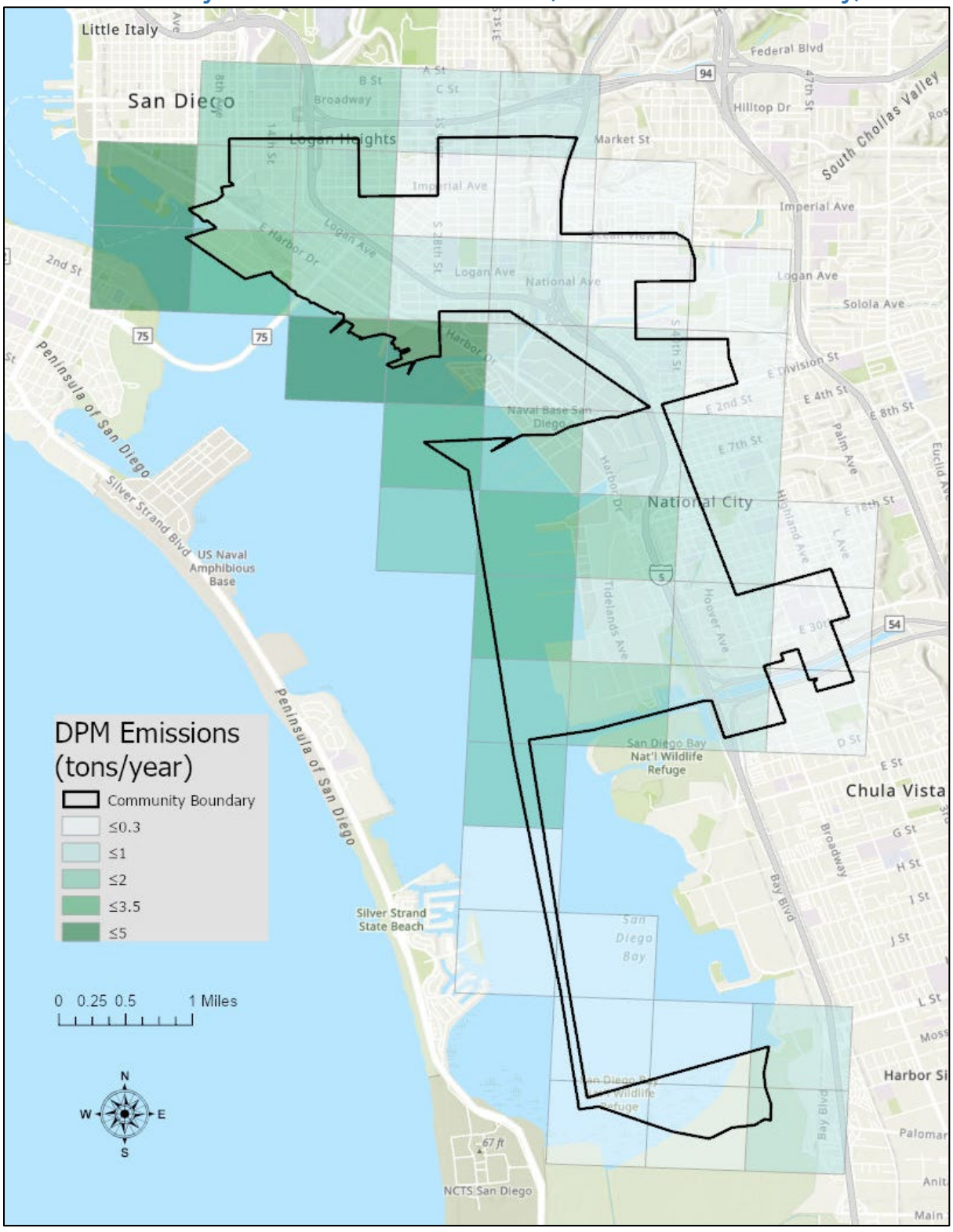


Table E.a.1. Preliminary Emissions Estimate for the Portside Environmental Justice Neighborhoods Community

(2017 Emissions Inventory)

Stationary (Tons per Year)			Area (Tons per Year)			Mobile (Tons per Year)		
PM2.5	ROG	DPM	PM2.5	ROG	DPM	PM2.5	ROG	DPM
65.68	714.66	1.67	115.69	446.59	0.00	89.57	690.39	51.59
Percent of Community Total								
24.2%	38.6%	3.1%	42.7%	24.1%	0.0%	33.1%	37.3%	96.9%

Table E.a.2. Detailed Preliminary Emissions Inventory for the Portside Environmental Justice Neighborhoods Community

(Emissions in Tons per Year) [98]

Source Category	NOx	TOG	ROG	SOx	PM_{10}	$PM_{2.5}$	DPM
Fuel Combustion	**137.29**	**40.09**	**14.07**	**3.20**	**55.53**	**55.13**	**1.67**
Electric Utilities	*44.97*	*18.45*	*3.51*	*1.05*	*38.33*	*38.02*	*0.01*
Cogeneration	*27.64*	*6.07*	*1.14*	*0.32*	*3.63*	*3.60*	*0.00*
Manufacturing and Industrial	*29.98*	*5.32*	*3.06*	*1.38*	*4.11*	*4.11*	*0.93*
Service and Commercial	*10.11*	*7.18*	*3.52*	*0.38*	*7.86*	*7.85*	*0.00*
Other (Fuel Combustion)	*24.59*	*3.06*	*2.84*	*0.08*	*1.60*	*1.54*	*0.73*
Waste Disposal	**0.26**	**69.04**	**2.19**	**0.01**	**0.25**	**0.11**	**0.00**
Sewage Treatment	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Landfills	*0.05*	*66.61*	*0.46*	*0.01*	*0.01*	*0.01*	*0.00*
Incinerators	*0.21*	*0.01*	*0.01*	*0.00*	*0.24*	*0.10*	*0.00*
Other (Waste Disposal)	*0.00*	*2.41*	*1.73*	*0.00*	*0.00*	*0.00*	*0.00*
Cleaning and Surface Coatings	**0.00**	**551.30**	**509.55**	**0.00**	**0.00**	**0.00**	**0.00**
Laundering	*0.00*	*10.27*	*1.24*	*0.00*	*0.00*	*0.00*	*0.00*
Degreasing	*0.00*	*68.10*	*52.73*	*0.00*	*0.00*	*0.00*	*0.00*
Coatings and Related Process Solvents	*0.00*	*309.69*	*303.50*	*0.00*	*0.00*	*0.00*	*0.00*
Printing	*0.00*	*56.43*	*56.43*	*0.00*	*0.00*	*0.00*	*0.00*
Adhesives and Sealants	*0.00*	*103.59*	*92.43*	*0.00*	*0.00*	*0.00*	*0.00*
Other (Cleaning and Surface Coatings)	*0.00*	*3.22*	*3.22*	*0.00*	*0.00*	*0.00*	*0.00*
Petroleum Production and Marketing	**0.00**	**151.25**	**114.54**	**0.00**	**0.00**	**0.00**	**0.00**
Petroleum Marketing	*0.00*	*151.25*	*114.54*	*0.00*	*0.00*	*0.00*	*0.00*
Industrial Processes	**2.61**	**80.61**	**74.30**	**0.00**	**15.39**	**10.44**	**0.00**
Chemical	*0.00*	*43.02*	*43.02*	*0.00*	*0.01*	*0.01*	*0.00*
Food And Agriculture	*0.00*	*0.26*	*0.26*	*0.00*	*0.14*	*0.04*	*0.00*
Mineral Processes	*0.00*	*0.00*	*0.00*	*0.00*	*10.22*	*7.92*	*0.00*
Metal Processes	*0.05*	*0.04*	*0.03*	*0.00*	*4.09*	*1.72*	*0.00*
Other (Industrial Processes)	*2.56*	*37.30*	*31.00*	*0.00*	*0.93*	*0.76*	*0.00*
Total Stationary Sources	**140.2**	**892.3**	**714.7**	**3.2**	**71.2**	**65.7**	**1.7**

[98] 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; PM_{10}: particulate matter 10 microns or smaller; $PM_{2.5}$: particulate matter 2.5 microns or smaller; DPM: diesel particulate matter

Table E.a.2. Detailed Preliminary Emissions Inventory for the Portside Environmental Justice Neighborhoods Community (Continued)

(Emissions in Tons per Year)

Source Category	NOx	TOG	ROG	SOx	PM_{10}	$PM_{2.5}$	DPM
AREA SOURCES							
Solvent Evaporation	**0.00**	**304.01**	**264.73**	**0.00**	**0.00**	**0.00**	**0.00**
Consumer Products	*0.00*	*197.58*	*164.45*	*0.00*	*0.00*	*0.00*	*0.00*
Architectural Coatings and Process Solvents	*0.00*	*92.85*	*87.02*	*0.00*	*0.00*	*0.00*	*0.00*
Pesticides/Fertilizers	*0.00*	*2.03*	*2.03*	*0.00*	*0.00*	*0.00*	*0.00*
Asphalt Paving / Roofing	*0.00*	*11.56*	*11.23*	*0.00*	*0.00*	*0.00*	*0.00*
Miscellaneous Processes	**1.96**	**47.90**	**30.82**	**0.27**	**300.50**	**83.66**	**0.00**
Residential Fuel Combustion	*1.82*	*27.28*	*23.55*	*0.27*	*12.31*	*11.88*	*0.00*
Farming Operations	*0.00*	*3.78*	*0.30*	*0.00*	*3.71*	*0.58*	*0.00*
Construction and Demolition	*0.00*	*0.00*	*0.00*	*0.00*	*134.08*	*13.40*	*0.00*
Paved Road Dust	*0.00*	*0.00*	*0.00*	*0.00*	*107.23*	*16.09*	*0.00*
Unpaved Road Dust	*0.00*	*0.00*	*0.00*	*0.00*	*0.94*	*0.09*	*0.00*
Fugitive Windblown Dust	*0.00*	*0.00*	*0.00*	*0.00*	*0.49*	*0.09*	*0.00*
Fires	*0.07*	*0.27*	*0.23*	*0.00*	*0.26*	*0.24*	*0.00*
Managed Burning and Disposal	*0.07*	*0.12*	*0.10*	*0.00*	*0.09*	*0.09*	*0.00*
Cooking	*0.00*	*16.46*	*6.64*	*0.00*	*41.38*	*41.19*	*0.00*
Other (Miscellaneous Processes)	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Total Area Sources	**2.0**	**351.9**	**295.6**	**0.3**	**300.5**	**83.7**	**0.0**
ON-ROAD MOBILE SOURCES							
Light and Medium Duty Vehicles	450.15	566.61	515.63	8.01	104.08	43.60	0.20
Light Heavy Duty Vehicles	214.00	47.39	43.46	0.71	10.07	5.23	1.93
Medium Heavy Duty Vehicles	283.37	30.55	26.84	0.58	16.74	12.10	9.53
Heavy Heavy Duty Vehicles	795.80	45.94	39.41	1.98	28.80	20.22	16.46
Bus	36.44	4.49	2.00	0.12	3.09	1.53	0.41
Total On-road Mobile Sources	**1,779.8**	**695.0**	**627.3**	**11.4**	**162.8**	**82.7**	**28.5**
OTHER MOBILE SOURCES							
Aircraft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trains	0.00	0.00	0.00	0.00	2.78	2.55	2.78
Ocean Going Vessels	53.66	3.50	2.88	4.34	1.10	0.99	0.58
Commercial Harbor Craft	0.00	0.00	0.00	0.00	0.69	0.66	0.69
Recreational Boats	0.00	0.00	0.00	0.00	0.02	0.02	0.02
Off-Road Recreational Vehicles	0.00	5.52	5.51	0.00	0.00	0.00	0.00
Off-Road Equipment	0.00	0.00	0.00	0.00	5.51	5.27	5.51
Farm Equipment	0.00	0.00	0.00	0.00	0.16	0.15	0.16
Fuel Storage and Handling	0.00	13.27	13.27	0.00	0.00	0.00	0.00
Total Other Mobile Sources	**53.7**	**22.3**	**21.7**	**4.3**	**10.2**	**9.6**	**9.7**
Total Community Emissions	**2,117.5**	**2,765.3**	**1,216.5**	**70.3**	**579.6**	**227.2**	**38.5**

b. Southwest Stockton Community Preliminary Emissions Inventory

Figure E.b.1. 1 km x 1 km Grids Used to Develop Southwest Stockton Community Preliminary Inventory

