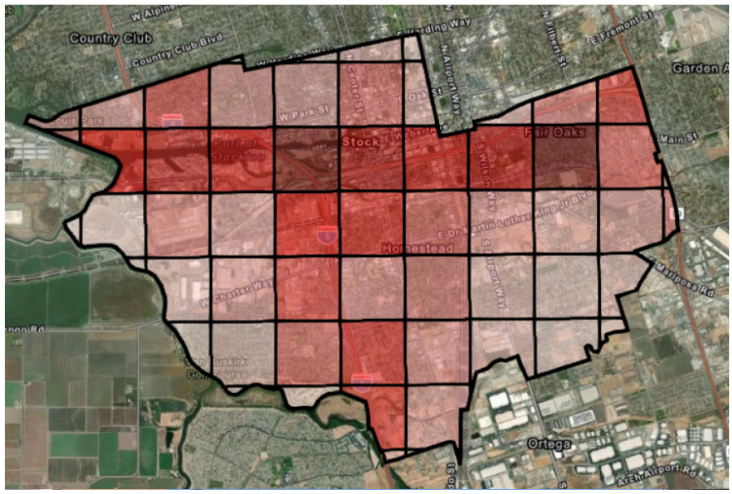
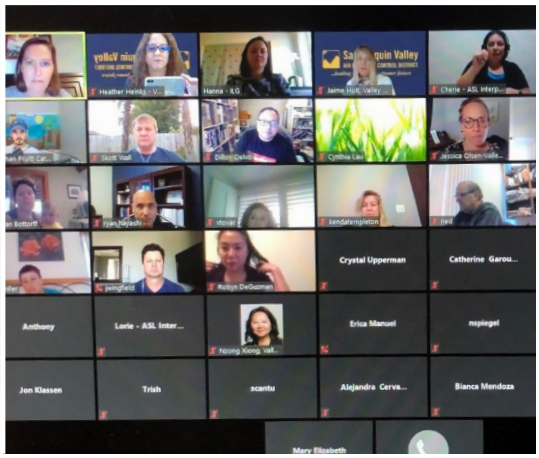
Community Emissions Reduction Program

Stockton

February 3, 2021 Draft





San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

EXECUTIVE SUMMARY

The air quality challenges that the communities in the San Joaquin Valley face are unmatched by any other region in the nation. The San Joaquin Valley, due to its unique geography, topography, and meteorology, continues to face daunting challenges in meeting the latest federal health-based air quality standards. Since 1992, the San Joaquin Valley Air Pollution Control District (District) has implemented nearly 650 rules and regulations to control air pollution in the Valley Air Basin. Numerous plans to improve Valley air quality and attain state and federal air quality standards have detailed a wide-range of strategies, including regulatory measures, extensive incentive investment to promote clean-air technologies in Valley communities, and other first-of-their kind measures, such as the District's Indirect Source Review regulation which reduces emissions from new construction and development projects, and the nationally recognized Tune-in-Tune Up vehicle repair program. The District also has dedicated field staff that are in communities throughout the Valley conducting inspections and responding and investigating complaints to ensure that Valley businesses and residents are complying with federal, state, and local rules and regulations.

As a result of the District's stringent and comprehensive air quality management strategy, along with significant investments made by Valley businesses and residents, since the District's formation in 1992, PM2.5 and ozone levels are now at historically low levels, and the Valley continues to be in attainment of the PM10 federal air quality standard. Emissions from stationary sources have been reduced by 85%, cancer risk from exposure to air pollutants has been reduced by 95%, population exposure to elevated PM2.5 levels have been reduced by 85%, and population exposure to elevated ozone levels have been reduced by 90%.

Despite these regional air quality improvements, significant concern has been expressed by the California legislature about potential localized impacts of air pollution in disadvantaged communities throughout the state. In answer to that concern, Assembly Bill (AB) 617, signed into law in July 2017, initiated a state-wide effort to monitor and reduce air pollution, and improve public health, in communities that experience disproportionate burdens from exposure to air pollutants through new community-focused and community-driven actions. The community of Stockton AB 617 Community was prioritized by the Air District and subsequently selected by the California Air Resources Board (CARB) as one of the third-year communities selected in the state to receive clean air resources newly available under AB 617, based on a technical analysis of several pollution and poverty-related criteria.

AB 617 provides mechanisms and resources to implement community-specific air quality monitoring networks; to develop, implement, and track emission reduction programs; to improve availability of data and other technical information; and to invest substantial funding in the community through voluntary incentive funding measures. Importantly, these measures are guided by advice and knowledge of local community

members, through their input and involvement on Steering Committees for each AB 617-selected community.

This Community Emission Reduction Program (CERP) provides a description of the community of Stockton AB 617 Community, including geographical boundaries and describes air quality challenges impacting community residents. A technical analysis describes the sources of pollution impacting the community, as well as the location of sensitive receptors within the community. Sources of pollution that are of particular concern to community members are highlighted, and strategies for reducing air pollution impacts and health risk reduction from these sources were evaluated as part of the public engagement process between the Community Steering Committee (CSC), the District, and the California Air Resources Board. Working closely together as a unified partnership, the CSC developed numerous strategies that were ultimately selected for implementation in the community, including incentive funding measures, public engagement strategies, enforcement strategies, and regulatory strategies. Many of the strategies will require close collaboration with state and local organizations and community based organizations to fully implement them. Also included in this CERP is an implementation schedule and necessary metrics for tracking emission reductions within the community. The metrics for tracking progress will be included in regular updates to the CSC during ongoing meetings, annual reporting, and at the five-year milestone.

This draft CERP anticipates investing over $36 million in emission reduction incentives, and a variety of other clean air projects in the Stockton AB 617 Community area. Additional measures have been developed to reduce exposure to air pollution for sensitive receptors, including schools and residences. These efforts are projected to achieve up to approximately 71 tons of PM2.5 reductions and 860 tons of NOx reductions as well as significant reductions in air toxics emissions in the community, particularly with respect to diesel particulate matter from mobile sources, the main contributor to community air toxics health risk. Additional regulatory and outreach strategies will provide for further reductions in emissions and exposure, while increasing awareness of the community's air quality challenges and the resources available to help the public and businesses reduce emissions and avoid exposure to air pollution.

Air pollution emission reduction and exposure reduction measures implemented under AB 617 programs will further advance ongoing state and District efforts to reduce regional and community exposure to air pollutants. In the preparation of this CERP, the District has worked closely with the CSC, CARB, and the public. The CSC included, residents, community-based organizations, community members, environmental organizations, regulated industry representatives, other local agencies, and other key stakeholders and worked to develop strategies and an implementation plan to reduce harmful air pollutants in the community of Stockton AB 617 Community. The plan developed through this collaborative process employs proven and innovative strategies, and significant resources, to improve community health by reducing exposure to air pollutants in Stockton AB 617 Community.

This CERP and the many air quality improvement strategies it includes would not be possible without the tremendous commitment and effort shown by Stockton Community Steering Committee members. This engaged group of individuals includes area residents; representatives from community and faith based organizations; owners and employees from businesses operating within the community; the City of Stockton, San Joaquin County, Port of Stockton employees; representatives from schools within the community and others. Additionally, the California Air Resources Board staff, members of state and local agencies including the San Joaquin Council of Government, California Department of Transportation, and Housing Authority of the County of San Joaquin have also provided information and guidance to assist the CSC members in the development of the air quality improvement strategies in this CERP. Lastly, the Institute for Local Government should be commended for the excellent meeting facilitation services they provided to guide this process.

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1. INTRODUCTION

1.1 IMPLEMENTATION OF AB 617 IN STOCKTON AB 617 COMMUNITY

The implementation of Assembly Bill (AB) 617 (C. Garcia, Chapter 136, Statutes of 2017) has brought additional clean air resources and strategies to Valley environmental justice communities that have been and are currently disproportionately burdened by socioeconomic disadvantages and air pollution, despite significant emissions reductions that have already been achieved regionally. AB 617 provides mechanisms and resources to adopt expedited schedules for the implementation of advanced control technologies for existing stationary source facilities; increased stringency of reporting requirements for stationary sources; develop and implement community-specific air quality monitoring networks; implement, and track localized emission reduction programs; improve availability of data and other technical information; and invest substantial funding in the community through voluntary incentive funding measures. Resources available through this legislation allowed the San Joaquin Valley Air Pollution Control District (District), working in partnership with the Stockton AB 617 CSC, through a comprehensive public outreach and community engagement process, to expand regional programs for community protection and develop a robust plan for reducing local exposure to various forms of air pollution including fine particulate matter and toxic air contaminants in the Stockton AB 617 Community.

Several requirements of AB 617 will serve to reduce air pollution in disadvantaged communities throughout the San Joaquin Valley. AB 617 legislation required districts that are in nonattainment for one or more air pollutants to adopt expedited rule review schedules, by January 2019, for the implementation of Best Available Retrofit Control Technology (BARCT). The District Governing Board adopted this schedule at a public hearing held in December 2018, which set the path forward for the District to research and potentially amend applicable rules. The expedited BARCT implementation schedule is discussed in more detail later in this document. Additionally, AB 617 requires "Stationary Sources" to report their criteria pollutant emissions inventory as well as their air toxics emissions inventory to the State on an annual basis. These emissions inventories will be presented via the Criteria Pollutant and Toxics Emissions Reporting regulation, once fully implemented by California Air Resources Board (CARB). Under AB 617, a Stationary Source is defined as a facility meeting any one of the following:

- Required to submit Greenhouse Gas emissions under the CH&SC § 38530 (Mandatory GHG Emissions Reporting),
- A facility that is authorized by a permit issued by a district to emit 250 or more tons per year of any nonattainment pollutant or its precursors, or
- A facility that receives an elevated prioritization score based on cancer or noncancer health impacts pursuant to Section CH&SC § 44360 (Air Toxics Hot Spots, Chapter 4: Risk Assessment).

The District has worked with closely with CARB, regulated entities, and other stakeholders to implement this new reporting requirement in the Valley. Further

information on the implementation of the AB 617 stationary source criteria pollutant emissions inventory reporting requirement is available at: https://ww2.arb.ca.gov/our-work/programs/criteria-and-toxics-reporting.

The District's community identification and prioritization analysis for the second year of AB 617 implementation was based on extensive air quality analysis, numerous health indicators from the state's CalEnviroScreen model (version 3.0), and various other socioeconomic indicators. In developing San Joaquin Valley community recommendations for additional clean air resources and public engagement under AB 617, the District conducted a public engagement process to seek input from Valley residents, businesses, agencies, and other stakeholders through public workshops and meetings throughout the Valley.

Based on this extensive public engagement effort, significant interest and support for the Stockton community, and the District's comprehensive identification and prioritization analysis: the Stockton Community was recommended by the District Governing Board as a second-year AB 617 community. Sources that affect Stockton AB 617 Community include mobile sources and freeways, port operations, and industry. The Stockton AB 617 Community has a high cumulative air pollution exposure burden, a significant number of sensitive receptors, and includes census tracts designated as disadvantaged communities. After further technical review and public engagement, the Stockton AB 617 Community was ultimately selected by the CARB Governing Board for the development of a community air monitoring plan and an emissions reduction program designed to reduce pollution impacts in the selected community.

In accordance with the community-driven nature of AB 617 directives, in September of 2019 the District Governing Board directed staff to immediately convene a CSC committee under a set of guiding principles. The CSC is comprised of residents, businesses, community based organizations, environmental justice advocates, and public agencies, working together to craft and develop a community air monitoring plan and a Community Emissions Reduction Program (CERP). To ensure successful implementation of AB 617, residents, businesses, non-profits organizations, state and local agencies, and other stakeholders from all sectors within the selected community were involved in the development of CERP. Towards that end, the District has worked extensively with the CSC to develop innovative strategies that, once implemented, will improve air quality in the Stockton AB 617 community. The District community recommendation for CARB under the second-year implementation can be found here: https://www.valleyair.org/Board_meetings/GB/agenda_minutes/Agenda/2019/September/final/10.pdf

The Stockton AB 617 Community air monitoring map was developed with the advice of the community Steering Committee. The community-specific air monitoring network will provide an expanded monitoring capacity designed to provide scalable, portable, and rapidly deployable air monitoring equipment to the community. This includes a combination of air monitoring platforms equipped with highly specialized analyzers capable of monitoring a full range of criteria and toxic pollutants. Various monitoring

platforms include larger air monitoring trailers, mobile air monitoring vans, and compact air monitoring sensors. Monitoring data from these sensors will be made available to members of the public in real-time on the Stockton AB 617 webpage. The full community air monitoring plan, with further details on selected monitoring equipment and monitoring locations, is available at: http://community.valleyair.org/selected-communities/stockton/community-air-monitoring/

As a culmination of the community-driven actions and engagement called for under AB 617, the Stockton Community Steering Committee has developed a Community Emissions Reduction Program (CERP), in partnership with CARB, residents, affected sources, and local government bodies in the affected community. Steering Committee input and other comments received from the public in the community have provided instrumental information, critical to implementing community-specific measures and addressing community concerns. Strong collaboration between community members, the District, CARB, and other local agencies has resulted in the development of an ambitious plan for reducing localized pollution and associated health impacts in Stockton AB 617 Community.

This CERP provides a description of the Stockton AB 617 Community, including geographical boundaries and socioeconomic factors impacting community residents. A technical analysis describes the sources of pollution impacting the community, as well as the location of sensitive receptors within the community. Sources of pollution that are of particular concern to community members are highlighted, and possible strategies for reducing pollution impacts from these sources are evaluated. The strategies that were ultimately selected for implementation in the community are outlined, including incentive funding measures, public engagement strategies, enforcement strategies, regulatory strategies, and strategies that will be completed in partnership with other agencies and local organizations. Finally, an implementation schedule and metrics for tracking emission reductions in annual reporting and at the five-year milestone are discussed in detail.

1.2 HEALTH BASED AIR QUALITY OBJECTIVES

CERPs implemented under AB 617 are designed to reduce emissions of pollutants that have been shown to have adverse impacts on public health, including fine particulate matter and toxic air contaminants. As specified in CARB's Community Air Protection Program Blueprint, Appendix C: Criteria for Community Emission Reduction Programs (https://ww2.arb.ca.gov/sites/default/files/2018-10/final_community_air_protection_blueprint_october_2018_appendix_c.pdf), this plan will focus on reducing individual criteria air pollutant and toxic air contaminant emissions to address the impacts of community exposure to multiple pollutants. While each community faces distinct health-based challenges, CARB guidance states that broad health-based air quality objectives provide a consistent foundation for determining the appropriate levels of emissions reductions for CERPs statewide.

The U.S. Environmental Protection Agency and the State of California have established ambient air quality standards, which set health-protective levels for the following criteria pollutants: ozone, particulate matter with a diameter of 10 microns or smaller (PM10), particulate matter with a diameter of 2.5 microns or smaller (PM2.5), carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. California also has standards for sulfates, vinyl chloride, and hydrogen sulfide. Due to the region's topography and meteorology, the Valley is classified as Serious nonattainment for the federal PM2.5 standards, and Extreme nonattainment for federal ozone standards.

Particulate Matter: Particulate matter is a mixture of solid particles and liquid droplets in the air. PM can be emitted directly into the atmosphere (primary PM), or can form as secondary particulates in the atmosphere through the photochemical reactions of precursors (when precursors are energized by sunlight). Thus, PM is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. PM10 is particulate matter that is 10 microns or less in diameter, and the PM2.5 subset includes smaller particles that are 2.5 microns or less in diameter.

Any particles 10 microns or less are considered respirable, meaning they can be inhaled into the body through the mouth or nose. PM10 can generally pass through the nose and throat and enter the lungs. PM2.5, which is the portion of PM10 that is less than 2.5 microns in size, when inhaled can move deep into the gas exchange tissues of the lungs, where it can be absorbed into the bloodstream and carried to other parts of the body. The potential health impacts of particle pollution are linked to the size of the particles, with the smaller particles having larger impacts. Numerous studies link PM2.5 to a variety of health problems, including aggravated asthma, increased respiratory symptoms (irritation of the airways, coughing, difficulty breathing), decreased lung function in children, development of chronic bronchitis, irregular heartbeat, non-fatal heart attacks, increased respiratory and cardiovascular hospitalizations, lung cancer, and premature death. Children, older adults, and individuals with heart or lung diseases are the most likely to be affected by PM2.5.

Many studies have quantified and documented the health benefits of attaining the U.S. Environmental Protection Agency (EPA) air quality standards for PM. The Valley Air Basin is in attainment of the federal standards for PM10, but is currently classified as Serious nonattainment for the federal PM2.5 standards. The District, in partnership with CARB, developed the *2018 Plan for the 1997, 2006, and 2012 PM2.5 Standards,* which was approved by EPA on June 30, 2020 and details strategies to move the region towards attainment of the federal PM2.5 standards. More information is available at: http://valleyair.org/pmplans. This plan is also discussed in further detail in Chapter 3.

Ozone: Ozone is a regional air pollutant that is formed through complex chemical reactions in the atmosphere. In contrast, PM2.5 concentrations are the result of both local and regional emissions, and reducing localized emissions of PM2.5 can reduce disparities in exposure experienced in communities with high cumulative exposure burdens. CARB Office of Community Air Protection guidance states that, because

ozone formation is driven by regional rather than localized source contributions, ozone should be addressed in regional air quality improvement efforts through the State Implementation Plan. Therefore, ozone and related precursors have not been addressed as a part of this CERP development. The District's current plan for attainment of health-based ozone standards throughout the San Joaquin Valley Air Basin can be found here: http://valleyair.org/Air_Quality_Plans/Ozone_Plans.htm

Toxic air contaminants: Toxic air contaminants (TACs) also contribute to a community's cumulative exposure burden. Exposure to TACs can increase the risk of acute and chronic health impacts as well as cancer. Diesel particulate matter is a large concern in areas with high exposure to diesel engine emissions, such as the community of Stockton AB 617 Community. Other toxic air contaminants can contribute to localized health risks, including metals; air toxics related to fossil fuel production, such as benzene and toluene; and compounds associated with combustion, including polycyclic aromatic hydrocarbons and dioxins. The California Office of Environmental Health Hazard Assessment (OEHHA) establishes threshold concentrations for toxic air contaminants at which exposure is not expected to trigger non-cancer health effects. For carcinogens, OEHHA guidance states that there are no safe exposure thresholds. Reducing emissions in the community will be based on identifying technologies and practices that offer the maximum level of toxic air contaminant emissions reductions achievable to address both types of health effects

With the support of community members, this CERP will build upon regional efforts to improve air quality throughout the Valley Air Basin. The Stockton AB 617 Community CERP focuses on reducing emissions of and exposure to PM2.5 and toxic air contaminants from localized sources that contribute to cumulative exposure burdens within the community. Pollution reduction strategies, targets, goals, and metrics included in this CERP have been developed in accordance with these health-based air quality objectives and are presented in more detail in Section 4 of this document.

2. COMMUNITY PARTNERSHIPS AND PUBLIC ENGAGEMENT

Meaningful community engagement, significant outreach and a robust public process have guided the development of this Community Emissions Reduction Plan (CERP). Key features of these efforts undertaken by the Community Steering Committee and the District include:

- Community advocates hosted an in-person tour with community residents for District hosted kick-off meeting and conducting initial public outreach; establishing a Community Steering Committee
- District staff and CARB staff to be introduced to the community (Figure 2-1)
- Due to the COVID-19 pandemic, District staff worked with community residents and organizations to develop a virtual community tour for District, CARB staff, and others to be introduced to the community and the air quality challenges they face (https://youtu.be/UuQuoSy26x4)
- Used a co-host model to set agendas and meeting logistics
- Held monthly facilitated, bilingual (English and American Sign Language) in-person (prior to March 2020) and virtual meetings (due to COVID-19)
- Live-streamed and recorded all CSC meetings:
- (http://community.valleyair.org/selected-communities/stockton/steering-committee-meetings/)
- Surveyed needs and resources of the CSC members and then transitioned to virtual meetings and community engagement due to COVID-19,
- Provided materials via email, mail and a AB 617 community webpage; Developed a Resident member stipend program and implemented it retroactively to the first official CSC meeting to encourage participation in regular meetings
- Produced and posted on the District's Stockton Community webpage a virtual tour of the community, which highlighted the voices of community residents and CSC members as they discussed the challenges facing community residents
- Used interactive online survey tool such as Survey Monkey and Social Pinpoint to encourage active participation and to develop visual aids to share information to the CSC; and
- Shared presentations by the District, CSC members, CARB staff, Port of Stockton, and the City of Stockton

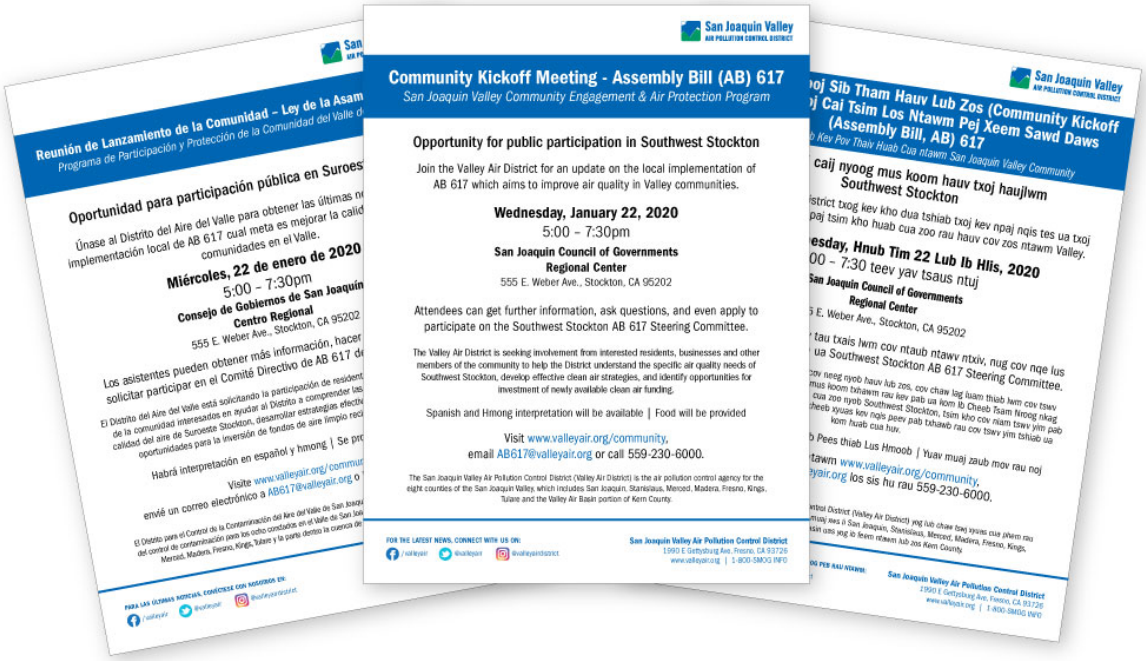
Figure 2-1 Introductory Tour Hosted by Community Advocates and Residents

In addition, numerous interactions between Community Steering Committee members and District staff occurred in one-on-one or small group meetings allowing for in-depth discussions on joint development of the CERP. See the community webpage (http://community.valleyair.org/selected-communities/stockton/) for more details.

2.1 COMMUNITY KICK-OFF MEETING

Between October 2019 and January 2020, District staff worked in collaboration with local Environmental Justice organizations to conduct multilingual outreach targeted at the Stockton AB 617 Community zip codes to encourage attendance at the official kick-off meeting in January 2020. The District provided $5,000 for a program to provide mini-grants to local Environmental Justice organizations to support on-the-ground outreach designed to inform the community of AB 617 and encourage residents to apply to be members of the CSC. In addition, the District distributed trilingual flyers (Figure 2-2) to local media, schools, agencies, and non-profit organizations; and invested over $8,000 in social media and print advertisements targeted at the Stockton AB 617 Community zip codes to encourage kick-off meeting participation.

Figure 2-2 Trilingual Community Flyers Distributed

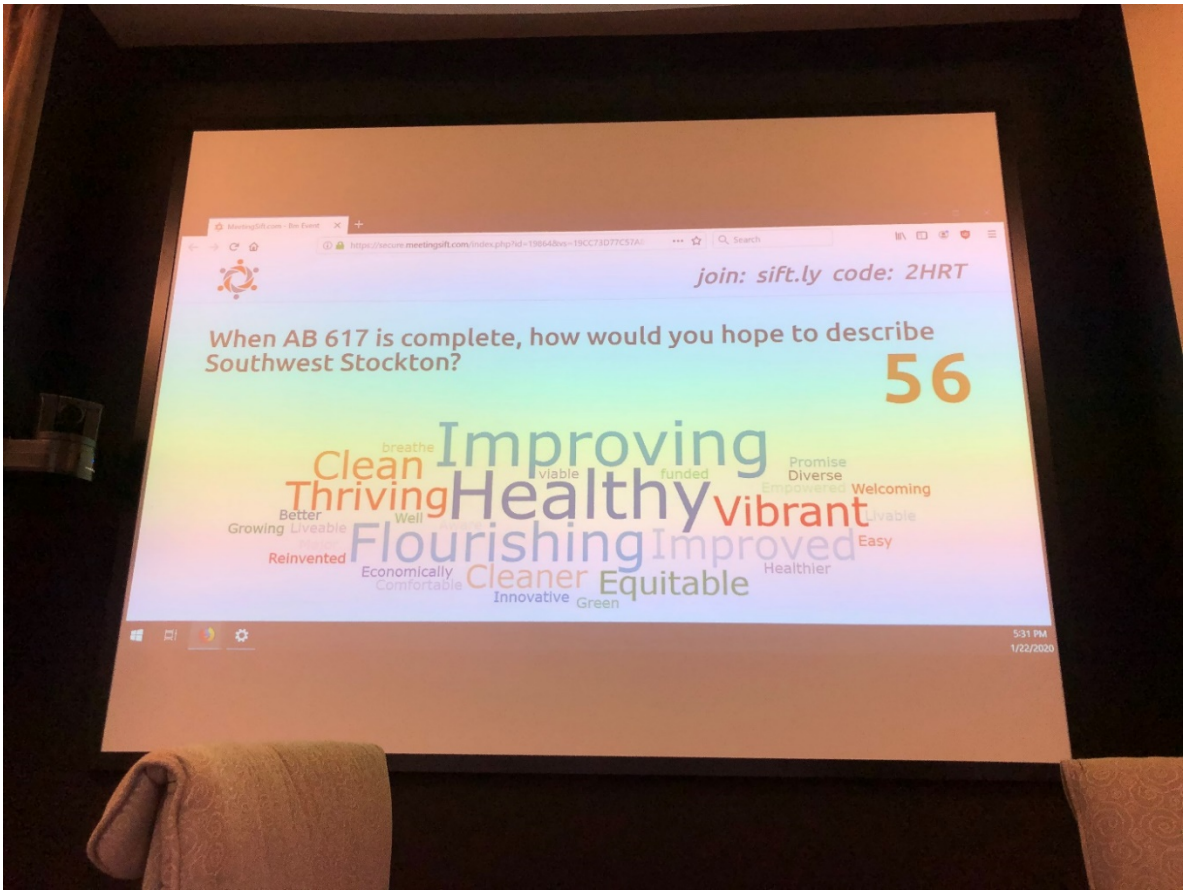


The Community Kick-Off Meeting in the Stockton AB 617 Community was held on Wednesday, January 22, 2020, at the San Joaquin Council of Governments Regional Center (Figure 2-3).

Figure 2-3 Stockton AB 617 Community Kick-off Meeting

Approximately 100 people attended the meeting. In addition to information about AB 617, attendees were invited to participate in an interactive cell-phone based activity to express the community's hopes for the AB 617 program (Figure 2-4).

Figure 2-4 Stockton AB 617 Community Kick-off Meeting Interactive Activity



Attendees were also invited to visit booths, which provided information about monitoring technology, school outreach and District incentive programs. Spanish and Hmong interpretation was provided for the meeting. Community members were encouraged to apply to be on the Stockton AB 617 Community Steering Committee at the Kick-off meeting, and additional time was given for individuals to apply via email or mail.

2.2 COMMUNITY STEERING COMMITTEE

COMMUNITY STEERING COMMITTEE MAKE-UP

Of the 44 individuals who applied to be on the CSC, the final committee consists of 26 community residents; 13 individuals representing environmental justice organizations working in the community, health care organization, educational entity, or a business within the community; and five non-voting government officials. In addition to the regular CSC members, several have alternates should they be unable to attend. A full roster of membership is available at http://community.valleyair.org/selected-communities/stockton/steering-committee-documents/ and in Table 2-1.

Table 2-1 Stockton AB 617 Community Steering Committee Members

Stockton Community Steering Committee (as of Feb. 17, 2021)				
Primary First Name	**Last Name**	***Alternate***	**Affiliation**	**Sector**
Steering Committee Members				
Gloria E.	Alonso Cruz		Resident	
Kevin	Amen		St. George Parish Church	Faith-based Organization
Irene	Calimlim	*Paige Tengeluk*	Fathers & Families of San Joaquin	EJ Advocate
Silvia	Cantu		Washington Elementary	Works in the Community
Maria	Cardenas		Resident	
Nayeli	Cruz Gomez		Resident	
Robyn	DeGuzman	*Brianna Rubio*	San Joaquin County Public Health Services- Health Promotion	Government
Mary	Elizabeth		Resident	
Jennifer	Flores	*Pandora Crowder*	Resident	
Eugene	Fuss		Resident	
Noehmi	Garcia Jauregui		St. George Parish School	Faith-based Organization
Catherine	Garoupa White	*Cynthia Pinto-Cabrera*	Central Valley Air Quality Coalition	EJ Advocate
Regina	Griffin		Resident	
Paulette	Gross		Resident	
Nicholas	Hatten		Resident	
Matt	Holmes	*Dillon Delvo*	Little Manila Rising	EJ Advocate
Karl E. "Nate"	Knodt		Resident	
Tina	Lau		Lehigh Southwest Cement-Terminal	Business in the Community
Arlene	Galindo	*Cynthia Lau*	Café Coop	EJ Advocate
Ned	Leiba	*Michaela Alioto*	Resident	
Mariah	Looney	*Barbara Barrigan-Parrilla*	Restore the Delta	EJ Advocate
Anthony	Macias Jr.		Resident	
Missy Rae	Magdalera		Resident	
Maria	Mendez		Stockton Unified School District	School Board
Bianca	Mendoza		Resident	
Victoria	Moreno		Resident	
Vanessa	Palomares	*Rita Valdez*	Resident	
Stacey	Panyasee		Resident	
Eric	Parfrey		Resident	
Margo	Praus		Resident	
Deby	Provost		Resident	
Jonathan	Pruitt		Catholic Charities of the Diocese of Stockton	EJ Advocate
Florence	Quilantang		Resident	
Albert	Rivas	*Grant Kirkpatrick*	City of Stockton	Government
Lenard	Seawood		Resident	
Kenda	Templeton		Promotores Unidas para la Educacion Nacional de Tecnologias Sostenibles (P.U.E.N.T.E.S)	EJ Advocate
Glenabel	Toreno		Resident	
Esperanza	Vielma	*Rochelle Shaw*	Environmental Justice Coalition for Water (EJCW)	EJ Advocate
Douglas	Vigil		Resident	
Ed	Ward		Valley Pacific Petroleum Services	Business in the Community
Taylor	Williams		Resident	
Jeff	Wingfield		Port of Stockton	Government
Facilitators				
Kim	Danko		Institute for Local Government	
Erica	Manuel		Institute for Local Government	
Hanna	Stelmakhovych		Institute for Local Government	
Agency Staff				
Heather	Heinks		Valley Air District	
Jaime	Holt		Valley Air District	
Jessica	Olsen	*Jason Lawler*	Valley Air District	
Skott	Wall		California Air Resources Board	
Nzong	Xiong		Valley Air District	

Prior to the COVID-19 pandemic, the CSC was able to meet in person once and since transitioning to virtual meetings, the CSC has met monthly beginning in April 2020. To ensure successful CERP development, residents, businesses, non-profits, organizations, and other stakeholders within the Stockton community have been fully engaged in CSC meetings. To ensure full engagement by all CSC members, the District assessed language translation needs and determined that there was a need to provide American Sign Language translation at each of the meetings. Commitment demonstrated by the District and CSC members to ensure full and active participation in meetings including:

- Monthly agenda-setting meetings with District, community co-hosts, interested CSC members, CARB staff, and third-party facilitators to collectively set expectations and plan for upcoming CSC meetings
- Real-time interpretation services in all necessary languages
- Expert presentations from partner agencies such as CARB, Port of Stockton, City of Stockton, District staff, and CSC members
- Comprehensive and dedicated Stockton community webpage with tools to view community boundary, committee charter, virtual tour, meeting agendas, sources of community concern, emissions inventories, and other resources
- Neutral meeting facilitation to ensure meetings are inclusive and neutral by bringing out different points of view and preventing individuals from monopolizing discussions
- Through March 2020:
    - Monthly evening meeting at a convenient location in the community
    - Child activity areas and dinner for all attendees
    - All meeting materials in hardcopy and via the comprehensive Stockton community website
- Since April 2020:
    - Monthly evening meetings via Zoom, with technical assistance provided to residents and stakeholders upon request
    - Continued real-time interpretation services through ASL interpreter at each meeting
    - Meeting materials posted ahead of meeting
    - Extra meetings to discuss topics or concerns Community Steering Committee members have
    - Provided laptops and internet service to resident CSC members without these tools to ensure all CSC members have equal opportunities to fully participate

In addition, the District has taken steps over the past several months to better serve CSC members and encourage their active engagement in the meetings and CERP development process. Ensuring effective steering committees requires substantial investment in the form of committee member time, District staff and other resources to schedule, organize, and facilitate frequent after-hours public meetings.

Figure 2-5 Facilitation at a Stockton AB 617 Community Steering Committee meeting

Visit http://community.valleyair.org/selected-communities/stockton/steering-committee-meetings/ for full documentation of meeting dates, agendas, materials and summaries.

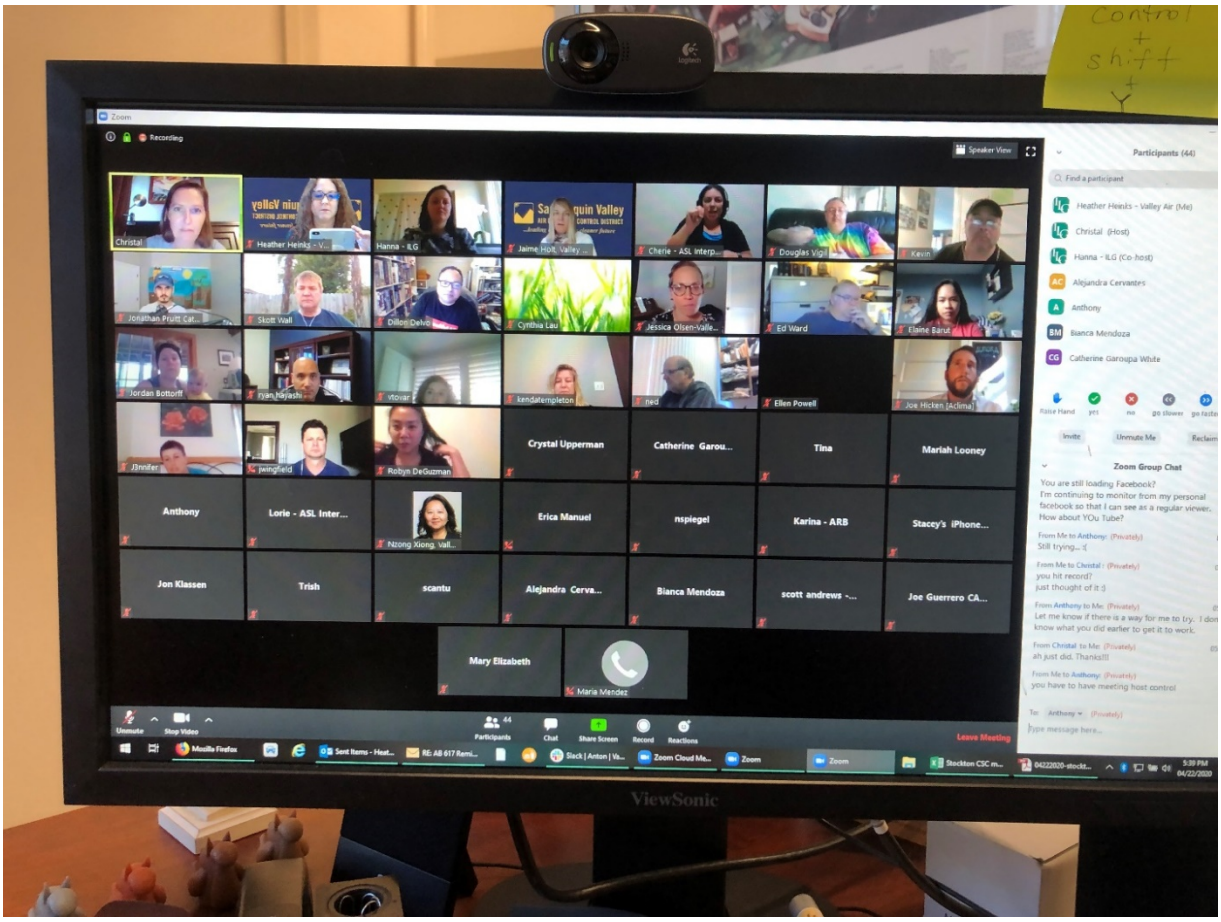
RESPONSE TO COVID-19 STATE OF EMERGENCY

On March 19, 2020, responding to the growing threat of COVID-19 in the state, California Governor Newsom issued Executive Order N-33-20 directing all individuals living in the State of California to stay home except as needed to maintain continuity of operations of the federal critical infrastructure. The result of this order was that the Stockton Community Steering Committee could no longer continue to meet in person.