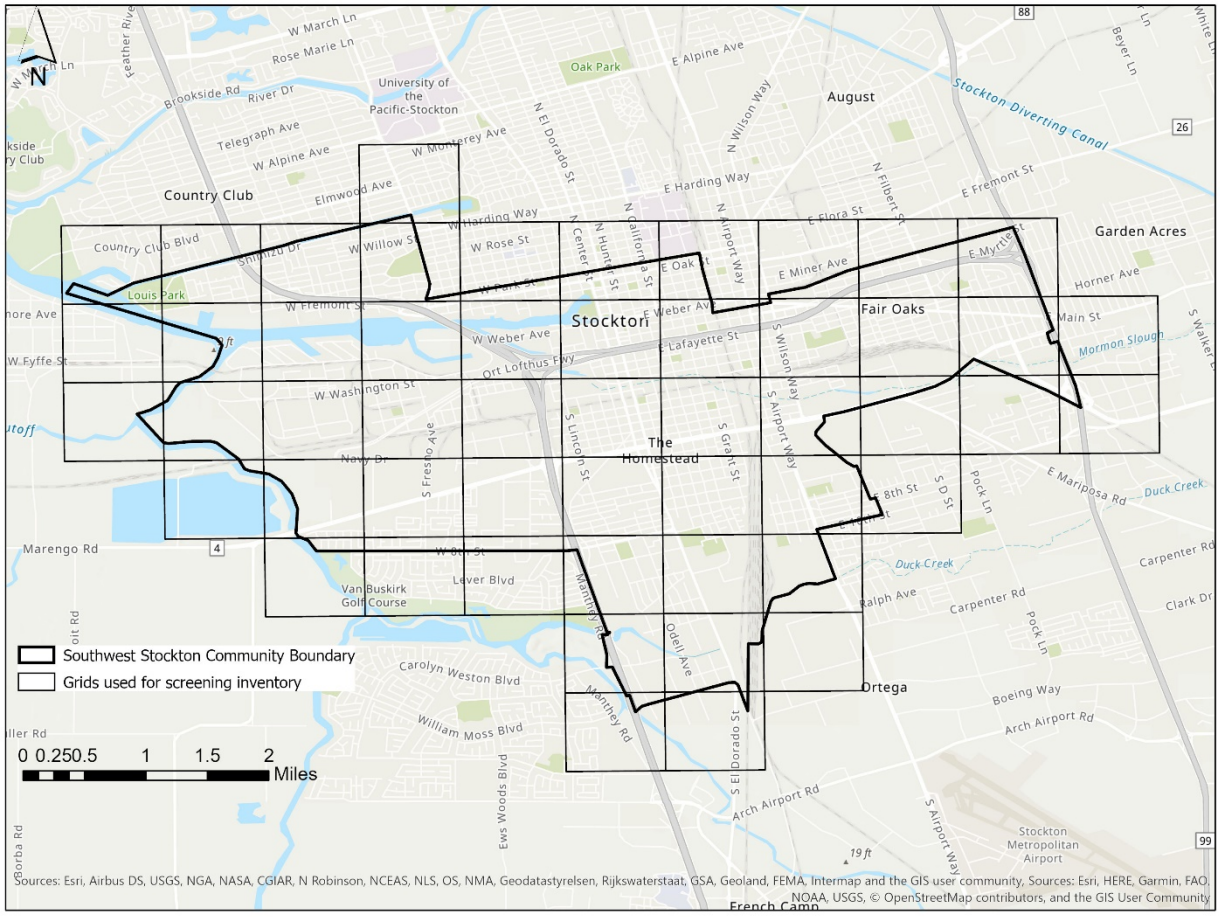


Figure E.b.2. Proposed Southwest Stockton Community PM2.5 Emission Totals
(2017 Emissions Inventory)

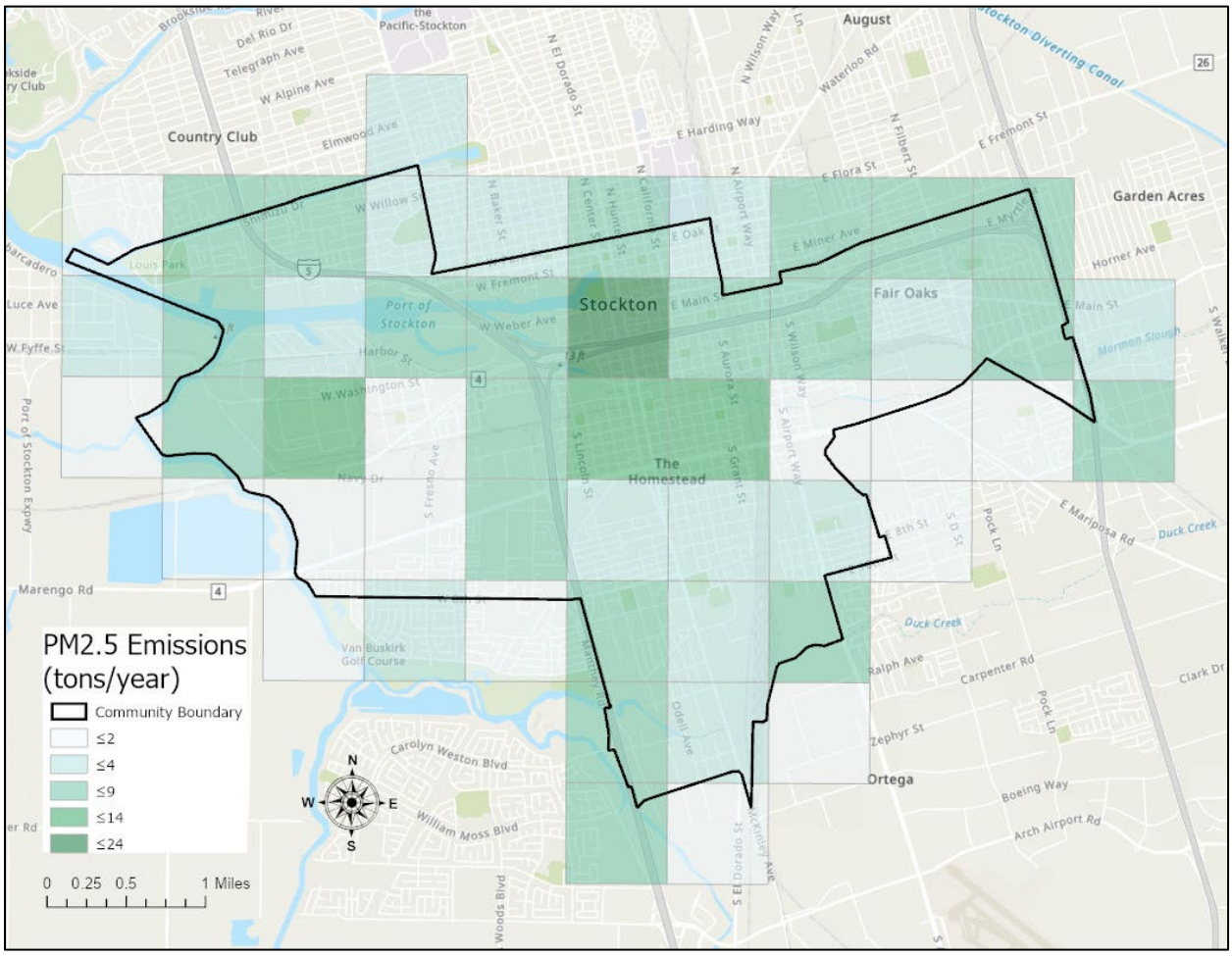


Figure E.b.3. Proposed Southwest Stockton Community ROG Emission Totals
(2017 Emissions Inventory)

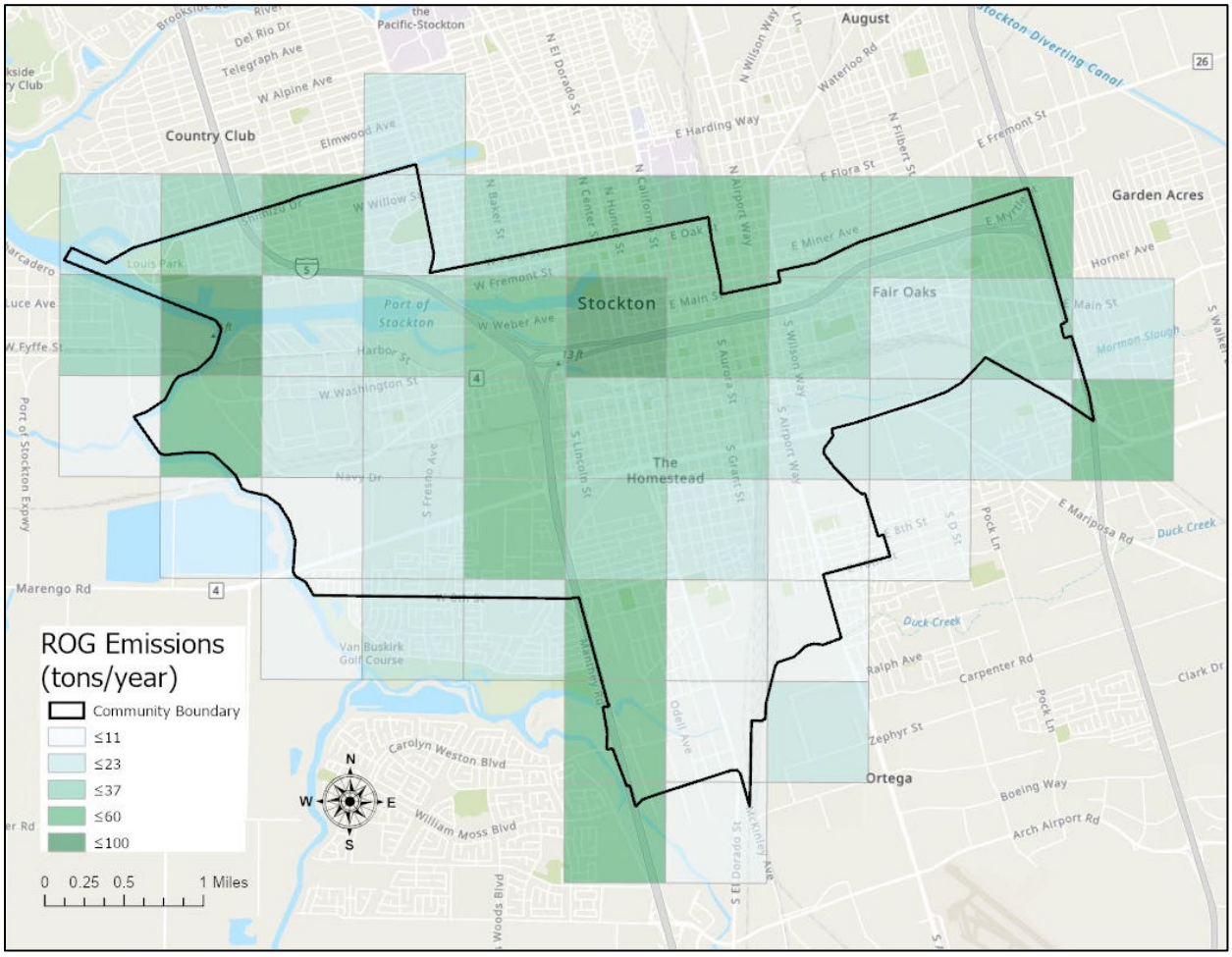


Figure E.b.4. Proposed Southwest Stockton Community Diesel PM Emission Totals
(2017 Emissions Inventory)