To address this challenge and to continue moving forward with the important work of developing the Stockton CERP, District staff developed and sent an online survey to all the Stockton Community Steering Committee members to assess the members' ability and willingness to meet virtually. District staff followed up with phone calls to those members that could not complete the survey or who had indicated technological limitations or concerns on the survey to fully understand CSC members' ability to participate in virtual meetings. In addition, District staff, CARB, our Environmental Justice Partners serving on

the committee, and our AB 617 facilitator had multiple conference calls to discuss the challenges related to COVID-19, the results of the surveys and potential solutions based on the Stockton Community Steering Committee member feedback. All the Stockton Community Steering Committee members indicated a strong desire to continue implementing AB 617 and subsequently adopted the use of the online meeting application, Zoom, to meet virtually.

Figure 2-6 Stockton Community Steering Committee Meeting via Zoom



In April 2020, based on these discussions and the results of the surveys, we held a virtual practice meeting via Zoom and via phone with the Stockton Community Steering Committee. During the practice call, the District addressed issues such as ASL interpretation needs and explained how the Stockton Community Steering Committee would use the various available features to provide a high level of discussion and engagement. In addition, the District invested in the online mapping tool Social Pinpoint to facilitate community input in a virtual setting.

COMMUNITY PARTICIPATION AND NEW RESIDENT STIPEND PROGRAM

The Stockton Community Steering Committee meet regularly, requiring ongoing participation and a significant time commitment from community residents, business owners, and other stakeholders. In most cases, steering committee meetings occur in the

evenings and may draw attendees away from their families and other obligations. Community-resident steering committee members are not paid and do not have expenses reimbursed to participate in the process or attend these meetings. Providing stipends to help cover some time and expenses associated with attending meetings is an important way to support this critical participation and encourage sustained and meaningful community engagement throughout these processes. Toward that end, and in response to several residents and community advocates on the Stockton Community Steering Committee, CARB developed new statewide guidance encouraging districts to work with steering committees in developing stipend programs for resident members of steering committees.

On August 20, 2020, the District Governing Board responded to the community needs and approved District staff's recommendation to provide stipends to eligible resident steering committee members, effective retroactively for participation beginning on January 1, 2020. Under the stipend program developed by District staff in consultation with CSC stakeholders across all San Joaquin Valley AB 617 communities, residents who participate as community steering committee members, who do not receive compensation for their attendance at such meetings, may request a stipend to offset the cost of participating in each regular Community Steering Committee meeting. Eligible residents may receive a $75 stipend per Community Steering Committee meeting when their attendance is verified on the meeting roll-call list or sign-in sheet and were present for at least 75% of the scheduled meeting (equivalent to missing up to 30 minutes of a scheduled 2 hour meeting). Residents will receive stipends for attending up to fifteen (15) Community Steering Committee meetings in a calendar year, for a total cost of up to $1,125 per year. The stipends for resident steering committee members are subject to the availability of state AB 617 funding and approved allocation in the District's Budget on an annual basis.

Figure 2-7 Resident Stipend Enrollment Form

INSTITUTE FOR LOCAL GOVERNMENT℠

San Joaquin Valley AIR POLLUTION CONTROL DISTRICT

AB 617 Community Air Protection Program
Resident Stipend Enrollment Form

Member Info

First and Last Name

Mailing Address | City | State | Zip Code

(Please ensure your mailing address is correct as your stipend check will be sent to this address)

E-mail Address | Preferred Phone # | Is this a cell phone? ☐ Yes ☐ No

Preffered Contact Method *(check one or two)*: ☐ Phone ☐ Text ☐ Email ☐ Mail

(Note: stipend payment will be via check sent to your mailing address listed above)

Verify

By signing below, I certify that the following information is true, accurate, and complete to the best of my knowledge:

- I am a resident of a AB 617 selected community and serve as a Resident member of the Community Steering Committee
- I understand that I must be present for 75% of any regularly scheduled Community Steering Committee meeting (equivalent to participating in at least 1 hour and 30 minutes of a scheduled 2 hour meeting)
- I have read and agree with the information contained in the Resident Stipend Policy
- I am not an employee of the Valley Air District or the Institute for Local Government
- I give my consent to the Valley Air District to use the information on this Enrollment Form for the purpose of contacting me regarding matters related to the AB 617 Community Steering Committee and determining my stipend eligibility

Signature | Date

Submit

Submit application to the Institute for Local Government via e-mail at *kjensen@ca-ilg.org*

See Appendix A for full documentation of meeting dates, agendas, materials, attendance and summaries.

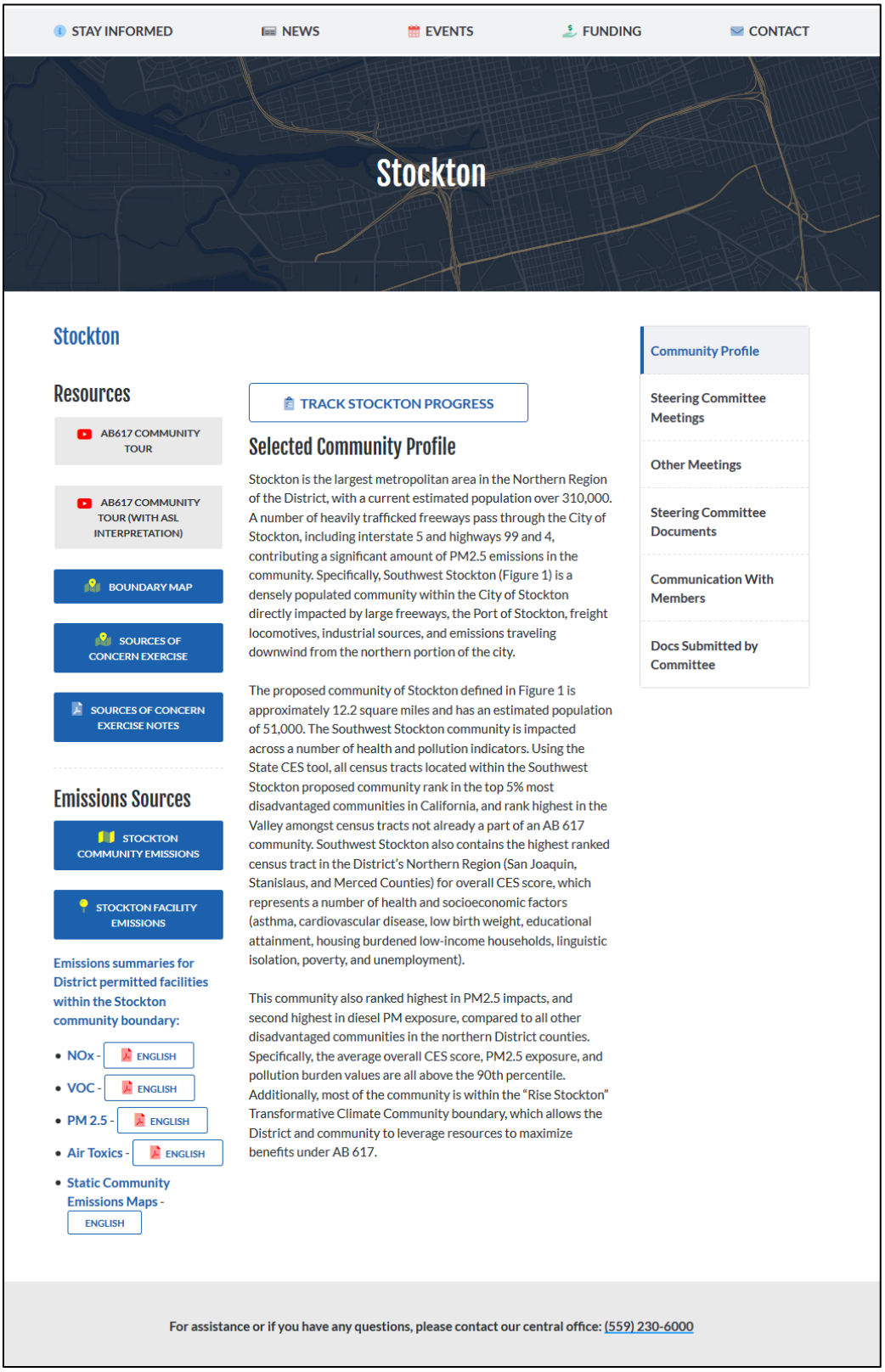
2.3 COMMUNITY STEERING COMMITTEE CHARTER

A Charter was developed in consultation with the Stockton AB 617 Community Steering Committee members and a draft was presented to the members at Meeting #1, in March 2020. The Charter and a potential expansion to the community boundary to include the areas of Stockton identified by community members was discussed and approved at the March meeting. The final Charter can be found in Appendix B, and at http://community.valleyair.org/media/1631/03102020_stockton-charter_final_en.pdf. The final Boundary can be found at http://community.valleyair.org/media/1615/03042020_southwest-stockton-boundary.pdf.

2.4 STOCKTON COMMUNITY WEBPAGE

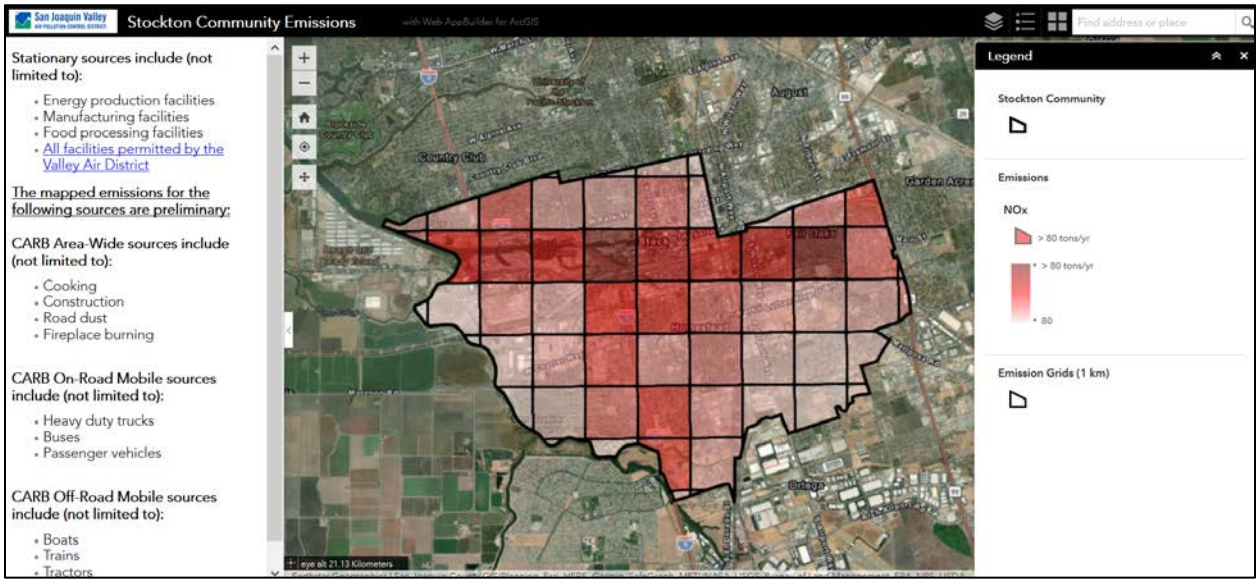
A community webpage has been created for the Stockton AB 617 Community, and is regularly updated with new information (http://community.valleyair.org/selected-communities/stockton/). The webpage includes information about upcoming meetings, meeting materials (flyers, agendas, presentations, handouts, audio and video links, chat transcripts, meeting summaries), interactive maps, CSC roster, committee charter, membership processes, Community Air Monitoring Plan (CAMP), and CERP documents. A screenshot of the community webpage is shown in Figure 2-8.

Figure 2-8 Stockton AB 617 Community Webpage



In addition to being a portal for access to meeting materials and documents, the webpage also includes interactive maps that present data about the community (https://sjvapcd.maps.arcgis.com/apps/webappviewer3d/index.html?id=6a8b2a34b0c14748aaee1c69c71c940c). Figure 2-9 is an example of an interactive map that was created for the Stockton AB 617 Community. These interactive maps provide data on land use, locations of facilities, schools, hospitals, and the air quality concerns identified by the Stockton AB 617 Community Steering Committee and members of the public. This information was provided to help inform and to develop air quality priorities for the CERP.

Figure 2-9 Interactive Map Created for Stockton AB 617 Community Steering Committee



2.5 COMMUNITY PARTNERS

After the Stockton AB 617 CSC identified priorities for the community, partner agencies, and organizations were invited to the meetings to provide updates, input, and presentations on current and future efforts to the work goals of AB 617. CARB staff attended meetings regularly and provided information and updates to the committee. The City of Stockton also attended regularly and provided an update on planning efforts in the community and the TCC program. The City of Stockton agreed to coordinate the TCC program efforts and AB 617 program to leverage the goals of each to best benefit the residents of the Stockton community. Presentations from various CSC members were also an important part of the CERP development process as they provided key insight to the concerns and challenges facing residents of the community. The efforts of the Sierra Club, Little Manila Rising, the Port of Stockton, and others were all presented to the CSC to help provide background information to the participants, highlighting the strengths and challenges of the community.

2.6 ADDITIONAL COMMUNITY ENGAGEMENT

Since late 2020, the CSC and District staff have worked to engage and educate the public with regard to AB 617 and the efforts being made in the Stockton AB 617 Community. Meetings between community members, environmental justice organizations, industry, agency representatives, and other stakeholders have occurred to provide assistance and/or prompt responses to concerns raised regarding the AB 617 process. District staff and CSC members also attended and often made presentations at city and county government meetings, the District's Environmental Justice Advisory Group meetings, the District's Citizens Advisory Committee meetings, the District's Governing Board meetings, environmental justice meetings, and industry professional group meetings to promote participation in the development of the CERP and once completed the implementation of the CERP. In addition, staff often discussed AB 617 at media interviews and during outreach events and health fairs. A full list of outreach efforts is available in Appendix A.

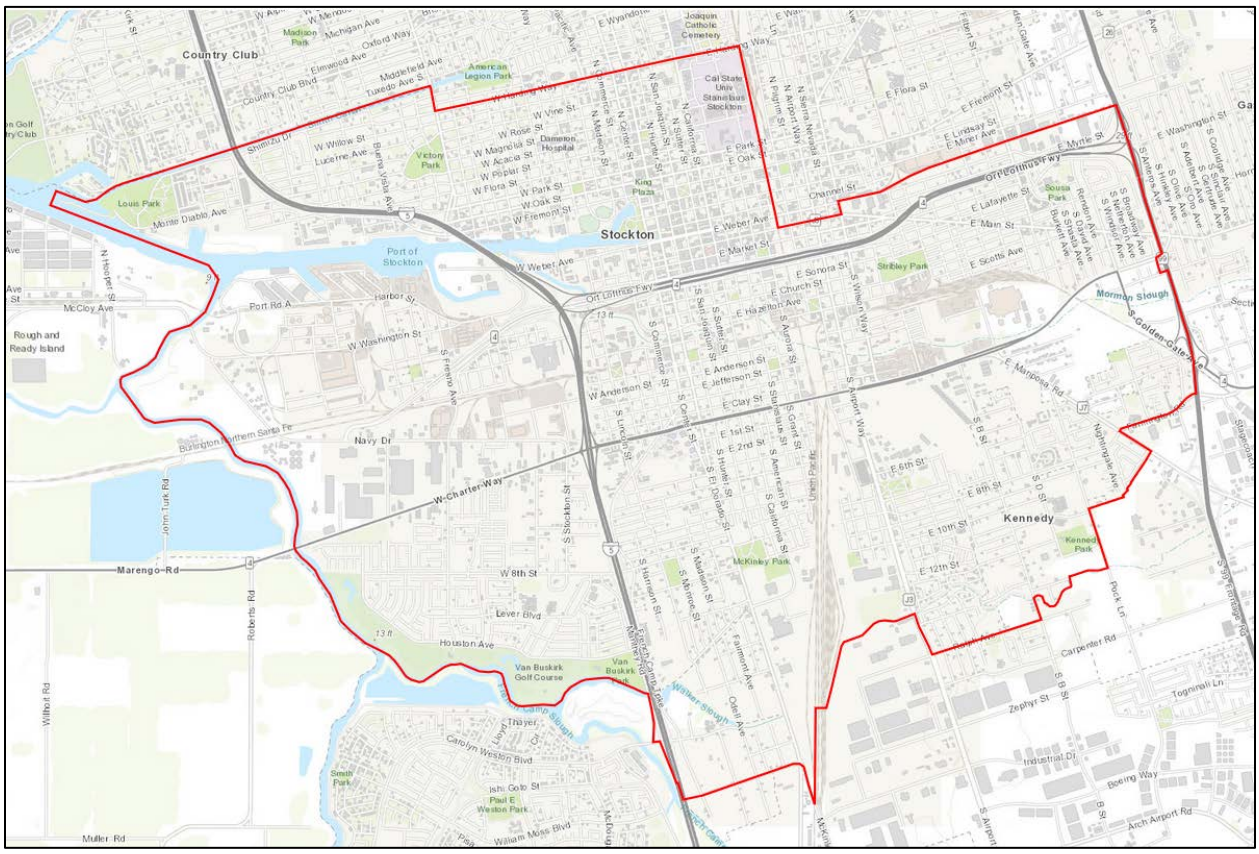
The Stockton AB 617 CSC will continue to work to implement the CERP actions after its adoption by the District Governing Board and the CARB Board, and to provide periodic community updates on implementation progress. Community engagement is essential to the success of the CERP as well as the AB 617 program as a whole, and all parties are committed to build and improve upon existing outreach efforts in the coming months and years.

3. UNDERSTANDING THE COMMUNITY

3.1 COMMUNITY PROFILE

Stockton is the largest metropolitan area in the Northern Region of the District, with a current estimated population over 310,000. A number of heavily trafficked freeways pass through the City of Stockton, including interstate 5 and highways 99 and 4, contributing a significant amount of PM2.5 emissions in the community. Specifically, southwest Stockton is a densely populated community within the City of Stockton directly impacted by large freeways, the Port of Stockton, freight locomotives, industrial sources, and emissions traveling downwind from the northern portion of the city.

Figure 3-1 Stockton AB 617 Community

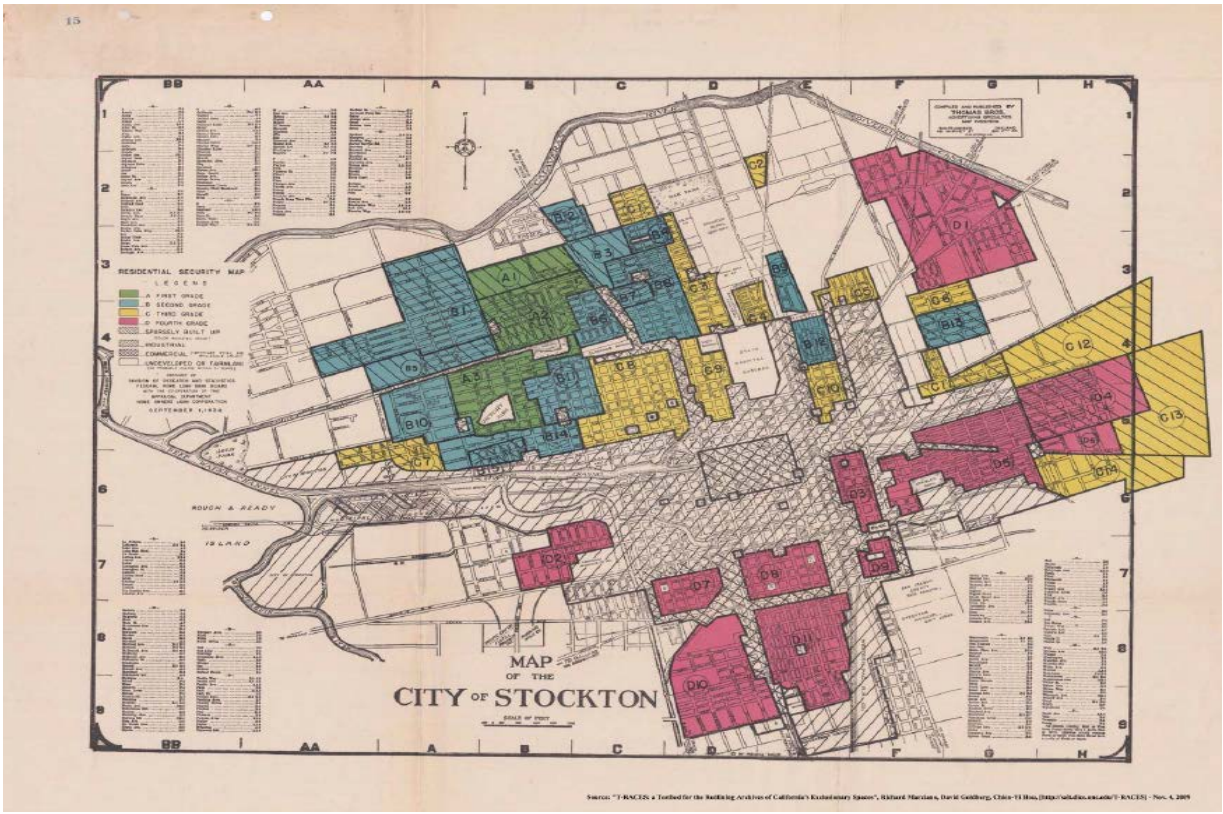


Stockton History

Prior to the 1870s, San Joaquin County lacked access to water for agriculture. The promise of local agriculture resulted in capital investments being made to increase the levels of agriculture in San Joaquin County between 1870-1910. Lack of technological innovation forced agricultural interests to recruit labor globally. People of color, such as Chinese, African-Americans from the South, Japanese, Punjabis, Flilipinos, and Mexicans, were forced into labor by employment segregation. Beginning in the late 19th

Century, racially restrictive housing covenants were written into housing deeds to restrict people of color into living in certain zones of the city. These covenants were written into property deeds by developers looking to inflate the values of their homes. Examples of this practice in Stockton was the exclusion of African-American, Indian, Mexican, and Filipino communities south of Main Street and west of Wilson Way. Beginning in the 1930s, the Federal Housing Administration created maps to guide mortgage investment. Intentionally, these maps directed investments away from communities of color, which were deemed risky for investment. This practice is known as “redlining” because the neighborhoods were designated as the color red. Figure 3-2 shows the 1938 Residential Security Map for the City of Stockton.

Figure 3-2 Home Owners’ Loan Corporation Residential Security Map (1938)



Although the racial practice was banned in 1968’s Fair Housing Act, the years preceding contributed to both the built environment and unequal distribution of wealth in the United States today. In the 1930-1940, Stockton experienced huge growth in local industry. Built in 1931 and opened in 1933, the Port of Stockton became the City’s first major industrial center for logistics purposes. Between 1933 and 1940, it grew faster than any port in the U.S. History, doubling tonnage every fiscal quarter. The Port’s success led to business interests in Stockton being perfectly centered for logistical industries, or industries focused on the transportation of products. With the anticipation of future growth in residents and commerce, the City of Stockton actively lobbied for the construction of freeways in Stockton. Between 1955 and the 1970s, I-5, Highway 99, and Highway 4 crosstown freeway were constructed intentionally near low-income

“redlined” communities to reduce the costs of eminent domain. In the 1970s, the construction of the Highway 4 Crosstown freeway demolished a significant portion of the Filipino American

Stockton Air Quality Challenges

The Stockton AB 617 community boundary (Figure 3-1), as designed and approved by the CSC, is approximately 16 square miles and has an estimated population of 132,000. The AB 617 Stockton community is impacted across a number of health and pollution indicators. Using the State CalEnviroScreen (CES) tool, all census tracts located within the Stockton community rank in the top 5% most disadvantaged communities in California. Stockton also contains the highest ranked census tract in the District’s Northern Region (San Joaquin, Stanislaus, and Merced Counties) for overall CES score, which represents a number of health and socioeconomic factors (asthma, cardiovascular disease, low birth weight, educational attainment, housing burdened low-income households, linguistic isolation, poverty, and unemployment).

This community also ranked highest in PM2.5 impacts, and second highest in diesel PM exposure, compared to all other disadvantaged communities in the northern District counties. Specifically, the average overall CES score, PM2.5 exposure, and pollution burden values are all above the 90th percentile. Additionally, most of the community is within the “Stockton Rising” Transformative Climate Community boundary, which allows the District and community to leverage resources to maximize benefits under AB 617.

The majority of emissions impacting the Stockton AB 617 Community come from passenger vehicle and heavy-duty truck emissions from major freeways, interchanges, and main regional roads that run through the community.

Figure 3-3 Major Freeways Contribute Significant Mobile Source Emissions in the Community

In addition to the emissions originating from mobile sources in the area, this community also includes industrial development and area-wide sources of pollution such as gas stations, commercial cooking, and consumer products that also contribute significantly to the community's emissions levels.

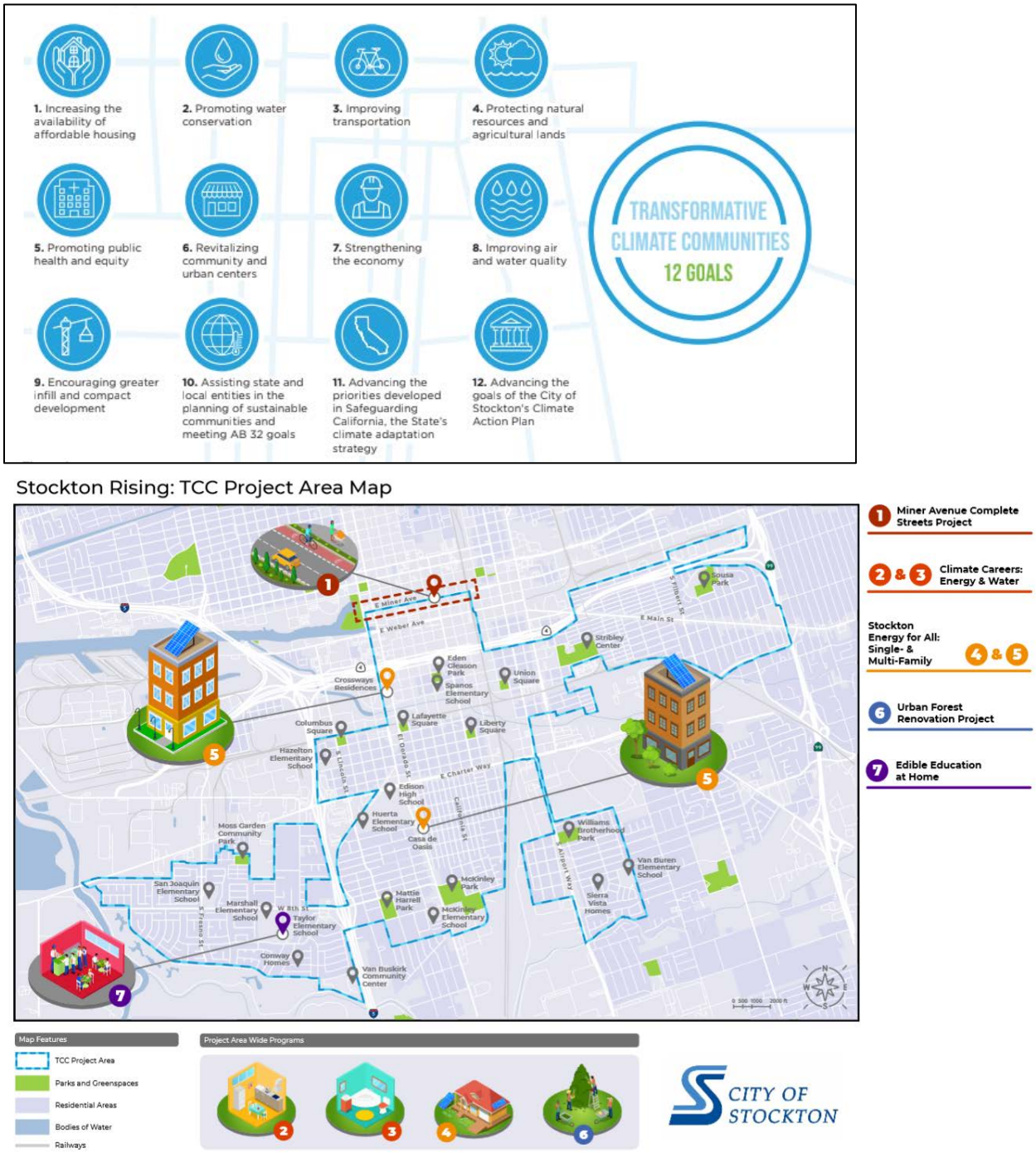
Figure 3-4 Industrial Emissions Sources near Boggs Tract Community

Based on emissions inventory and current air monitoring data in this community, pollutants of concern include particulate matter less than 2.5 micrometers in diameter (PM2.5), Black Carbon (BC), Oxides of Nitrogen (NOx), Carbon Monoxide (CO), Ozone (O_3) and Volatile Organic Compounds (VOCs). A virtual tour of the Stockton AB 617 community, produced by the Community Steering Committee to highlight some the community's challenges can be viewed here: https://www.youtube.com/watch?v=UuQuoSy26x4&feature=youtu.be.
Based on District air quality analysis modeling, the Stockton AB 617 Community was found to have exceeded the 24-hour average PM2.5 concentration prioritization factor levels of 12, 35, 55, and 65 µg/m^3 a total of 120, 18, 4, and 3 days, annually, on average during the 2017-2019 period, respectively. In addition, this community was found to have exceeded the 8-hour average ozone concentration prioritization factor levels of 70, 75, and 84 ppb a total of 15, 7, and 1 days, annually, on average during the 2017-2019 period, respectively. Details about the nature and formation of local air pollution and its adverse health impacts on the community of Stockton AB 617 Community is summarized in Appendix G.

It should be noted that, in addition to selection by CARB for the development of community monitoring and a community emissions reduction program, neighborhoods in the AB 617 selected community were also selected by California's Strategic Growth Council for significant investment. In November 2017, the City of Stockton was awarded a $170,000 Transformative Climate Communities (TCC) Planning Grant by the Strategic Growth Council to support planning activities in the Downtown and South Stockton region. To mobilize this grant Mayor Tubbs' Office, community partners, and the neighborhood residents created the organization Rise Stockton to carry out this work. The Rise Stockton organization worked for nearly a year to develop a The Sustainable Neighborhood Plan https://drive.google.com/file/d/1E-HjKq5m9KHurEMch3tamySu2Xcnjt7L/view to translate community concerns and recommendations into shovel-ready projects.

The policies and projects are centered on twelve Transformative Climate Community Goals, several of which mirror the goals of AB 617 (see Figure 3-5).

Figure 3-5 Stockton's TCC Goals and Project Area Map



The community engagement and planning conducted during the TCC Planning Grant eventually led to the award of a $10.8 million Implementation Grant in June 2020. Leading up to that award, Rise Stockton repositioned itself to broadly coordinate the Environmental Justice and Green Economy work conducted by Stockton community partners.

Due to the factors discussed above, this CERP includes strategies for emission reductions from mobile sources, commercial and industrial sources, and residential sources that contribute to the Stockton AB 617 Community air quality challenges. These strategies focus on measures that will bring additional economic resources to the residents and businesses located in the community, as well as achieving significant local emissions reductions.

3.2 TECHNICAL ASSESSMENT TO UNDERSTAND COMMUNITY POLLUTION IMPACTS

Conducting a technical assessment is a necessary step in community emissions reduction program development. The technical assessment relies on results from a variety of analyses to characterize emissions in the community and inform community emissions reduction program development and implementation. This assessment will provide the baseline from which emissions reductions can be measured.

The source attribution technical approach established by CARB provides a methodology for assessing, identifying, and estimating the relative contribution of sources or categories of sources, including but not limited to mobile, stationary, and area-wide sources, to elevated exposure to air pollution in impacted communities. The District's source attribution analysis is based on the following:

- Assesses the share of mobile, area-wide, and stationary source emissions generated in the community,
- Is based on best available data in order to characterize the contribution of emissions sources in the community,
- Follows one of CARB's recommended source attribution approaches.

Based on the above, the District has implemented CARB's Community Emissions Inventory Approach. The following section discusses the community emissions inventory approach and summarizes emission sources in the community. A detailed community-level inventory and source apportionment are included in Appendix C.

3.2.1 COMMUNITY EMISSIONS INVENTORY APPROACH

A community level emissions inventory estimates air pollutant emissions from mobile sources (e.g., cars, heavy-duty trucks, locomotives), area-wide sources (e.g., fireplaces, outdoor food cooking, fugitive dust), and stationary sources (e.g., gas stations, auto body shops, manufacturing facilities) within the community.

The community level inventory consists of the mobile and area-wide sources spatially allocated in the community and stationary sources. A community emissions inventory is the compilation of criteria pollutant and air toxics emissions data from air pollution sources that are within the community. The community emissions inventory includes emissions of volatile organic compounds / reactive organic gases (VOC/ROG), oxides of nitrogen (NOx), particulate matter of 2.5 microns (PM2.5), and toxic air contaminants (e.g. diesel PM).

3.2.2 COMMUNITY EMISSIONS INVENTORY OVERVIEW

Emissions inventories are estimates of the amount and type of pollutants emitted into the atmosphere by mobile sources, stationary sources, and area-wide sources. Additionally, emission inventories are the foundation for any emission reduction program and provide information on the existing air emissions and related air quality in the community, and support development of emission reduction strategies and future emission targets to improve air quality in the community.

Existing traditional criteria pollutant and air toxics emission inventories (that provide combined coverage of mobile and stationary sources) are generally regional in geographic scale and may not adequately characterize emission impacts at the community-level. Developing community-scale emission inventories for understanding existing baseline emissions and tracking future emission reductions within communities selected for Community Emission Reduction Programs and Community Air Monitoring Plans (CAMPs) is an important piece of AB 617. Information and data collected as part of the CAMP will be available real-time and District staff will be providing regular updates on the analysis of the data which may result in modification to existing or development of new strategies for the CERP.

3.2.3 AGENCY COLLABORATIONS

CARB and District staff worked in parallel to develop a comprehensive set of emissions inventory data for the community. The District worked with stationary source facilities in the community to develop the point source emission estimates. CARB staff developed the community-level emission inventory for mobile and area-wide sources. CARB worked with several State and local agencies such as the Department of Transportation (Caltrans), the Department of Motor Vehicles (DMV), the Port of Stockton, and the California Energy Commission (CEC) to assemble activity information necessary to develop the community-level mobile and area-wide source emission estimates. CARB and District staff conducted a thorough review of the community inventory to ensure that the emission estimates reflect the most recent data for stationary sources, and that estimates for mobile and area-wide sources are based on the most recent models and methodologies.