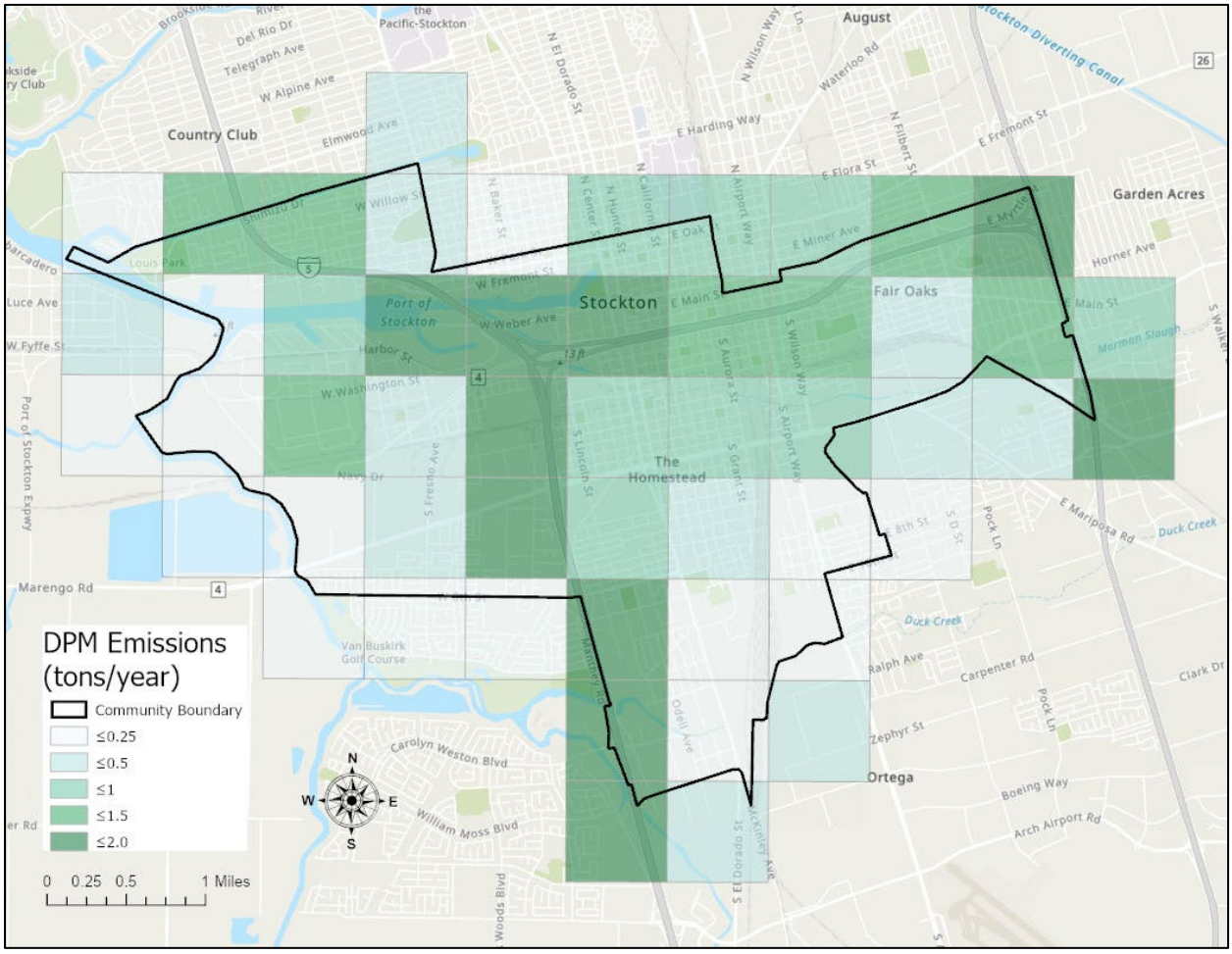


Table E.b.1. Preliminary emissions estimate for community
(2017 Emissions Inventory)

Stationary (Tons per Year)			Area (Tons per Year)			Mobile (Tons per Year)		
PM2.5	ROG	DPM	PM2.5	ROG	DPM	PM2.5	ROG	DPM
51.2	272.0	0.2	87.9	298.7	0.0	103.6	875.1	38.4
Percent of Community Total								
21.1%	18.8%	0.6%	36.2%	20.7%	0.0%	42.7%	60.5%	99.4%

Table E.b.2. Detailed Preliminary Emissions Inventory for Southwest Stockton Community[99] (Emissions in Tons per Year)

Source Category	NOx	TOG	ROG	SOx	PM_{10}	$PM_{2.5}$	DPM
Fuel Combustion	**277.05**	**59.26**	**11.88**	**53.63**	**17.57**	**16.95**	**0.23**
Electric Utilities	*76.77*	*3.32*	*1.51*	*1.17*	*8.52*	*7.92*	*0.00*
Cogeneration	*0.19*	*0.72*	*0.07*	*0.05*	*0.49*	*0.49*	*0.00*
Manufacturing and Industrial	*154.07*	*9.00*	*4.56*	*51.22*	*5.68*	*5.68*	*0.01*
Food and Agricultural Processing	*1.45*	*0.53*	*0.25*	*0.14*	*0.37*	*0.37*	*0.01*
Service and Commercial	*43.04*	*9.74*	*3.44*	*1.04*	*2.46*	*2.44*	*0.18*
Other (Fuel Combustion)	*1.53*	*35.96*	*2.06*	*0.01*	*0.05*	*0.04*	*0.03*
Waste Disposal	**2.79**	**1,272.88**	**8.44**	**0.18**	**0.23**	**0.23**	**0.00**
Sewage Treatment	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Landfills	*0.00*	*1,272.80*	*8.40*	*0.00*	*0.00*	*0.00*	*0.00*
Incinerators	*2.79*	*0.05*	*0.04*	*0.18*	*0.23*	*0.23*	*0.00*
Soil Remediation	*0.00*	*0.02*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Other (Waste Disposal)	*0.00*	*0.01*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Cleaning and Surface Coatings	**0.00**	**202.49**	**169.12**	**0.00**	**9.90**	**9.55**	**0.00**
Laundering	*0.00*	*9.11*	*4.00*	*0.00*	*0.00*	*0.00*	*0.00*
Degreasing	*0.00*	*46.78*	*22.23*	*0.00*	*0.39*	*0.38*	*0.00*
Coatings and Related Process Solvents	*0.00*	*108.11*	*105.21*	*0.00*	*9.50*	*9.17*	*0.00*
Printing	*0.00*	*29.13*	*29.13*	*0.00*	*0.00*	*0.00*	*0.00*
Adhesives and Sealants	*0.00*	*9.36*	*8.55*	*0.00*	*0.00*	*0.00*	*0.00*
Petroleum Production and Marketing	**2.06**	**143.59**	**66.54**	**0.01**	**0.39**	**0.37**	**0.00**
Oil and Gas Production	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Petroleum Refining	*0.03*	*0.63*	*0.60*	*0.00*	*0.27*	*0.25*	*0.00*
Petroleum Marketing	*2.03*	*139.77*	*62.75*	*0.00*	*0.12*	*0.11*	*0.00*
Other (Petroleum Production and Marketing)	*0.00*	*3.19*	*3.19*	*0.00*	*0.00*	*0.00*	*0.00*
Industrial Processes	**0.24**	**17.89**	**15.97**	**0.48**	**78.00**	**24.09**	**0.00**
Chemical	*0.00*	*8.64*	*7.45*	*0.34*	*1.28*	*0.77*	*0.00*
Food and Agriculture	*0.00*	*6.83*	*6.64*	*0.00*	*25.34*	*0.89*	*0.00*
Mineral Processes	*0.24*	*1.23*	*1.22*	*0.09*	*28.26*	*6.11*	*0.00*
Metal Processes	*0.00*	*0.00*	*0.00*	*0.00*	*0.08*	*0.05*	*0.00*
Wood and Paper	*0.00*	*0.00*	*0.00*	*0.00*	*20.57*	*14.83*	*0.00*
Other (Industrial Processes)	*0.00*	*1.20*	*0.66*	*0.05*	*2.47*	*1.43*	*0.00*
Total Stationary Sources	**282.1**	**1,696.1**	**272.0**	**54.3**	**106.1**	**51.2**	**0.2**

[99] 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; PM_{10}: particulate matter 10 microns or smaller; $PM_{2.5}$: particulate matter 2.5 microns or smaller; DPM: diesel particulate matter

Table E.b.2. Detailed Preliminary Emissions Inventory for Southwest Stockton Community (Continued) (Emissions in Tons per Year)