The emissions inventory also includes future forecasted values. The forecasted community-level emissions inventory is based on the growth profiles for stationary sources, mobile, and area-wide source categories provided by CARB. Forecasted emissions include growth and control factors that reflect historical trends, current conditions, and recent economic and demographic forecasts.

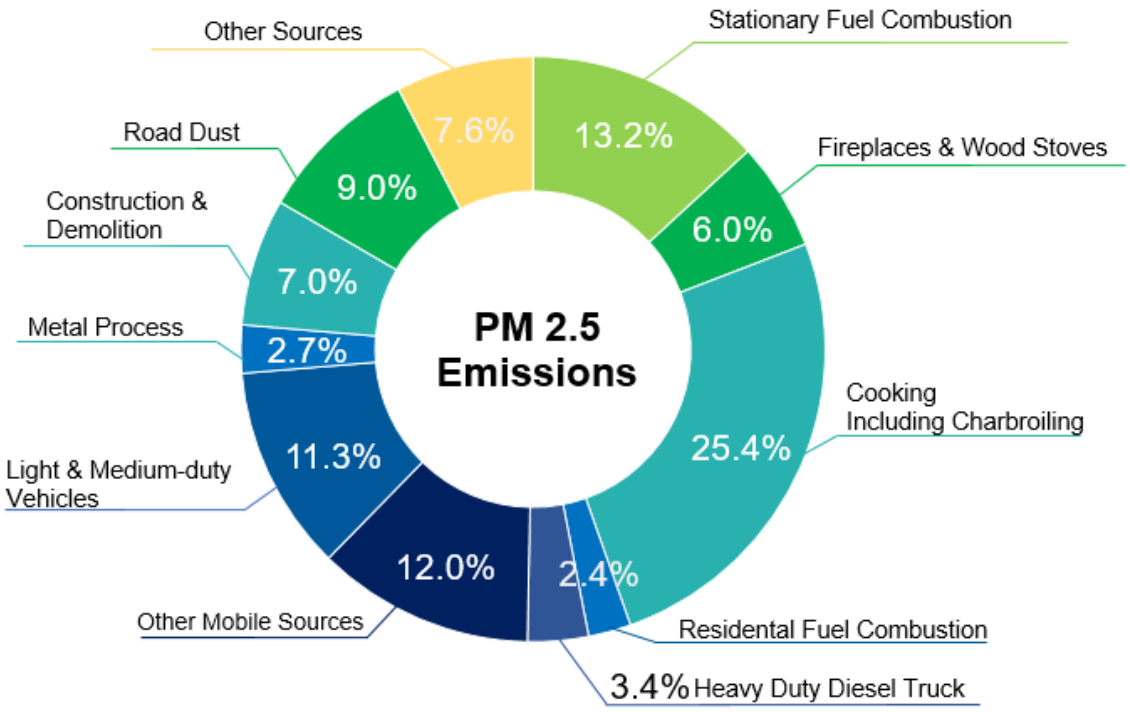
3.2.4 COMMUNITY EMISSION INVENTORY SUMMARIES

What types of sources contribute to air pollution in Stockton?

The largest sources of emissions in and around the community include heavy duty vehicles, medium duty vehicles, and passenger cars, as well as trains, and commercial equipment. Permitted stationary sources regulated by the District in the Stockton AB 617 Community include agricultural commodities storage and transfer operations,

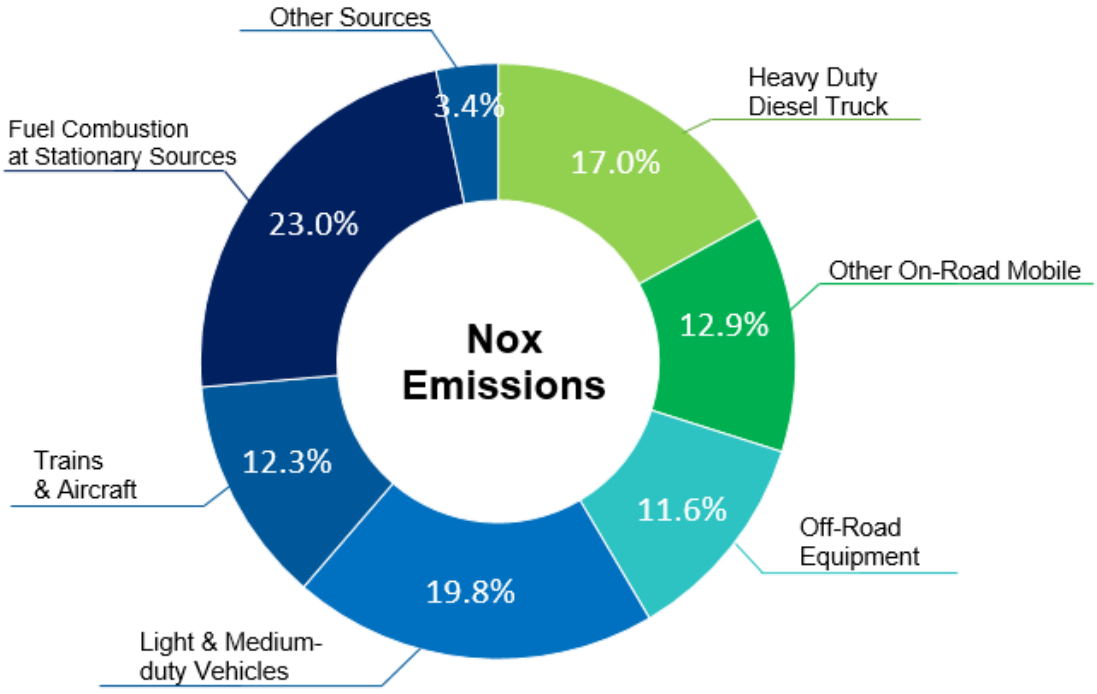
automotive body repair and paint shops, concrete and construction materials manufacturing, electric power generation, motor vehicle coating; bulk fuel storage and transfer terminals, chemical receiving, fabricated metal products; gasoline dispensing operations, government services, municipal water treatment operations, health centers, metal parts coating operations, skilled nursing care facilities, and telecommunications facilities. Paved road dust, residential fuel combustion, construction emissions, and commercial cooking also contribute significantly to the community's emissions inventory.

Figure 3-6 Sources of PM2.5 Pollution in the Community



The largest sources of PM2.5 emissions in Stockton AB 617 Community are cooking and on-road mobile vehicles (light and medium-duty vehicles and heavy-duty diesel trucks). Road dust, stationary fuel sources, construction & demolition, and residential wood burning are also significant sources of PM2.5 in the community. Other sources include aircraft, trains, ocean going vessels, commercial harbor craft, recreational boats, off-road recreational equipment, off-road equipment, fuel storage and handling.

Figure 3-7 Sources of NOx Emissions in the Community



Almost three-quarters of NOx emissions in Stockton AB 617 Community are from mobile sources. On road mobile sources account for 49.7.% of NOx emissions in Stockton AB 617 Community, including 17% of the NOx inventory from heavy duty diesel trucks and 19.8% from light and medium-duty vehicles. Off road mobile sources, including trains, aircraft, and off-road equipment such as yard trucks, produce 23.9% of the NOx emissions in the community. Fuel combustion at stationary sources is also a significant source of NOx emissions in the community. For more specific information, refer to Appendix C (Source Apportionment and Community).

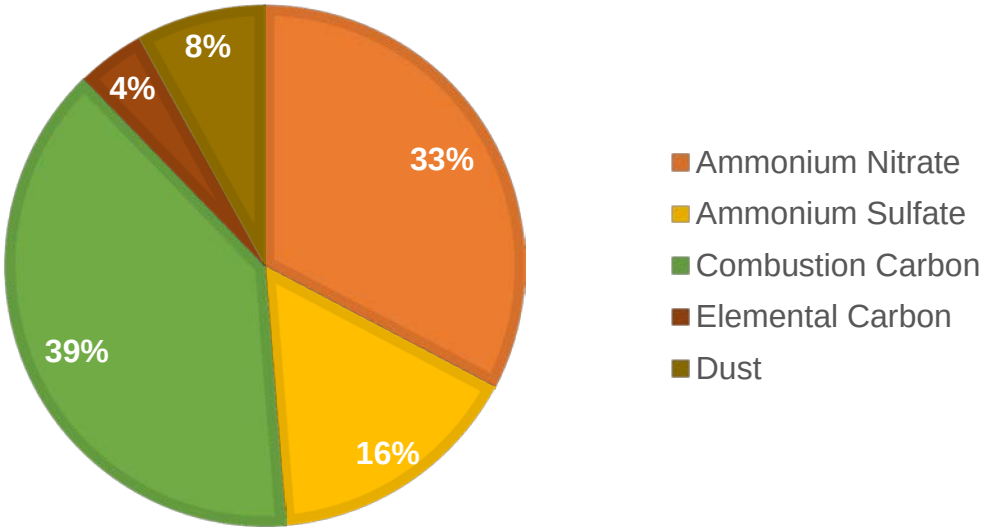
PM2.5 Speciation: What type of PM2.5 is in the ambient air?

PM2.5 in Stockton AB 617 Community is comprised of many species that contribute to the total PM2.5 concentration measured by air monitors, as summarized in Table 3-3 below. This complex mixture is attributable to mobile, stationary, and area-wide sources described above, as well as naturally occurring emissions. Although the list of species contributing to PM2.5 in Stockton AB 617 Community is lengthy, it can be grouped into larger representative categories. The following is a brief description of how each of these larger species categories are formed and emitted into the atmosphere. The following figures show the speciation of PM2.5 in the Stockton Community, based on modeling data.

Table 3-1 Summary of PM2.5 Species

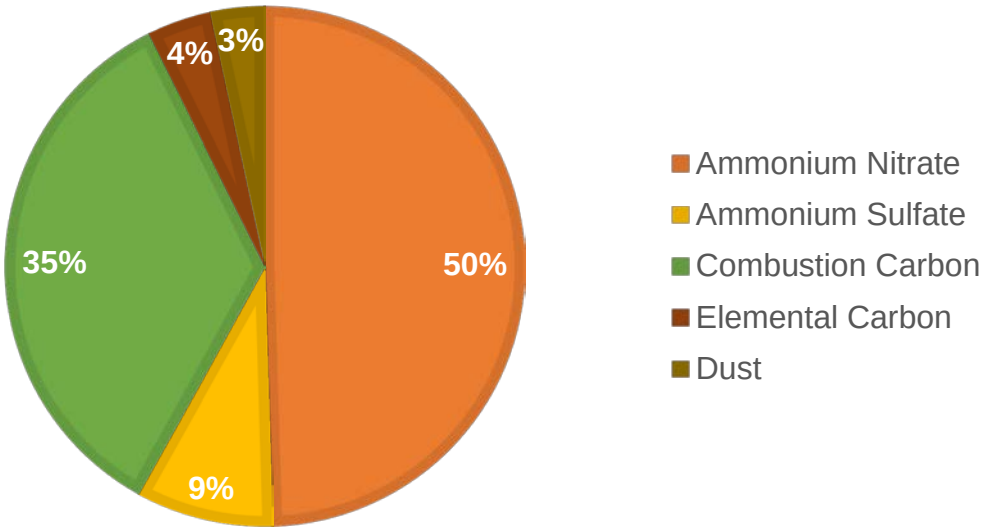
PM2.5 Species	Description
Organic carbon (Combustion Carbon)	Directly emitted, primarily from combustion sources (e.g. residential wood combustion). Also, smaller amounts attached to geologic material and road dusts. May also be emitted directly by natural/biogenic sources.
Elemental carbon	Also called soot or black carbon; formed during incomplete combustion of fuels (e.g. diesel engines).
Geologic material (Dust)	Road dust and soil dust that are entrained in the air from activity, such as soil disturbance or airflow from traffic.
Trace metals	Identified as components from soil emissions or found in other particulates having been emitted in connection with combustion from engine wear, brake wear, and similar processes. Can also be emitted from fireworks.
Secondary organic aerosol	Secondary particulates formed from photochemical reactions of organic carbon.
Ammonium nitrate	Reaction of ammonia and nitric acid, where the nitric acid is formed from nitrogen oxide emissions, creating nitric acid in photochemical processes or nighttime reactions with ozone.
Ammonium sulfate	Reaction of ammonia and sulfuric acid, where the sulfuric acid is formed primarily from sulfur oxide emissions in photochemical processes, with smaller amounts forming from direct emissions of sulfur.
Combined water	A water molecule attached to one of the above molecules. Combined water is not included when measuring mass of PM2.5 for regulatory purposes, and is therefore excluded from the following charts.

Figure 3-8 Species Contribution to Annual Average PM2.5 Concentrations in the Community



Combustion carbon, ammonium nitrate, and ammonium sulfate all are significant species of PM2.5 emissions on an average day in the Stockton AB 617 Community.

Figure 3-9 Species Contribution to Peak Day PM2.5 Concentrations in the Community



As shown in the figure above, peak PM2.5 emission days in the community see a large increase in ammonium nitrate, which is created from the chemical reaction of NOx and ammonia, largely from fuel combustion during multiday stagnation events. However, ammonium nitrate is generally regarded as having relatively low toxicity compared to other PM2.5 species like elemental carbon.

How will the community inventory change in the future?

The tables and graphs below summarize the total Stockton AB 617 Community emissions inventories for years 2018, 2025, and 2030: These graphs show the proportion of PM2.5, NOx, and VOC emissions that originate from stationary, area, and mobile sources of emissions. The projected inventories take into account the projected emissions from regional transportation plan projects and compliance with regulatory deadlines. The following figures show how the Stockton AB 617 Community-level inventory is expected to change into the future in years 2025 and 2030.

Figure 3-10 2018 Stockton AB 617 Community Emissions Inventory

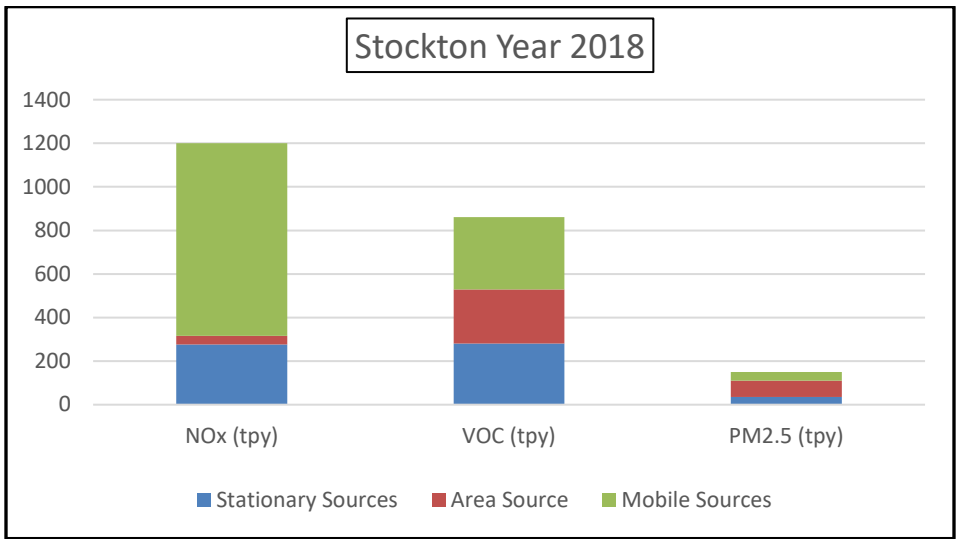


Table 3-2 2018 Stockton AB 617 Community Emissions Inventory (updated)

Source Categories	NOx (tpy)	VOC (tpy)	PM2.5 (tpy)
Stationary Sources	276.4	281.1	34.9
Area Source	40.2	247.6	75.1
Mobile Sources	884.1	332.1	40.2

Figure 3-11 2025 Projected Stockton AB 617 Community Emissions Inventory

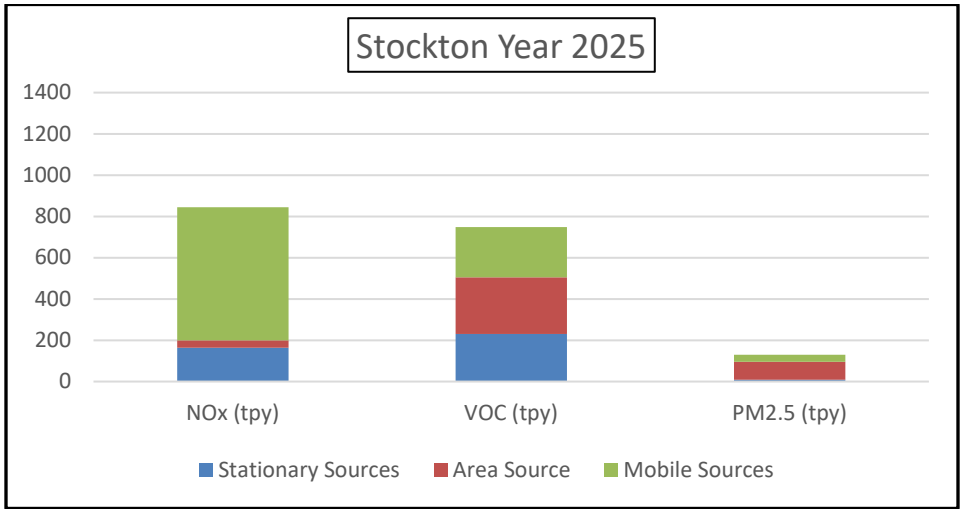


Table 3-3 2025 Projected Stockton AB 617 Community Emissions Inventory

Source Categories	NOx (tpy)	VOC (tpy)	PM2.5 (tpy)
Stationary Sources	163.4	231.0	8.3
Area Source	36.9	273.7	87.9
Mobile Sources	643.7	244.6	33.3

Figure 3-12 2030 Projected Stockton AB 617 Community Emissions Inventory

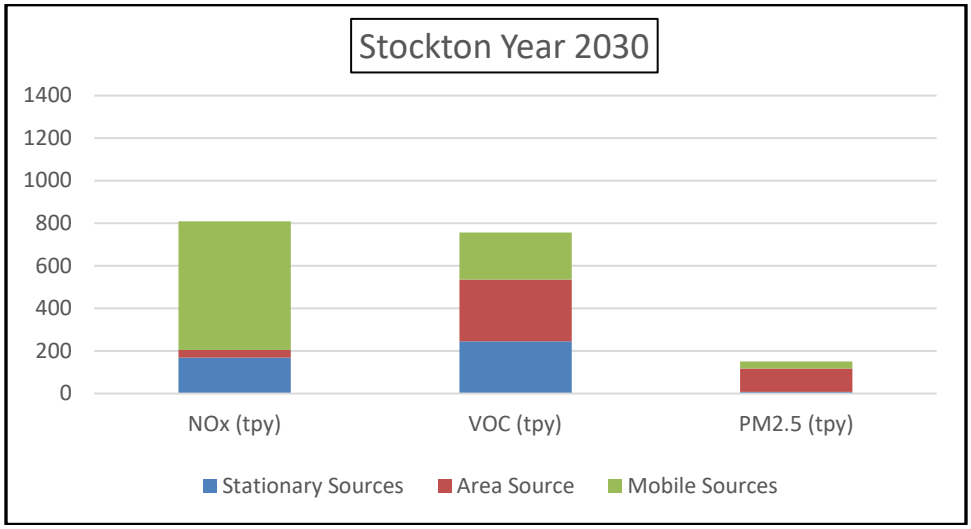


Table 3-4 2030 Projected Stockton AB 617 Community Emissions Inventory

Source Categories	NOx (tpy)	VOC (tpy)	PM2.5 (tpy)
Stationary Sources	169.0	244.9	8.7
Area Source	35.7	290.5	109.1
Mobile Sources	605.4	220.8	33.2

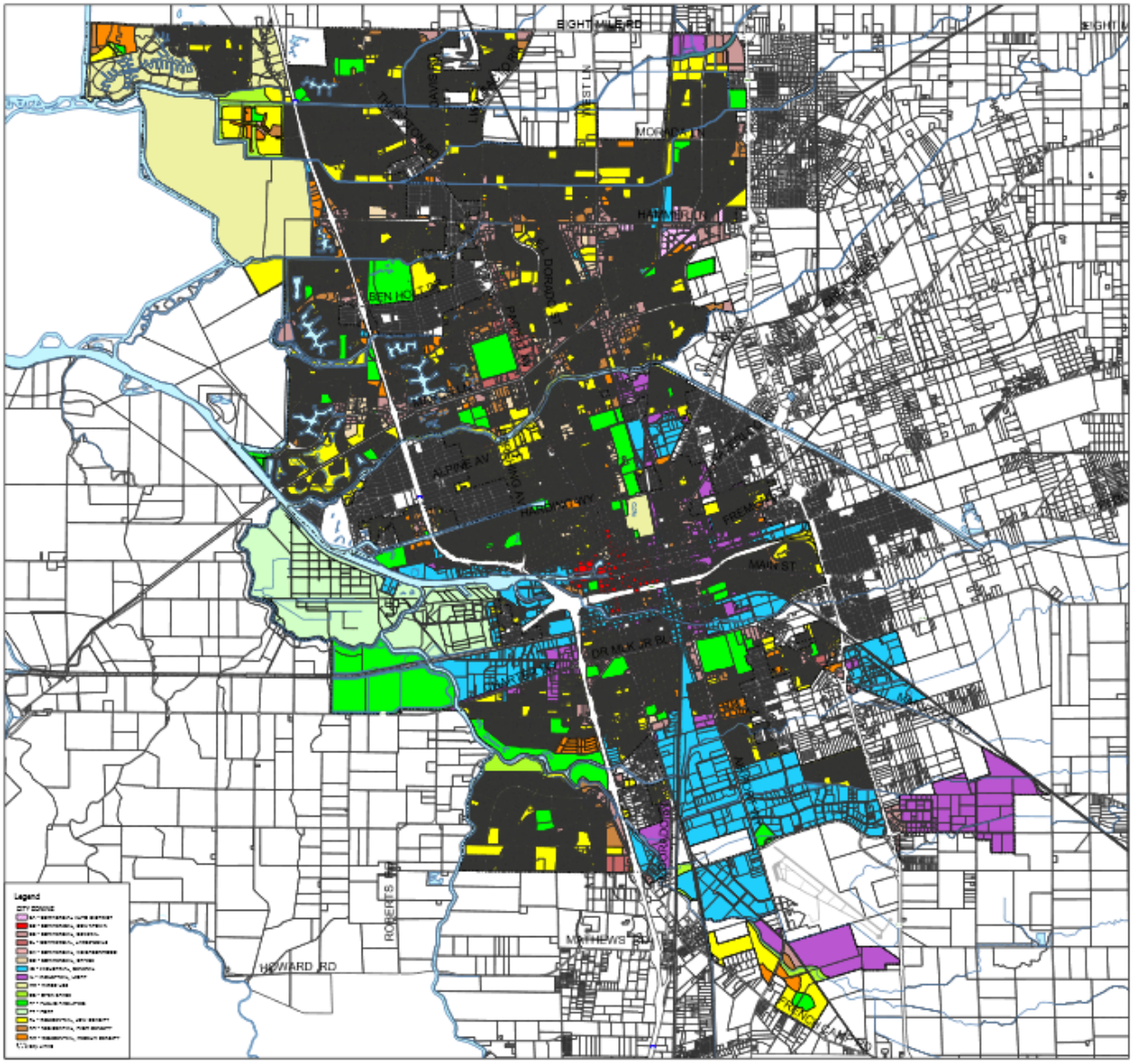
For further information about the emissions inventory for Stockton AB 617 Community, including the stationary source emissions inventory, projected emissions inventory for District permitted facilities, mobile source inventory, and area-wide sources inventory please refer to Appendix C.

3.2.5 SENSITIVE RECEPTORS AND LAND USE

As illustrated in the City of Stockton General Plan Land Use map, below, the Stockton AB 617 Community contains mixed land uses including light and heavy industrial zoning, commercial areas, residential neighborhoods ranging from low density to urban neighborhoods, and the City's downtown core. Main transportation corridors transect the community, including highways 99, 4, and I5. Areas zoned for heavy industrial use are located in the western and southern portion of the city, with future industrial expansion planned for as detailed in the City's Envision Stockton 2040 General Plan. Further information about the City's General Plan and Specific Plans are available at: http://www.stocktongov.com/government/departments/communityDevelop/cdPlanGenDocs.html

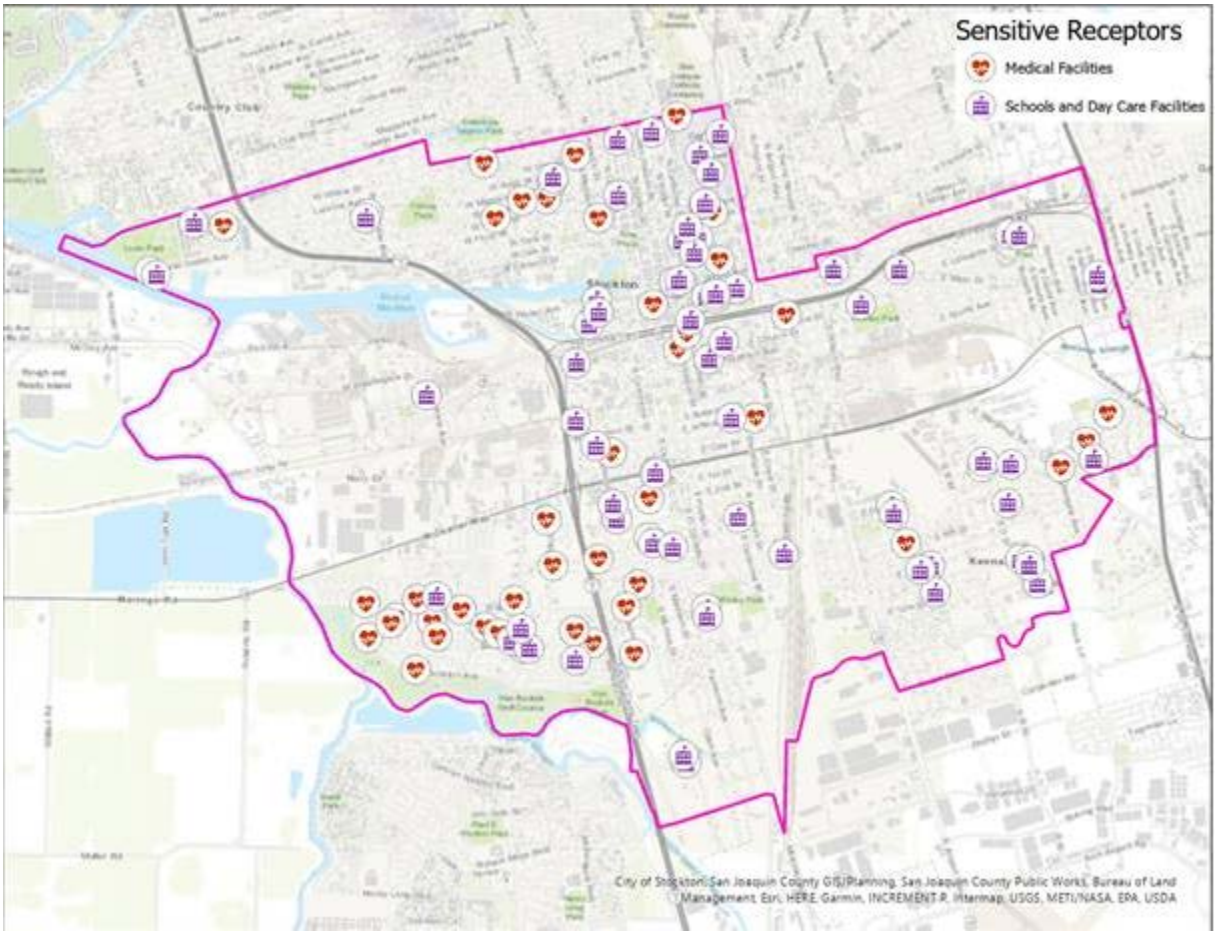
The below City of Stockton General Plan Land Use map is available with full resolution on the City of Stockton website: http://www.stocktongov.com/files/ZoningDistrictMap.pdf

Figure 3-13 City of Stockton General Plan Land Use Map



The location of sensitive receptors is important to assess the impacts of emissions on public health. Sensitive Receptors are defined as people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential dwelling unit(s). The map below shows sensitive receptor locations within the community. The sensitive receptors currently in the community include 35 schools, 50 licensed daycare facilities, and 45 medical care facilities. Sensitive receptors within the community are located in proximity to mobile on-road sources, train routes, manufacturing and industrial sources, off-road mobile equipment, and residential fuel combustion sources.

Figure 3-14 Sensitive Receptor Locations in Stockton



Where can I get more information about air pollution in Stockton AB 617 Community?

To provide detailed community-level data to the Steering Committee and the general public, District staff have created an interactive mapping tool that shows the locations of sensitive receptors, as well as the locations of and emissions inventory for stationary sources, area sources, and both on-road and off-road mobile emissions. Examples of the emissions data available through this mapping tool are shown in the figures below. Please visit the District website to zoom in and explore the community: https://sjvapcd.maps.arcgis.com/apps/webappviewer3d/index.html?id=6a8b2a34b0c14748aaee1c69c71c940c and https://sjvapcd.maps.arcgis.com/apps/View/index.html?appid=26ea6530963f496589be8a4f23f3c8ab

Figure 3-15 District Mapping Tool Showing Types and Locations of Stationary Source Operations in Community

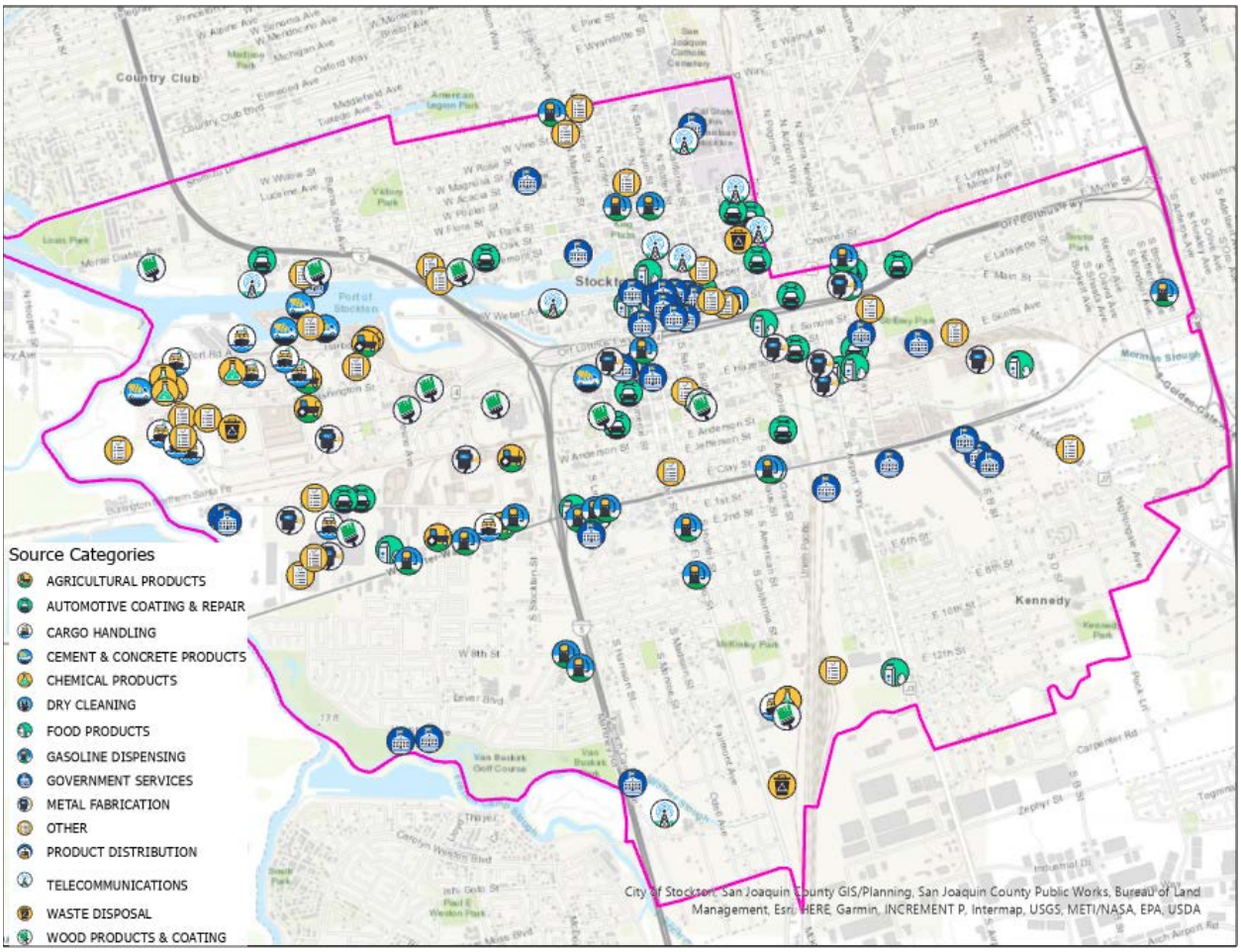
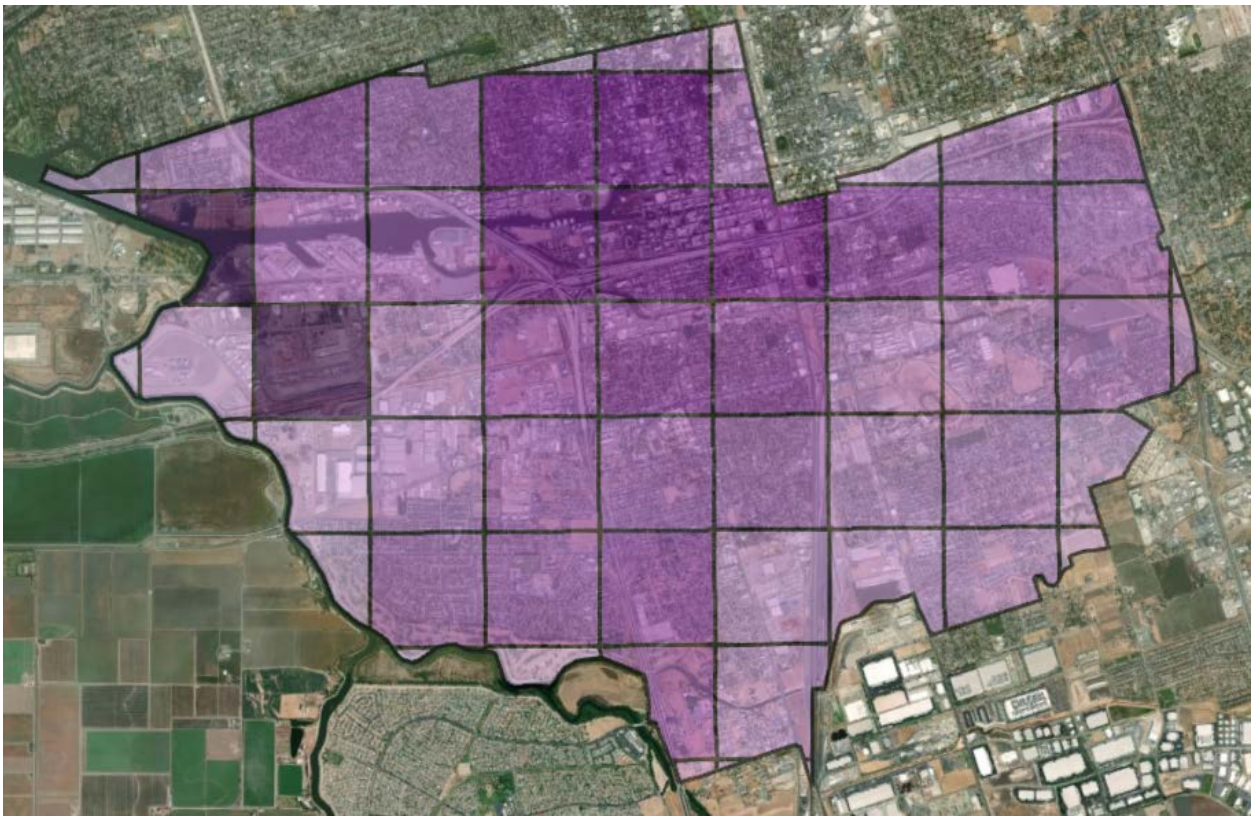


Figure 3-16 District Mapping Tool Showing Concentrations of Area-Wide Emissions within the Community



3.3 EXISTING AIR QUALITY PROGRAMS

District Plans for Attainment of Health-Based Air Quality Standards

For more than two decades, the District has adopted numerous attainment plans to reduce ozone and particulate precursor emissions. The District's multifaceted approach to reducing emissions in the San Joaquin Valley consists of a combination of innovative regulatory and non-regulatory measures. The U.S. Environmental Protection Agency (EPA) periodically reviews and establishes health-based national air quality standards (also referred to as NAAQS) for ozone, particulates, and other criteria air pollutants guided by the Clean Air Act. The District has adopted numerous air quality attainment plans over the years that identify measures needed in the Valley to attain EPA's increasingly stringent health-based NAAQS.

The District's plans include emissions inventories that identify sources of air pollutants, evaluations for feasibility of implementing potential opportunities to reduce emissions, sophisticated computer modeling to estimate future levels of pollution, and a strategy for how air pollution will be further reduced. District plans also include innovative alternative strategies for accelerating attainment through non-regulatory measures such as incentive programs; technology advancement programs; the District's legislative platform; community outreach and education programs; and additional strategies such

as energy efficiency, eco-driving, green purchasing and contracting, supporting urban heat island mitigation efforts, and encouraging cleaner methods of generating electrical energy and mechanical power.

Measures implemented for these Valley-wide strategies also apply to the AB 617 community of Stockton and have resulted in tremendous emissions reductions being achieved, to the benefit of the health of all Valley residents. Most recently, after an extensive 3-year public process, the District, in coordination with CARB and EPA, adopted the *2018 PM2.5 Plan*. This historic plan builds on decades of air quality improvement efforts and establishes a comprehensive strategy for continuing to improve the Valley's air quality and meet the latest federal PM2.5 standards. Further information on the comprehensive rules, regulations, and other programs that have been developed as a part of the District's attainment planning process are detailed in the District's plans for attainment of state and federal air quality standards, with links provided to each attainment plan below:

PM2.5 Plans for Attainment

- *2018 Plan for the 1997, 2006, and 2012 PM2.5 Standards*
  The District adopted the *2018 Plan for the 1997, 2006, and 2012 PM2.5 Standards* on November 15, 2018. This plan addresses the EPA federal 1997 annual PM2.5 standard of 15 µg/m³ and 24-hour PM2.5 standard of 65 µg/m³; the 2006 24-hour PM2.5 standard of 35 µg/m³; and the 2012 annual PM2.5 standard of 12 µg/m³.

- *2016 Moderate Area Plan for the 2012 PM2.5 Standard*
  The District adopted the *2016 Moderate Area Plan for the 2012 PM2.5 Standard* on September 15, 2016. This plan addresses the EPA federal annual PM2.5 standard of 12 µg/m³, established in 2012. This plan includes an attainment impracticability demonstration and request for reclassification of the Valley from Moderate nonattainment to Serious nonattainment.

- *2015 Plan for the 1997 PM2.5 Standard*
  The District adopted the *2015 Plan for the 1997 PM2.5 Standard* on April 16, 2015. This plan addresses EPA's annual PM2.5 standard of 15 µg/m³ and 24-hour PM2.5 standard of 65 µg/m³, established in 1997.

- *2012 PM2.5 Plan*
  The District adopted the *2012 PM2.5 Plan* in December, 2012. This plan addresses EPA's 24-hour PM2.5 standard of 35 µg/m³, which was established by EPA in 2006.

- *2008 PM2.5 Plan*
  The District adopted the *2008 PM2.5 Plan* in April, 2008. This plan addresses EPA's annual PM2.5 standard of 15 µg/m³, which was established by EPA in 1997.

PM10 Plans for Attainment

- *2007 PM10 Maintenance Plan*
  The District adopted the *2007 PM10 Maintenance Plan* in September 2007, to assure the San Joaquin Valley's continued attainment of EPA's PM10 standard. EPA designated the Valley as an attainment/maintenance area for PM10.

Ozone Plans for Attainment

- *2022 Plan for the 2015 8-hour Ozone Standard (Upcoming Ozone Plan)*
  The attainment plan for the 2015 federal ozone standard will build upon comprehensive strategies already in place from adopted District plans and CARB's statewide strategies. The NOx reduction commitments from the recent *2018 PM2.5 Plan* and *2016 Ozone Plan*, and other ongoing measures will assist the Valley in meeting the 70 ppb federal ozone standard. Strategies for attainment of the *2015 8-hour ozone standard* will be developed through a public process, building on decades of effective control strategies. District staff will present regular updates regarding the development of the plan at public meetings and workshops, including upcoming meetings of the District Governing Board, Citizens Advisory Committee (CAC), and the Environmental Justice Advisory Group (EJAG).

- *2020 RACT Demonstration*
  The District adopted the *2020 Reasonably Available Control Technology (RACT) Demonstration for the 2015 8-Hour Ozone Standard* on June 18, 2020.

- *2016 Plan for the 2008 8-Hour Ozone Standard*
  The District adopted the *2016 Plan for the 2008 8-Hour Ozone Standard* in June 2016. This plan satisfies Clean Air Act requirements and ensures expeditious attainment of the 75 parts per billion 8-hour ozone standard.

- *2014 RACT SIP*
  The District adopted the *Reasonably Available Control Technology (RACT) Demonstration for the 8-Hour Ozone State Implementation Plan* in June, 2014.

- *2013 Plan for the Revoked 1-Hour Ozone Standard*
  The District adopted the *2013 Plan for the Revoked 1-Hour Ozone Standard* in September, 2013.

- *2009 RACT SIP*
  The District adopted the *Reasonably Available Control Technology (RACT) Demonstration for Ozone State Implementation Plans (SIP)* in April, 2009.

- *2007 Ozone Plan*
  The District adopted the *2007 Ozone Plan* in April 2007. This plan addresses EPA's 8-hour ozone standard of 84 parts per billion (ppb), which was established by EPA in 1997.

As a result of the District's stringent and comprehensive air quality management strategy along with significant investments made by Valley businesses and residents, PM2.5 and ozone levels are now at historically low levels, and the Valley continues to be in attainment of the PM10 NAAQS. Emissions from stationary sources have been reduced by 85%, cancer risk from exposure to air pollutants has been reduced by 95%, population exposure to elevated PM2.5 levels have been reduced by 85%, and population exposure to elevated ozone levels have been reduced by 90%. This success in reducing emissions Valley-wide provides assurance that targeted strategies will provide the desired results in helping to improve the air quality in AB 617 selected communities.

Regulatory Measures

The District has implemented a comprehensive regulatory control strategy for decades. Since 1992, the District has adopted nearly 650 rules and rule amendments to implement aggressive control strategies. Many current rules are fourth or fifth generation, meaning that they have been revised and emissions limits have been lowered numerous times, as new emission control technology has become available and cost effective. Building on decades of developing and implementing effective air pollution control strategies, District rules are required, by the Environmental Protection Agency, to implement the most stringent measures, including best available control measures for new and modified permitting projects, and best available retrofit control technologies for existing equipment when feasible to require in the San Joaquin Valley. The District's stringent and innovative rules have set benchmarks for other air agencies throughout California and the nation. Regulations implemented by the District have reduced emissions from stationary sources by over 80% to date and will continue to achieve significant emissions reductions in the coming years.

District rules reduce emissions of criteria air pollutants and toxic air contaminants from sources in and around the community. Permitted stationary sources regulated by the District in the Stockton AB 617 Community include agricultural commodities storage and transfer operations, automotive body repair and paint shops, concrete and construction materials manufacturing, electric power generation, motor vehicle coating operations, bulk fuel storage and transfer terminals, chemical receiving and storage, , fabricated metal parts and products, gasoline dispensing operations, government services, municipal water treatment operations, health care centers, metal parts coating operations, skilled nursing care facilities, and telecommunications facilities. District rules that reduce emissions from local sources in the Stockton AB 617 Community are outlined in the following table:

Table 3-5 District Rules Reducing Stockton AB 617 Community Air Pollution

Rule #	Rule Description
4001	New Source Performance Standards
4002	National Emission Standards for Hazardous Air Pollutants
4101	Visible Emissions
4102	Nuisance
4201	Particulate Matter Concentration
4202	Particulate Matter Emission Rate
4301	Fuel Burning Equipment
4305	Boilers, Steam Generators, And Process Heaters - Phase 2
4306	Boilers, Steam Generators, and Process Heaters - Phase 3
4307	Boilers, Steam Generators, and Process Heaters - 2.0 MMBtu/hr TO 5.0 MMBtu/hr
4309	Dryers, Dehydrators, and Ovens
4311	Flares
4320	Advanced Emission Reduction Options For Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr
4352	Solid Fuel Fired Boilers, Steam Generators, and Process Heaters
4455	Components At Petroleum Refineries, Gas Liquids Processing Facilities, And Chemical Plants
4601	Architectural Coatings
4603	Surface Coating Of Metal Parts And Products, Plastic Parts And Products, And Pleasure Crafts
4606	Wood Products And Flat Wood Paneling Products Coating Operations
4607	Graphic Arts And Paper, Film, Foil And Fabric Coatings
4612	Motor Vehicle And Mobile Equipment Coating Operations
4621	Gasoline Transfer Into Stationary Storage Containers, Delivery Vessels, And Bulk Plants
4622	Gasoline Transfer Into Motor Vehicle Fuel Tanks
4623	Storage Of Organic Liquids
4624	Organic Liquid Loading
4652	Coatings and Ink Manufacturing
4653	Adhesives And Sealants
4661	Organic Solvents
4672	Petroleum Solvent Dry Cleaning Operations
4684	Polyester Resin Operations
4692	Commercial Charbroiling
4693	Bakery Ovens
4701	Internal Combustion Engines - Phase 1
4702	Internal Combustion Engines
4801	Sulfur Compounds
4901	Wood Burning Fireplaces and Wood Burning Heaters
4902	Residential Water Heaters
4905	Natural Gas-Fired, Fan-Type Central Furnaces
8011	General Requirements
8021	Construction, Demolition Excavation, Extraction, and Other Earthmoving Activities
8031	Bulk Materials
8041	Carryout and Trackout
8051	Open Areas
8061	Paved and Unpaved Roads
8071	Unpaved Vehicle/Equipment Traffic Areas
8081	Agricultural Sources
9310	School Bus Fleets

Rule #	Rule Description
9410	Employer Based Trip Reduction
9510	Indirect Source Review

While California and the federal government have direct authority to regulate tailpipe emissions from mobile sources, the District has also adopted innovative regulations such as the Rule 9510 - Indirect Source Review (discussed in more detail later in this section) and Rule 9410 - Employer-based Trip Reduction to reduce emissions from mobile sources within the District's limited jurisdiction over these sources. A complete listing of the District's current rules and regulations is available at the following link: http://www.valleyair.org/rules/1ruleslist.htm

For the recently adopted *2018 Plan for the 1997, 2006, and 2012 PM2.5 Standards* 2018 PM2.5 Plan, the District performed an exhaustive evaluation of all potential additional opportunities for reducing emissions and committed to amend several rules to achieve expeditious attainment of the health-based federal PM2.5 air quality standards (see Section IV). This comprehensive analysis also demonstrated that the District's rules and regulations are at least as stringent, if not more stringent, than all other rules in the nation. Furthermore, in accordance with AB 617 requirements, the District adopted an expedited schedule in December, 2018, for performing further determination of BARCT to ensure that applicable sources are utilizing the cleanest technologies feasible (see Chapter 4).

District New and Modified Stationary Source Review

Beyond District rules that apply to specific categories of stationary sources, District Rule 2201 (New and Modified Stationary Sources Review) applies to all new stationary sources and all modifications to existing stationary sources that are subject to District permit requirements. District Rule 2201, and the associated permitting process, ensure that new or modified stationary sources of air pollution are subject to the most effective emissions controls feasible for implementation; that emissions from the project do not create a public health risk (including a modeled analysis of cancer risks resulting from the project and possible health hazard risks resulting from both acute and chronic exposure to emissions for nearby residences and worksites); and that the project does not increase the potential for a violation of State or National Ambient Air Quality Standards. More information about the District's rigorous permitting process is available at http://www.valleyair.org/busind/pto/ptoprocess.htm, and is also summarized below. Under Rule 2201, new facilities or facilities modifying equipment must obtain an Authority to Construct (ATC) permit prior to construction, and are subject to stringent requirements, including:

- Best Available Control Technology (BACT)
- Risk Management Review (RMR)
- Toxic Best Available Control Technology (T-BACT)
- Ambient Air Quality Analysis (AAQA)

Best Available Control Technology (BACT): For each emissions unit (specific piece of equipment) that has the potential to emit over the 2 lb/day BACT threshold, the

District requires the use of the best available air pollution control technology commonly used to control emissions from similar types of equipment. The District also conducts an analysis to determine if, based on specific criteria, cleaner technologies that are not commonly used for these type of equipment could be used to further reduce emissions from the proposed equipment. This very stringent requirement ensures that the most effective air pollution control technique is utilized resulting in reduced public exposure to air pollutants and toxic air contaminants.

As a part of the District's BACT Policy (publicly available at https://www.valleyair.org/busind/pto/bact/bactidx.htm), District staff maintain a BACT Clearinghouse, updated and published quarterly, that includes available control technologies and operation methods that meet one of the following conditions:

A. The control technologies or operation methods have been achieved in practice for an emissions unit and class of source; or
B. Are contained in any SIP approved by the EPA for an emissions unit category and class of source; or
C. Are any other emission limitation or control technique, including process and equipment changes of basic or control equipment, found to be technologically feasible for such class or category of sources or for a specific source.

AB 617 legislation requires that CARB develop and maintain a state-wide Technology Clearinghouse for BACT and T-BACT. Once available, District staff will review the Technology Clearinghouse as an additional resource when updating the District's BACT Clearinghouse.

Risk Management Reviews: The District conducts Risk Management Reviews to ensure that the public exposure to toxic air contaminants from projects required to obtain an ATC is less than significant. Very complex computer models and the most conservative assumptions are used to assess the project's maximum impact on resident's health. Projects resulting in estimated significant health risk for the public are not approved. Additional information regarding risk management reviews may be found here: https://www.valleyair.org/policies_per/Policies/apr-1905.pdf

Toxic Best Available Control Technology (T-BACT): When T-BACT is triggered under a Risk Management Review analysis, the District conducts a T-BACT analysis to ensure the most stringent control technique is utilized resulting in reduced public exposure to toxic air contaminants. T-BACT is required for units emitting air toxic emissions that result in a cancer risk of greater than one-in-a-million nearby residences or businesses. Projects resulting in estimated significant health risk for the public are not approved.

Ambient Air Quality Analysis (AAQA): The U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS), respectively, for numerous pollutants. Under Rule 2201, the District conducts AAQAs to ensure that project related emissions would not cause or make worse a violation of the State or National ambient air quality standard. This

analysis ensures that the public exposure to certain criteria air pollutants is less than the maximum allowed concentration in outdoor air without harm to public.

AB 2588 (Air Toxics Hot Spots Information and Assessment Act)
The District's implementation of AB 2588, California's Air Toxics "Hot Spots" Information and Assessment Act, has resulted in dramatic reductions in emissions of air toxics from existing sources in the San Joaquin Valley. Under this right-to-know law, the District has worked with 7,228 Valley facilities to quantify emissions of air toxics, determine the health risk caused by those emissions, report emissions and any significant risks through written public reports and neighborhood public meetings, and take steps to reduce such risks. As a result of these efforts, and the subsequent reductions in air toxics, since 2007 there have been no Valley facilities that pose a significant risk to any Valley resident under the "Hot Spots" program. A detailed discussion of AB 2588 and facility risk reduction audits conducted to date in the community is included in Chapter 4.

Implementation of State Airborne Toxic Control Measures
The District's integrated air toxics program incorporates Airborne Toxic Control Measure (ATCM) regulations promulgated by CARB. State-issued ATCMs are designed to reduce toxic air emissions from various types or categories of equipment by imposing prescribed air pollution control measures. Implementing ATCMs result in reductions of toxics exposure from targeted facility types or categories that could cause significant risks at a regional level. These ATCMs are implemented primarily through the District's permitting process. Examples of emissions sources that have drastically reduced toxic air contaminant emissions in the San Joaquin Valley because of such rules and regulations include dry cleaners, chrome plating operations, gas stations, and diesel internal combustion engines.

Implementation of Federal National Emissions Standards for Hazardous Air Pollutants (NESHAP) and Maximum Achievable Control Technology (MACT) Standards
The District's integrated air toxics program fulfills federal mandates under Title III of the federal Clean Air Act, which requires specific types of sources of air toxic emissions to directly reduce emissions through federal NESHAP and MACT standards. These standards apply to a variety of source categories, ranging from diesel internal combustion engines to chrome platers, and from refineries to power plants.

Implementation of Federal New Source Performance Standards (NSPS)
The District also fulfills federal mandates under Title I of the federal Clean Air Act, which requires specific types of new, modified, and reconstructed facilities subject to NSPS to directly reduce emissions of criteria air pollutants. These standards apply to a variety of source categories, ranging from hot mix asphalt facilities to sewage treatment plants, and from landfills to boilers.

District Indirect Source Requirements
District Rule 9510 is the only rule of its kind in the State of California and throughout the nation which applies to new residential and commercial development projects. The District's rule is recognized as the benchmark, or best available control, for regulating these indirect sources of emissions, such as from construction equipment and mobile sources associated with new developments. This rule requires mitigation of the growth in emissions from mobile and area sources associated with construction and operation of new development projects in the Valley.

District Air Quality Assistance and Guidance to Public Agencies
The District provides assistance and guidance to other public agencies, including cities and counties in the San Joaquin Valley, to help them assess, minimize, and mitigate air quality impacts of projects undergoing their land-use approval processes, over which the District has no statutory authority. For instance, the District provides comments under the California Environmental Quality Act (CEQA) to public agencies on hundreds of proposed projects each year. District provided CEQA comments are designed to minimize project related air quality impacts. In addition, the District maintains and makes available an extensive suite of guidance documents and tools for assessing and mitigating air quality impacts, including criteria and air toxic emissions, from stationary source projects and other development projects.

Mobile Source Regulations
Mobile source emissions make up over 85% of the Valley's NOx emissions, the primary driver in the formation of particulate and ozone pollution, therefore, reductions in mobile source emissions have become an ever-increasingly important part of the Valley's attainment strategy of federal air quality standards. States and the federal government, unlike the District, have the authority to directly regulate tailpipe emissions from mobile sources. CARB has adopted toughened regulations for heavy-duty trucks, off-road equipment, and other mobile sources. Additionally, the District has adopted innovative regulations such as the Indirect Source Review and Employer-based Trip Reduction rules to reduce emissions from mobile sources within the District's limited jurisdiction over these sources. Local air districts do not have the authority to implement regulations requiring ultra-low tailpipe emissions standards on mobile sources.

With authority to regulate mobile source emissions, CARB has adopted and amended a number of regulations aimed at reducing exposure to diesel PM and NOx from fuel sources, freight transport sources like heavy-duty diesel trucks, transportation sources like passenger cars and buses, and off-road sources like large construction equipment. Phased implementation of these regulations will produce emission reduction benefits in the coming years as the regulated fleets are retrofitted, and as older and dirtier fleet units are replaced with newer and cleaner models at an accelerated pace. CARB's ongoing comprehensive measures to reduce emissions from mobile sources throughout the state are detailed further in Chapter 4,"Statewide Strategies" section.

District Incentive-Based Emission Reduction Programs

The District has increasingly relied on its advocacy efforts to secure state and federal funding sources, and locally-generated funding to implement incentive programs that have become a vital component of the District's overall strategy for achieving the emissions reductions necessary to bring the Valley into attainment with state and federal air quality standards and to protect public health. These programs provide an effective way to accelerate emissions reductions and encourage technology advancement, particularly from mobile sources, a sector not directly under the District's regulatory jurisdiction. Considering over 85% of the NOx emissions in the Valley come from mobile sources, these successful voluntary incentive grant programs help the Valley achieve highly cost-effective emissions reductions that are surplus of the regulatory emissions reductions.

The District operates one of the largest and most well-respected voluntary incentive programs in California. Since the District's inception in 1992, considerable funding has been invested into thousands of clean-air projects throughout the Valley. The District's incentive programs offer Valley businesses and residents the opportunity to replace their older, higher polluting equipment with newer, cleaner models. These incentive programs include options for replacing older diesel powered trucks, ag engines, tractors, locomotives, and construction equipment as well as options for replacing wood burning devices, lawn equipment and passenger vehicles. These projects have achieved significant emissions reductions with corresponding air quality and health benefits. The incentive programs listed in the table below have been implemented in the community of Stockton AB 617 Community from 2005 to October 7, 2020, achieving over 1,200 tons of combined PM, NOx, and VOC emissions reductions in the community.

Table 3-6 Grant Funding Invested in Stockton AB 617 Community- from 2005 to Oct 7, 2020

Stockton AB 617 Community Grant Funding: Incentive Program	Units	Sum of Grant Amount	Total Tons PM, NOx, VOC Emissions Reduced
Bicycle Infrastructure Bike Bath Class I,II,III	2	$100,000	10.45
Burn Cleaner Wood Stove Change Out New Device	77	$230,500	18.09
CAP & Trade Demonstration New Electric Vehicle	2	$2,324,790	0.00
Heavy-Duty Ag-UTV Vehicle Replacement	1	$13,722	0.31
Heavy-Duty Forklift New Electric Vehicle	1	$31,780	1.56
Heavy-Duty Locomotive Engine Repower	2	$3,750,000	177.59
Heavy-Duty Locomotive New Vehicle	2	$4,825,624	305.04
Heavy-Duty Locomotive Replacement	1	$1,729,000	97.83
Heavy-Duty Off-Road Ag Vehicle Replacement	1	$19,000	1.36
Heavy-Duty Off-Road Engine Repower	1	$279,350	40.36
Heavy-Duty On-Road DERA Vehicle Replacement	7	$373,728	0.0

Stockton AB 617 Community Grant Funding: Incentive Program	Units	Sum of Grant Amount	Total Tons PM, NOx, VOC Emissions Reduced
Heavy-Duty On-Road Engine Repower	2	$164,106	45.55
Heavy-Duty On-Road New Vehicle	1	$28,000	0
Heavy-Duty On-Road Trade Up	3	$300,00	3.63
Heavy-Duty On-Road Prop 1B Vehicle Replacement	47	$2,880,000	423.84
Heavy-Duty On-Road Truck Replacement	3	$195,062	11.16
Heavy-Duty On-Road TVP Engine Retrofit	1	$20,000	0.04
Heavy-Duty On-Road TVP Vehicle Replacement	21	$1,336,292	93.01
Heavy-Duty On-Road VIP Vehicle Replacement	6	$330,000	3.07
Lawn & Garden Residential New Purchase	7	$533	0.00
Lawn & Garden Residential Replacement	73	$28,505	0.00
Light-Duty Charge Up EV Charger-Private	1	$6,000	0.00
Light-Duty Charge Up EV Charger-Public	7	$312,000	0.00
Light-Duty Drive Clean EV Vehicle Rebate	42	$246,000	0.79
Light-Duty EFMP Replacement	132	$1,504,948	1.66
Light-Duty TITU Repairs	670	$371,326	0.00
Light-Duty Van Pool Voucher	2	$1,260.00	0.18
Public Benefit Alternative Fuel New Vehicle	53	$1,015,413	0.00
Remove II Light and Medium Duty EV Purchase	1	$3,000	0.04
Remove II Pearl Data New Vehicle Purchase	1	$12,000	0.00
Special Projects Short Sea Shipping	1	$750,000	0.00
Total	1,171	$22,881,939	1,235.56

District Technology Advancement Efforts

The District Governing Board approved creation of the Technology Advancement Program in March, 2010, to accelerate development of technologies that can help reduce emissions in the Valley. Meeting EPA's increasingly stringent ozone and PM2.5 air quality standards requires significant advancements in low-emissions technologies from mobile and stationary sources. The Technology Advancement Program provides a strategic and comprehensive means to identify, solicit, and support technology advancement opportunities. Ongoing refinement of the program's technology focus areas targets efforts to achieve the greatest impact on the Valley's attainment and other health-based goals. This program has resulted in the development and deployment of electric feed mixers for dairy operations, clean fuel technologies for trucks, and solar-electric truck refrigeration units. Many of these advanced clean-air technologies are currently operating in the community of Stockton AB 617 Community.

Public Air Quality Education and Outreach

Providing accurate and up to date air quality information to Valley residents is a top priority for the District, especially when circumstances such as wildfires overwhelm all clean air measures and lead to high pollution concentrations. Under these

circumstances, the best course of action is to provide notifications to Valley residents so that sensitive individuals, in particular, can take precautions to minimize exposure. The District has expended significant resources on public notification and risk prevention measures, such as the Real-Time Air Advisory Network (RAAN) and Real-Time Outdoor Activity Risk (ROAR) Guidelines. The following are some additional examples of District outreach programs designed to help Valley residents understand air quality and what they can do to reduce their own impacts:

- Healthy Air Living Schools
  - http://www.healthyairliving.com/schools
- Real-Time Air Quality Display (READ)
- Web-based Archived Air Quality System (WAAQS)
  - https://www.valleyair.org/waaqs/
- Healthy Air Living
  - http://www.healthyairliving.com/
- Healthy Air Living Partners
- Check Before You Burn
  - http://www.valleyair.org/aqinfo/cbyb.htm
- Air Alerts
  - https://www.valleyair.org/AirAlert/AirAlert_Landing.htm

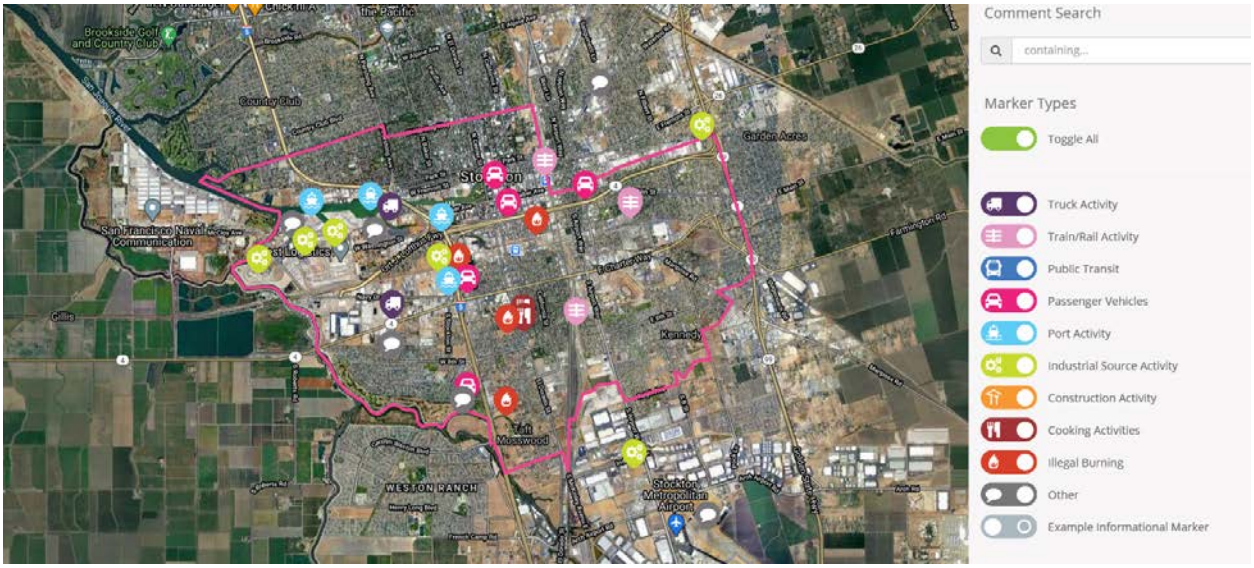
The above programs are available to community members, and have helped residents and school administrators take health protective action during poor air quality episodes.

4. STRATEGIES TO REDUCE THE CUMULATIVE EXPOSURE BURDEN IN STOCKTON

COMMUNITY IDENTIFIED AIR QUALITY PRIORITIES

During the June 3, 2020 Community Steering Committee (CSC) meeting, Stockton committee members and public attendees participated in a District-facilitated exercise to identify and prioritize their air pollution sources of concern. Participants were placed in groups and were asked to share their thoughts regarding air pollution sources which they believed impacted their community the most, or was of most concern to the individual or entity they represented. The results of these group exercises were then placed into an online mapping tool to create a visual representation of the common pollution sources of concern (Figure 4-1). An online version of the exercise was also sent to the committee and posted to the District's community webpage http://community.valleyair.org to allow for additional opportunity to participate in identifying source categories of concern.

Figure 4-1 Results of Sources of Concern Exercise



Through these exercises, some top emission sources categories of concern in Stockton include:

Based on emissions inventory, current air monitoring data, and top sources of concern in this community, pollutants of concern include particulate matter less than 2.5 micrometers in diameter (PM2.5), Black Carbon (BC), Oxides of Nitrogen (NO, NO2, NOx), Hydrogen Sulfide (H2S), Carbon Monoxide (CO), Ozone, and Volatile Organic Compounds (VOCs). In addition, a variety of toxic compounds, including toxic organics and particulate matter, were also identified as pollutants of concern.

To provide additional information about existing control programs for community members not familiar with ongoing air pollution control efforts, District staff prepared an informational document titled, "*Public Resource: Existing Control of Air Pollution Sources of Concern,"* (included for reference as Appendix D), and gave several presentations about existing District control programs. Additionally, the Community Co-Hosts are provided the opportunity to share their own experiences and areas of concern

during CSC meetings and their thoughts on opportunities to improve air quality within the community. The CSC meetings have served to build the knowledge base of the CSC members and to assist in developing a Community Emission Reduction Program (CERP) which includes specific measures to reduce exposure to harmful air pollution within the community.

In partnership with the CSC members, community based organizations, businesses in the community, and state and local agencies, a suite of targeted strategies to reduce and mitigate harmful air pollution emissions from community identified sources of concern has been developed. Some of which were suggested by the District in response to CSC identified sources of concern and many of which came directly through suggestions made by CSC members. In addition to the emission reductions which will be achieved through expedited implementation of best available retrofit control technology by facilities within the community, the adoption of rule amendments that will further reduce PM2.5 and toxics in the Valley, and enhanced enforcement (additional/targeted enforcement efforts) in the community, these local measures provide accelerated emissions reductions in the community.

AB 617 legislation requires that a CERP identifies cost-effective measures to achieve emission reduction targets in the community. During CSC discussions to review potential strategies for implementation in the community, Committee members consistently supported and prioritized measures that would reduce emissions from residential sources, while also providing tangible benefits to residents in the community. To that end, in addition to measures that reduce emissions from stationary, area, and mobile sources that are large contributors to the community emissions inventory, many of the measures supported by the Steering Committee and proposed for implementation in the Stockton CERP include targeted incentive programs and interagency partnerships that provide co-benefits in the community, in addition to air quality improvements. The measures described in this chapter encompass a range of strategies to reduce community level exposure burden, including regulatory, enforcement, outreach and education, voluntary incentive-based programs, as well as partnerships with other agencies to address issues outside of the District's direct regulatory authority.

It should be noted that the identified funding amounts for each measure are designed assuming that future-year state budget appropriations and funding allocations are similar to those approved by the legislature and CARB for current use in the AB 617 program, and are available in future District budget appropriations.

Incentive program guidelines also generally contain strict requirements that include specific project types and funding amounts. To maximize emission reductions in the AB 617-selected community of Stockton, the CERP includes measures that also leverage existing District incentive funding allocations, above and beyond funding amounts available through AB 617-related funding allocations.

Some of the incentive measures included in the CERP are proposed to operate under existing authority and approved program guidelines, while other measures will require

the development of new program guidelines and associated approval by the District Governing Board and CARB. As the CARB Blueprint states, CARB and the District will continue developing regulatory and incentive actions through separate public processes. Subsequent implementation of proposed CERP measures will be conditional on the successful completion of applicable public processes, necessary financing approvals, technical feasibility analyses, economic competitiveness, safety, and environmental reviews.

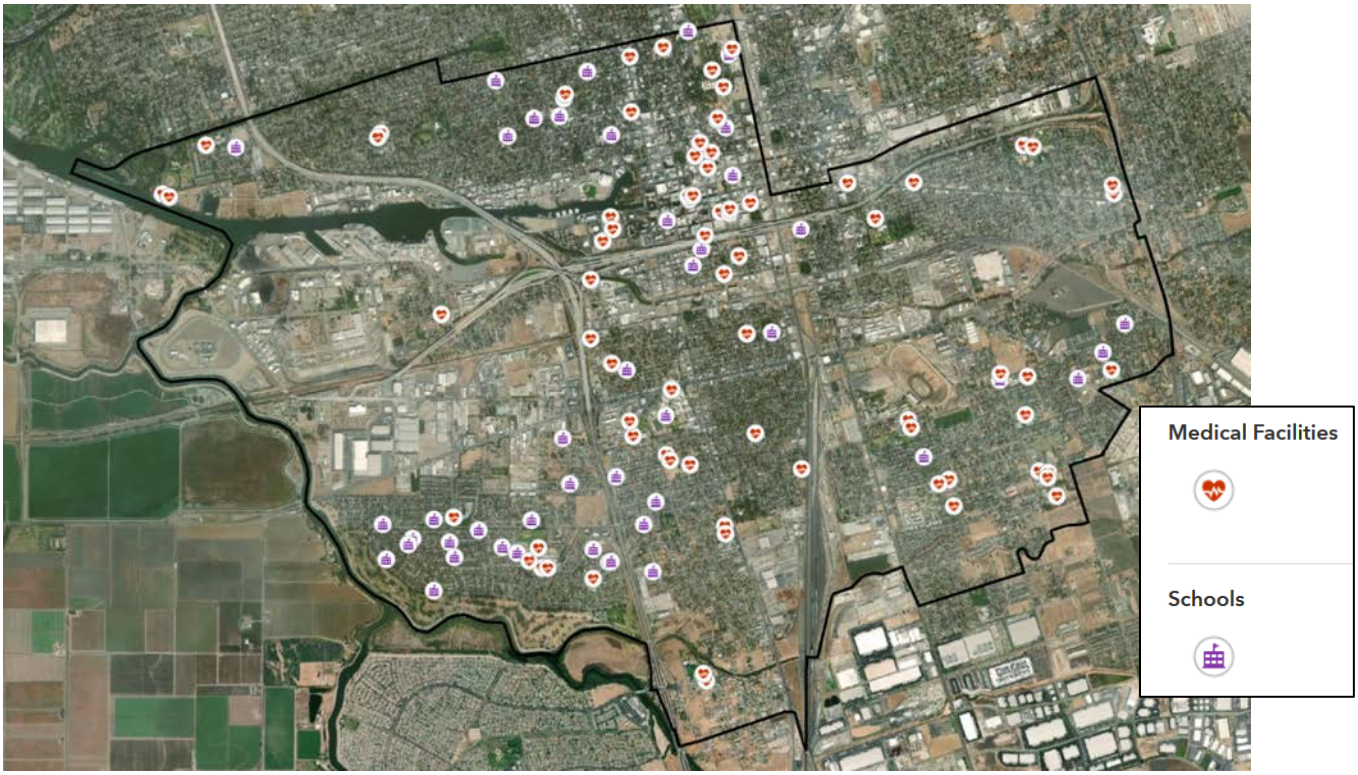
The District will continue to work with the CSC to receive community input as program guidelines are developed and projects are implemented within the community [Placeholder for language regarding technical support, health studies, etc], . As experience is gained in implementing the measures contained in the CERP, it may become evident that certain measures are more successful than others in reducing emissions and/or exposure, and are more popular with the community. Committee input on these considerations, and discussions about funding availability and cost-effectiveness/benefits of these projects, may lead to the CSC recommending making adjustments to strategy goals and/or funding amounts to achieve overall emission reduction goals of the CERP. A possible example includes the collection and sharing of community air monitoring data, which could lead to additional discussion with the CSC, which could lead to additional CERP strategy development. During CERP implementation, the CSC will be provided regular updates on implementation progress and their feedback and guidance requested. Based on the updates, it is possible that new strategies could be identified or revisions to existing strategies may be appropriate.