Source Category	NOx	TOG	ROG	SOx	PM_{10}	$PM_{2.5}$	DPM
AREA SOURCES							
Solvent Evaporation	**0.00**	**304.01**	**264.73**	**0.00**	**0.00**	**0.00**	**0.00**
Consumer Products	*0.00*	*197.58*	*164.45*	*0.00*	*0.00*	*0.00*	*0.00*
Architectural Coatings and Process Solvents	*0.00*	*92.85*	*87.02*	*0.00*	*0.00*	*0.00*	*0.00*
Pesticides/Fertilizers	*0.00*	*2.03*	*2.03*	*0.00*	*0.00*	*0.00*	*0.00*
Asphalt Paving / Roofing	*0.00*	*11.56*	*11.23*	*0.00*	*0.00*	*0.00*	*0.00*
Miscellaneous Processes	**49.77**	**54.98**	**33.97**	**1.74**	**304.78**	**87.93**	**0.00**
Residential Fuel Combustion	*49.63*	*34.36*	*26.69*	*1.74*	*16.59*	*16.16*	*0.00*
Farming Operations	*0.00*	*3.78*	*0.30*	*0.00*	*3.71*	*0.58*	*0.00*
Construction and Demolition	*0.00*	*0.00*	*0.00*	*0.00*	*134.08*	*13.40*	*0.00*
Paved Road Dust	*0.00*	*0.00*	*0.00*	*0.00*	*107.23*	*16.09*	*0.00*
Unpaved Road Dust	*0.00*	*0.00*	*0.00*	*0.00*	*0.94*	*0.09*	*0.00*
Fugitive Windblown Dust	*0.00*	*0.00*	*0.00*	*0.00*	*0.49*	*0.09*	*0.00*
Fires	*0.07*	*0.27*	*0.23*	*0.00*	*0.26*	*0.24*	*0.00*
Managed Burning and Disposal	*0.07*	*0.12*	*0.10*	*0.00*	*0.09*	*0.09*	*0.00*
Cooking	*0.00*	*16.46*	*6.64*	*0.00*	*41.38*	*41.19*	*0.00*
Other (Miscellaneous Processes)	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Total Area Sources	**49.8**	**359.0**	**298.7**	**1.7**	**304.8**	**87.9**	**0.0**
ON-ROAD MOBILE SOURCES							
Light and Medium Duty Vehicles	450.15	566.61	515.63	8.01	104.08	43.60	0.20
Light Heavy Duty Vehicles	214.00	47.39	43.46	0.71	10.07	5.23	1.94
Medium Heavy Duty Vehicles	283.37	30.55	26.84	0.58	16.74	12.10	9.58
Heavy Heavy Duty Vehicles	795.80	45.94	39.41	1.98	28.80	20.22	16.54
Bus	36.44	4.49	2.00	0.12	3.09	1.53	0.42
Total On-road Mobile Sources	**1,779.8**	**695.0**	**627.3**	**11.4**	**162.8**	**82.7**	**28.7**
OTHER MOBILE SOURCES							
Aircraft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trains	160.67	9.19	8.07	0.93	2.78	2.55	2.78
Ocean Going Vessels	53.66	3.50	2.88	4.34	1.10	0.99	0.58
Commercial Harbor Craft	17.82	1.89	1.66	0.00	0.69	0.66	0.69
Recreational Boats	46.66	162.69	150.25	0.07	9.69	9.25	0.02
Off-Road Recreational Vehicles	0.00	5.52	5.51	0.00	0.00	0.00	0.00
Off-Road Equipment	143.19	70.9	65.63	0.16	7.67	7.34	5.54
Farm Equipment	2.55	0.53	0.47	0.00	0.16	0.15	0.16
Fuel Storage and Handling	0.00	13.27	13.27	0.00	0.00	0.00	0.00
Total Other Mobile Sources	**424.6**	**267.5**	**247.8**	**5.51**	**22.1**	**20.9**	**9.8**
Total Community Emissions	**2,536.2**	**3,017.6**	**1,445.7**	**72.9**	**595.7**	**242.7**	**38.7**

c. Eastern Coachella Valley Community Preliminary Emissions Inventory

Figure E.c.1. 1 km x 1 km Grids Used to Develop Eastern Coachella Valley Community Preliminary Inventory

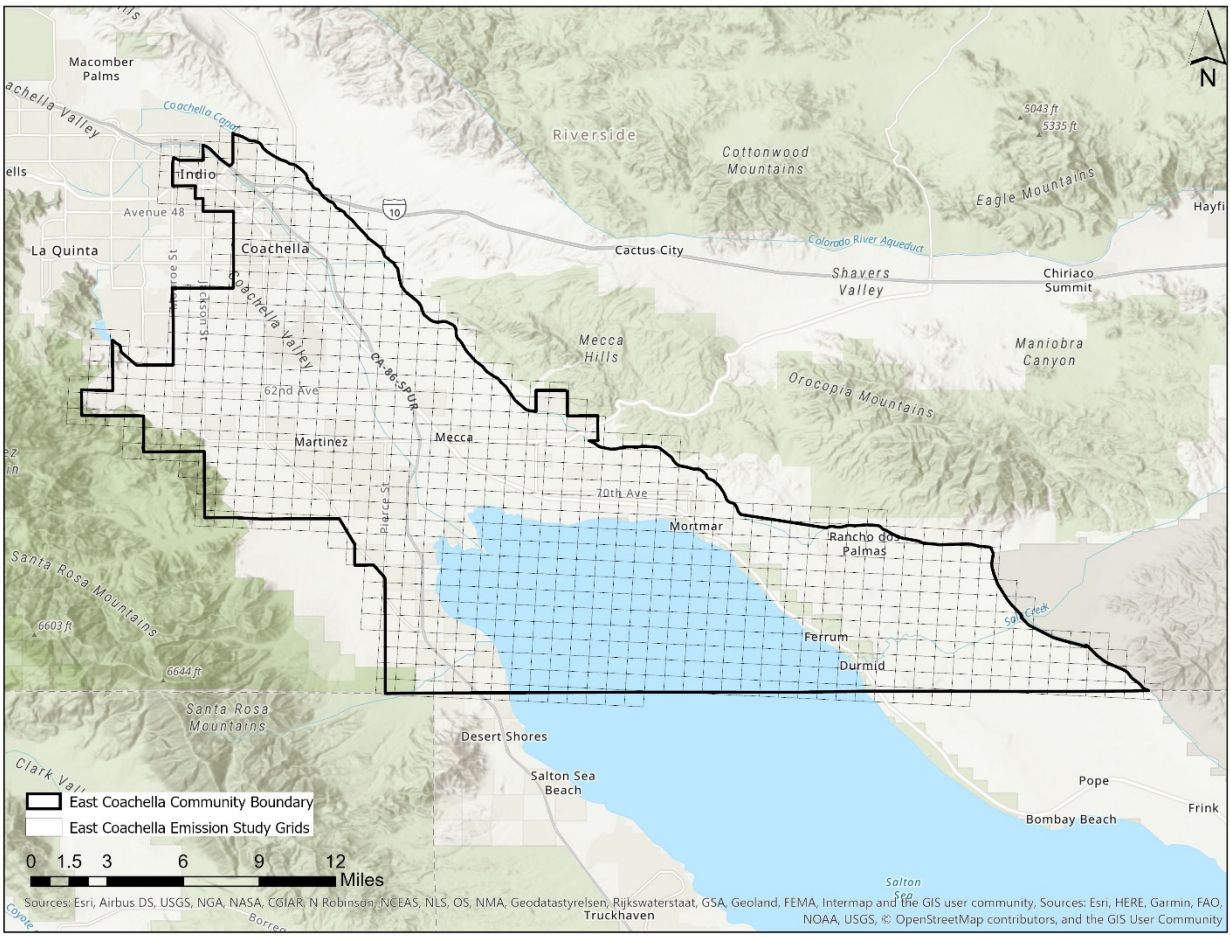


Figure E.c.2. Proposed Eastern Coachella Valley Community PM2.5 Emission Totals
(2017 Emissions Inventory)

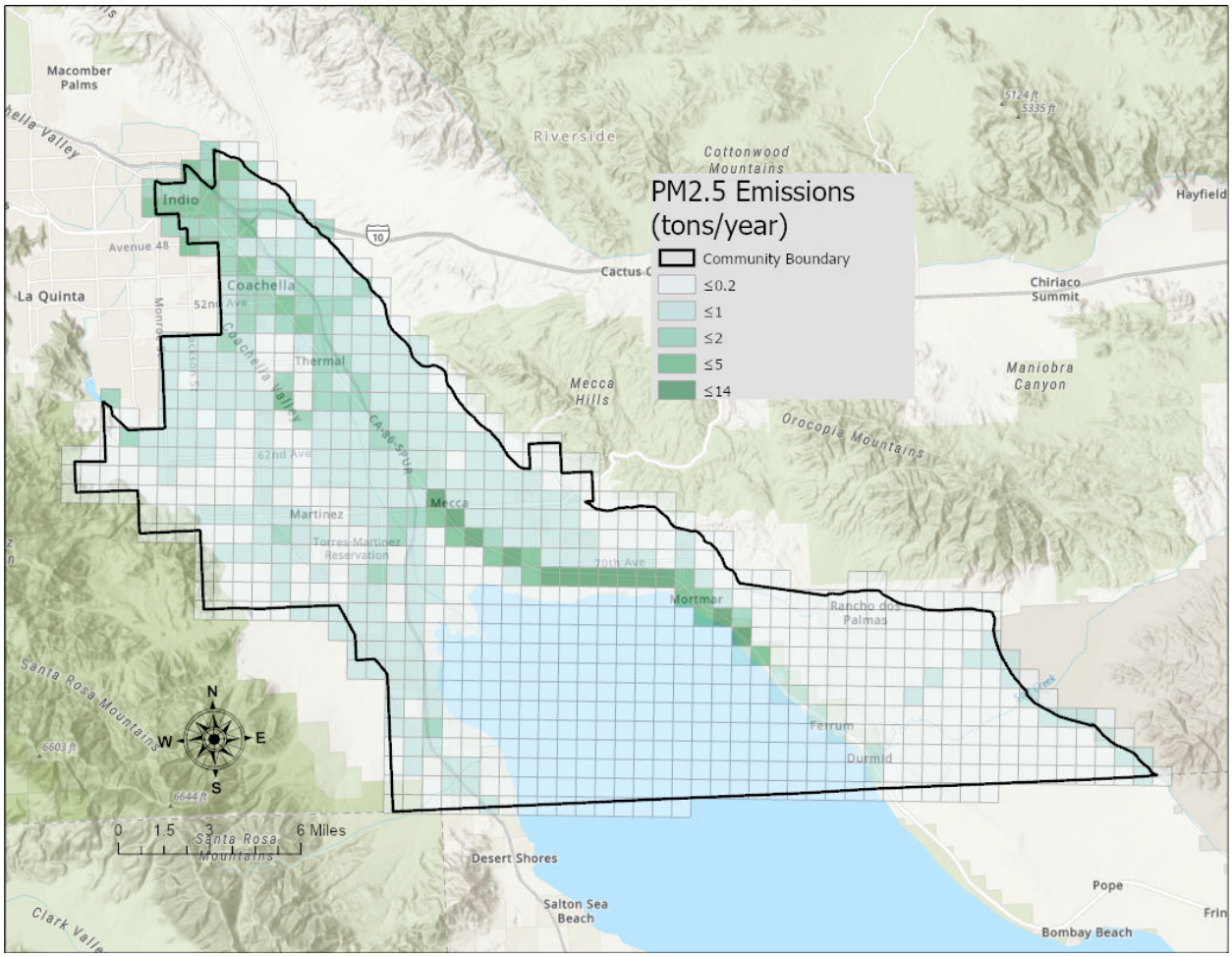


Figure E.c.3. Proposed Eastern Coachella Valley Community ROG Emission Totals
(2017 Emissions Inventory)