The sections that follow provide detailed information about emission and exposure reduction strategies developed for each source category of concern to the community.

EXPOSURE REDUCTION STRATEGIES FOR SENSITIVE RECEPTORS

Proximity to emission sources can pose health risks for community members, particularly for sensitive groups such as children, the elderly, and those with cardiovascular diseases. Sensitive receptors located in Stockton include schools, daycare facilities, and medical facilities, as shown in the map below. The CARB Blueprint contains several suggested measures that can be implemented to reduce exposure to emissions in areas where these sensitive receptors may be particularly vulnerable to exposure, which are referred to as proximity-based goals.

Figure 4-2 Sensitive Receptors in the Community



In discussions about possible exposure reduction measures to implement in the AB 617-selected community, the Stockton Steering Committee placed a high priority on measures that would protect the health of children, including installing advanced filtration systems at schools and providing indoor air filtration devices to community residents near sources of concern. Other measures prioritized by the Steering Committee included reducing idling near sensitive receptors, and increasing community member knowledge about actions individuals can take to protect their health.

The Steering Committee also suggested additional urban greening, installing vegetative barriers next to industrial sites and along major roadways, and rerouting of heavy-duty trucks corridors near these sensitive receptors. The District has engaged with local

government agencies, CARB, and appropriate state agencies that have the authority to implement these strategies.

Reducing exposure for sensitive receptors will be accomplished through the implementation of the following measures related to school air filtration, home indoor air quality filtration, urban greening, and vegetative barriers.

VEGETATIVE BARRIERS

BACKGROUND

Vegetative barriers, also known as windbreaks, are composed of one or more rows of trees or shrubs that may be planted in specific areas of concern in order to improve air quality in the immediate area by intercepting airborne particles, dust, chemicals, and odors. Pollutants directly emitted from cars, trucks, and other motor vehicles are found in higher concentrations near major roads. In addition, stationary sources such as industrial facilities, factories, and other industrial processes can also contribute air pollutants to their surrounding areas. While various emission control techniques and programs exist to reduce these pollutants from mobile and stationary sources, vegetative barriers have been shown to be an additional measure to potentially reduce a population's exposure to air pollution through the interception of airborne particles and the uptake of gaseous pollutants. Examples of vegetative barriers include trees, bushes, shrubs, or a mix of these. Generally, a higher and thicker vegetative barrier with full coverage will result in greater reductions in downwind pollutant concentrations. In addition to air quality benefits, vegetative barriers can improve aesthetics, increase property values, reduce heat, control surface water runoff, and reduce noise pollution.[1]

Characteristics of a vegetative barrier that should be considered include the porosity/density of the vegetative barrier, the characteristics of the vegetation during different seasons, leaf surface characteristics, vegetation air emissions (e.g. biogenic VOCs), and the resistance of the vegetative barrier to air pollution. Other considerations include: soil characteristics, availability of water, control of water runoff, maintenance of the vegetative barrier, use of native and non-invasive species, and roadway safety. Vegetative barriers may also be used with solid barriers to increase mitigation. Research is ongoing as to the effectiveness of vegetative barriers in reducing exposure to pollutants, but a recent study has found that vegetative barrier installations may reduce downwind exposure to carbon monoxide and fine particulate matter by at least 23%.[2]

The US EPA has produced a fact sheet with further information on vegetative barriers, available here: https://19january2017snapshot.epa.gov/sites/production/files/2016-08/documents/recommendations_for_constructing_roadside_vegetation_barriers_to_improve_near-road_air_quality.pdf

[1] Baldauf, R. (2016). Recommendations for Constructing Roadside Vegetation Barriers to Improve Near-Road Air Quality. *National Risk Management Laboratory Office of Research and Development, Air Pollution Prevention and Control Division: Washington, DC, USA*.

[2] Lin, M. Y., Hagler, G., Baldauf, R., Isakov, V., Lin, H. Y., & Khlystov, A. (2016). The effects of vegetation barriers on near-road ultrafine particle number and carbon monoxide concentrations. *Science of the Total Environment*, *553*, 372-379.

Figure 4-3 Vegetative Barrier w/ Solid Barrier on Highway 198, Visalia, CA

Latest Google Map Information

Figure 4-4 Vegetative Barrier around Foster Farms, Fresno, CA

Latest Google Map Information

COMMUNITY CONCERNS AND COMMENTS

The Stockton Steering Committee has identified Vegetative Barriers as a priority for air pollutant mitigation. The committee has expressed the need for the installation of vegetative barriers (and sound walls) around and near sources of concern such as schools, along truck routes, near the Port of Stockton, Charter Way, Boggs Tract and El Dorado with an additional priority along Interstate 5. The committee has expressed the need to enforce existing mitigation plans associated with specific industries.

CURRENT PROGRAMS

The Valley Air District, the City of Stockton, the California Department of Transportation (Caltrans), and other local partners have promoted the use of vegetative barriers for reducing exposure to air pollutants, mitigating the urban heat island effect, and improving aesthetics. The District's Fast Track Action Plan includes the strategic use of tree and vegetation planting as a potential measure to improve air quality.

STRATEGIES DEVELOPED FOR IMPLEMENTATION IN COMMUNITY

Based on community interest in vegetative barriers, the following measure was developed for implementation as a part of the Stockton CERP.

The following is a suggested measure not within the Air District's jurisdiction to directly implement:

VB.1: INCENTIVE PROGRAM FOR THE INSTALLATION OF VEGETATIVE BARRIERS AROUND/NEAR SOURCES OF CONCERN

Overview: The purpose of this strategy is to provide incentives for the installation and maintenance of vegetative barriers around sources of concern to reduce particulate matter, odor, and other emissions, as feasible. Based on community interest in vegetative barriers, the District will also look to partner with other agencies to identify additional grant funding to support the installation of vegetative barriers at/near industrial facilities and along major transportation and goods movement corridors.

It should be noted that the SJVAPCD has no authority over how agencies allow land under their jurisdiction to be used. These land-use decisions, such as whether to allow or require vegetative barriers in specific locations, are historically the responsibility, under state law, of cities and counties, or, in some cases, state and federal agencies responsible for transportation corridors, state and federal parks, and other properties. AB 617 does not provide the District with new land-use regulatory authority, so land-use authority remains with cities, counties, and state and federal land-use agencies, as discussed in CARB's Blueprint (see "Who Has the Authority to Implement Actions?", page 26 of the Blueprint), the District is committed to working with these agencies and the CSC to see this measure implemented this measure.

Implementing Agency: SJVAPCD, CDOT, City, County, Port of Stockton, other local partners

Type of Action: Partnership, Incentives

Implementation: 2021-2025

Budgeted Amount: $1,000,000

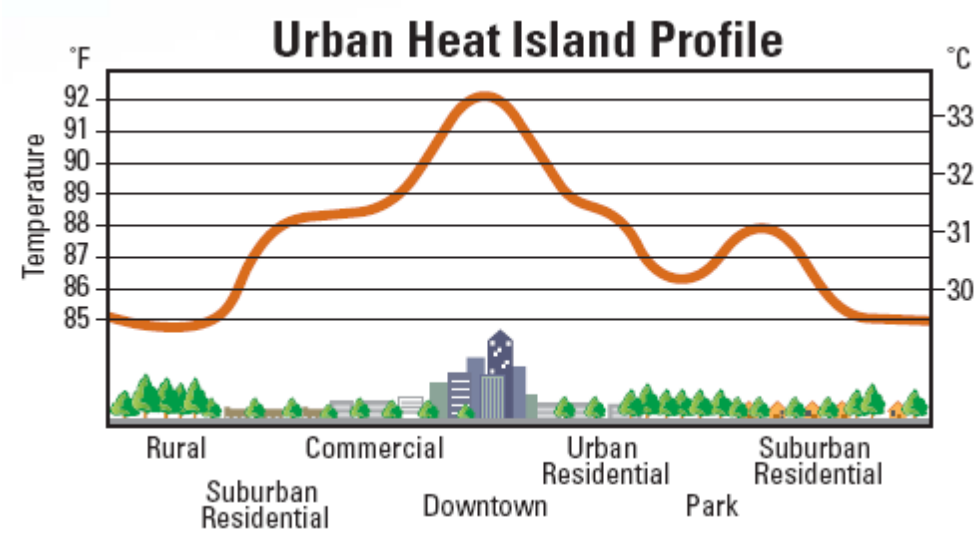
Quantifiable emission reduction: Estimated 5-year emissions reductions associated with this measure includes up to *0.11 tons of PM2.5 and NO2 per year*

URBAN GREENING

URBAN GREENING SOURCES IN STOCKTON

Urban greening is one way to help improve air quality and public health in addition to enhancing the overall beautification of the community with drought resistant low maintenance greenery. Trees and vegetation help reduce the impacts of heat islands by increasing the amount of shade and cooling the air by evapotranspiration.[3] Careful placement and choice of vegetation will maximize its cooling benefits. Shade provided by trees and other vegetation prevents sunlight from reaching heat-absorbing surfaces such as sidewalks and parking lots, cooling the area by 2 to 9 degrees Fahrenheit. Air quality also benefits from a decrease in energy usage. The less energy used, the fewer power plants running and emitting ozone precursors.[4] The total net savings when considering energy, ozone, and PM reduced from vegetation were valued at $210/tree.

Figure 4-5 Urban Heat Island Effect Illustrated (Source: EPA, 1992)



COMMUNITY CONCERNS AND COMMENTS

The steering committees expressed an interest in opportunities for increased urban greening and forestry in the community of Stockton specifically at Charter Way, Boggs Tract, and El Dorado as a strategy to reduce exposure from emissions that occur along local transportation corridors while keeping in mind water and maintenance issues.

CURRENT PROGRAMS

The District Fast Track Action Plan identified Heat Island Mitigation as a measure to be implemented with the goal to increase urban forest canopy shading and increase the albedo of structures and pavement. This guidance includes a model resolution and

[3] EPA (1994) *Using Trees and Vegetation to Reduce Heat Islands.* Retrieved 1/21/21 from https://www.epa.gov/heatislands/using-trees-and-vegetation-reduce-heat-islands
[4] EPA (2008) *Heat Island Compendium.* Retrieved 1/21/21 from https://www.epa.gov/heatislands/heat-island-compendium

policy statement for use by businesses, government, and organizations who desire to commit to heat island mitigation strategies.

Due to the benefits of urban greening, there are several programs available to support urban greening in communities. Below are the ongoing efforts to promote Urban Greening by other agencies, as well as programs committed to be implemented in future State and/or Valley-wide programs.

- **Transformative Climate Communities (TCC) Program:** The (TCC) Program funds development and infrastructure projects that achieve major environmental, health, and economic benefits in California's most disadvantaged communities. TCC is one of many California Climate Investments programs
- **Fathers & Families of San Joaquin:** Fathers & Families of San Joaquin's Health Justice Tree Planting/ReLeaf program plants trees in disadvantaged communities, trading gray concrete spaces into vibrant green spaces to promote a canopy of healthy environments and reduce greenhouse gases.
- **PUENTES:** PUENTES empowers at risk urban families by providing opportunities to enhance their environment with trees and stewardship for natural resources, foster local food chain viability, employment and entrepreneurship, and reinforce the sense of community involvement and physical wellbeing through volunteer participation in farming and forestry.
- **California ReLeaf Grants:** California ReLeaf seeks and provides pass-through grants to ReLeaf Network Members and other community groups interested in planting and caring for trees in California and offers grant programs through the Social Equity Grant Program and California Arbor Week Grant.
- **California Natural Resources Agency Urban Greening Grant Program:** Consistent with AB 32, the Urban Greening Program will fund projects that reduce greenhouse gases**.** This program includes urban heat island mitigation projects and energy conservation efforts related to shade tree projects.
- **Cal Fire:** Through the California Climate Investments (CCI) Urban & Community Forestry Grant Program, CALFIRE works to optimize the benefits of trees and related vegetation through multiple-objective projects as specified in the California Urban Forestry Act of 1978.
- **Active Transportation Program (ATP): California Department of Transportation (CALTRANS):** Urban forestry, such as trees and other vegetation, are significant components of several eligible projects under the ATP, including parks, trails, and safe-routes-to-schools.
- **California Urban Forests Council (CAUFC):** As a coalition, CAUFC is dedicated to the expansion and perpetuation of sustainable urban and community forests to enhance the quality of life for all Californians.

Non-profit organizations such as One Tree Planted, River Partners, the San Joaquin River Conservancy, and others provide the public the ability to donate to support tree

planting and also advocate for the allocation of state and federal funding towards tree planting or replanting in forest, river, and/or urban areas in California.

STRATEGIES DEVELOPED FOR IMPLEMENTATION IN COMMUNITY

Due to the community's interest in increased urban greening, the District will be working with other agency partners to bring increased funding for urban greening to the AB 617 selected communities, as further described in the following measure.

The following is a suggested measure not within the Air District's jurisdiction to directly implement:

UG.1 URBAN GREENING AND FORESTRY

Overview: The purpose of this strategy is to identify and support efforts to increase urban greening/forestry to improve air quality for residents in the Stockton community. The focus areas will include, Charter Way, Boggs Tract, and El Dorado. This measure is supported by scientific studies that have shown urban trees and forestry can help with the removal of air pollutants and reduced emissions of volatile organic compounds (VOC's). The effects of urban trees on fine particulate matter (PM2.5) was modeled for ten U.S. cities, with total annual PM2.5 removal varying from 5.2 tons in Syracuse to 71.1 tons in Atlanta. Overall air quality improvements attributed to urban trees ranged between 0.05% in San Francisco to 0.24% in Atlanta (Nowak, Hirabayashi, Bodine, Hoehn, 2013). Based on a study to assess the effects of urban trees on air quality have found that urban vegetation can attribute to temperature reduction, removal of air pollutants, reduced emission of VOCs, and building energy conservation (United States Department of Agriculture Forest Service, 2002). The measure would also include an on-going maintenance program with the city.

The District has long been supportive of the public benefits provided from planting of trees and vegetation. The District's Fast Track Action Plan, adopted by the Governing Board to reduce ozone pollution in the Valley, identified strategic use of tree and vegetation planting as a potential measure to reduce ozone. There has also been significant efforts at the federal, state, and local levels to promote and increase urban greening and forestry through funding opportunities, programs, and projects.

It should be noted that, while the District has no direct authority over how agencies allow land, under their jurisdiction, to be used. These land-use decisions on whether to allow or require urban greening in specific locations, are the responsibility, under state law, of cities and counties, or, in some cases, state and federal agencies responsible for transportation corridors, state and federal parks, and other properties. While AB 617 does not provide the District with new land-use regulatory authority, so land-use authority continues to remain with cities, counties, and state and federal land-use agencies, as discussed in CARB's Blueprint (see "Who Has the Authority to Implement Actions?", page 26 of the Blueprint), the District is committed to working with these agencies and the CSC to see this measure implemented this measure.

Implementing Agency: SJVAPCD, CDOT, City, County, Port of Stockton, other local partners

Type of Action: Partnership, Incentives

Implementation: 2021-2025

Budgeted Amount: $1,000,000

Quantifiable emission reduction: CARB has an established methodology through the Urban & Community Forestry Program

EXPOSURE REDUCTION STRATEGIES FOR SCHOOLS

SCHOOLS IN THE STOCKTON COMMUNITY

The Stockton Unified School District is the primary district serving the Stockton AB 617 community. In addition to the 32 schools within the Stockton Unified School District, three private schools also operate within the boundaries. Enlisting the participation and support of these schools in the effort to reduce children's exposure is key to ensuring that benefits are as widespread as possible. Targeting schools like Washington Elementary School protects the most vulnerable populations. All children, but especially young children, are considered sensitive receptors with respect to air pollution and it is vital that their protection from unhealthy air during their developing years is made a priority.

COMMUNITY CONCERNS AND COMMENTS

A primary concern expressed by Steering Committee members is to ensure cleaner air both indoors and outdoors for children at school while fully engaging local school districts and parents in clean-air efforts. Committee members expressed a desire to prioritize schools in neighborhoods with the highest risk of exposure to pollutants, such as those near the Stockton Port and near existing truck routes, and to enlist the cooperation and support of Stockton Unified School District as programs are further developed during the implementation phase of the CERP. The Steering Committee also requested incorporating an "Emissions Free Zone" model into the outreach strategies developed.

CURRENT CONTROL PROGRAMS

The District's Healthy Air Living (HAL) Schools program empowers participating schools to make informed decisions about outdoor activities based on real-time air quality conditions. School staff sign up for automated notifications when air quality becomes harmful using the Real-time Air Advisory Network (RAAN) tool, and receive health-protective recommendations for the modification or cancellation of outdoor activities accordingly through the Real-time Outdoor Activity Risk (ROAR) guidelines. The program includes access to resources like anti-idling signs, air quality widgets for school websites, bilingual informational materials, and bilingual educational speakers for students, parents, and staff. This program will be expanded to include an "Emissions Free Zone" model into the coordination with schools.

STRATEGIES DEVELOPED FOR IMPLEMENTATION IN COMMUNITY

Strategies developed to reduce the exposure of children within the community require a twofold approach: increasing enrollment of schools in the HAL School program protects children from exposure to unhealthy outdoor air through the widespread adoption of RAAN and ROAR; further, establishing a program that offers incentive funds to install advanced air filtration systems in community schools reduces exposure to potentially unhealthy indoor air quality.

The following are proposed measures that are within the Air District's statutory jurisdiction to implement:

SC.1 INCENTIVE PROGRAM TO INSTALL ADVANCED AIR FILTRATION SYSTEMS IN COMMUNITY SCHOOLS

Overview: The goal of this strategy is to reduce the impact of air pollution on children at schools. Air filtration reduces the concentration of particulate contaminants from indoor air and is an important component of a school's Heating Ventilation and Air Conditioning (HVAC) system. Reducing airborne particles is important due to the negative impacts to human health, especially that of sensitive populations such as children and the elderly.

This strategy would provide up to $2,640,000 in incentive funding for schools within the Stockton boundary to install advanced air filtration systems, utilizing existing Community Air Protection Program guidelines. Proposed funding amounts would provide local schools with funding to install HVAC filters with a minimum efficiency reporting value (MERV) rating of 14 or greater or the highest MERV filter the current HVAC system can handle and/or standalone air filtration units as determined through an assessment performed by the trained school district staff or third party vendor. The MERV rating reflects the filter's ability to capture particles in the air, the higher the MERV rating, the better the filter is at trapping particles.

Implementing Agency: SJVAPCD

Strategy Type: Incentives

Budgeted Amount: $2,640,000

SC.2: REDUCE CHILDREN'S EXPOSURE THROUGH INCREASED ENROLLMENT IN THE HEALTHY AIR LIVING SCHOOLS PROGRAM AND THE ESTABLISHMENT OF EMISSION FREE ZONES

Overview: The goal of this strategy is to reduce children's exposure to unhealthy air by increasing the enrollment of schools in the Healthy Air Living (HAL) Schools program to decrease vehicle idling, limit children's outdoor activity during episodes of poor air quality, and educate student about protecting our air. Additionally, the strategy is to work with school staff and students to educate the public, educators and parents regarding having an "Emission Free Zone" around schools, thereby reducing negative health impacts on student's health caused by emissions generated from vehicle idling. To help in this effort, "No Idling" signage in English and Spanish will be distributed to schools within the boundary. Additionally, informational videos will be used as an outreach tool and will be made available in languages such as Spanish, Tagalog, and others on an as needed basis.

Implementing Agency: SJVAPCD

Strategy Type: Outreach

Emission Outcome: Reduction

INDOOR AIR QUALITY

Indoor Air Quality refers to the air quality within buildings and structures, especially as it relates to the health of building occupants. Some health effects may show up shortly after a single exposure or repeated exposures to a pollutant. These include irritation of the eyes, nose, and throat, headaches, dizziness, and fatigue. Such immediate effects are usually short-term and treatable. Sometimes the treatment is simply eliminating the person's exposure to the source of the pollution, if it can be identified. Soon after exposure to some indoor air pollutants, symptoms of some diseases such as asthma may show up, be aggravated, or worsened.

Outdoor air enters and leaves a building by: infiltration, natural ventilation, and mechanical ventilation. In a process known as infiltration, outdoor air flows into buildings through openings, joints, and cracks in walls, floors, and ceilings, and around windows and doors. In natural ventilation, air moves through opened windows and doors. Mechanical ventilation is the use of ducts and fans to circulate air.

Americans spend over 90 per cent of their time indoors, and poor indoor air quality is considered a top environmental health risk. Mitigation programs should focus on achieving measurable improvements in reducing risks from indoor pollutants.

Weatherization measures, such as installing weather-stripping and caulking around windows and doors, can reduce the amount of outdoor air infiltrating into a home and decrease energy costs associated with heating and cooling. In addition, using a portable air cleaner and/or upgrading the air filter in your furnace or central heating, ventilation, and air-conditioning (HVAC) system can help to improve indoor air quality. Portable air cleaners, also known as air purifiers or air sanitizers, are designed to filter the air in a single room or area. Central furnace or HVAC filters are designed to filter air throughout a home. Portable air cleaners and HVAC filters can reduce indoor air pollution; however, they cannot remove all pollutants from the air.

COMMUNITY CONCERNS AND COMMENTS

Community commenters have noted that providing community residents with information about existing weatherization programs, should be augmented with incentives to assist residents in improving indoor air quality through a residential air filtration program.

STRATEGIES DEVELOPED FOR IMPLEMENTATION IN COMMUNITY

Based on interest from the community and a growing understanding at the state level of the need to improve indoor air quality the following strategy has been developed for implementation as a part of the Stockton CERP.

The following is a suggested measure not within the Air District's jurisdiction to directly implement:

IAQ.1: INCENTIVE PROGRAM FOR RESIDENTIAL AIR FILTRATION AND WEATHERIZATION

Overview: The goal of this strategy is to reduce the impact of and exposure to air pollution on community residents near sources of pollution within their homes. Indoor air filtration devices can be of assistance in improving indoor air quality in homes. While air cleaning devices alone cannot adequately remove all indoor pollutants from homes, they can be very helpful when large amount of pollution enter a home during unusual events, such as during a wildfire. Weatherization of a home (improving seals around doors and windows, increasing the amount of home insulation, and improving home HVAC systems) can reduce outside pollutants moving into the home and decrease the overall energy demand for residents.

Due to the ability for some residential air filtrations systems, such as electrostatic precipitator and ionizers, to generate ozone as a byproduct, which is a criteria air pollutant and causes lung irritation[1]. In some cases, the use of these types of air filters can increase indoor ozone concentrations beyond public health standards. For this reason, this strategy will focus on the use of mechanical air filtration that relies on using filter media to remove indoor air pollution.

This strategy would establish an incentive program for residential air filtration for community residents near sources of air pollution, and increase outreach and access to programs available for low-income residents in Stockton to receive weatherization services.

Implementing Agency: SJVAPCD, partner agencies such as San Joaquin County Human Services Agency: Home Energy Assistance Program (HEAP)

Strategy Type: Incentive

Budgeted Amount: $1,000,000

Emission Outcome: Reduction

[1]Residential Air Cleaners – A Technical Summary – US EPA (https://www.epa.gov/sites/production/files/2018-07/documents/residential_air_cleaners_-_a_technical_summary_3rd_edition.pdf)

COMMUNITY OUTREACH STRATEGIES

CURRENT OUTREACH PROGRAMS

The District's Outreach and Communications team conducts air quality outreach throughout all eight counties of the San Joaquin Valley. The District coordinates events, delivers presentations, responds to the media 24/7, manages social networks, pilots outreach campaigns like the Healthy Air Living (HAL) Schools and the winter residential "No Burn" programs, and connects with the public in multiple languages across any medium. In addition to offering media interviews, answering questions posed by the public, partnering with local institutions, and accepting speaking engagements, the District also conducts paid advertising and informational campaigns regularly to spread air quality awareness across social media, digital networks, television, radio, billboards, and other venues. Through the development of innovative tools like RAAN and the Valley Air App, over 10,000 registered users receive automated notifications when the air quality at any location they choose to follow becomes unhealthy, allowing them to make informed decisions about their outdoor activities to limit their own exposure.

COMMUNITY CONCERNS AND COMMENTS

The Committee recommended that the District engage in a wide variety of multi-lingual outreach efforts via both traditional and social media to allow community members to see and learn about air quality issues, take advantage of grant programs, and provide real-time access to information from air monitoring equipment deployed as part of the AB 617 process. Members of the Steering Committee acknowledged the District's ongoing air quality outreach and education efforts, but expressed concern about effectiveness given perceived public indifference. Effectiveness could be improved by increasing the volume and types of outreach, focusing it to a truly localized level, and using partnerships with key local organizations to better understand how to deliver needed information to the Stockton community residents.

STRATEGIES DEVELOPED FOR IMPLEMENTATION IN COMMUNITY

The Community Air Quality Outreach Strategies go beyond current outreach efforts to provide community-specific information about local conditions and measures the public can take to protect themselves during episodes of poor air quality through new media campaigns, workshops hosted in partnership with local civic and community organizations, and other outreach methods as identified by the community and the District.

O.1: MULTILINGUAL OUTREACH TO INCREASE COMMUNITY AWARENESS AND KNOWLEDGE OF AIR QUALITY

Overview: The goal of this strategy is to increase community awareness of available tools to keep informed of real-time changes in air quality, clean air efforts and how communities can get involved through multi-lingual educational campaigns, videos and partner workshops. The strategy looks to focus outreach on areas of Stockton CSC and resident concerns, including fireworks, illegal burning, trash burning, educating trucking operations about impacts of idling, promotion of biking (including bike paths and trails),

public transportation (including, bus, rail, ferry, and others) and other topics of concern/interest. An understanding of what conditions constitute poor air quality, the relative seriousness of a poor air quality episode, and any potential health impacts is necessary for the public to make informed decisions about how and when to limit their exposure.

This strategy would aim to increase Valley Air App downloads and social media followers among members of the community. A partnership with local civic and community organizations would be established to host workshops at locations commonly available to the public such as libraries, schools, and community, health, or recreation centers. Both the social media outreach and live workshops would promote real-time tools such as myRAAN website, the Valley Air App, the Real-time Outdoor Activity Risk (ROAR) Guidelines, the wildfire page of the District's website, as well as information about general air quality education, wildfire smoke impacts, health effects, and similar topics. This strategy would aim to increase myRAAN website registrations, Valley Air App downloads, and social media followers among members of the community. In addition, this strategy would increase awareness of air quality issues with workshops hosted in locations commonly available to the public such as libraries, schools, and community, health, or recreation centers and on Zoom or other online platforms.

Annual goals for these actions include:

- Attend/host 4 community meetings, in-person or online, to share information
- 1 community targeted social media campaign

Implementing Agency: SJVAPCD

Strategy Type: Outreach

LAWN AND GARDEN EQUIPMENT

LAWN AND GARDEN EQUIPMENT IN STOCKTON

Small off-road engines (SORE) which are typically utilized in gas powered lawn and garden equipment emit oil-based particulates, PM2.5, NOx, and a mixture of hydrocarbons, which combine with other gases to form ozone, carbon monoxide and other toxic air contaminants. This equipment can also cause a significant amount of fugitive dust and can increase fugitive emissions including PM, toxic air contaminants, and ultrafine particles resulting in negative health impacts for the user.

According to a 2003 study by the California Air Resources Board, there are over 11.4 million pieces of residential lawn and garden equipment operating throughout the state. In the Stockton community the emissions from this sector total 6.4 tons per year (TPY) of NOx, 37.3 TPY of VOC and 0.80 TPY of PM2.5. These total emissions contribute 0.6 % of the NOx inventory, 3.4 % of the VOC inventory, and 0.1% of the PM2.5 inventory.

Figure 4-6 Electric Yard Equipment Reduces Emissions near Homes and Places of Business

COMMUNITY CONCERNS AND COMMENTS

Community Steering Committee comments regarding Lawn and Garden equipment included better outreach to inform community members of available incentives and increased incentives for the equipment as well as providing opportunities for residents to receive free electric lawn mowers. In addition, Community Steering Committee comments suggested prioritizing residential equipment replacements and ensuring that commercial equipment operated primarily within the boundaries of the AB617 community.

CURRENT CONTROL PROGRAMS

CARB has a SORE program, which includes lawn and garden equipment. CARB is continuing to consider new standards for small engines to help California meet its goal of reducing smog-forming pollutant emissions from mobile sources by 80 percent by 2031.
https://ww2.arb.ca.gov/our-work/programs/small-off-road-engines-sore

In addition, the District offers incentives to help reduce emissions from gas-powered lawn and garden equipment. The Clean Green Yard Machines (CGYM) program provides funding for the following options:

- The residential CGYM provides rebates for the replacement of an old gas-powered mower with a new electric mower and for the purchase of eligible new electric lawn and garden electric equipment without replacements. To date, this program has replaced over 7,400 lawn mowers with over $1.5 million in funding. http://www.valleyair.org/grants/cgym.htm

- The Commercial CGYM launched in May 2019 and provides funding for the replacement of eligible old gas-powered lawn and garden equipment with battery-powered options for public agencies, private entities, and businesses. http://valleyair.org/grants/cgym-commercial.htm

STRATEGIES DEVELOPED FOR IMPLEMENTATION IN COMMUNITY

In order to achieve additional emission reductions from the Lawn and Garden category the District will provide enhanced outreach and access to Stockton residents or businesses who would like to participate in our available incentive programs. For the residential program, the District proposes to cover the full cost of an electric lawn mower purchase when replacing an existing gas powered mower.

The following are proposed measures that are within the Air District's statutory jurisdiction to implement:

LG.1: INCENTIVE PROGRAM FOR THE REPLACEMENT OF RESIDENTIAL LAWN AND GARDEN EQUIPMENT

Overview: The goal of this strategy is to reduce NOx and PM2.5 emissions from residential lawn and garden equipment by replacing existing gas powered units with battery powered zero emission models. The District's existing Residential Clean Green Yard Machines program focuses on this goal by offering incentive funding ranging from $100-250 for the replacement of existing gas powered units with battery powered zero emission models. Additionally, the District offers up to $50 for the purchase of a new eligible electric lawn care equipment without requiring an old piece of equipment to be turned in. Using existing District Board-approved criteria, this strategy will provide enhanced outreach and education as well as higher incentive funds to local Stockton residents to encourage participation and maximize local emission reductions within the community. This strategy will increase outreach and access to incentive funding while providing rebates up to 100% of the equipment cost of a new electric lawn mower when replacing an existing gas powered model. The goal is to replace 50 gas powered units s at an expected cost of $400 per unit.

Implementing Agency: SJVAPCD

Strategy Type: Incentives and Outreach

Budgeted Amount: XX$20,000

Emission Outcome: Reduction

Quantifiable Emission Reductions: Estimated emissions reductions associated with this measure includes up to 0.012 tons of PM2.5 and 0.018 tons of NOx..

LG.2: INCENTIVE PROGRAM FOR THE REPLACEMENT OF COMMERCIAL LAWN AND GARDEN EQUIPMENT

Overview: The goal of this strategy is to reduce NOx and PM2.5 emissions from commercial landscaping operations, in the Stockton AB 617 community (Stockton community), by replacing existing gas powered equipment with battery powered zero emission models. Emissions from commercial lawn care equipment directly impact equipment operators and community residents. The District currently offers a commercial lawn and garden equipment replacement program which offers incentive funding ranging from $200-$15,000 for the replacement of gas powered lawn equipment with battery operated zero emission technology. In addition, the program provides incentive funds for up to two batteries and one charger to ensure that the equipment is capable of operating for a full day of work. Additionally, the District will focus on increased participation from small, locally owned businesses and schools in the Stockton community to generate immediate emission reductions which directly impact local residents on a frequent basis. This strategy will provide enhanced outreach and access to available incentive funds offered by the District, utilizing Board-approved criteria. The goal of this measure is to replace 5 pieces of commercial grade gas powered lawn and garden equipment at an expected cost of up to $20,000 per unit. Emission reductions associated with this measure will be calculated at a later time.

Implementing Agency: SJVAPCD

Strategy Type: Incentive and Outreach

Budgeted Amount: $100,000

Emission Outcome: Reduction

Quantifiable Emissions Reductions: Estimated emissions reductions associated with this measure will be calculated based on a methodology currently being developed by CARB.

EMISSIONS EXPOSURE AND LAND USE

LAND USE IN THE COMMUNITY

Land use is the characterization of land based on what can be built on it and what the land can be used for. It is important to note that local air districts do not have authority over land use. Land use decisions are directly under the authority of Land use Agencies (e.g. City and County government agencies and Port of Stockton). Land use agencies have jurisdiction over land use, and as such develop land use plans and make decisions about how they grow and expand. The design of development projects in a community significantly influences how people travel, and land use agencies typically have principal responsibility for approving development projects within their jurisdictions for a variety of land use types such as residential (single or multi-family, etc.), commercial (fast food, shopping center, retail, etc.), and industrial (warehouse distribution centers, port operations, etc.). Through the land use approval process, these agencies are responsible for implementing land use strategies that promote increased walkability, commute alternatives and cleaner transit fleets resulting in air quality benefits within a community.

Land use strategies may result in the reduction of vehicle trips by designing development to be more suitable for walking, bicycling, and transit. These land use strategies are typically outlined as measures and goals within a City or County general plan, which is the primary “long range” planning document used to locate future development and provides the framework within which decisions on how to grow, provide public services and facilities, and protect and enhance the environment are made. For information about the City of Stockton General Plan, please refer to Chapter 3, Understanding the Community. Land use agencies’ decisions are critical in contributing to the improvement in air quality within a community and should be geared towards promoting strategies aimed at reducing vehicle miles travelled by increasing community walkability, implementing commute alternatives, and supporting infrastructure for cleaner transit fleets.

COMMUNITY CONCERNS AND COMMENTS

A primary concern expressed by Steering Committee members during meeting discussions was that heavy duty truck exhaust, specifically attributable to truck traffic and idling at the Port of Stockton and from highways and freeways, result in increased exposure to emissions for residents that live near these heavy duty trucking corridors and major thoroughfares in the community. To address community member concerns, measures included in this section will focus both on strategies to reduce conflicting land uses in the community, as well as transportation strategies that reduce exposure to mobile source emissions resulting from land use decisions.

For example, suggestions from community steering committee members included the installation of vegetative barriers to inhibit emission transport from thoroughfares into neighboring communities, increasing opportunities for bicycle path infrastructure projects, support for car sharing programs, supporting the replacement of older truck

fleets with cleaner technologies and strategizing land use planning to minimize or reduce vehicle miles traveled.

As the majority of these suggestions relate to land use issues for which the District does not have authority, the District's approach is to provide support to develop fueling infrastructure for zero and near-zero-emission vehicles, provide incentives for alternative modes of transportation, and to support the land use planning process through the California Environmental Quality Act (CEQA). The District is supportive of measures and policies the land use agency can implement toward making the communities more transit-, bicycle-, and pedestrian-friendly, avoid land use conflicts that lead to toxics and nuisance problems, and minimizing the need to and/or mitigate air quality impacts of individual development proposals.

STRATEGIES DEVELOPED FOR IMPLEMENTATION IN THE COMMUNITY

Several strategies have been identified under this Land Use and Transportation section that span from advocating issues, providing incentives, collaborating with the local land use agency (i.e. City, County, and Port of Stockton), to providing input through the land use process. Land use and transportation strategies developed to reduce emissions due to conflicting land uses are further detailed below.

The following are proposed measures that are within the Air District's statutory jurisdiction to implement:

LU.1: SUPPORT PROJECTS THAT REDUCE VEHICLE MILES TRAVELED

Overview: The purpose of this measure is to facilitate inter-agency collaboration between the City of Stockton, San Joaquin County, and San Joaquin Council of Governments to promote environmentally mindful alternative commute options through early discussion of related land use planning initiatives.

Mobile source emissions represent the vast majority of NOx emissions within the Stockton Community. Reducing emissions from motor vehicles through the implementation of alternate modes of transportation directly contributes to decreasing public exposure to vehicle emissions, such as diesel particulate matter which adversely impacts human health.