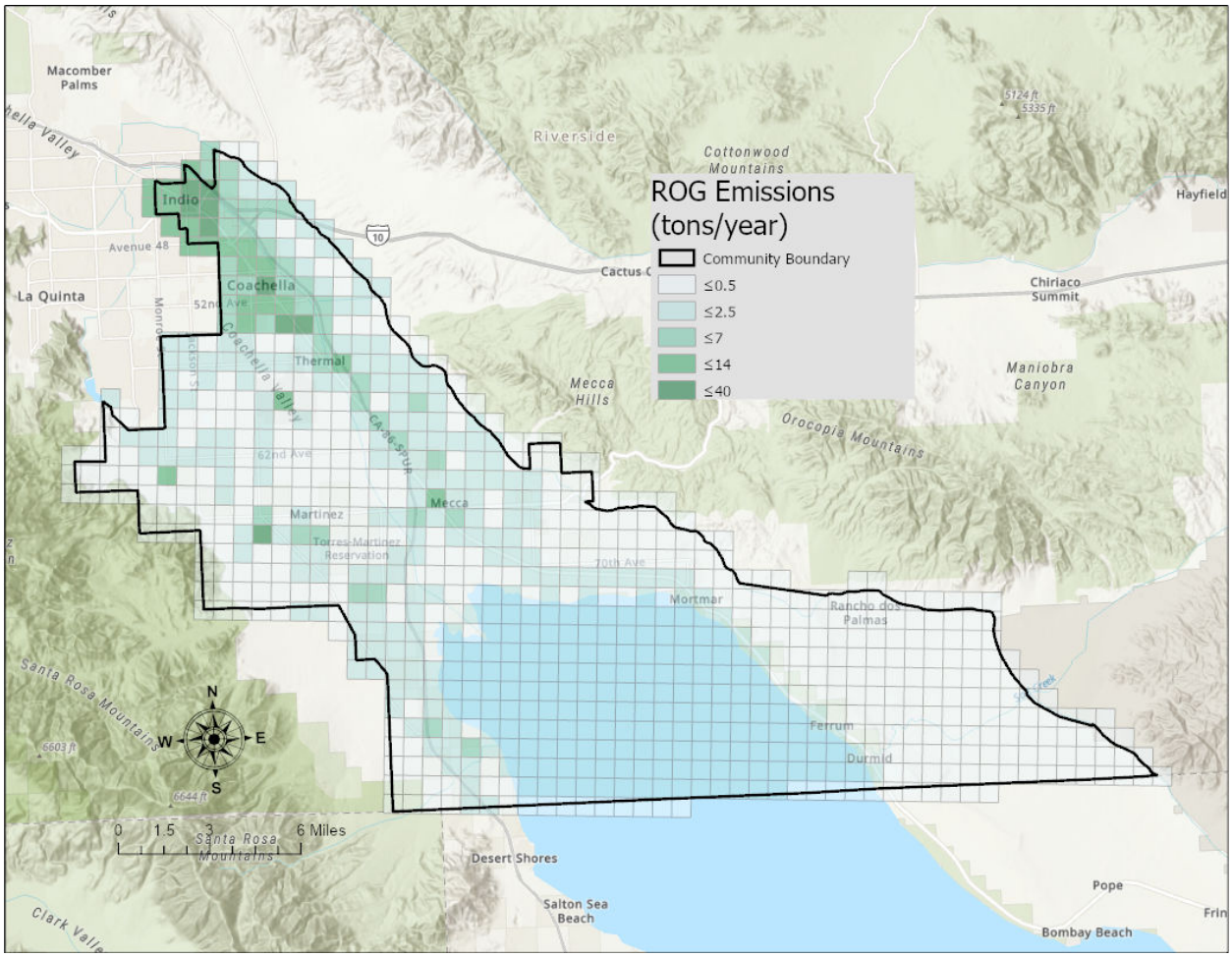


Figure E.c.4. Proposed Eastern Coachella Valley Community Diesel PM Emission Totals
(2017 Emissions Inventory)

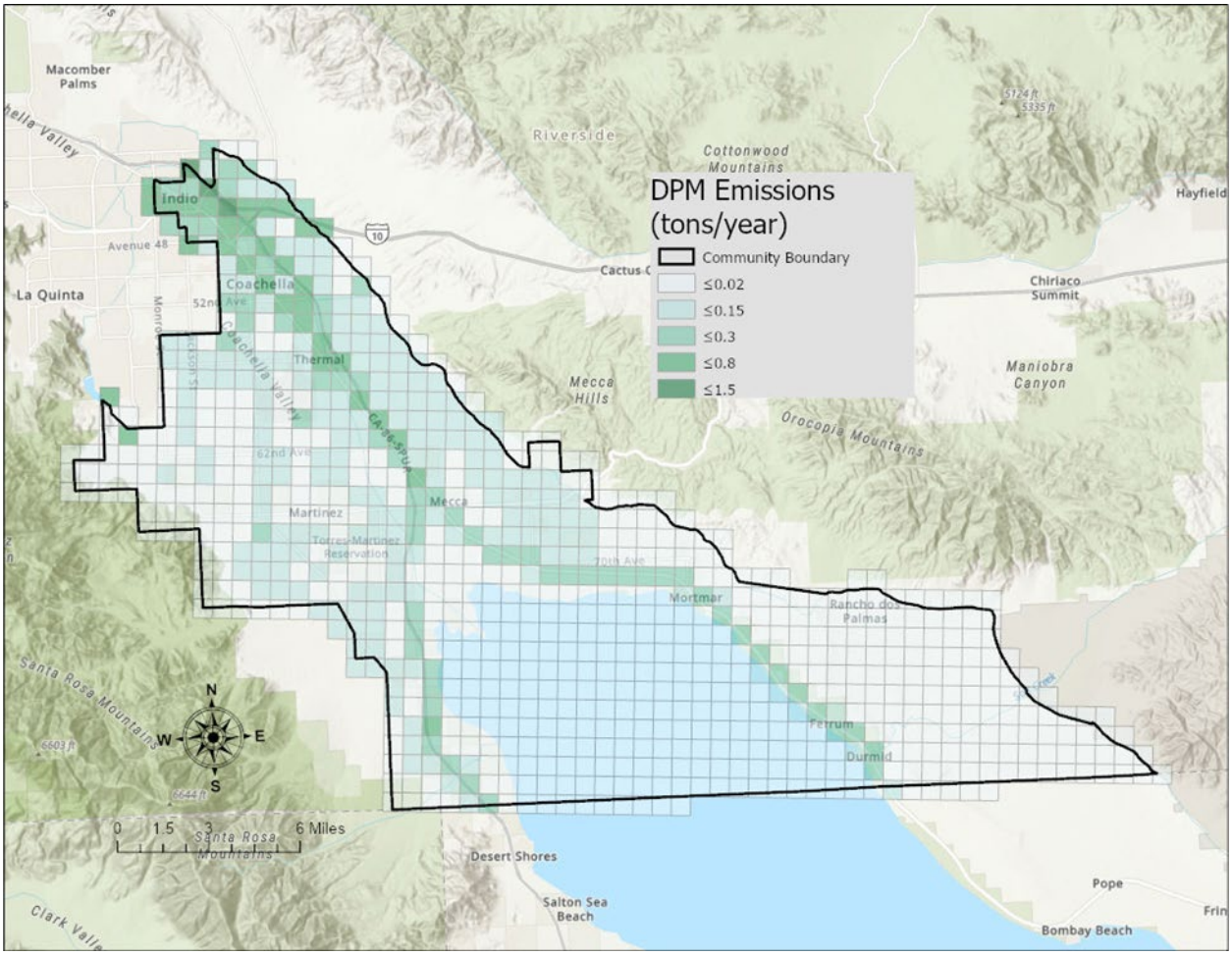


Table E.c.1. Preliminary emissions estimate for Eastern Coachella Valley Community
(2017 Emissions Inventory)

Stationary (Tons per Year)			Area (Tons per Year)			Mobile (Tons per Year)		
PM2.5	ROG	DPM	PM2.5	ROG	DPM	PM2.5	ROG	DPM
29.65	236.01	0.37	239.40	300.54	0.00	67.85	501.68	31.1
Percent of Community Total								
8.8%	22.7%	1.2%	71.1%	28.9%	0.0%	20.1%	48.3%	98.8%

Table E.c.2. Detailed 2017 Preliminary Emissions Inventory for Eastern Coachella Valley Community[100] (Emissions in Tons per Year)

Source Category	NOx	TOG	ROG	SOx	PM10	PM2.5	DPM
Fuel Combustion	**266.97**	**70.93**	**39.06**	**50.79**	**3.58**	**3.56**	**0.37**
Electric Utilities	*1.87*	*0.23*	*0.10*	*0.01*	*0.00*	*0.00*	*0.00*
Manufacturing and Industrial	*43.14*	*39.13*	*24.47*	*2.40*	*1.62*	*1.62*	*0.07*
Service and Commercial	*19.51*	*14.65*	*6.47*	*0.69*	*1.21*	*1.21*	*0.00*
Other (Fuel Combustion)	*202.44*	*16.92*	*8.01*	*47.69*	*0.75*	*0.73*	*0.30*
Waste Disposal	**2.07**	**5.37**	**3.52**	**0.01**	**0.13**	**0.13**	**0.00**
Sewage Treatment	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Incinerators	*0.88*	*0.24*	*0.04*	*0.00*	*0.04*	*0.04*	*0.00*
Other (Waste Disposal)	*1.19*	*5.13*	*3.48*	*0.01*	*0.09*	*0.09*	*0.00*
Cleaning and Surface Coatings	**0.00**	**371.18**	**152.67**	**0.00**	**2.80**	**2.70**	**0.00**
Laundering	*0.00*	*2.50*	*0.10*	*0.00*	*0.00*	*0.00*	*0.00*
Degreasing	*0.00*	*245.65*	*40.86*	*0.00*	*0.00*	*0.00*	*0.00*
Coatings and Related Process Solvents	*0.00*	*71.49*	*68.13*	*0.00*	*2.80*	*2.70*	*0.00*
Printing	*0.00*	*0.98*	*0.98*	*0.00*	*0.00*	*0.00*	*0.00*
Adhesives and Sealants	*0.00*	*41.43*	*36.15*	*0.00*	*0.00*	*0.00*	*0.00*
Other (Cleaning and Surface Coatings)	*0.00*	*9.13*	*6.46*	*0.00*	*0.00*	*0.00*	*0.00*
Petroleum Production and Marketing	**0.00**	**62.37**	**17.99**	**0.00**	**0.00**	**0.00**	**0.00**
Petroleum Marketing	*0.00*	*62.29*	*17.92*	*0.00*	*0.00*	*0.00*	*0.00*
Other (Petroleum Production and Marketing)	*0.00*	*0.08*	*0.07*	*0.00*	*0.00*	*0.00*	*0.00*
Industrial Processes	**0.00**	**22.96**	**22.77**	**0.00**	**37.14**	**23.26**	**0.00**
Chemical	*0.00*	*7.60*	*7.60*	*0.00*	*0.67*	*0.66*	*0.00*
Food and Agriculture	*0.00*	*2.92*	*2.92*	*0.00*	*0.00*	*0.00*	*0.00*
Mineral Processes	*0.00*	*0.00*	*0.00*	*0.00*	*11.01*	*2.35*	*0.00*
Wood and Paper	*0.00*	*0.00*	*0.00*	*0.00*	*11.78*	*7.07*	*0.00*
Other (Industrial Processes)	*0.00*	*12.44*	*12.25*	*0.00*	*13.68*	*13.18*	*0.00*
Total Stationary Sources	**269.0**	**532.8**	**236.0**	**50.8**	**43.6**	**29.6**	**0.4**

[100] 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; PM_{10}: particulate matter 10 microns or smaller; $PM_{2.5}$: particulate matter 2.5 microns or smaller; DPM: diesel particulate matter

Table E.c.2. Detailed 2017 Preliminary Emissions Inventory for Eastern Coachella Valley Community (Continued) (Emissions in Tons per Year)