Land use decisions are critical in contributing to the improvement in air quality within a community and should be geared towards promoting strategies aimed at reducing vehicle miles traveled by increasing community walkability. Examples of such strategies are listed below:

- Bicycle infrastructure
- Infrastructure to support alternative modes of transportation (electrical vehicles, near-zero emissions vehicles)
- Satellite offices/telecommuting centers to reduce or eliminate employee commutes

Implementing Agency: SJVAPCD, City of Stockton, San Joaquin County, San Joaquin Council of Governments

Strategy Type: Land Use

Emission Outcome: Mitigation

LU.2: BIKE PATH INFRASTRUCTURE FUNDING

Overview: Assess current bike path infrastructure and seek out additional funding opportunities to make the community more bike and walk friendly.

Reducing emissions from motor vehicles through the implementation of alternate modes of transportation, including bicycling, is important to reduce the public's exposure to vehicle emissions including NOx and PM2.5. This strategy would provide incentive funding for the development and construction of Class 1, Class 2, and Class 3 bicycle paths, lane striping, and routes. The proposed funding level of this measure would be consistent with established District guidelines from the District's REMOVE and Public Benefit Grants Programs. Additionally, the District will work with transportation agencies in the Stockton area, and seek to assist these agencies to help identify and leverage existing funds, in addition to AB 617 funding.

Implementing Agencies: SJVAPCD, City of Stockton, San Joaquin County, and San Joaquin Council of Governments

Strategy Type: Incentives

Emission Outcome: Reduction

Budgeted Amount: $500,000

Quantifiable Emission Reductions: Estimated lifetime emissions reductions associated with this measure includes up to 2 tons of PM, 3 tons of NOx, and 6 tons of VOC.

LU.4: COLLABORATE WITH THE CITY OF STOCKTON, SAN JOAQUIN COUNTY, AND SAN JOAQUIN COUNCIL OF GOVERNMENTS TO IMPLEMENT INTEGRATED TRANSPORTATION DEVELOPMENT PLANNING TO IMPROVE HEALTH AND QUALITY OF LIFE THROUGH A VARIETY OF STRATEGIES SUCH AS SMART LONG-TERM PLANNING AND BUFFER ZONES AROUND SENSITIVE SITES

Overview: The goal of this strategy is to enhance inter-agency and community collaboration to reduce the impact of pollution from motor vehicles by prioritizing pedestrian-friendly land-use design elements around downtown Stockton.

Mobile source emissions represent the vast majority of NOx emissions within the Stockton Community. Reducing emissions from motor vehicles through the implementation of alternate modes of transportation, including pedestrian-friendly accommodations, directly contributes to decreasing public exposure to vehicle emissions, such as diesel particulates which negatively impact human health.

Land use decisions are critical in contributing to the improvement in air quality within a community and should be geared towards promoting strategies aimed at reducing vehicle miles traveled by removing barriers to pedestrian transportation. Examples of such strategies include:

- Bicycle infrastructure
- Dedicated pedestrian crossings
- Satellite offices/telecommuting centers to reduce or eliminate employee commutes

Implementing Entities: SJVAPCD, City and County, SJCOG

Strategy Type: Land Use

Emission Outcome: Reduction

HEAVY DUTY MOBILE SOURCES

HEAVY DUTY MOBILE SOURCES IN STOCKTON

There are a variety of heavy-duty mobile sources operating in and around the City of Stockton. These can range from on-road trucks, school and transit buses, off-road equipment, including agricultural and construction equipment, line-haul, short-haul and switcher locomotives. This equipment is primarily powered by diesel engines and, depending on the specific category, is regulated by one or more statewide regulations.

Emissions from this source category include oxides of nitrogen (NOx) and combustion PM from the internal combustion engines. Mobile sources account for more than 85% of the NOx inventory throughout the Valley (Appendix C – Source Apportionment and Community). In the Stockton community, 328.08 tons per year of NOx, 26.44 tons per year of VOC and 9.34 tons per year of PM2.5 are attributed to on-road heavy-duty equipment. In addition, 133.08 tons per year of NOx, 20.49 tons per year of VOC and 6.21 tons per year of PM2.5 are attributed to off-road heavy-duty equipment referenced in these measures.

Figure 4-7 Examples of Heavy Duty Mobile Sources

COMMUNITY CONCERNS AND COMMENTS

During the committee discussions regarding heavy-duty mobile sources, a majority of the committee ranked this source as a high priority to address. Committee member comments and suggestions included providing incentives to replace older trucks, alternative fueling infrastructure development, clean fleet requirements, and shifting trucking routes away from residents.

CURRENT CONTROL PROGRAMS

The District does not have regulatory authority of emissions from mobile sources, including heavy duty vehicles and equipment, locomotives, school and transit buses. Diesel powered on-road heavy duty vehicles are subject to the statewide CARB Truck and Bus Regulation which requires all equipment to get progressively cleaner over time. Off-road heavy-duty equipment is similarly controlled through the CARB Off-Road Regulation, which requires all fleets to be upgraded to newer, cleaner technologies over

time. However, at this time, there are no regulatory requirements in place at the state or federal level controlling emissions from locomotives (for more information, see Section 5.6.2 - CARB Enforcement Strategies).

Due to the large amount of pollution that can be attributed to mobile sources, the District has implemented a broad suite of voluntary incentive programs, targeted at reducing emissions from heavy-duty engines operating throughout the Valley.

Heavy Duty Trucks/Buses:
The District currently offers a variety of programs targeted at replacing or upgrading older, high-polluting trucks and buses with cleaner technology.

- The Heavy Duty Truck Replacement Program http://valleyair.org/grants/truck-replacement.htm. This program provides incentives for the replacement of existing heavy-duty diesel trucks with new, zero or near-zero-emission technology.

- Program for Heavy-Duty Alternative Fuel Infrastructure which provides local businesses and agencies incentive funding to install alternative fueling infrastructure (electric, natural gas, hydrogen, etc.) to support the increased deployment of heavy-duty advanced clean technology vehicles.

- Electric School Bus Incentive Program - http://valleyair.org/grants/electric-school-bus.htm. This program is operated by the District and provides incentives for the replacement of existing older, higher-polluting school buses with new, electric school buses.

- Volkswagen Mitigation Trust – http://vwbusmoney.valleyair.org/
  The VW Mitigation Trust has $130 million in funds to replace older, high-polluting transit, school, and shuttle buses with new battery-electric or fuel-cell buses. Replacing an older bus with a zero-emission bus eliminates particulate matter and other pollutants that impact children and residents riding the buses, as well as residents throughout California communities. This statewide program is being administered by the District.

Locomotives:
Freight locomotives are regulated by the U.S. EPA. The current regulation requires that all locomotives purchased in or after 2015 be at least a Tier 4 emission level. Older, lower Tier engines, which comprise the majority of Class 1 fleets, are still permitted to run. Additionally, CARB is planning actions to address freight locomotive emissions within the State. More details can be found in the 2019 March CARB Board Meeting Informational Update: https://www.arb.ca.gov/board/books/2019/032119/19-3-2pres.pdf

The District offers two incentive programs for locomotive fleets interested in transitioning to newer, clean technology, including:

- Heavy Duty Program – http://valleyair.org/grants/locomotive.htm. Locomotive replacements can be funded as an eligible project category utilizing funding provided to support AB 617. These projects are administered according to Carl Moyer Program guidelines and are subject to additional requirements contained within the approved AB 617 Community Air Protection Guidelines. This program is operated by the District.

- Proposition 1B - http://valleyair.org/grants/locomotives-prop1b.htm. This program incentivizes the reduction of emissions and health risks associated with freight movement along California's trade corridors via upgrading to cleaner technologies or installation of emissions capture and control systems.

STRATEGIES DEVELOPED FOR IMPLEMENTATION IN COMMUNITY

Due to the priority that community members placed on reducing emissions from this source category and the large amount of emissions, including PM2.5 and toxic air contaminants (particularly diesel PM) that originate from heavy duty mobile sources in and around the community, the following strategies have been developed for implementation in the Stockton community.

The following are additional suggested measures not within the Air District's jurisdiction to directly implement:

HD.1: HEAVY DUTY TRUCK REROUTING

Overview: Community Steering Committee members have suggested that a study should be performed to assess the existing heavy-duty diesel truck routes in and around the Port of Stockton and the nearby neighborhoods, including the Boggs Tract neighborhood. The study will focus on whether there are other routes which will result in reduced exposure to toxic air contaminants by residents in the nearby neighborhoods. The District will work with the City, County, and all other appropriate land-use and transportation agencies regarding this and the desire of the CSC for inclusion in the Stockton CERP. The District will work with the City of Stockton and other appropriate agencies to seek funding to support this study.

Jurisdictional Issues: It should be noted that the District has no authority over how agencies allow land under their jurisdiction to be used. These so-called "land-use" decisions, such as truck rerouting, are historically the responsibility, under state law, of cities and counties, or, in some cases, state and federal agencies responsible for transportation corridors, state and federal parks, and other properties. AB 617 does not provide the District with new land-use regulatory authority, so land-use authority remains with cities, counties, and state and federal land-use agencies, as discussed in CARB's Blueprint (see "Who Has the Authority to Implement Actions?", page 26 of the Blueprint). However, the District is committed to working with the implementing agencies to identify additional possible funding sources for the study up to $500,000, developing the scope of work for the study, and coordinating conversations with the implementing agencies and the CSC as necessary.

Implementing Agency: City, County, San Joaquin COG, Caltrans, Port of Stockton

Strategy Type: Partnership

Emission Outcome: Mitigation

Budgeted Amount: $350,000

The following are proposed measures that are within the Air District's statutory jurisdiction to implement:

HD.2: INCENTIVE PROGRAM FOR HEAVY DUTY TRUCKS REPLACEMENT WITH ZERO AND NEAR ZERO EMISSION TECHNOLOGY

Overview: The goal of this strategy is to reduce emissions from heavy duty diesel trucks operating in the Stockton community. This strategy would provide enhanced outreach and access to incentive funding for zero and near-zero emissions, clean truck technologies that are domiciled and operating within the community. District Board-approved methodology and funding levels can be utilized and the District will encourage small business owners to participate in the program while also promoting the selection of all electric, zero emission technology. This measure would replace 50 older, heavy duty diesel trucks operating in Stockton with zero or near-zero emission technology at an expected cost of up to $200,000 per truck. Where feasible and available for the truck type and duty-cycle, the District will prioritize funding for replacement with zero-emissions electric vehicle technologies. By reducing or eliminating emissions from heavy duty diesel trucks, significant PM2.5, diesel particulate matter, and NOx emissions reductions can be achieved.

Implementing Agency: SJVAPCD

Strategy Type: Incentives

Emission Outcome: Reduction

Budgeted Amount: $10,000,000

Quantifiable emission reductions: Estimated emissions reductions associated with this measure includes up to 4 tons of PM (including toxic diesel particulate matter), 191 tons of NOx, and 14 tons of VOCs.

HD.3: SUPPORT PLANNING AND DEVELOPMENT OF HEAVY-DUTY ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

Overview: The goal of this strategy is to provide support for planning and development of fueling infrastructure for heavy-duty zero emission vehicles and transportation

refrigeration units to support broader deployment of clean vehicles operating throughout the community and reduce the impact of emissions from the idling of heavy duty diesel trucks at distribution centers, warehouses, or other freight facilities where trucks are being loaded or unloaded. Utilizing Board-approved methodology and funding levels the District will work closely with businesses, public agencies, and fueling providers to support and incentivize the development of clean-vehicle fueling infrastructure in the area of the community. This action will prioritize incentive funding to support the development and construction of new electric infrastructure within the community. This includes increased outreach to businesses and public agencies operating vehicles within the community as well as prioritized funding for projects that serve vehicles operating in the community.

Depending on the size, throughput and configuration of the fueling infrastructure, the proposed funding amount of $1,000,000 would incentivize the development of a new electric charging station.

Implementing Agency: SJVAPCD

Strategy Type: Incentives and Outreach

Emission Outcome: Reduction

Budgeted Amount: $1,000,000

HD.4: TRUCK IDLING PLUG-INS

Overview: The goal of this strategy is to reduce emissions from heavy duty diesel truck idling and reduce the use of diesel-fueled internal combustion auxiliary power systems at truck stops where diesel trucks congregate in the Stockton community. Truck stop electrification allows a vehicle operator to "plug in" their vehicle and draw electricity directly from the power grid to provide cab heating and cab cooling, to power cab appliances, and to charge the vehicle's battery.

This strategy would provide funding to launch a program in the Stockton community. The District would leverage experience from the Proposition 1B Goods Movement Emission Reduction Program in order to design a program that would fund the purchase and installation of electrical infrastructure and/or equipment to enable heating, cooling, and other use of cab power for parked trucks at truck stops in the Stockton area. This measure would provide $10,000 in funding per unit, for 33 units. The emission reductions associated with this measure will come from HD.1, as this measure serves to support the deployment of zero and near-zero technology.

Implementing Agency: SJVAPCD

Strategy Type: Incentives

Emission Outcome: Reduction

Budgeted Amount: $100,000

HD.5: ENHANCED ENFORCEMENT OF THE STATEWIDE ANTI-IDLING REGULATION

Overview: The goal of this strategy is to limit the potential for localized emissions from heavy duty vehicles for failure to comply with the state's heavy duty anti-idling regulation. Historically, the District has partnered with CARB to conduct anti-idling enforcement throughout valley communities.

The state's anti-idling Airborne Toxic Control Measure limits nonessential (or unnecessary) vehicle idling to specific time limits. It is applicable to all diesel-fueled commercial motor vehicles with a gross vehicular weight rating of greater than 10,000 pounds. The diesel exhaust from excessive idling has the potential to impose significant adverse health and environmental impacts. Therefore, efforts to ensure compliance with the anti-idling regulation, especially near schools and residential areas, are important to reduce the potential for localized impacts within the community.

The District will partner with CARB to conduct additional targeted anti-idling enforcement efforts in the Stockton community with established benchmarks. These benchmarks include anti-idling surveillance to occur at least once per quarter for the next 5 years. The District and CARB will work with the Community Steering Committee to identify heavy-duty vehicle idling "hot spots," especially those near schools, to aid in focusing the enforcement efforts.

Implementing Agency: SJVAPCD and CARB

Strategy Type: Enforcement

Emission Outcome: Reduction in PM2.5, PM10, NOx, VOC, and CO emissions through higher compliance rates with the state regulation

HD.6: INCENTIVE PROGRAM FOR REPLACING OLDER DIESEL SCHOOL BUSES WITH ZERO EMISSION SCHOOL BUSES

To provide increased outreach and access to incentive funding for the replacement of older, high polluting school buses with new zero-emission school buses operating within the Stockton Unified School District.

Replacing older school buses is important to reduce children's exposure to diesel emissions including NOx and PM2.5 and these pollutants negatively impact human health, especially for sensitive populations such as children. New, zero-emission battery electric and near-zero emission natural gas powered school buses are significantly cleaner than older diesel buses.

Emissions from school buses are regulated by the California Air Resources Board Statewide Truck and Bus Regulation that requires transition to cleaner technology over time. Generally phased in by model year.
https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm

This measure would cover up to 100% of the cost of replacing up to 10 diesel school buses with electric buses at $400,000 each.

Implementing Agency: SJVAPCD

Type of Action: Incentives

Implementation: 2021-2025

Emission Outcome: PM, NOx, and VOC reductions

Budgeted Amount: $4,000,000

Quantifiable emission reductions: Estimated lifetime emissions reductions associated with this measure includes up to 0.3 tons of PM, 18 tons of NOx, and 4 tons of VOCs.

HD.7: INCENTIVE PROGRAM FOR REPLACING OLDER DIESEL SWITCHER LOCOMOTIVES WITH NEW CLEAN-ENGINE TECHNOLOGY

Overview: To provide incentive funding for the replacement of older, high polluting switcher locomotives with new clean-technology switcher locomotives operating within and surrounding the Stockton community.

Replacing older switcher locomotives is important to reduce the public's exposure to diesel emissions including NOx and PM2.5. These pollutants negatively impact human health, especially for sensitive populations such as children and the elderly. New, clean-technology railcar movers and/or switcher locomotives are significantly cleaner than older uncontrolled diesel railcar movers and/or switcher locomotives.

The goal of this action is to replace up to 4 older, high-polluting switcher locomotives operating within and surrounding the community. The proposed funding amount would cover up to 95% of the cost of replacing up to 4 diesel switcher locomotives at up to $1,700,000 each.

Implementing Agency: SJVAPCD

Type of Action: Incentives

Implementation: 2021-2025

Emission Outcome: PM, NOx, and VOC reductions

Budgeted Amount: $6,700,000

Quantifiable emission reductions: Estimated lifetime emissions reductions associated with this measure includes up to 12 tons of PM (including toxic diesel particulate matter), 502 tons of NOx, and 31 tons of VOC.

OLDER/HIGH POLLUTING PASSENGER CARS

OLDER/HIGH POLLUTING PASSENGER CARS IN STOCKTON COMMUNITY

Mobile source emissions account for over 85% of the overall NOx inventory in the San Joaquin Valley. With no regulatory authority over these sources, the District has relied on voluntary incentive programs to transition older, higher emitting vehicles to newer, cleaner and more fuel efficient models. With limited public transportation options available to residents driving is more prevalent in the Valley than in other areas of the state. Vehicles registered in the Valley are typically older and have higher mileage than statewide averages.

Emissions from light duty vehicles in Stockton total 114.08 tons per year (tpy) of NOx, 138.23 tpy of VOC, and 12.74 tpy PM2.5. These total emissions contribute 10.5% of the NOx inventory, 17.5% of the VOC inventory, and 10.3% of the PM2.5 inventory.

Figure 4-8 The District's Drive Clean in the San Joaquin Repair and Replacement Program

COMMUNITY CONCERNS AND COMMENTS

Community Steering Committee comments regarding passenger vehicles included increased outreach and incentives for low income residents, increasing charging infrastructure in the community, and questions about the effectiveness of existing programs for low-income individuals. As detailed below, to address these concerns District staff have developed new programs, specifically for Stockton community members, to provide incentive funding for clean-air vehicles, to bring car share programs to the community, and to incentivize the purchase of electric vehicles by the primary local ride share service.

CURRENT CONTROL PROGRAMS

The District does not have regulatory authority of emissions from mobiles sources, however, due to the large amount of pollution that originates from passenger vehicles

the District has implemented a suite of programs to reduce pollution from mobile sources. These programs include the following measures:

- Tune In Tune Up vehicle repair program which provides incentive funds to repair high emitting vehicles. http://valleyair.org/drivecleaninthesanjoaquin/repair/

- Vehicle replacement program which provides funding to replace older, high emitting vehicles with newer, cleaner and more fuel efficient models. https://www.valleyair.org/drivecleaninthesanjoaquin/replace/

- The vehicle rebate program provides rebates for the purchase or lease of a new clean air vehicle including battery electric, fuel cell, plug in hybrid, zero emission motorcycles, and advanced technology natural gas vehicles. https://www.valleyair.org/drivecleaninthesanjoaquin/rebate/

- Incentives are available for publically accessible charging infrastructure through the District's Charge Up! Program http://valleyair.org/grants/chargeup.htm

- The District's Healthy Air Living school program promotes no idling while picking up children at school and provides no idling signs to schools to encourage drivers to turn off their engines.

- District Indirect Source Rule (9510) accounts for mobile source emissions from construction and new development projects and ensures that emissions from these activities are mitigated.

- District Employer based Trip Reduction Rule (9410) requires large employers to implement measures to encourage employees to take alternative transportation to work in order to reduce single occupancy vehicle trips.

- CARB mobile source strategy calls for increasing the deployment of plug in hybrid, battery electric, and fuel cell vehicles in order to attain federal ozone standards, reducing greenhouse gas emissions, minimizing health risks, reducing petroleum usage and increasing energy efficiency.

STRATEGIES DEVELOPED FOR IMPLEMENTATION IN COMMUNITY

Due to the high priority that community members placed on reducing criteria pollutant and toxic air contaminant emissions that originate from passenger vehicles operating in and around the community, District staff and the Steering Committee have developed targeted strategies for implementation in the Stockton community. As further detailed below, measures developed include additional incentive funding intended to increase the deployment of electric vehicles through the replacement of gas powered vehicles currently in use; launching an electric vehicle car sharing program; providing additional charging infrastructure throughout the community; providing for electric vehicle

maintenance training to increase available repair facilities and job skills; and repairing high polluting passenger vehicles.

The following are proposed measures that are within the Air District's statutory jurisdiction to implement:

TP.1: INCENTIVE PROGRAM TO HOST A LOCAL TUNE IN TUNE UP EVENTS TO REDUCE EMISSIONS FROM OLDER, HIGH POLLUTING CARS

Overview: The goal of this strategy is to reduce emissions of high emitting passenger vehicles that may be in need of repair by providing funding for up to 5 "Drive Clean in the San Joaquin" Repair Program events within the Stockton AB 617 community in. Under this program, financial incentives up to $850 will be available for emissions related testing and repairs for eligible high emitting vehicles. Through the program, weekend testing events, if possible, will be held to determine if vehicles are in need of emissions related repairs. Due to the ongoing pandemic, an online and telephone process will be used to provide residents the opportunity to participate until such a time that in-person events can be held safely. Approved participants are provided vouchers which can be utilized for the necessary smog tests, diagnostic work and emissions related repairs at participating STAR certified smog shops. Reducing emissions from passenger vehicles is important due to their contribution to the formation of ozone in the Valley.

Implementing Agency: SJVAPCD

Strategy Type: Incentives

Emission Outcome: Reduction

Budgeted Amount: $300,000

Quantifiable Emission Reductions: Estimated emissions reductions associated with this measure includes up to 3.7 tons of NOx.

TP.2: INCENTIVE PROGRAM FOR THE REPLACEMENT OF PASSENGER VEHICLES WITH BATTERY ELECTRIC OR PLUG IN HYBRID VEHICLES

Overview: The goal of this strategy is to reduce emissions associated with passenger vehicles by replacing 100 vehicles with newer, more fuel efficient models, and providing additional incentives for Level 2 residential chargers in the Stockton community. Emission reductions from passenger vehicles provide benefits to area residents as well as assist in reducing ozone formation in the Valley. Enhanced outreach would be conducted in the Stockton community to ensure that residents are fully aware of available incentive options and community residents would be provided priority access through the program in order to complete projects as quickly as possible. Through the

District's existing Board approved "Drive Clean in the San Joaquin" replacement program, incentives are currently offered for low to moderate income residents of disadvantaged communities to replace their older, high polluting vehicle with a newer, cleaner model. The program currently offers up to $9,500 towards the purchase on an eligible replacement vehicle, with an additional $2,000 provided to participating residents who purchase or lease a plug-in hybrid electric or a battery-electric vehicle and want to install a Level 2 charger in their home.

Implementing Agency: SJVAPCD

Strategy Type: Incentives and Outreach

Emission Outcome: Reduction

Budgeted Amount: $800,000

Quantifiable Emission Reductions: Estimated emissions reductions associated with this measure includes up to 0.2 tons of NOx.

TP.3: INCENTIVE PROGRAM FOR INSTALLATION OF ELECTRIC VEHICLE CHARGING IFRASTRUCTURE

Overview: The goal of this strategy is to provide electric vehicle charging infrastructure necessary to support the deployment of battery electric and plug in hybrid vehicles. The District's Charge Up program currently provides $5,000 for a Level 2 Single Port, $6,000 for a Level 2 Dual Port, and $25,000 for a Level 3/DC Fast Charger with a cap of $50,000 per applicant and/or site. Having the appropriate charging infrastructure available for Stockton residents will encourage the growth of zero emission passenger vehicles in the community.

This strategy would provide incentive funding for publically accessible charging infrastructure to private and public entities in the Stockton community. This strategy would utilize the existing Charge Up program guidelines and funding amounts. The goal of this measure is to install up to 15 electric vehicle charging stations, including Level 2 and Level 3 chargers, in Stockton at an expected cost of up to $25,000 per station. This measure is an important part of a long term solution. There are no direct emission reductions associated with this measure, however, this measure supports the emission reductions associated with electric vehicle deployment.

Implementing Agency: SJVAPCD

Strategy Type: Incentives

Emission Outcome: Indirect Reduction

Budgeted Amount: $375,000

TP.4: INCENTIVE PROGRAM FOR EDUCATIONAL TRAINING FOR ELECTRIC VEHICLE MECHANICS

Overview: The goal of this strategy is to provide opportunities to develop and advance the education of personnel on the mechanics, safe operation, and maintenance of alternative fuel vehicles and infrastructure. To support and to encourage ongoing deployment of electric vehicles in the Stockton community it will be necessary to have qualified, trained personnel available to provide service as needed to these vehicles.

This strategy will provide up to $15,000 per training course for at least 10 alternative fuel mechanic training courses provided by an appropriate entity. While there are no direct emission reductions associated with this measure, this measure supports the emission reductions associated with additional electric vehicle deployment.

Implementing Agency: SJVAPCD

Strategy Type: Incentives

Emission Outcome: Indirect Reduction

Budgeted Amount: $150,000

TP. 5: INCENTIVE PROGRAM FOR THE LAUNCH OF A CAR SHARING PROGRAM IN THE STOCKTON COMMUNITY

Overview: The goal of this strategy is to reduce emissions from passenger vehicles by launching an electric car sharing program in the Stockton community. These types of programs offer access to electric vehicles for a defined period of time at a minimal cost to the user. In addition these programs may allow for a resident to eliminate the use of a gas powered vehicle providing a benefit to community residents by reducing NOx and VOC emissions that would otherwise occur.

This strategy provides funding for a partnering car share provider to launch a program in the Stockton community. The District would leverage experience with existing ride share programs operating in the Valley in order to expand to the Stockton area. This measure would provide $1,000,000 in funding. Projects will include electric vehicles, related infrastructure and subsidies to help minimize the initial cost to the end user. The emission reductions associated with this measure would be calculated in coordination with the project partners once a specific project location is selected by the CSC.

Implementing Agency: SJVAPCD, Housing Authority of San Joaquin, others

Strategy Type: Incentives

Emission Outcome: Reduction

Budgeted Amount: $1,000,000

RESIDENTIAL BURNING

BACKGROUND

The wood burning fireplaces and wood burning heaters source category includes emissions from wood burning fireplaces, wood burning heaters, and outdoor wood burning devices. This source category contributes 5.4 tons per year of PM2.5 towards area sources of emissions in the community of Stockton, representing 4.3% of the total PM2.5 inventory. During winter, residential wood burning, including illegal open burning, is one of the largest sources of particulate pollution. Given the significant localized health impacts associated with residential wood smoke, reducing emissions from residential wood burning is a high priority for Stockton. Many scientific studies have found that prolonged inhalation of wood smoke contributes to adverse impacts on human health, especially among children, elderly, and people with certain medical conditions, and individuals who are sensitive to the impacts of air pollution. A number of environmental justice communities experience a disproportionately high level of directly emitted PM2.5 emissions from residential wood burning.

COMMUNITY CONCERNS AND COMMENTS

The community of Stockton raised concerns with residential wood smoke, both from the use of wood burning fireplaces and wood burning heaters and illegal open outdoor burning. The CSC provided recommendations to implement the enhanced financial incentives for residents to replace existing wood burning devices and pellet stoves with natural gas or electric technologies which will reduce the smoke impacts associated with residential wood burning for downwind communities. The Stockton community made recommendations to ensure significant efforts are made to conduct outreach and education in support of this measure and to increase compliance rates with District Rules 4901 – *Wood Burning Fireplaces and Wood Burning Heaters* and Rule 4103 – *Open Burning*.

CURRENT CONTROL PROGRAMS

The District's comprehensive strategy to reduce emissions from residential wood burning includes implementation of stringent wood burning curtailment requirements through Rule 4901, strong outreach and education to establish the necessary public support, and deployment of financial incentives to transition away from wood burning to cleaner alternatives. This approach that combines regulatory and incentive based strategies is designed to improve the public health by reducing toxic wood smoke emissions in Valley neighborhoods during the peak PM2.5 winter season (November through February). The District has continually enhanced the strategy since adopting the first regulation in 1993. Today, the District has the toughest and most effective residential wood burning strategy in the nation as it reduces emissions when and where most needed, such as during multi-day periods of stagnation, in the evening hours, and in neighborhoods where residents live and play. Additionally, the District enforces the requirements of Rule 4103 which prohibits the use of open outdoor fires for the purpose of disposing of waste materials.

STRATEGIES DEVELOPED FOR IMPLEMENTATION IN COMMUNITY

Due to the priority that the Steering Committee and members of the public placed on reducing PM2.5 and toxic air contaminant emissions that originate from residential burning in and around the community, targeted measures have been developed to reduce emissions from this source category. Building upon the effective implementation of the District's wood burning emission reduction strategy, the District commits to providing enhanced incentives to replace existing wood burning devices and increased outreach efforts to educate the public about harmful impacts of wood smoke and specific actions they can take to reduce pollution and comply with District requirements.

The following are proposed measures that are within the Air District's statutory jurisdiction to implement:

RB.1: INCENTIVE PROGRAM FOR THE REPLACEMENT OF EXISTING WOOD BURNING DEVICES AND PELLET STOVES WITH NATURAL GAS OR ELECTRIC TECHNOLOGIES

Overview: The goal of this strategy is to reduce the impact of PM2.5 pollution associated with residential wood burning by replacing approximately 100 wood burning devices in Stockton with new natural gas devices or electric heat pumps. During the winter months, one of the largest sources of particulate pollution comes from residential wood burning. Emissions are the result of incomplete combustion and are emitted into Valley neighborhoods where residents live and play. Multiple scientific studies show that prolonged inhalation of wood smoke has adverse impacts on human health. Inhalation of wood smoke contributes to lung disease, and pulmonary arterial hypertension, which can eventually lead to heart failure. Through the District's existing Board approved Burn Cleaner program, incentives are currently offered to replace existing wood or pellet burning inserts or free-standing stoves with new natural gas devices or electric heat pumps. The proposed program under this strategy would offer up to $3,000 to replace an existing wood burning device with a natural gas device and up to $4,000 for an eligible electric heating source, such as an electric heat pump.

Implementing Agency: SJVAPCD

Strategy Type: Incentives

Emission Outcome: Reduction

Budgeted Amount: $300,000

Quantifiable Emission Reductions: Estimated emission reductions associated with this measure includes up to 49 tons of PM2.5.

RB.2: EDUCATE PUBLIC REGARDING HARMFUL EFFECTS OF RESIDENTIAL WOOD BURNING FIREPLACE AND WOOD BURNING HEATER SMOKE

Overview: The goal of this strategy is to conduct outreach in the community to educate residents regarding the harmful health effects of residential fireplace wood burning and wood burning heater smoke and the importance of reducing it. Residential wood burning education is important because airborne particles produced by wood smoke (such as PM 2.5) negatively impact human health, especially sensitive populations such as children and seniors who may live in areas where residents burn wood for heating, cooking, or recreation. This strategy's focus includes providing information about programs available to support the transition to natural gas and electric devices, as well as the winter no wood-burning season and District Rule 4901.

This strategy would create a series of four (4) public workshops to educate Stockton residents about wood burning topics and to address questions and concerns interactively and accessibly within a forum setting. Workshops would take place in locations commonly available to the public such as libraries, schools, and community, health, or recreation centers. Depending on circumstances, workshops could also be held in a virtual environment such as Zoom. Wood burning infographics and educational materials would also be circulated to at least six (6) community spaces throughout the Stockton community and the surrounding community with the goal of continuing to spread awareness and increasing applications for incentive funds supporting the transition to natural gas and electric devices. The District will look to coordinate and work with the CSC, community based organizations, and Stockton residents to develop the materials and to provide outreach for the events.

Implementing Agency: SJVAPCD

Strategy Type: Outreach

Emission Outcome: Reduction in localized PM2.5, PM10, NOx, VOC, and CO emissions through higher compliance rates

RB.3: REDUCE ILLEGAL BURNING THROUGH RESIDENTIAL OPEN BURNING EDUCATION

Overview: The goal of this strategy is to reduce illegal burning of residential waste, such as trash, through outreach and education while focusing on areas of concern identified by the CSC, including residential areas and homeless encampments. It is important to continue to educate residents of the localized, harmful emissions created through the burning of residential garbage and how it negatively effects health. Smoke from burning trash and yard waste contain toxic pollutants which are harmful to human health.

This strategy would include working with the City of Stockton and the fire agencies to better understand the illegal open burning issues within the AB 617 community, establish a series of public workshops to educate Stockton residents about illegal open

burning, the health impacts of burning waste, and to address questions and concerns interactively and accessibly within a forum setting either in person or in an online platform such as Zoom. In person workshops would take place in locations commonly available to the public such as libraries, schools, and community, health, or recreation centers when possible. Videos will be used as an outreach tool and be available in languages such as Spanish, Tagalog and others.

Implementing Agency: SJVAPCD, City of Stockton, and local fire agencies

Strategy Type: Outreach

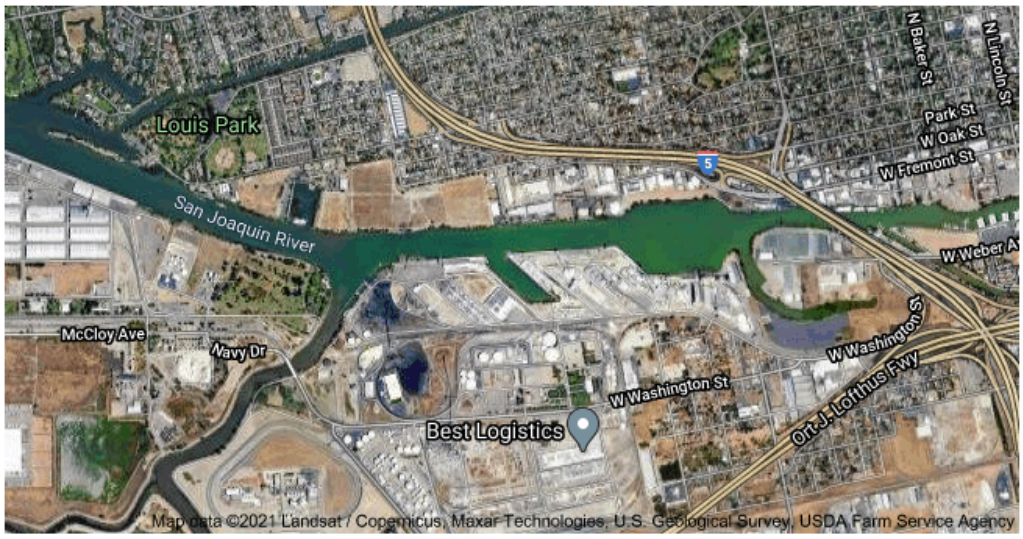
Emissions Outcome: Reduction in localized PM2.5, PM10, NOx, VOC, and CO emissions through higher compliance rates

PORT OF STOCKTON

The Port of Stockton (Port) is a deep-water river inland port located on the Stockton Ship Channel of the Pacific Ocean and is an inland port located approximately 70 nautical miles from the ocean. Operating since 1933, the Port is a hybrid public/private entity and is governed by a commission appointed by the City of Stockton and San Joaquin County. The Port serves as lead agency under the California Environmental Quality Act (CEQA) for projects within its jurisdiction. Cargo is delivered to and from the Port by ships, trucks, and trains. The Port has 7.7 million square feet of warehouses which are either operated by the Port or leased to business partners who provide their own labor. The Port has sixty business partners who have leased land and have constructed and operate facilities with over 125 total tenants. With four major freeways, two transcontinental railroads, an international waterway, and a regional airport, the Port handles liquid and dry bulk, break bulk, and agricultural commodities[5].

In 2017, nearly 4.7 million tons of cargo moved through the Port of Stockton, and that number is expected to continue to grow. The Port is the fourth busiest in the state and as a result, it has an important role in the local and regional economy, including directly and indirectly supporting thousands of jobs[6]. The Port works with upwards of fifty-five different countries, with goods flowing in both directions.

Figure 4-9 Port of Stockton



COMMUNITY CONCERNS AND COMMENTS

The Stockton community identified the activities associated with the Port as an air quality concern. Sources of air pollution include heavy-duty vehicle traffic, ocean-going

[5] Port of Stockton, *About Navigating Success*. Retrieved 1/25/2021 from https://www.portofstockton.com/about/

[6] Port of Stockton, *Port Facts & Figures: By the Numbers.* Retrieved 1/25/2021 from https://www.portofstockton.com/port-facts-figures/

vessels, commercial harbor craft, cargo handling equipment (such as yard trucks, forklifts, reach stackers, and other equipment) and stationary sources located there. The Community Steering Committee (CSC) have recommended placing air monitors to identify major emission contributors, a comprehensive plan to reduce exposures and emissions, and continued residential involvement on the Port's emission reduction planning efforts.