Source Category	NOx	TOG	ROG	SOx	PM10	PM2.5	DPM
AREA SOURCES							
Solvent Evaporation	**0.00**	**305.95**	**272.59**	**0.00**	**0.06**	**0.06**	**0.00**
Consumer Products	*0.00*	*190.92*	*159.39*	*0.00*	*0.00*	*0.00*	*0.00*
Architectural Coatings and Process Solvents	*0.00*	*25.88*	*24.39*	*0.00*	*0.00*	*0.00*	*0.00*
Pesticides/Fertilizers	*0.00*	*83.42*	*83.42*	*0.00*	*0.00*	*0.00*	*0.00*
Asphalt Paving / Roofing	*0.00*	*5.74*	*5.38*	*0.00*	*0.06*	*0.06*	*0.00*
Miscellaneous Processes	**16.76**	**105.91**	**27.95**	**0.76**	**1,863.69**	**239.34**	**0.00**
Residential Fuel Combustion	*14.90*	*20.99*	*16.07*	*0.69*	*6.96*	*6.76*	*0.00*
Farming Operations	*0.00*	*76.95*	*6.16*	*0.00*	*149.54*	*22.42*	*0.00*
Construction and Demolition	*0.00*	*0.00*	*0.00*	*0.00*	*1,069.40*	*106.87*	*0.00*
Paved Road Dust	*0.00*	*0.00*	*0.00*	*0.00*	*324.96*	*48.76*	*0.00*
Unpaved Road Dust	*0.00*	*0.00*	*0.00*	*0.00*	*134.83*	*13.48*	*0.00*
Fugitive Windblown Dust	*0.00*	*0.00*	*0.00*	*0.00*	*162.37*	*25.66*	*0.00*
Fires	*0.18*	*0.88*	*0.76*	*0.00*	*1.25*	*1.18*	*0.00*
Managed Burning and Disposal	*1.68*	*4.40*	*3.90*	*0.07*	*3.47*	*3.30*	*0.00*
Cooking	*0.00*	*2.69*	*1.06*	*0.00*	*10.91*	*10.91*	*0.00*
Other (Miscellaneous Processes)	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Total Area Sources	**16.8**	**411.9**	**300.5**	**0.8**	**1,863.7**	**239.4**	**0.0**
ON-ROAD MOBILE SOURCES							
Light and Medium Duty Vehicles	130.65	165.53	150.40	2.67	35.53	14.85	0.07
Light Heavy Duty Vehicles	53.49	8.58	8.05	0.14	2.26	1.09	0.29
Medium Heavy Duty Vehicles	65.73	4.47	3.93	0.15	4.33	3.05	2.32
Heavy Heavy Duty Vehicles	323.42	14.77	12.46	0.85	12.15	8.27	6.49
Buses	9.61	3.89	0.66	0.04	1.03	0.50	0.13
Total On-road Mobile Sources	**582.9**	**197.2**	**175.5**	**3.9**	**55.3**	**27.8**	**9.3**
OTHER MOBILE SOURCES							
Aircraft	8.30	8.84	8.54	1.12	4.78	4.62	0.00
Trains	407.04	20.77	18.24	0.42	7.21	6.64	7.21
Recreational Boats	33.98	161.70	148.90	0.05	10.64	10.15	0.02
Off-Road Recreational Vehicles	0.75	16.17	15.85	0.01	0.14	0.13	0.00
Off-Road Equipment	179.05	104.44	96.90	0.24	12.59	12.04	7.71
Farm Equipment	103.87	26.00	23.47	0.03	6.79	6.50	6.42
Fuel Storage and Handling	0.00	14.27	14.27	0.00	0.00	0.00	0.00
Total Other Mobile Sources	**733.0**	**352.2**	**326.2**	**1.9**	**42.2**	**40.1**	**21.4**
Total Community Emissions	**1,601.7**	**1,494.1**	**1,038.2**	**57.3**	**2,004.8**	**336.9**	**31.1**

d. South East Los Angeles Community Preliminary Emissions Inventory

Figure E.d.1. 1 km x 1 km Grids Used to Develop South East Los Angeles Community Preliminary Inventory

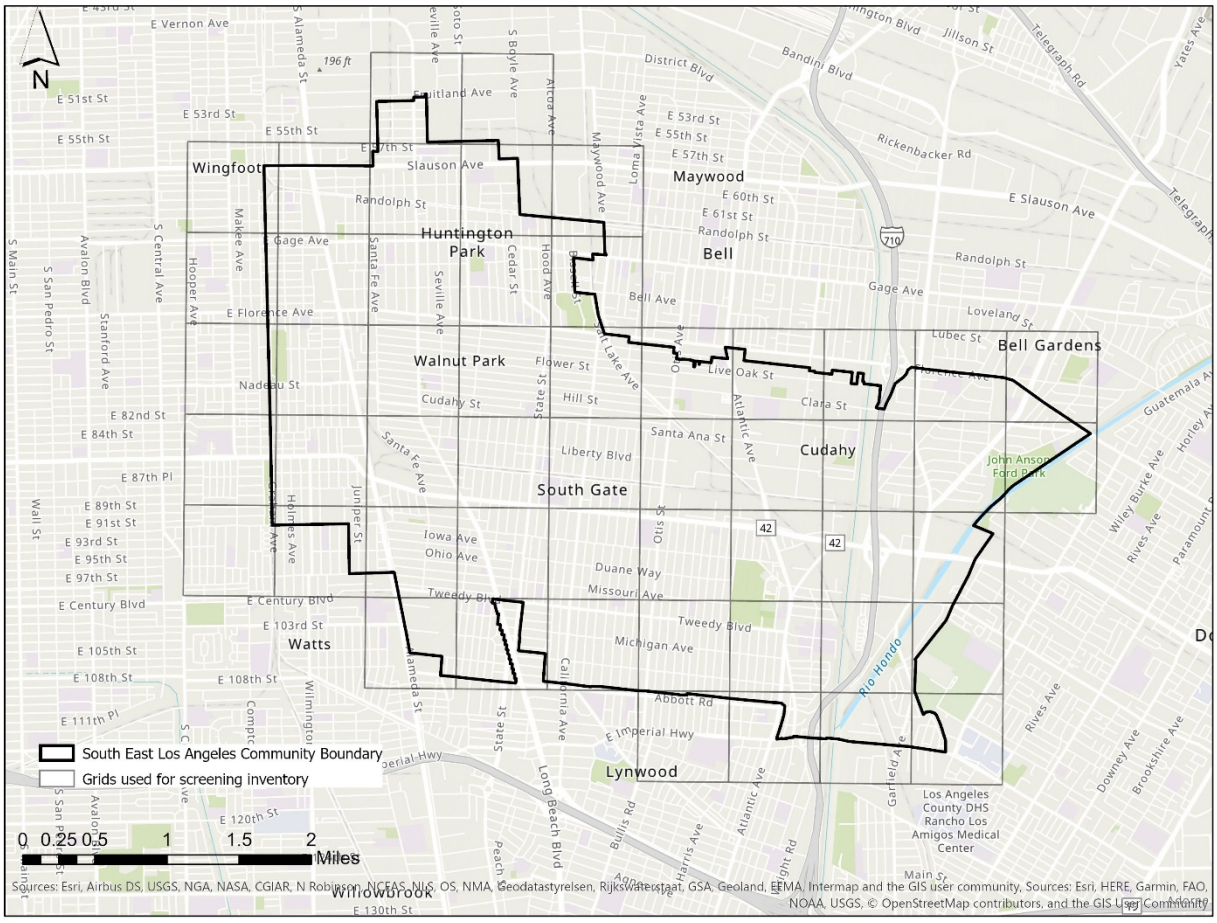


Figure E.d.2. Proposed South East Los Angeles Community PM2.5 Emission Totals
(2017 Emissions Inventory)

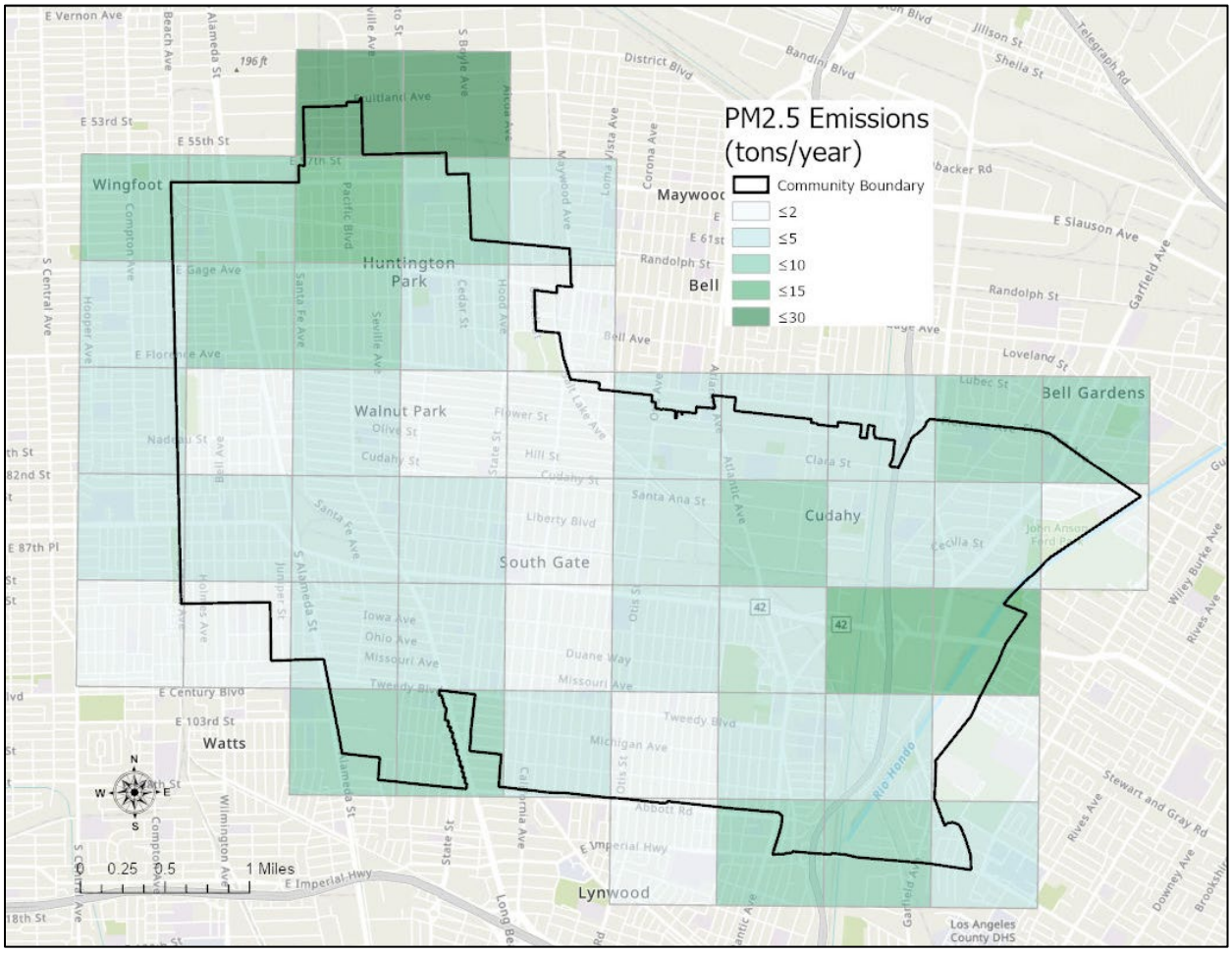


Figure E.d.3. Proposed South East Los Angeles Community ROG Emission Totals
(2017 Emissions Inventory)

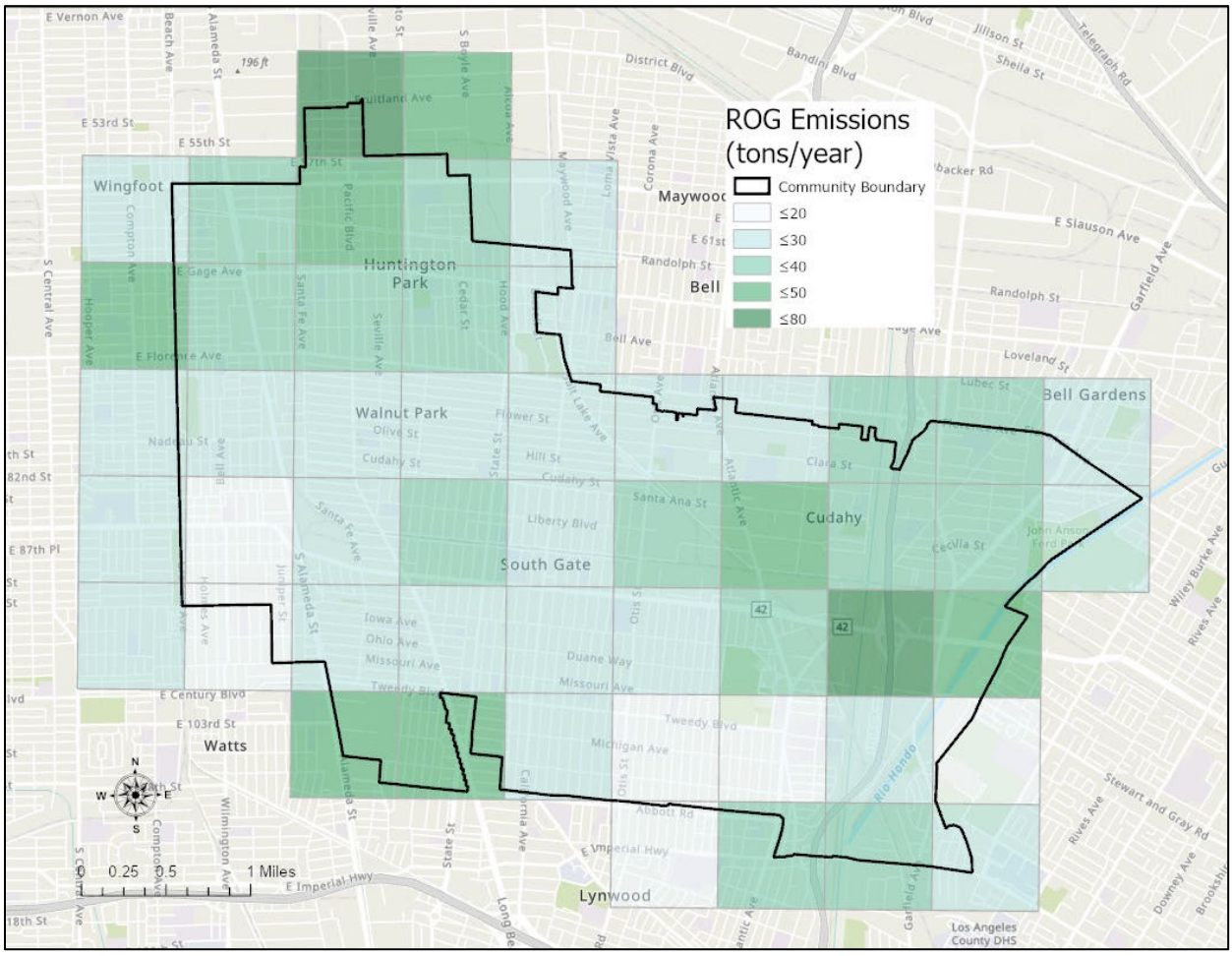


Figure E.d.4. Proposed South East Los Angeles Community Diesel PM Emission Totals (2017 Emissions Inventory)

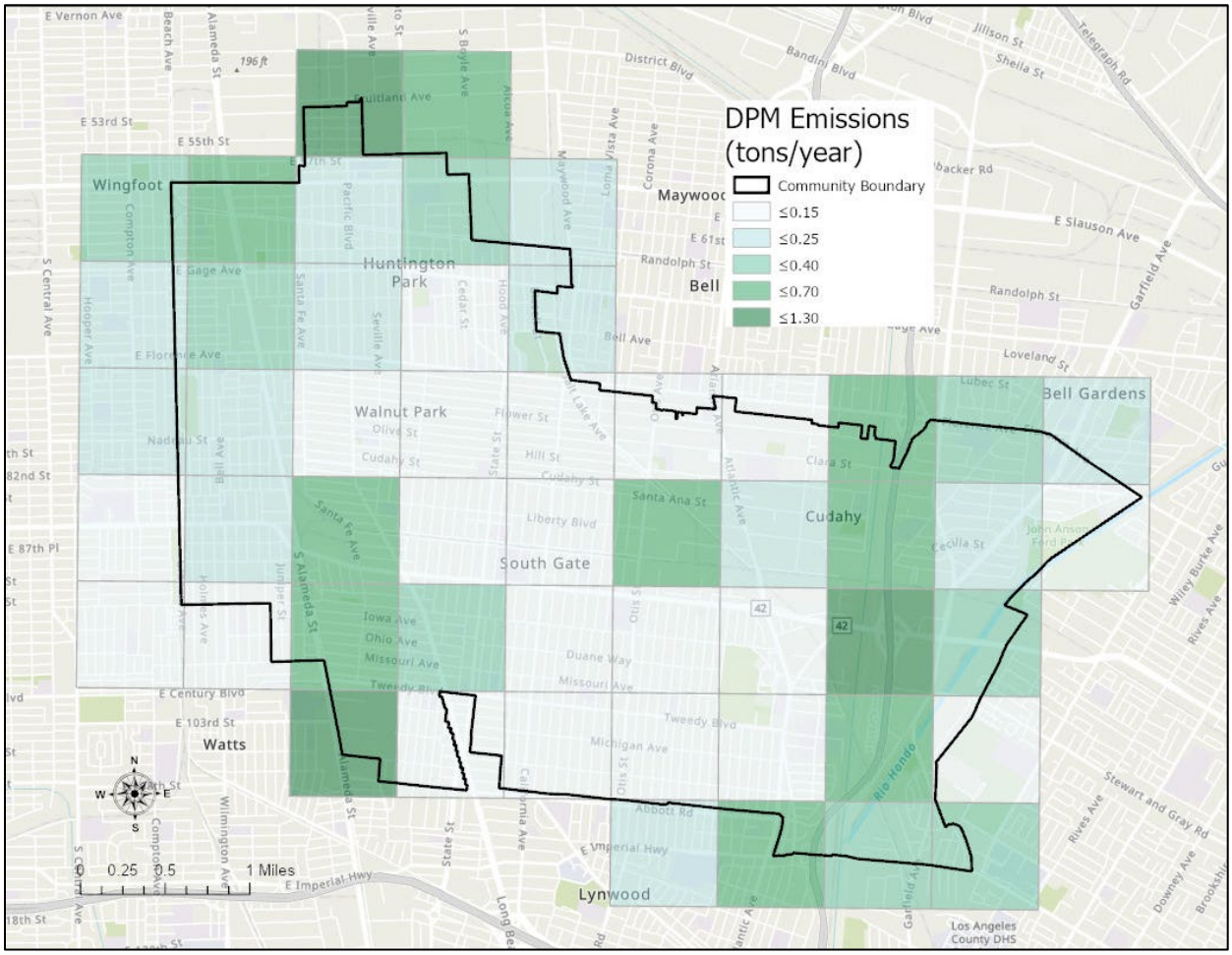


Table E.d.1. Preliminary emissions estimate for the South East Los Angeles Community

(2017 Emissions Inventory)

Stationary (Tons per Year)			Area (Tons per Year)			Mobile (Tons per Year)		
PM2.5	ROG	DPM	PM2.5	ROG	DPM	PM2.5	ROG	DPM
113.7	506.4	1.98	102.6	685.8	0.0	50.3	547.7	15.1
Percent of Community Total								
43.7%	29.1%	11.6%	38.5%	39.4%	0.0%	18.9%	31.5%	88.6%

Table E.d.2. Detailed Preliminary Emissions Inventory for South East Los Angeles Community[101] (Emissions in Tons per Year)

Source Category	NOx	TOG	ROG	SOx	PM10	PM2.5	DPM
STATIONARY SOURCES							
Fuel Combustion	**248.02**	**433.40**	**74.12**	**22.87**	**42.82**	**42.41**	**1.98**
Electric Utilities	*20.95*	*59.94*	*5.58*	*0.76*	*20.09*	*20.05*	*0.00*
Cogeneration	*0.10*	*0.19*	*0.18*	*0.00*	*0.11*	*0.07*	*0.00*
Oil and Gas Production (Combustion)	*0.01*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Petroleum Refining (Combustion)	*2.01*	*1.10*	*0.32*	*3.09*	*0.38*	*0.38*	*0.00*
Manufacturing and Industrial	*171.98*	*340.99*	*53.16*	*17.61*	*17.21*	*17.05*	*0.12*
Food and Agricultural Processing	*3.89*	*0.31*	*0.14*	*0.01*	*0.15*	*0.15*	*0.00*
Service and Commercial	*24.10*	*28.28*	*12.75*	*1.32*	*2.85*	*2.84*	*0.05*
Other (Fuel Combustion)	*24.99*	*2.57*	*1.98*	*0.08*	*2.03*	*1.88*	*1.81*
Waste Disposal	**1.87**	**55.96**	**4.54**	**0.15**	**1.96**	**1.96**	**0.00**
Incinerators	*1.87*	*0.71*	*0.12*	*0.15*	*1.96*	*1.96*	*0.00*
Other (Waste Disposal)	*0.00*	*55.25*	*4.42*	*0.00*	*0.00*	*0.00*	*0.00*
Cleaning and Surface Coatings	**2.79**	**746.65**	**257.93**	**0.02**	**8.04**	**7.75**	**0.00**
Laundering	*0.00*	*6.97*	*0.38*	*0.00*	*0.00*	*0.00*	*0.00*
Degreasing	*0.00*	*586.05*	*116.99*	*0.00*	*0.00*	*0.00*	*0.00*
Coatings and Related Process Solvents	*0.00*	*104.81*	*102.73*	*0.00*	*7.86*	*7.57*	*0.00*
Printing	*0.00*	*2.95*	*2.95*	*0.00*	*0.00*	*0.00*	*0.00*
Adhesives and Sealants	*0.00*	*23.50*	*20.50*	*0.00*	*0.00*	*0.00*	*0.00*
Other (Cleaning and Surface Coatings)	*2.79*	*22.37*	*14.38*	*0.02*	*0.19*	*0.18*	*0.00*
Petroleum Production and Marketing	**0.54**	**96.87**	**91.49**	**0.00**	**6.77**	**5.39**	**0.00**
Oil and Gas Production	*0.00*	*0.22*	*0.09*	*0.00*	*0.01*	*0.01*	*0.00*
Petroleum Refining	*0.00*	*6.65*	*5.32*	*0.00*	*5.48*	*4.61*	*0.00*
Petroleum Marketing	*0.00*	*88.85*	*85.10*	*0.00*	*1.28*	*0.77*	*0.00*
Other (Petroleum Production and Marketing)	*0.54*	*1.15*	*0.98*	*0.00*	*0.00*	*0.00*	*0.00*
Industrial Processes	**107.83**	**84.20**	**78.32**	**49.88**	**78.49**	**56.15**	**0.00**
Chemical	*0.00*	*19.89*	*19.89*	*0.00*	*1.81*	*1.79*	*0.00*
Food and Agriculture	*0.00*	*9.88*	*7.43*	*0.00*	*0.64*	*0.41*	*0.00*
Mineral Processes	*104.83*	*6.38*	*5.37*	*49.87*	*14.71*	*10.05*	*0.00*
Metal Processes	*0.00*	*2.28*	*2.28*	*0.00*	*1.49*	*1.11*	*0.00*
Wood and Paper	*0.00*	*0.00*	*0.00*	*0.00*	*33.11*	*19.86*	*0.00*
Glass and Related Products	*0.00*	*0.00*	*0.00*	*0.00*	*0.08*	*0.05*	*0.00*
Other (Industrial Processes)	*3.00*	*45.78*	*43.36*	*0.01*	*26.67*	*22.89*	*0.00*
Total Stationary Sources	**361.0**	**1,417.1**	**506.4**	**72.9**	**138.1**	**113.7**	**2.0**