CURRENT CONTROL PROGRAMS

The District does not have regulatory authority of emissions from the following Port of Stockton sources which are subject to statewide CARB regulations. Ongoing efforts to reduce emissions from the Port of Stockton, include the following CARB regulations. For more information, refer to *Statewide Strategies Overview of California Air Resources Board's Statewide Actions*.

- **Ocean Going Vessel Fuel Regulations**
  Adopted in August 2020 and is an updated version of the CARB's At-Berth Regulation that supersedes the existing At-Berth Regulation, as specified, and is designed to achieve further emissions reductions from vessels at berth to improve air quality in communities surrounding ports and terminals throughout California. Emissions reductions will be achieved through the inclusion of new vessel categories (such as vehicle carriers and tanker vessels), new ports, and independent marine terminals, and through updated control requirements, among other provisions.
  https://ww2.arb.ca.gov/our-work/programs/ocean-going-vessel-fuel-regulation
- **Commercial Harbor Craft Regulation**
  CARB's existing commercial harbor craft regulation was adopted in 2007 and will be fully implemented by the end of 2022. CARB is working through a public process to consider additional amendments that may further reduce emissions and pursue more stringent in-use standards, with consideration for Tier 4 engine technology and near-zero and zero emission technologies. For more information on the regulation and potential new regulatory concepts, visit: https://ww2.arb.ca.gov/our-work/programs/commercial-harbor-craft.
- **Mobile Cargo Handling Equipment**
  Mobile cargo handling equipment is any motorized vehicle used to handle cargo or perform routine maintenance activities at California's ports and intermodal rail yards. The type of equipment includes yard trucks (hostlers), rubber-tired gantry cranes, container handlers, forklifts, etc. The Mobile Cargo Handling Equipment (CHE) Regulation was adopted in 2005 to reduce toxic and criteria emissions to protect public health and was fully implemented by the end of 2017. CARB staff is currently assessing the availability and performance of zero-emission technology to further reduce emissions. For more information on the regulation, visit: https://ww2.arb.ca.gov/our-work/programs/cargo-handling-equipment.
- **Drayage Truck Regulation**
  This regulation reduces air toxics and criteria pollutant emissions from drayage trucks. A drayage truck is any in-use on-road vehicle with a gross vehicle weight rating of greater than 26,000 pounds used for transporting cargo to and from

ports and intermodal railyards. The regulation requires all drayage trucks to operate with an engine that is a 2007 model year or newer. Drayage trucks must also meet the requirements of the CARB Truck and Bus Regulation, which requires that all drayage trucks must have 2010 model year or newer engines by January 1, 2023.
https://ww2.arb.ca.gov/our-work/programs/drayage-trucks-seaports-railyards

- **Transport Refrigeration Units Regulations**
  Transport refrigeration units congregate at distribution centers, railyards, and other facilities, resulting in the potential for health risks to those that live and work nearby. CARB is working through a public process to consider new requirements to transition the transport refrigeration units fleet to zero emission operations by requiring both zero emission technology and supporting infrastructure. For more information on this new regulation, visit: https://ww2.arb.ca.gov/our-work/programs/transport-refrigeration-unit/new-transport-refrigeration-unit-regulation.
- **Enforcement of Heavy-Duty Vehicles Inspection Programs**
  When emissions control systems are not operating correctly, in-use emissions can increase. CARB's current inspection programs include the roadside Heavy-Duty Vehicle Inspection Program and the fleet Periodic Smoke Inspection Program. These regulations require heavy-duty vehicles operating in California be inspected for excessive smoke and tampering. In July 2018, CARB approved amendments to the Heavy-Duty Vehicle Inspection Program and the Periodic Smoke Inspection Program to reduce the smoke opacity limits to levels more appropriate for today's modern engine technology. CARB is now exploring the development of a more comprehensive heavy-duty inspection and maintenance program that would help ensure all vehicle emissions control systems are maintained adequately throughout the vehicles' operating lives. For more information on existing heavy-duty maintenance programs, visit https://ww2.arb.ca.gov/our-work/programs/heavy-duty-diesel-inspection-periodic-smoke-inspection-program.

STRATEGIES DEVELOPED FOR IMPLEMENTATION IN THE COMMUNITY

Several strategies have been identified under this Port section that span from advocating issues, air monitoring placement, collaborating with the City, County, and Port of Stockton, to providing input through resident involvement in a sustainable planning process. Collaborative Port strategies developed to reduce emissions are further detailed below.

The following are proposed measures that are not within the Air District's statutory jurisdiction to implement:

P.1: COLLABORATING TO FACILITATE ENHANCED PLATFORMS FOR DISCUSSION AND INFORMATION SHARING BETWEEN THE COMMUNITY AND THE PORT OF STOCKTON AS PORT-RELATED PROGRAMS AND PROJECTS ARE DEVELOPED

Overview: The purpose of this strategy is to provide a platform for discussion between Port of Stockton, CSC members, residents, community-based organizations, and other stakeholders to ensure air quality impacts associated with future development projects related to the Port of Stockton are taken into consideration.

The South Stockton CSC has prioritized the need for better facilitation of local involvement, and community notification regarding Port of Stockton development projects. In keeping with that priority, the Port has committed to adopting a Community Environmental Committee (CEC) geared toward improving their relationship with the community by implementing new engagement platforms.

This measure would include the following commitments by the Port:

1. Establishing a recurring CEC, in 2021, CEC, in 2021, to build collaboration and improve dialogue between concerned citizens in the community and environmental justice organizations to allow them a forum to raise awareness of health-related concerns regarding emissions from existing and future operations at the Port of Stockton. The goals of the CEC will be to encourage additional community engagement, bring community insights to the Port's environmental improvement efforts, and work on select environmental projects within the Port's jurisdiction to help preserve, protect, and improve the environment. Prospective future projects that would be brought before the CEC include:

    a. Discussion of future Port of Stockton projects and expansion
    b. Port of Stockton emission reduction strategy development
    c. Environmental event planning
    d. Community outreach support
    e. Program development

2. Utilizing the Port of Stockton's website to broadcast outward-facing communications through quarterly updates, and to add website functionality for submitting comments, questions, and complaints.

3. Providing routine updates to the CSC regarding ongoing projects happening at the Port of Stockton.

Implementing Agency: Port of Stockton

Strategy Type: Partnership

P.2: INCENTIVE PROGRAM FOR THE DEPLOYMENT OF CLEAN HEAVY-DUTY MOBILE EQUIPMENT OPERATING AT PORTS, INTERMODAL RAILYARDS AND DISTRIBUTION CENTERS

Overview: The goal of this strategy is to reduce emissions from old, high-polluting diesel engines in heavy-duty mobile off-road equipment operating at the Port of Stockton.

Diesel pollution from on-road and off-road operations greatly impacts the health of the community surrounding the Port. Funding will be offered to replace diesel mobile cargo handling equipment used to handle cargo or perform routine maintenance activities at the Port with new, zero and near-zero emissions technologies. Based on CSC priorities, zero-emissions will be prioritized for funding where applicable to the equipment type. Established methodology through the Carl Moyer Program will be used to quantify the emission reductions for funded projects, but an estimate of potential project reductions is summarized below.

Implementing Agency: SJVAPCD

Strategy Type: Incentives

Emission Outcome: NOx & PM reductions

Budget Amount: $2,000,000

Quantifiable emissions reductions: Estimated emission reductions associated with this measure includes up to 2 tons of NOx.

The following are additional suggested measures not within the Air District's jurisdiction to directly implement:

P.3: TUG BOAT REPLACEMENT/REPOWER

Overview:
The goal of this strategy is to reduce emissions from old, high-polluting diesel engines in tugboats operating at the Port of Stockton. Diesel pollution from freight transport operations greatly impacts the health of the community surrounding the Port. Funding will be offered to repower the existing propulsion and auxiliary engines with new diesel engines. The new engines will have the highest tier rating available that will fit within the confines of their engine compartments. Established methodology through the Carl Moyer Program will be used to quantify the emission reductions for funded projects.

Implementing Agency: SJVAPCD

Strategy Type: Incentives

Emission Outcome: NOx & PM reductions

Budget Amount: $1,000,000

Quantifiable emissions reductions: Estimated emission reductions associated with this measure includes up to 1 ton of PM and 29 tons of NOx.

P.4: MARINE EXHAUST INTAKE BONNET EMISSIONS CONTROL

Overview: This measure is still being considered by the Stockton Steering Committee The goal of this strategy is to reduce emissions from the diesel engines of marine vessels while berthed at the Port of Stockton. Diesel pollution from freight transport operations greatly impacts the health of the community surrounding the Port. Funding will be offered to purchase and install a marine vessel exhaust capture and control system. This system will work with marine vessels to reduce PM and NOx emissions while at berth. Available exhaust capture and control systems can reduce PM2.5 up to 95% and NOx up to 90%. Emission reductions for these projects will be quantified using state approved calculation methodology.

Implementing Agency: SJVAPCD

Strategy Type: Incentives

Emission Outcome: NOx reductions

Budget Amount: $2,000,000

Quantifiable emissions reductions: Estimated emission reductions associated with this measure include up to 240 tons of NOx

P.5: UNDERSTANDING AND MITIGATING THE IMPACT OF ALGAL BLOOMS ON AIR QUALITY

Overview: Algal blooms can produce airborne nitrogen compounds like nitrogen oxides that contribute to the formation of other air pollutants such as ground-level ozone, a component of smog which can restrict visibility. Wind and weather can carry ozone many miles from urban to rural areas.[7] The goal of this strategy is to better understand, and where feasible, mitigate the impact of algae blooms on air quality. While the District, the City of Stockton and the Central Valley Regional Water Quality Control Board (CVWB) have committed to extensive interagency cooperation and action in this Stockton Community Emission Reduction Program (CERP), additional opportunities may present themselves in future discussions involving the CSC, the public, the City, and the District, especially as implementation of the CERP progresses.

This measure is the District's commitment to continue to work with local, water-focused organizations, CVWB, the Port, the City, and academic institutions to facilitate discussions between the community and the involved agencies to better understand, and where feasible mitigate, the impact of algae blooms on air quality. Currently, CVWB has developed a workgroup called the California Cyanobacteria and Harmful Algal Bloom (CCHAB) Network. The CCHAB Network includes federal, state, and local

[7] EPA. *Nutrient Pollution. The Effects: Environment*. Retrieved 11/9/2020 https://www.epa.gov/nutrientpollution/effects-environment

agencies, tribes, academia, and non-governmental organizations working to develop a comprehensive coordinated program to address the causes and impacts of harmful algal blooms (HABs) in the state.[8] As part of the coordinated program, the State Water Resources Control Board's Surface Water Ambient Monitoring Program (SWAMP) developed the Freshwater HAB Program.[9] The Central Valley Water Board participates in the statewide Freshwater HAB effort by:

- Collecting information on blooms
- Sampling and analyzing HABs
- Providing information on blooms to local waterbody managers and health officers
- Conducting outreach and education to the general public
- Collaborating with academia and interested stakeholders to better understand the causes of HABs

Implementing Agency: SJVAPCD, Central Valley Regional Water Quality Control Board, Port of Stockton, and City of Stockton

Strategy Type: Partnership

Emission Outcome: Mitigation

[8] Central Valley Regional Water Quality Control Board. *Nonpoint Source Program Cyanobacteria and Harmful Algal Blooms (HABs) in the Central Valley*. Retrieved 11/9/2020 https://www.waterboards.ca.gov/centralvalley/board_decisions/tentative_orders/1807_clnut/2018_0718_clnut_mtg_cyanohab_trifold.pdf

[9] *Central Valley Regional Water Quality Control Board. Nonpoint Source Program Cyanobacteria and Harmful Algal Blooms (HABs) in the Central Valley.* Retrieved 11/9/2020 https://www.waterboards.ca.gov/centralvalley/board_decisions/tentative_orders/1807_clnut/2018_0718_clnut_mtg_cyanohab_trifold.pdf

STATIONARY SOURCES

STATIONARY SOURCES IN STOCKTON

There are a variety of industrial sources located in and around the Stockton Community. These sources range from smaller operations like gasoline dispensing facilities (GDFs), commercial cooking operations, and auto body coating operations to medium sized operations like wood products and agricultural products processing operations, to larger operations like the biomass power facility, bulk gasoline storage, and cement and concrete products facilities; which include equipment like ovens, internal combustion (IC) engines, boilers/steam generators, and many others.

Criteria pollutant emissions from this source category include NOx, SOx, PM10/PM2.5, CO, and VOC, and toxic air contaminants (TACs) like benzene, toluene, xylene, arsenic, and dioxins. Within the Stockton community, 161.57 tons per year of NOx, 210.08 tons per year of VOC and 7.93 tons per year of PM2.5 are attributed to stationary sources.

COMMUNITY CONCERNS AND COMMENTS

During committee discussions regarding industrial sources, committee members identified commercial cooking operations, a wood products manufacturing facility, a biomass facility, a cement products processing facility, and visible dust emissions and odors from operations in and around the port as sources of concern, with suggestions ranging from providing “incentives” to replace older, higher polluting equipment and the evaluation of existing state and District regulatory measures.

CURRENT CONTROL PROGRAMS

For more than 25 years, the District has implemented several generations of emissions control regulations for stationary and area sources under its regulatory jurisdiction. These control measures represent the nation’s toughest air pollution regulations and have greatly contributed to reducing ozone and particulate matter concentrations in the Valley. Stringent and innovative rules, such as those for indirect source review, residential wood burning, glass manufacturing, and agricultural burning, have set benchmarks for California and the nation. While there has been significant progress in reducing air pollution with these regulations, which have been greatly aided by the pollution reduction efforts and financial investments of valley businesses and residents, the District continues to adopt and modify rules to achieve ongoing emissions reductions and advance our progress toward clean air.

Gasoline Dispensing Facilities (GDFs):

Gasoline dispensing facilities in the San Joaquin Valley are subject to District Rule 4621 – *Gasoline Transfer into Stationary Storage Containers, Delivery Vessels, and Bulk Plants* and Rule 4622 – *Gasoline Transfer Into Motor Vehicle Fuel Tanks.*

The purpose of Rule 4621 is to limit VOC emissions from stationary storage containers, delivery vessels, and bulk plants. This rule applies to gasoline storage containers with capacities greater than 250 gallons and has requirements to install CARB certified

vapor control systems. The purpose of Rule 4622 is to limit emissions of gasoline vapors from the transfer of gasoline into motor vehicle fuel tanks. This rule applies to any gasoline storage and dispensing operation or mobile fueler from which gasoline is transferred into motor vehicle fuel tanks. This rule also requires the installation of CARB certified vapor control systems. GDFs are subject to stringent enforcement provisions, including ongoing monitoring of equipment and annual inspections.

Commercial Cooking Operations:
Commercial cooking operations are subject to Rule 4692 – *Commercial Charbroiling* and District Rule 4693 – *Bakery Ovens*. The purpose of Rule 4692 is to limit VOC and PM10 emissions from charbroiling cooking operations. The purpose of Rule 4693 is to limit VOC emissions from the baking of yeast-leavened food products. These rules have very stringent emission limits, periodic monitoring, and source testing requirements.

Commercial cooking operations are subject to stringent enforcement provisions, including ongoing recordkeeping of materials processed and regular inspections.

Auto Body Coating Operations:
Auto body coating operations in the San Joaquin Valley are subject to District Rule 4612 – *Motor Vehicle and Mobile Equipment Coating Operations* and Rule 4101 – *Visible Emissions.*

The purpose of Rule 4612 is to limit VOC emissions from the coating of motor vehicles, mobile equipment, associated parts and components, and associated organic solvent cleaning, storage, and disposal. This rule applies to any person who supplies, sells, offers for sale, manufacturers, or distributes any automotive coating for use within the District, as well as any person who uses, applies, or solicits the use or application of any automotive coating within the District. The rule requires the sale and use of low VOC coatings and solvents, in addition to stringent requirements for the application of these coatings. Auto body coating operations are subject to stringent enforcement provisions, including ongoing recordkeeping of coatings/solvents used and regular inspections. They also must demonstrate continued compliance with additional visible emissions requirements as described in Rule 4101.

Wood Products Processing Operations:
Wood products processing operations are subject to Rule 4101 – *Visible Emissions*, Rule 4201 – Particulate Matter Concentration, Rule 4202 – *Particulate Matter – Emission Rate,* Rule 4306/4320 – *Boilers, Steam Generators, and Process Heaters,* and District Rule 4702 – *Internal Combustion Engines*. The purpose of Rules 4101, 4201, and 4202 is to limit particulate matter emissions from exhaust stacks and industrial processes. The purpose of Rules 4306, 4320, and 4702 is to limit emissions of NOx, CO, VOC, SOx, and PM10 from fossil fuel combustion in boilers, steam generators, process heaters, and stationary internal combustion engines commonly used in these types of facilities. These rules have very stringent emission limits, periodic monitoring, and source testing requirements.

Wood products processing facilities are subject to stringent enforcement provisions, including ongoing recordkeeping of materials processed and regular inspections.

Agricultural Products Processing Operations:
Agricultural products processing operations are subject to Rule 4101 – *Visible Emissions*, Rule 4201 – Particulate Matter Concentration, Rule 4202 – *Particulate Matter – Emission Rate, and* Rule 4306/4320 – *Boilers, Steam Generators, and Process Heaters*. The purpose of Rules 4101, 4201, and 4202 is to limit particulate matter emissions from exhaust stacks and both indoor and outdoor industrial processes. The purpose of Rules 4306 and 4320 is to limit emissions of NOx, CO, SOx, and PM10 from natural gas combustion in boilers, steam generators, and process heaters. These rules have very stringent emission limits, periodic monitoring, and source testing requirements.

Agricultural products processing facilities are subject to stringent enforcement provisions, including ongoing recordkeeping of materials processed and annual inspections.

Cement and Concrete Products Operations:
Cement and concrete processing operations are subject to Rule 4101 – *Visible Emissions*, Rule 4201 – Particulate Matter Concentration, and Rule 4202 – *Particulate Matter – Emission Rate.* The purpose of Rules 4101, 4201, and 4202 is to limit particulate matter and visible emissions from exhaust stacks, process equipment, and conveying equipment. These rules have very stringent emission limits, periodic monitoring, and source testing requirements.

Cement and concrete products processing facilities are subject to stringent enforcement provisions, including ongoing recordkeeping of materials processed and annual inspections.

Biomass Power Facilities:
Biomass power facilities in the San Joaquin Valley are subject to District Rule 4352 – *Solid Fuel Fired Boilers, Steam Generators, and Process Heaters* and Rule 4101 – *Visible Emissions*.

The purpose of Rule 4352 is to limit emissions of NOx and CO from solid fuel fired boilers, steam generators and process heaters. This rule applies to any boiler, steam generator or process heater fired on solid fuels, such as biomass. This rule has very stringent emission limits, periodic monitoring, and source testing requirements. Biomass power facilities are subject to stringent enforcement provisions, including ongoing recordkeeping of materials burned and annual inspections. These facilities must demonstrate continued compliance with additional visible emissions requirements as described in Rule 4101.

Organic Liquid (Gasoline) Terminal Facilities:
Bulk gasoline terminal facilities in the San Joaquin Valley are subject to District Rule 4623 – *Storage of Organic Liquids* and Rule 4624 – *Organic Liquid Loading*.

The purpose of Rule 4623 is to limit VOC emissions from the storage of organic liquids. This rule applies to any tank with a capacity of 1,100 gallons or greater in which any organic liquid is placed, held, or stored. The purpose of Rule 4624 is to limit VOC emissions from the transfer of organic liquids. This rule applies to organic liquid transfer facilities. Facilities that store or transfer organic liquids, such as gasoline pipeline terminals are subject to stringent enforcement provisions, including quarterly leak inspection requirements and annual inspections.

STRATEGIES DEVELOPED FOR IMPLEMENTATION IN THE COMMUNITY

Due to the priority that community members placed on reducing PM2.5 and toxic air contaminant emissions that originate from industrial sources in and around the community, the following strategies have been developed for implementation in the Stockton community.

The following are proposed measures that are within the Air District's statutory jurisdiction to implement:

SS.1: ENHANCED STATIONARY SOURCE INSPECTION FREQUENCY

Overview: The goal of this strategy is to limit the potential for localized air quality impacts at permitted facilities that have had emissions violations in the last three years.

The District conducts inspections and investigations of permitted sources to determine compliance with a multitude of health-protective local, state, and federal air quality regulations that target both criteria and toxic pollutants. The District closely monitors these sources and strictly enforces applicable requirements. Compliance inspections are unannounced whenever possible and involve both a physical inspection of the facility and a review of their records. When a violation of a District permit, rule, or regulation is identified, the District takes an appropriate level of enforcement action.

The District reviewed the enforcement history over a three year period (2017-2020) for the permitted facilities in the Stockton community, and determined that 51 enforcement actions were issued to facilities (not including gas stations) for violations resulting in excess emissions. These violations occurred at 13 permitted facilities in the area and 1 ocean-going vessel. The District also issued 18 enforcement actions at 14 gas stations in the Stockton community for violations resulting in excess emissions. The District believes that more frequent inspections for these 27 facilities would help to limit the potential for air quality impacts associated with emissions violations.

The District will increase the frequency of inspection at each facility within the Stockton community that has had an emission-based violation over the past three (3) years. These facilities will be inspected at least twice per calendar year for the next five (5)

years or until the facility has four (4) consecutive inspections without an emissions violation, whichever occurs first.

Implementing Agency: SJVAPCD

Strategy Type: Enforcement

Emission Outcome: Reduction in excess PM2.5, PM10, NOx, VOC, and CO emissions through higher compliance rates

SS.2: REGULATORY ACTIONS: EVALUATION OF RULES TO DETERMINE WHETHER ADDITIONAL REDUCTIONS ARE POSSIBLE FOR SOURCES OF NOx AND PM2.5

Overview: In addition to the Best Available Retrofit Control Technology (BARCT) implementation schedule above, the District will be analyzing District Rule 4352 - *Solid Fuel-Fired Boilers, Steam Generators and Process Heaters* to pursue additional emission reduction opportunities beyond BARCT.. This rule amendment will be reviewed on the schedule included in the District's *2018 PM2.5 Plan* adopted by CARB into the State Implementation Plan.

Emissions reductions achieved through the implementation of more stringent limits potentially required through these rule amendments will further contribute to reduced exposure to air pollution in the community. Community Steering Committee members, members of the AB 617-selected community, and the general public are encouraged to be involved in the upcoming rulemaking process for these rules.

Implementing Agency: SJVAPCD

Strategy Type: Regulatory

Emission Outcome: Reduction

SS.3: REGULATORY ACTIONS: EXPEDITED FACILITY RISK ASSESSMENT AND RISK REDUCTION UNDER DISTRICT IMPLEMENTATION OF THE AIR TOXICS HOT SPOTS INFORMATION AND ASSESSMENT ACT (AB 2588)

Overview: This strategy will expedite the review of stationary sources of pollution in the community that are currently being reassessed under the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588).

Under AB 2588, all facilities located within the boundaries of the District are required to report toxic substances released into the air by their operation to the District. The District's responsibilities under the state's Air Toxics "Hot Spots" program are to:

- Identify Valley facilities that release toxic air contaminants as a result of their day to day operations,

- Collect and quantify emission data from equipment located at permitted facilities,
- Identify facilities causing localized health impacts on nearby residents,
- Determine facility-wide health risks resulting from the emission of toxic air contaminants,
- Notify nearby residents and businesses of significant risk facilities in their vicinity, and
- Require that significant risk facilities reduce their risks to a level that no longer constitutes a significant risk to nearby residences and businesses.

The District's implementation of AB 2588, California's Air Toxics "Hot Spots" Information and Assessment Act, has resulted in major reductions in emissions of air toxics from existing sources in the San Joaquin Valley. Under this right-to-know law, the District has worked with Valley facilities to quantify emissions of air toxics, determine the health risk caused by those emissions, report emissions and any significant risks through written public reports and neighborhood public meetings, and take steps to reduce such risks.

This measure will result in the expedited AB 2588 reviews for facilities located within the Stockton AB 617 Community. More information about this effort can be found later in the section, "Additional Regulatory Measures to Reduce Emissions in the Community" found later in this chapter. Please refer to Appendix E for additional details about the District's Health Risk Assessment Process, and a table identifying the AB 2588 reassessment status of each facility within the community as of December 21, 2020.

Implementing Agency: SJVAPCD

Strategy Type: Regulatory

Emission Outcome: Reduction

DUST IN THE COMMUNITY

BACKGROUND

In the Stockton community sources of dust emissions include from construction, open areas, and other earthmoving activities. Construction, demolition and other earthmoving activities emit 10.57 tons per year of PM2.5 in the community. Unpaved road dust and dust from open areas also have minor PM2.5 emissions in the area.

COMMUNITY CONCERNS AND COMMENTS

The Community Steering Committee expressed an interest in evaluating air quality impacts and felt it important to look to reduce dust from construction projects and other sources of dust in the community.

CURRENT CONTROL PROGRAMS

Regulation VIII (Fugitive PM10 Prohibition) / Dust Control Plan (DCP): The District's Regulation VIII series (Fugitive PM10 Prohibitions) was adopted in November 2001, and subsequently amended in 2004. This rule series contains a comprehensive suite of rules designed to reduce fugitive PM10 emissions from a range of sources including:

- Specified outdoor fugitive dust sources.
- Construction or demolition related disturbances of soil, including land clearing, grubbing, scraping, excavation, extraction, land leveling, grading, cut and fill operations, travel on the site, travel access roads to and from the site, and demolition activities.
- Outside storage and handling of any unpackaged material, which emits or has the potential to emit dust when stored or handled.
- Prevention and cleanup of mud and dirt whenever it is deposited (carryout and trackout) onto public paved roads
- Open areas 0.5 acres or more within urban areas, or 3.0 acres or more within rural areas that contain at least 1,000 square feet of disturbed surface area.
- Any paved, unpaved, or modified public or private road, street highway, freeway, alley way, access drive, access easement, or driveway.
- Unpaved vehicle/equipment areas, including parking, fueling, service, shipping, receiving, and transfer areas.
- "Off-field" agricultural sources including, but not limited to, unpaved roads, unpaved vehicle/equipment traffic areas, and bulk materials.

The Regulation VIII rules are implemented via the District's Dust Control Plan (DCP) program: https://www.valleyair.org/busind/comply/PM10/compliance_PM10.htm

STRATEGIES DEVELOPED FOR IMPLEMENTATION IN COMMUNITY

Due to the priority that the Steering Committee placed on reducing dust in the community, specific a specific strategy has been developed to target emission reductions from fugitive dust sources. The District is proposing increased enforcement

of Regulation VIII rules to reduce fugitive dust from construction and earthmoving activities within the community.

The following proposed strategy is within the Air District's statutory jurisdiction to implement:

FD.1: ENHANCED ENFORCEMENT OF DISTRICT REGULATION VIII FUGITIVE DUST REQUIREMENTS

Overview: The goal of this strategy is to limit the potential for localized air quality impacts associated with fugitive dust from construction/earthmoving activities and open areas subject to District Regulation VIII.

District rules limit fugitive dust emissions from construction, demolition, and earthmoving; bulk material storage; open areas; and unpaved roads and vehicle/equipment traffic areas. Furthermore, District rules restrict carryout and trackout of dirt and dust onto paved public roadways. Regulation VIII does not limit emissions from vehicles used in these projects.

Regulation VIII requires, a Construction Notification or Dust Control Plan for all construction activities in the District involving one or more acre of disturbed surface area. District staff reviews each Construction Notification and Dust Control Plan prior to the start of construction, to ensure that operators have planned to utilize required work practices to reduce fugitive dust emissions to within rule limitations. Additionally, District staff surveys and inspects such sites, responds to complaints regarding fugitive dust, and provides training classes for those required to submit Dust Control Plans.

In reviewing the compliance history for the Stockton community, it was determined that the District had received 26 complaints regarding fugitive dust related issues over the last 3 years, with the majority pertaining to construction/earthmoving activities and open areas. Building on the District's existing surveillance and complaint response efforts, the District will conduct at least one targeted enforcement effort within the Stockton community during both the 2nd and 3rd quarters for the next five (5) years.
This fugitive dust reduction enforcement strategy is being included in the CERP in response concerns raised by CSC members regarding fugitive dust emissions in the community and the complaint history analysis performed by the District.

Implementing Agency: SJVAPCD

Type of Action: Enforcement

ADDITIONAL INFORMATION ABOUT REGULATORY MEASURES TO REDUCE EMISSIONS IN THE COMMUNITY

Due to the nonattainment status of the Valley Air Basin for the criteria pollutants of fine particulate matter and ozone, the District requires that permitted facilities implement the most stringent control measures feasible for implementation to control criteria pollutants and associated precursor emissions. Beyond the regulations and stringent permitting requirements that are already implemented Valley-wide, the following sections detail enhanced regulatory strategies that will be implemented in the AB 617-selected community.

BARCT EXPEDITED SCHEDULE

In addition to community monitoring and emission reduction program requirements, AB 617 requires that air districts located in non-attainment areas perform a Best Available Retrofit Control Technology (BARCT) analysis for all categories of units at facilities subject to the state Cap-and-Trade program. In accordance with AB 617 requirements, the District adopted an expedited schedule for performing further determination of BARCT requirements in December, 2018.

The District utilized an extensive evaluation process to make an initial determination of whether the rules that apply to Cap-and-Trade facilities meet all state BARCT requirements, as mandated by AB 617. While District rules are expected to meet BARCT due to the District's ongoing extensive regulatory evaluations, the proposed BARCT implementation schedule includes commitments to establish updated BARCT determinations for District rules as required under AB 617. The proposed schedule was prepared through a public process, which included two public workshops. In addition to the BARCT implementation schedule, the District will be proceeding with amending a number of District rules included as commitments in the District's*2018 PM2.5 Plan*, as discussed earlier in the CERP, that are also subject to the AB 617 BARCT implementation requirement.

In conjunction with District rules applicable to stationary source equipment, under the District's New Source Review permitting regulation, new facilities or facilities modifying equipment that emit air pollutants greater than 2 pounds per day (lb/day), are subject to stringent emissions control requirements. For each piece of equipment that has the potential to emit over the 2 lb/day threshold, the District requires the use of the best available air pollution control technology (BACT) used to control emissions from similar types of equipment. As part of this BACT analysis, the District determines if cleaner technologies that are not generally used for the equipment being analyzed could be used to further reduce emissions from the proposed equipment. This very stringent requirement ensures that the most effective air pollution control technique is utilized, resulting in the least amount of air pollution possible.

In addition to these stringent requirements on new sources of air pollution, rules adopted in the San Joaquin Valley are regularly analyzed for compliance with the state's BARCT requirements.

Best Available Retrofit Control Technology (BARCT)

Existing stationary sources in non-attainment areas such as the San Joaquin Valley have been subject to BARCT requirements since the 1980s, as opposed to some nonattainment areas in California relying on market-based criteria pollutant emission reduction programs and where facilities were not required to comply with BARCT. Although AB 617 does not specifically define BARCT, California Health and Safety Code (CH&SC) Section 40406 defines BARCT as follows:

> *Best Available Retrofit Control Technology (BARCT) is an air emission limit that applies to existing sources and is the maximum degree of reduction achievable, taking into account environmental, energy and economic impacts by each class or category of source.*

Unlike other regions in the state, the District has not relied on market-based systems such as South Coast AQMD's RECLAIM program to achieve regional emissions reductions needed for attainment. Such market-based systems allow sources of pollution to avoid installing BARCT-level controls if regional emissions are reduced at an established rate. This potential path to avoiding installing the best air pollution controls in other air districts was a significant portion of the genesis of this BARCT requirement of AB 617.

In contrast, businesses in the San Joaquin Valley have always had to comply with BARCT in accordance to the implementation schedules established in District rules. When developing attainment plans or amending prohibitory rules, the District evaluates all applicable sources of emissions for potential strategies to reduce emissions. These evaluations include an exhaustive search of air quality regulations throughout the nation, review of existing emission control technologies, and analysis of advanced emission control technologies that may soon be available, to identify potential technologically and economically feasible emission reduction measures. The District's attainment planning efforts rely on these processes to demonstrate on an ongoing basis that District rules meet state and federal emission control requirements, including BARCT and Most Stringent Measures, which exceeds BARCT requirements. Therefore, given the District's ongoing and extensive work to identify and apply most stringent measures necessary to attain the ever-tightening federal health-based standards under the Clean Air Act, it is anticipated that most if not all District rules satisfy BARCT requirements.

The District recognizes that emission control technologies are continually evolving, and therefore, robust and ongoing analysis is necessary to demonstrate that the District's rules continue to meet BARCT and other requirements on an ongoing basis. Furthermore, in the context of the 2016 Ozone attainment plan, the recently adopted PM2.5 attainment plan, and upcoming plans, future rule development actions will be required and, in this process, rules that have recently been determined to meet BARCT during this AB 617 analysis may be subject to further analysis to ensure they continue to meet BARCT requirements. Additionally, in those instances where the District is

made aware of new technology, further case specific and rule specific BARCT determinations may be conducted.

Affected Rules Included in the District's Expedited BARCT Implementation Schedule
As captured in Section 40920.6 of the Health and Safety Code, AB 617 identifies specific requirements for the District to meet when establishing the expedited BARCT implementation schedule. AB 617 requires the schedule to apply to each industrial source that, as of January 1, 2017, was subject to a specified market-based compliance mechanism and give highest priority to those permitted units that have not modified emissions-related permit conditions for the greatest period of time.

Based on information provided by CARB, as of January 1, 2017, 109 facilities within the District were identified as being subject to the state Cap-and-Trade program for greenhouse gas emissions, a market-based compliance mechanism adopted by the state board pursuant to subdivision (c) of Section 38562, and therefore AB 617 BARCT requirements. Evaluating the 109 affected facilities, the District identified that approximately 4,500 active permit units are within the scope of this BARCT analysis. From the 4,500 active permit units, the District determined that 32 District rules that apply to specific source categories of equipment were subject to the BARCT analysis required under AB 617.

District staff performed analysis of 32 affected rules and determined that:

- 5 rules were superseded by a more stringent rule known to meet BARCT or by a rule subject to further BARCT analysis,
- 5 rules were determined to meet Most Stringent Measures (MSM) for NOx, the only relevant pollutant for these affected rules and, therefore, meet BARCT, and
- 19 rules were specifically determined to meet BARCT through an extensive rule and source category evaluation that compared our rule requirements with federal and state air quality regulations and with regulations of other air districts in California.
- While the remaining 13 rules likely already meet BARCT due to the District's ongoing and extensive regulatory evaluations and enhancements, the proposed BARCT implementation schedule includes commitments to establish updated BARCT determinations for these rules, which will occur in the 2020-2022 timeframe.

Prioritization Criteria for Expedited BARCT Analysis Schedule
Section 40920.6(c)(3) of the Health and Safety Code requires Districts to give highest priority to conduct the BARCT analysis to those rules affecting permitted units that have not modified emissions-related permit conditions for the greatest period of time. To assist in further prioritization, the District also considered local public health, clean air benefits to the surrounding community, and regional air quality and attainment benefits by prioritizing units that emit NOx and are located within communities selected for action under AB 617. In addition, while cost-effectiveness of controls can't be fully analyzed until each rule is addressed during the development of a BARCT rule, the District also

prioritized rules with the greatest number of potentially affected units, which, when coupled to the law's requirement of prioritizing based on the length of time since the units were last modified, provides some consideration of the most likely controls to be cost-effective.

Public Process

As a part of the public process associated with establishing this schedule, the District conducted a public scoping meeting on June 14, 2018, to solicit input from stakeholders regarding the District's proposed methodology to address the AB 617 requirement to adopt an expedited BARCT analysis schedule by the end of 2018.

The District held a public workshop on November 1, 2018, to solicit input from the stakeholders regarding the Districts proposed expedited BARCT Rule implementation schedule. No comments were received from stakeholders after this workshop.

In addition, the District held a public workshop on July 30, 2020, to provide an update on the Best Available Control Technology (BARCT) analysis of District rules as required under AB 617 and the District's Expedited BARCT Implementation Schedule.