[101] 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; PM_{10}: particulate matter 10 microns or smaller; $PM_{2.5}$: particulate matter 2.5 microns or smaller; DPM: diesel particulate matter

Table E.d.2. Detailed Preliminary Emissions Inventory for South East Los Angeles Community (Continued) (Emissions in Tons per Year)

Source Category	NOx	TOG	ROG	SOx	PM10	PM2.5	DPM
AREA SOURCES							
Solvent Evaporation	**0.00**	**732.76**	**618.67**	**0.00**	**0.02**	**0.02**	**0.00**
Consumer Products	*0.00*	*641.32*	*532.39*	*0.00*	*0.00*	*0.00*	*0.00*
Architectural Coatings and Process Solvents	*0.00*	*85.99*	*80.90*	*0.00*	*0.00*	*0.00*	*0.00*
Pesticides/Fertilizers	*0.00*	*4.89*	*4.89*	*0.00*	*0.00*	*0.00*	*0.00*
Asphalt Paving / Roofing	*0.00*	*0.56*	*0.50*	*0.00*	*0.02*	*0.02*	*0.00*
Miscellaneous Processes	**63.30**	**94.48**	**67.13**	**1.78**	**228.03**	**102.61**	**0.00**
Residential Fuel Combustion	*62.81*	*78.60*	*60.41*	*1.78*	*28.57*	*27.57*	*0.00*
Farming Operations	*0.00*	*1.06*	*0.09*	*0.00*	*0.38*	*0.06*	*0.00*
Construction and Demolition	*0.00*	*0.00*	*0.00*	*0.00*	*57.94*	*5.79*	*0.00*
Paved Road Dust	*0.00*	*0.00*	*0.00*	*0.00*	*84.06*	*12.61*	*0.00*
Unpaved Road Dust	*0.00*	*0.00*	*0.00*	*0.00*	*0.42*	*0.04*	*0.00*
Fugitive Windblown Dust	*0.00*	*0.00*	*0.00*	*0.00*	*0.01*	*0.00*	*0.00*
Fires	*0.47*	*1.77*	*1.52*	*0.00*	*1.67*	*1.57*	*0.00*
Managed Burning and Disposal	*0.01*	*0.08*	*0.07*	*0.00*	*0.06*	*0.06*	*0.00*
Cooking	*0.00*	*12.97*	*5.04*	*0.00*	*54.91*	*54.91*	*0.00*
Other (Miscellaneous Processes)	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Total Area Sources	**63.3**	**827.2**	**685.8**	**1.8**	**228.0**	**102.6**	**0.0**
ON-ROAD MOBILE SOURCES							
Light and Medium Duty Vehicles	228.77	283.17	252.62	4.46	58.43	24.87	0.16
Light Heavy Duty Vehicles	28.73	9.48	8.85	0.14	1.88	0.87	0.16
Medium Heavy Duty Vehicles	66.38	6.13	5.35	0.18	4.20	2.82	1.99
Heavy Heavy Duty Vehicles	119.55	7.51	5.46	0.29	3.69	2.51	1.96
Bus	18.74	15.85	1.84	0.05	1.30	0.65	0.20
Total On-road Mobile Sources	**462.2**	**322.1**	**274.1**	**5.1**	**69.5**	**31.7**	**4.5**
OTHER MOBILE SOURCES							
Trains	113.42	7.19	6.31	0.08	2.18	2.01	2.18
Recreational Boats	0.00	19.85	18.94	0.00	0.00	0.00	0.00
Off-Road Recreational Vehicles	0.00	7.59	7.57	0.00	0.00	0.00	0.00
Off-Road Equipment	224.04	215.52	199.52	0.41	17.11	16.40	8.28
Farm Equipment	1.89	0.63	0.58	0.00	0.13	0.12	0.11
Fuel Storage and Handling	0.00	40.62	40.62	0.00	0.00	0.00	0.00
Total Other Mobile Sources	**339.4**	**291.4**	**273.5**	**0.5**	**19.4**	**18.5**	**10.6**
Total Community Emissions	**1,225.9**	**2,857.9**	**1,739.9**	**80.3**	**455.0**	**266.5**	**17.0**

Appendix F
Satellite-Derived PM2.5 Estimates

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

In order to estimate the spatial variability of PM2.5 concentrations for the entire Southwest Stockton and the South East Los Angeles communities, publically available satellite data was used to understand how the air pollution is spread throughout the community. It is important to note that satellite measurements can be affected by factors such as atmospheric thickness, cloud cover and time of day. Thus, these data are best used to qualitatively explore spatial gradients in PM2.5 rather than draw specific quantitative conclusions.

Satellite measurements of Aerosol Optical Depth (AOD)[102] from the Moderate Resolution Imaging Spectroradiometer (MODIS)[103] instrument were used to explore gradients in PM2.5 over the community area. Satellite AOD data were converted to surface PM2.5 estimates using an algorithm developed at CARB that uses measurements of PM2.5 from surface monitors to constrain the satellite data[104]. Please note this algorithm has not been peer-reviewed.

Figure F -1 for Southwest Stockton Community and Figure F – 2 for South East Los Angeles Community shows the annual average satellite-derived PM2.5 for 2015[105]. 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 Governing Board.

[102] More information on Aerosol Optical Depth measurements available at: https://earthobservatory.nasa.gov/global-maps/MODAL2_M_AER_OD
[103] More information on MODIS data available at: https://modis-land.gsfc.nasa.gov/MAIAC.html
[104] For satellite pixels that are co-located with surface monitors, the uncertainty is equal to that of the surface monitor, while satellite pixels that are not co-located with surface monitors (for example, all pixels within the community boundary) may have uncertainties as high as 30%.
[105] Data Source: https://ladsweb.modaps.eosdis.nasa.gov/search/

Figure F-1. Satellite-derived Annual PM2.5 Concentration for Southwest Stockton Community (2015 Satellite Data)

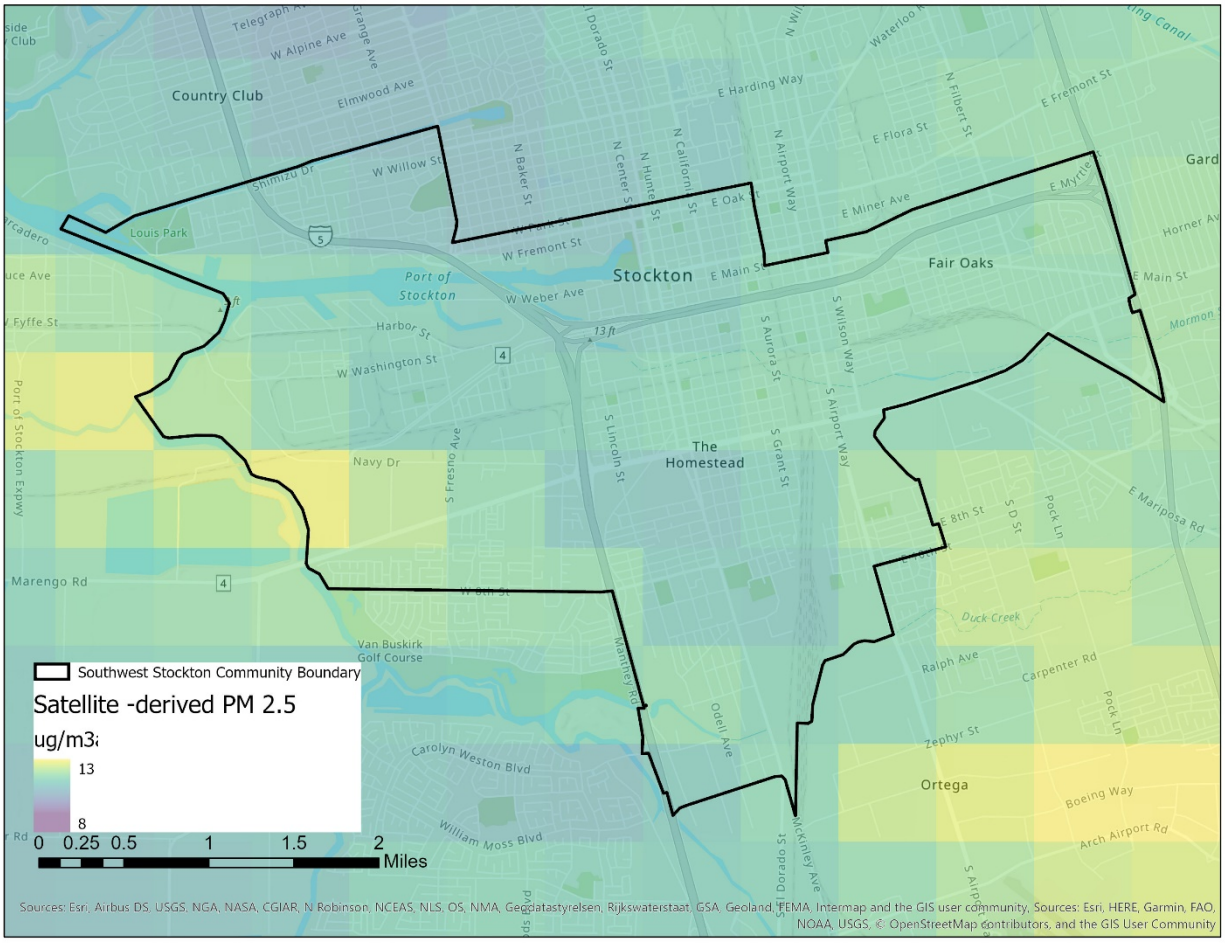


Figure F-2. Satellite-derived Annual PM2.5 Concentration for South East Los Angeles Community (2015 Satellite Data)