Expedited BARCT Implementation Schedule

Through this public process and in accordance with AB 617 requirements, the District has adopted the following expedited BARCT implementation schedule:

Table 4-1 Expedited BARCT Implementation Schedule

Rule	Title	BARCT Determination Status	BARCT Determination Schedule	BARCT Rulemaking Schedule (if necessary)
4454	Refinery Process Unit Turnaround	Rule determined to meet BARCT	2019	---
4641	Cutback, Slow Cure, And Emulsified Asphalt, Paving And Maintenance Operations	Rule determined to meet BARCT	2019	---
4104	Reduction of Animal Matter	Rule determined to meet BARCT	2019	---
4409	Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities, and Natural Gas Processing Facilities	BARCT evaluation completed, rule development process necessary	2019	Public scoping meeting held in Dec 2020, Rule development process to be completed in 2021.
4455	Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants	BARCT evaluation completed, rule development process necessary	2019	
4702	Internal Combustion Engines (VOC only)	Scheduled (in conjunction with PM2.5 Plan commitment)	2020	Rule amendment scheduled for early 2021
4623	Storage of Organic Liquids	BARCT evaluation completed, rule development process necessary	2020	Public scoping meeting held in Dec 2020, Rule development process to be completed in 2021.

4694	Wine Fermentation and Storage Tanks	Rule determined to meet BARCT	2020	-----
4624	Transfer of Organic Liquid	BARCT evaluation completed, rule development process necessary	2020	Public scoping meeting held in Dec 2020, Rule development process to be completed in 2021.
4603	Surface Coating of Metal Parts and Products, Plastic Parts and Products, and Pleasure Crafts	Rule determined to meet BARCT	2020	----------
4601	Architectural Coatings	Rule determined to meet BARCT	2020	---------
4401	Steam-Enhanced Crude Oil Production Wells	BARCT evaluation completed, rule development process necessary	2021	Public scoping meeting held in Dec 2020, Rule development process to be completed in 2021.
4566	Organic Material Composting Operations	Scheduled	2021	-------
4625	Wastewater Separators	Scheduled	2021	-------
4621	Gasoline Transfer Into Stationary Storage Containers, Delivery Vessels, and Bulk Plant	Scheduled	2021	--------
4402	Crude Oil Production Sumps	Scheduled	2021	------
4351	Boilers, Steam Generators, and Process Heaters - Phase 1	Rule superseded by more stringent rules, District Rules 4305,	---	---

		4306, and 4320		
4405	Oxides of Nitrogen Emissions from Existing Steam Generators Used in Thermally Enhanced Oil Recovery - Central and Western Kern County Fields	Rule superseded by more stringent rules, District Rules 4305, 4306, and 4320	---	---
4406	Sulfur Compounds from Oil-Field Steam Generators - Kern County	Rule superseded by more stringent rules, District Rules 4305, 4306, and 4320	---	---
4305	Boilers, Steam Generators, and Process Heaters - Phase 2	Rule superseded by District Rules 4306 and 4320, more stringent rules	---	---
4701	Internal Combustion Engines - Phase 1	Rule superseded by District Rule 4702, a more stringent rule	---	---
4309	Dryers, Dehydrators, and Ovens	Rule determined to meet BARCT	---	---
4703	Stationary Gas Turbines	Rule determined to meet BARCT	---	---
4306	Boilers, Steam Generators, and Process Heaters - Phase 3	Rule determined to meet BARCT	---	---
4307	Boilers, Steam Generators, and Process Heaters - 2.0 MMBtu/hr to 5.0 MMBtu/hr	Rule determined to meet BARCT	---	---
4320	Advanced Emission Reduction Options for Boilers, Steam Generators, and	Rule determined to meet BARCT	---	---

	Process Heaters Greater Than 5.0 MMBtu/hr			
4311	Flares	Rule determined to meet BARCT	---	---
4354	Glass Melting Furnaces	Rule determined to meet BARCT	---	---
4408	Glycol Dehydration Systems	Rule determined to meet BARCT	---	---
4453	Refinery Vacuum Producing Devices or Systems	Rule determined to meet BARCT	---	---
4612	Motor Vehicle and Mobile Equipment Coating Operations	Rule determined to meet BARCT	---	---
4622	Gasoline Transfer into Motor Vehicle Fuel Tanks	Rule determined to meet BARCT	---	---

UPCOMING 2018 PM2.5 PLAN RULE AMENDMENT EFFORTS

In addition to the BARCT implementation schedule above, the District will be proceeding with amending two District rules to pursue additional emission reduction opportunities beyond BARCT, included as commitments in the District's *2018 PM2.5 Plan* adopted by CARB into the State Implementation Plan:

Emissions reductions achieved through the implementation of more stringent limits potentially required through these rule amendments will further contribute to reduced exposure to air pollution in the community. Community Steering Committee members, members of the AB 617-selected community, and the general public are encouraged to be involved in the upcoming rulemaking process for these rules.

Table 4-2 Scheduled District Rule Amendments to Reduce PM2.5

Rule	Title	BARCT Status	PM2.5 Plan Rulemaking Schedule
4901	Wood Burning Fireplaces and Wood Burning Heaters	No units subject to AB 617 BARCT analysis. Rule amended in June, 2019.	2019 (Completed)
4311	Flares	Rule meets or exceeds BARCT	2020 (Completed)
4306 and 4320	Boilers, Steam Generators, and Process Heaters - Phase 3 and Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr	Rule meets or exceeds BARCT	2020 (Completed)
4692	Commercial Charbroiling	No units subject to AB 617 BARCT analysis	2020 (Completed)
4702	Internal Combustion Engines	Rule meets or exceeds BARCT for NOx, updated AB 617 BARCT determination scheduled for VOCs	2021
4352	Solid Fuel-Fired Boilers, Steam Generators and Process Heaters	No units subject to AB 617 BARCT analysis	2021
4354	Glass Melting Furnaces	Rule meets or exceeds BARCT	2021

Further information on the District's expedited BARCT schedule and rule analyses can be found in the staff report presented to the District Governing Board in December, 2018: http://www.valleyair.org/Board_meetings/GB/agenda_minutes/Agenda/2018/December/final/13.pdf

PERMITTING: BACT AND T-BACT DETERMINATIONS

The California Air Resources Board (CARB) is developing a Technology Clearinghouse of best available control technology (BACT) and best available control technology for toxic air contaminants (T-BACT) determinations for air districts throughout California. The District will use this Technology Clearinghouse as an additional resource for BACT determinations, and will reference this information when developing BACT and T-BACT technology determinations for any new or modified source permitting processes,

including those in the Stockton community. More information about the District's stringent new and modified source review process is available in Chapter 3.

FACILITY RISK REDUCTION AUDITS UNDER AB 2588 (AIR TOXICS HOT SPOTS INFORMATION AND ASSESSMENT ACT)

Background

The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) was enacted in September 1987. Under this act, stationary sources are required to report the types and quantities of certain toxic substances their facilities routinely release into the air. The goals of the Air Toxics "Hot Spots" Act are to:

- Identify Valley facilities that release toxic air contaminants as a result of their day-to-day operations,
- Collect and quantify emission data from equipment located at permitted facilities,
- Identify facilities causing localized health impacts on nearby residents,
- Determine facility-wide health risks resulting from the emission of toxic air contaminants,
- Notify nearby residents and businesses of significant risk facilities in their vicinity, and
- Require significant risk facilities to reduce their risks below the level of significance in accordance with the provisions of the "Emissions Inventory Criteria and Guidelines Report" adopted by the Air Resources Board.

District's Implementation of AB 2588

The District's implementation of AB 2588, California's *Air Toxics "Hot Spots" Information and Assessment Act*, has resulted in major reductions in emissions of air toxics from existing sources in the San Joaquin Valley. Under this right-to-know law, the District has worked with Valley facilities to quantify emissions of air toxics, determine the health risk caused by those emissions, report emissions and any significant risks through written public reports and neighborhood public meetings, and take steps to reduce such risks. As a result of this effort, and the resulting emissions reductions, no Valley facility currently poses a significant risk under this program.

The District's integrated air toxics program fulfills the state AB 2588 Hot Spots mandates, aimed at quantifying and assessing localized health risk, notifying affected residents, and reducing risk from facilities with high risk caused by air toxic emissions. In addition, the District's integrated air toxics program incorporates Airborne Toxic Control Measure (ATCM) regulations promulgated by the Air Resources Board, requiring prescribed control measures for various source categories that cause significant risks at a regional level. Furthermore, the District's integrated program fulfills federal mandates under Title III of the federal Clean Air Act, requiring Maximum Available Control Technology (MACT) for sources of air toxics.

In addition to the state and federal mandates, the District's integrated air toxics program also implements the more stringent local permitting and California Environmental Quality Act (CEQA) requirements, specifically to ensure installation of Best Available Control Technology (BACT) for air toxics and that new permits or modifications to existing facilities will not result in a significant increase in health risk to the public.

The District has spent the last two decades implementing a wide variety of methods to reduce toxic air contaminant emissions in the San Joaquin Valley. Based on the latest California Toxics Inventory, 52% of toxic air contaminants come from mobile sources such as cars and trucks, 34% are emitted from area-wide sources like road dust, paints, solvents, and other consumer products, and 14% of all air toxics in the San Joaquin Valley are emitted from stationary sources of pollution under the direct control and regulation of the District. Mobile and area-wide sources of emissions are generally under the regulatory authority of the State of California and the federal government.

The District's integrated approach to addressing and reducing risks from toxic air contaminants has taken three main paths:

- Reducing air toxic emissions from existing stationary sources of emissions,
- Preventing the creation of new or modified stationary sources of significant risk, and
- Finding creative and cooperative methods of reducing risk from emissions sources that the District does not typically regulate.

In 2015, the District began implementing the state Office of Environmental Health Hazard Assessment's (OEHHA's) revised Guidance on Preparation of Health Risk Assessments that was adopted by OEHHA in early March 2015. Following OEHHA revised guidelines, the District began a health risk reassessment of all facilities located in the San Joaquin Valley. The health risk reassessment follows the phased processing schedule outlined in AB 2588, which was originally implemented in the late 80's and early 90's. AB 2588 subjected three major categories (or phases) of facilities to the regulation based upon their level of annual emissions.

Reassessment of facilities subject to the AB2588 Hot Spots regulation is a multi-year process that started in 2016, following the phases identified below:

- Phase I Facilities (≥ 25 tons emissions per year)
- Phase II Facilities (10 ≤ tons emissions per year < 25)
- Phase III Facilities (< 10 tons emissions per year)
- Phase IV Facilities (Industry-wide and agricultural facilities)

Prioritizing Facility Health Risks

Based on the emissions inventory, the District is prioritizing each facility's health risk based on established statewide guidelines using a computerized modeling program. A "prioritization" is a conservative health risk assessment screening analysis, resulting in a facility prioritization score used to determine if a more refined health risk assessment is

necessary based on the results of the modeling program. As part of this process, very conservative assumptions are utilized, with many safety factors built in to determine the worst-case health risk to possible receptors. The purpose of these safety factors is to ensure that the most sensitive receptors (children, elderly, pregnant women, and people with weakened immune systems) are protected. Facilities ranked as high priority are required to perform health risk assessments. The District prioritizes and ranks the health risk posed by a facility as "low", "intermediate", or "high" priority, based on the following:

- Low Priority: Prioritization Score $\leq$ 1
  Facility Exempt from further AB 2588 requirements
- Intermediate Priority: 1 < Prioritization Score $\leq$ 10
  Facility required to provide updated summary every four years
- High Priority: Prioritization Score > 10
  Facility required to perform a refined Health Risk Assessment

Health Risk Assessment Process

When a facility's prioritization score exceeds 10, the facility is classified as "High Priority" and a Health Risk Assessment (HRA) is required for the facility, and such facility is required to submit an HRA for District approval. The District and State Office of Environmental Health Hazard Assessment (OEHHA) are required by the Air Toxics "Hot Spots" Act to review each HRA. Understanding that risk calculations involves a level of uncertainty due to limited data in many areas requiring the use of assumptions. With a focus on health protection, very conservative assumptions are utilized, with many safety factors built in to determine the worst-case risk to possible receptors. The purpose of these safety factors is to ensure that the most sensitive receptors (children, elderly, pregnant women, and people with weakened immune systems) are protected. Therefore, while the actual risk may be much less than the calculated risk, it is very unlikely to be higher than calculated.

Upon approval of facility HRA, the District determines the facility's health risk status, which is classified as a low risk, intermediate risk, high risk, or risk reduction required, based on the following HRA scores:

- Low Risk: HRA cancer risk $\leq$ 1 in a million, and
  HRA total hazard index of < 0.1
  (Facility Exempt from further AB 2588 requirements)
- Intermediate Risk: 1 $\leq$ HRA cancer risk < 10 in a million, or
  0.1 $\leq$ HRA total hazard index $\leq$ 1.0
  (Facility required to provide update summary on a quadrennial basis)

- High Risk: HRA cancer risk ≥ 10 in a million, or
  HRA total hazard index of > 1.0
  (Public Notice)

- Risk Reduction Required: HRA cancer risk ≥ 100 in a million cancer, or
  HRA total hazard index of > 5.0
  (Public Notice and Risk Reduction Audit Plan)

Facilities that pose health risks above District action levels are required to submit plans to reduce their risk. The Risk Reduction Audit Plan (RRAP) trigger level for cancer risk is 100 cases per million exposed persons, based on the maximum exposure beyond facility boundaries at a residence or business. The action level (Risk Reduction Audit Plan) for non-cancer risk is a hazard index of 5 at any point beyond the facility boundary where a person could reasonably experience exposure to such a risk.

The District's review of completeness of the facility's RRAP includes a substantive analysis of the emission reduction measures included in the plan, and the ability of those measures to achieve emission reduction goals as quickly as feasible. If the District determines that the RRAP does not meet those requirements, the District shall remand the audit and plan to the facility and specify the deficiencies. A facility operator shall submit a RRAP addressing the deficiencies identified by the District within 90 days of receipt of a deficiency notice. An updated prioritization and/or health risk assessment shall be determined based on the approved RRAP.

Risk Reduction Audit and Plan Facilities within the District
Based on facility information, as of October 1, 2020, no District permitted facilities in the Stockton AB 617 community present a significant risk for toxic air pollutants and are not required to perform a Risk Reduction Audit and Plan.

AB 617 Community Facility Lists with Associated AB 2588 Designations
Assembly Bill 617 requires the CARB and air districts to develop and implement emissions reporting for disadvantaged communities. With the establishment of the selected community boundaries, the District has put into effect a plan to expedite and streamline the AB 2588 reassessments for facilities located within the selected community of Stockton.

Community-Based AB 2588 Reassessments
Based on previous AB 2588 analyses and on the on-going District's integrated air toxics program, no Valley facilities have been determined to pose significant risk. Therefore, no existing facility(s) have or have been required to prepare a Risk Reduction Audit Plan. However, as mentioned above, the District is currently in the process of

reassessing Valley facilities under AB 2588, which includes those located in the selected community of Stockton.

Please refer to Appendix E for further details about the District's Health Risk Assessment Process, and a table identifying the AB 2588 reassessment status of each facility within the community as of December 21, 2020.

STATEWIDE INCENTIVE AND REGULATORY STRATEGIES

This section provided by the California Air Resources Board

Overview of California Air Resources Board's Statewide Actions

Community-scale air pollution exposure is caused by many factors, including the cumulative impacts from multiple pollution sources. Effective solutions require multiple strategies at both the statewide and local level to deliver new emissions reductions directly within these communities.

The California Air Resources Board (CARB) has adopted a number of comprehensive air quality and climate plans over the last several years that lay out new emissions reduction strategies. These plans include the State Strategy for the State Implementation Plan,[10] the California Sustainable Freight Action Plan,[11] California's 2017 Climate Change Scoping Plan,[12] and the Short-Lived Climate Pollutants Reduction Strategy,[13] along with a suite of incentive programs. The Community Air Protection Blueprint[14] further identified additional actions to reduce the air pollution burden in heavily impacted communities throughout the State. Together, these plans provide a foundation for the new actions identified as part of this community emissions reduction program.

This section illustrates CARB's statewide role in the community emissions reduction program, by broadly describing the regulatory and incentive-based foundational actions CARB has taken to reduce emissions statewide. It also highlights specific actions that address areas of concern identified by the Stockton community. CARB's potential enforcement strategies are described in Chapter 5 of this CERP.

INCENTIVE PROGRAMS

CARB operates incentive programs that reduce the costs of developing, purchasing, and operating cleaner technologies. The programs help ensure cleaner cars, trucks,

[10] California Air Resources Board, *Revised Proposed 2016 State Strategy for the State Implementation Plan*, March 7, 2017, available at: https://ww3.arb.ca.gov/planning/sip/2016sip/rev2016statesip.pdf.
[11] California Department of Transportation, *California Sustainable Freight Action Plan*, July 2016, available at: https://dot.ca.gov/programs/transportation-planning/freight-planning/california-sustainable-freight-action-plan.
[12] California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, November 2017, available at: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan.
[13] California Air Resources Board, *Short-Lived Climate Pollutant Reduction Strategy*, March 2017, available at: https://ww2.arb.ca.gov/resources/documents/slcp-strategy-final.
[14] California Air Resources Board, *Final Community Air Protection Blueprint for Selecting Communities, Preparing Community Emissions Reduction Programs, Identifying Statewide Strategies, and Conducting Community Air Monitoring*, October, 2018, available at: https://ww2.arb.ca.gov/capp-blueprint.

equipment, and facilities are operating in our neighborhoods. Specifically, these program accelerate the introduction of advanced technology vehicles and equipment, accelerate the turnover of older and higher emitting vehicles and equipment, and increase access to clean vehicles and transportation in disadvantaged communities and lower-income households.

Examples of CARB incentive programs include the Carl Moyer Memorial Air Quality Standards Attainment Program[15] and the Community Air Protection Incentives,[16] Proposition 1B: Goods Movement Emission Reduction Program,[17] Funding Agricultural Replacement Measures for Emission Reductions Program,[18] and Low Carbon Transportation Investments and Air Quality Improvement Program (which includes the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project).[19] While CARB is responsible for program oversight, some of these programs are implemented as a partnership with local air districts.

Community Air Protection Incentives

Since 2017 the California Legislature has budgeted $704 million to support Assembly Bill (AB) 617 (C. Garcia, Chapter 136, Statutes of 2017) with incentives directed by local air districts to put advanced technologies to work for cleaner air in the California communities that are most heavily impacted by disproportionate levels of air pollution.

The Legislature designated the initial appropriation of $250 million in 2017 for immediate benefits in heavily impacted communities while the other aspects of AB 617 were created and implemented. In order to ensure swift action, the Legislature directed that air districts must spend funds according to two existing mobile source incentive programs: the Carl Moyer Memorial Air Quality Standards Attainment Program, and the Proposition 1B Goods Movement Emission Reduction Program. Air districts have been using the resulting Community Air Protection Funds Supplement to the Carl Moyer Program 2017 Guidelines since it was approved by the Board on April 27, 2018.

The Legislature appropriated an additional $245 million in 2018 and provided additional direction for new opportunities for stationary source incentives as well as Community-Identified Projects consistent with Community Emissions Reduction Programs. The approved 2019 California State Budget contains another appropriation of $209 million

[15] For more information on the Carl Moyer Memorial Air Quality Standards Attainment Program, visit: https://ww2.arb.ca.gov/our-work/programs/carl-moyer-memorial-air-quality-standards-attainment-program.
[16] For more information on the Community Air Protection Incentives, visit: https://ww2.arb.ca.gov/our-work/programs/community-air-protection-incentives
[17] For more information on the Proposition 1B: Goods Movement Emission Reduction Program, visit: https://ww2.arb.ca.gov/our-work/programs/proposition-1b-goods-movement-emission-reduction-program.
[18] For more information on the Funding Agricultural Replacement Measures for Emission Reductions Program, visit: https://ww2.arb.ca.gov/our-work/programs/farmer-program.
[19] For more information on the Low Carbon Transportation Investments and Air Quality Improvement Program, visit: https://ww2.arb.ca.gov/our-work/programs/low-carbon-transportation-investments-and-air-quality-improvement-program.

for continued incentives to support the Community Air Protection Program, with Legislative direction matching the previous year's appropriation.

Subsequently, staff developed the Community Air Protection (CAP) Incentives 2019 Guidelines[20] to provide eligibility and funding criteria for two new project categories, this represents CARB's first steps in providing incentives to clean up stationary sources of air pollution. The new project categories aim to reduce hexavalent chromium emissions from chrome plating activities, as well as include a suite of project types to reduce exposure at public schools. These guidelines will continue to be expanded with new categories of projects, to be responsive to the needs of the most heavily impacted communities across the State.

At the May 2019 Board hearing, CARB staff was directed to provide more flexibility within the Community Air Protection Incentives Guidelines to allow communities and air districts the ability to develop specific Project Plans to quickly address unique local air quality concerns.

Unlike traditional Moyer projects, Stationary and Community-Identified projects do not lend themselves to the same type of cost effectiveness evaluation. Therefore, the proposed criteria for stationary and Community-Identified projects will focus on community involvement, transparency, and consistency. Air Districts will work with communities to identify project categories needed to address community problems and general concepts. Air districts will then develop Project Plans that:

- Document community support – Community members will evaluate whether there has been sufficient community involvement
- Detail the project selection process
- Set participant requirements
- Establish funding amounts and project costs
- Quantify expected emissions/exposure reductions

To ensure reporting requirements are met CARB will be responsible for:

- Assisting districts with development of technical details
- Helping districts be consistent in quantifying benefits
- Confirming that project plans are consistent with statutory requirements
- Ensuring transparency for communities regarding projects funded, dollars spent, and benefits expected

For more information on air pollution incentives, grants, and credit programs, visit: https://ww2.arb.ca.gov/our-work/topics/incentives.

[20] For more information on the Community Air Protection (CAP) Incentives 2019 Guidelines, visit: https://ww2.arb.ca.gov/resources/documents/community-air-protection-incentives-guidelines

REGULATORY PROGRAMS

Federal, State, and local air quality agencies all work together to reduce emissions. At the federal level, the U.S. Environmental Protection Agency (U.S. EPA) has primary authority to control emissions from certain mobile sources, including sources that are all or partly under federal jurisdiction (e.g., some farm and construction equipment, aircraft, marine vessels, locomotives), which it shares in some cases with air districts and CARB. The U.S. EPA also establishes ambient air quality standards for some air pollutants.

At the State level, CARB is responsible for controlling emissions from mobile sources and consumer products (except where federal law preempts CARB's authority), controlling toxic emissions from mobile and stationary sources, controlling greenhouse gases from mobile and stationary sources, developing fuel specifications, and coordinating State-level air quality planning strategies with other agencies.

Regionally, air districts are primarily responsible for controlling emissions from stationary and indirect sources (with the exception of consumer products in most cases) through rules and permitting programs within their regions.

CARB regulatory programs are designed to reduce emissions to protect public health, achieve air quality standards, reduce greenhouse gas emissions, and reduce exposure to toxic air contaminants. CARB establishes regulatory requirements for cleaner technologies (both zero and near-zero emissions) and their deployment into the fleet, for cleaner fuels, and to ensure in-use performance. CARB's regulatory programs are broad – impacting stationary sources, mobile sources, and multiple points within product supply chains from manufacturers to distributors, retailers, and end-users. CARB's regulations affect cars, trucks, ships, off-road equipment, consumer products, fuels, and stationary sources.

One important and relevant regulatory authority of CARB's is to adopt measures to reduce emissions of toxic air contaminants from mobile and non-mobile sources, known as Airborne Toxic Control Measures (ATCM).[21] These regulatory measures include process requirements, emissions limits, or technology requirements. Additionally, the Statewide Air Toxics "Hot Spots" Program[22] addresses the health risk from toxic air contaminants at individual facilities across the State. The Air Toxics "Hot Spots" Program includes several components to collect emissions data, identify facilities having localized impacts, ascertain health risks, notify nearby residents of significant risks, and reduce those significant risks to acceptable levels.

[21] California Health and Safety Code § 39650 et seq.
[22] Assembly Bill 2588, Air Toxics "Hot Spots" Information and Assessment Act, Connelly, Statutes of 1987, California Health and Safety Code § 44300 et seq.

Under the Air Toxics "Hot Spots" Program, air districts are required to set a threshold for facilities that pose a significant health risk and prioritize facilities for health risk assessments. Air districts also establish a risk value above which facilities must conduct a risk reduction audit and emissions reduction plan. Facilities must develop these health risk assessments, risk reduction audits, and emission reduction plans. CARB provides technical guidance to support smaller businesses conducting health risk assessments and developing emissions reduction plans.

Additionally, in some instances CARB has pursued enforceable agreements with industry that result in voluntary but enforceable adoption of the cleanest technologies or practices and provide assurance that emissions reductions will be realized. CARB's agreement with the Union Pacific Railroad Company and BNSF Railway Company to accelerate introduction of cleaner locomotives in the South Coast Air Basin is an example of an enforceable agreement.

CARB Actions Related to the Stockton Community

This section highlights CARB actions that specifically relate to the Stockton community. This list should not be interpreted as comprehensive or exhaustive, but rather illustrative of some of the major statewide strategies driving emissions reductions in conjunction with those local level strategies identified in this community emissions reduction program. Additional CARB foundational strategies can be found in Appendix D and Appendix F of the Community Air Protection Blueprint.[23]

Recently Adopted CARB Regulations

CARB adopted the **Advanced Clean Trucks Rule**[24] in June 2020 requiring truck manufacturers to transition from producing diesel trucks and vans to electric zero-emission trucks including heavy-duty vehicles beginning in 2024. Manufacturers who certify Class 2b-8 chassis or complete vehicles with combustion engines are required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales will need to be 55% of Class 2b – 3 truck sales, 75% of Class 4 – 8 straight truck sales, and 40% of truck tractor sales. This rule also requires that fleets report information on a one-time basis about their vehicles to support future zero-emission fleet rules.

In August 2020 CARB adopted the **Heavy-Duty Engine and Vehicle Omnibus Regulation and Associated Amendments**[25] which require manufacturers to comply

[23] California Air Resources Board, *Final Community Air Protection Blueprint for Selecting Communities, Preparing Community Emissions Reduction Programs, Identifying Statewide Strategies, and Conducting Community Air Monitoring*, October, 2018, available at: https://ww2.arb.ca.gov/capp-blueprint.
[24] For more information on the Advanced Clean Trucks Rule, visit: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks.
[25] For more information on the Heavy-Duty Engine and Vehicle Omnibus Regulation and Associated Amendments, visit: https://ww2.arb.ca.gov/our-work/programs/heavy-duty-low-nox

with tougher emissions standards, overhaul engine testing procedures, and further extend engine warranties to ensure that emissions of NO_x (oxides of nitrogen, a key component of smog) are reduced to help California meet federal air quality standards and critical public health goals. The regulation is expected to have a significant impact on communities adjacent to railyards, ports and warehouses that typically experience heavy truck traffic. These trucks often idle, move slowly and make frequent stops – all actions that increase NOx emissions. Today's heavy-duty trucks do not control NOx effectively during such "low load" conditions. The new standards will reduce NOx emissions by 90 percent or more when trucks are operating under these low load real-world operations. All components of the new rule will be phased-in, allowing engine manufacturers time to prepare for compliance. The NOx standards that engines must meet will be cut to approximately 75 percent below current standards beginning in 2024, and 90 percent below current standards in 2027.

The **Control Measure for Ocean-Going Vessels At Berth**[26] was also adopted in August 2020 and is an updated version of the CARB's At-Berth Regulation that supersedes the existing At-Berth Regulation, as specified, and is designed to achieve further emissions reductions from vessels at berth to improve air quality in communities surrounding ports and terminals throughout California. Emissions reductions will be achieved through the inclusion of new vessel categories (such as vehicle carriers and tanker vessels), new ports, and independent marine terminals, and through updated control requirements, among other provisions.

Upcoming CARB Regulations

Commercial Harbor Craft Regulation Amendments – CARB's existing commercial harbor craft regulation was adopted in 2007 and will be fully implemented by the end of 2022. CARB is working through a public process to consider additional amendments that may further reduce emissions and pursue more stringent in-use standards, with consideration for Tier 4 engine technology and near-zero and zero emission technologies. For more information on the regulation and potential new regulatory concepts, visit: https://ww2.arb.ca.gov/our-work/programs/commercial-harbor-craft.

Heavy-Duty Vehicle Inspection and Maintenance – When emissions control systems are not operating correctly, in-use emissions can increase. CARB's current inspection programs include the roadside Heavy-Duty Vehicle Inspection Program and the fleet Periodic Smoke Inspection Program. These regulations require heavy-duty vehicles operating in California be inspected for excessive smoke and tampering. In July 2018, CARB approved amendments to the Heavy-Duty Vehicle Inspection Program and the Periodic Smoke Inspection Program to reduce the smoke opacity limits to levels more appropriate for today's modern engine technology. CARB is now exploring the

[26] For more information on the Control Measure for Ocean-Going Vessels At Berth, see: https://ww2.arb.ca.gov/our-work/programs/ocean-going-vessels-berth-regulation, and the At Berth Factsheet: https://ww2.arb.ca.gov/sites/default/files/2020-08/External%20At-Berth%20Fact%20Sheet%20August%202020%20ADA_0.pdf

development of a more comprehensive heavy-duty inspection and maintenance program that would help ensure all vehicle emissions control systems are maintained adequately throughout the vehicles' operating lives. For more information on existing heavy-duty maintenance programs, visit: https://ww2.arb.ca.gov/our-work/programs/heavy-duty-diesel-inspection-periodic-smoke-inspection-program. For more information on the development of a comprehensive heavy-duty inspection and maintenance program, visit: https://ww2.arb.ca.gov/our-work/programs/heavy-duty-inspection-and-maintenance-program.

Cargo Handling Equipment Regulation Amendments – Mobile cargo handling equipment is any motorized vehicle used to handle cargo or perform routine maintenance activities at California's ports and intermodal rail yards. The type of equipment includes yard trucks (hostlers), rubber-tired gantry cranes, container handlers, forklifts, etc. The Mobile Cargo Handling Equipment (CHE) Regulation was adopted in 2005 to reduce toxic and criteria emissions to protect public health and was fully implemented by the end of 2017. CARB staff is currently assessing the availability and performance of zero-emission technology to further reduce emissions. For more information on the regulation, visit: https://ww2.arb.ca.gov/our-work/programs/cargo-handling-equipment.

Advanced Clean Fleet Rules – CARB is developing a medium and heavy-duty zero-emission fleet regulation with the goal of achieving a zero-emission truck and bus California fleet by 2045 everywhere feasible and significantly earlier for certain market segments such as last mile delivery and drayage applications. For more information, visit: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets.

Transport Refrigeration Unit Regulations – Transport refrigeration units congregate at distribution centers, railyards, and other facilities, resulting in the potential for health risks to those that live and work nearby. CARB is working through a public process to consider new requirements to transition the transport refrigeration units fleet to zero emission operations by requiring both zero emission technology and supporting infrastructure. For more information on this new regulation, visit: https://ww2.arb.ca.gov/our-work/programs/transport-refrigeration-unit/new-transport-refrigeration-unit-regulation.

Small Off-Road Engines – In 2020, CARB will consider new standards for small off-road engines (SORE), which are spark-ignition engines rated at or below 19 kilowatts and used primarily for lawn, garden, and other outdoor power equipment. For more information on the strategy, visit: https://ww2.arb.ca.gov/our-work/programs/small-off-road-engines-sore

Advanced Clean Cars II – CARB staff is developing the Advanced Clean Cars II regulations, which will seek to reduce criteria and greenhouse gas emissions from new light- and medium-duty vehicles beyond the 2025 model year, and increase the number of zero emission vehicles for sale. For more information on these new regulations, visit: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program.

Commercial Cooking Suggested Control Measure – This strategy consists of a two-phase process to evaluate California's current emission reduction requirements for commercial cooking operations that prepare food for human consumption, and if necessary, make improvements to achieve additional reductions in particulate matter 10 microns or less in diameter (PM10), particulate matter 2.5 microns or less in diameter (PM2.5) and volatile organic compound emissions that contribute to ozone formation. For more information on the strategy, visit: Blueprint Appendix F – pages F-8 & F-9.

ESTIMATED EMISSIONS REDUCTIONS FROM CARB MEASURES

CARB has estimated the emissions reduction benefits for some of the proposed statewide measures as shown in Table 4-3 for the 2025 and 2030 milestone years for the Stockton Community. Note the emissions reductions from the recently adopted Ocean-Going Vessels At Berth Amendment and Low NOx Omnibus Regulation are not reflected in the emissions inventory presented in Chapter 3 or Appendix C.

Table 4-3 Estimated Emissions Reductions from CARB Measures in the Stockton Community

Proposed Statewide Measures	Emissions Reduction (tons per year)							
	PM2.5		DPM		NOx		VOC	
	2025	2030	2025	2030	2025	2030	2025	2030
Ocean-Going Vessels At Berth Amendment	0.00	0.18	0.00	0.20	0.00	11.45	0.00	0.56
Advanced Clean Car 2		0.02		0.00		1.00		0.38
Heavy-Duty Inspection and Maintenance	0.34	0.38	0.35	0.40	23.25	27.7		
Low NOx Engine Standard					1.88	14.17		
Small Off-Road Engine Amendment	0.15	0.92	0.12	0.28	17.03	27.09	8.28	28.31

5. ENFORCEMENT PLAN

5.1 INTRODUCTION

Enforcement of air quality rules and regulations by the San Joaquin Valley Air Pollution Control District (District) and the California Air Resources Board (CARB) is critical to continuing air quality progress and achieving the air quality goals contained in the Valley's State Implementation Plans. Compliance with federal, state, and local air quality rules and regulations is ensured by operating robust inspection programs along with a full range of educational and compliance assistance programs.

This Enforcement Plan describes the stationary and mobile source enforcement history for the Stockton AB 617 Community. In addition, the plan describes the overall enforcement programs operated by the District and CARB. Based on the analysis of the enforcement history and input from the Community Steering Committee, the Community Emissions Reduction Plan (CERP) includes focused enforcement measures to enhance enforcement and compliance assistance activities within the community in support of the emission reduction commitments in the CERP.

5.2 OVERVIEW OF SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT ENFORCEMENT PROGRAM

The District's mission is to improve the health and quality of life for all Valley residents through efficient, effective, and entrepreneurial air quality management strategies. The District's Enforcement Department seeks to aid in achieving this mission through fair, consistent, and comprehensive enforcement utilizing a full suite of enforcement and compliance assistance related activities to ensure compliance with District, state and federal rules and regulations. The program objectives for the Enforcement Department are set forth in federal and state law and the District's air quality attainment plans. In order to meet these program objectives, District staff perform inspections at approximately 9,200 permitted facilities and responds to approximately 3,000 public complaints, and verifies emissions reductions at thousands of locations where emission reduction incentive projects have been implemented.

The major functions of the District's Enforcement Department are as follows:

Inspections of Stationary Sources

The District performs thousands of comprehensive on-site inspections each year to ensure compliance with federal, state, and District requirements. These compliance evaluations are unannounced whenever possible and play a key part to meeting clean air requirements. The frequency of regular inspections depends on the type of facility. When considering limited resources, priority is given to federal Title V (Major) sources, facilities that emit non-attainment criteria or toxic pollutants, facilities with equipment that is more susceptible to upsets, compliance history of operation, etc. Under this scenario, a chrome plating facility will be inspected more frequently than a back-up, emergency generator which only operates a few hours per year.

Compliance inspections are conducted by well-trained District air quality inspectors. Inspections include a physical inspection of the facility and equipment, a review of operating and monitoring records, and the use of advanced detection equipment, where appropriate, to determine compliance with permitted emission limits. During the inspection, District staff ensures that the equipment is permitted appropriately, and that the facility is operating in compliance with all permit requirements and applicable local, state, and federal regulations. If the facility is determined to be in non-compliance, the inspector issues the facility an enforcement action that requires prompt correction of the issue and generally results in the imposition of a civil penalty to dissuade from any non-compliance in the future.

Complaint Investigations

The District receives thousands of complaints each year for which timely responses and investigations of alleged sources of non-compliance are top priorities. Inspectors are on-call 24 hours per day, seven days a week and use automated voicemail and computer systems to facilitate the timely response to complaints in order to abate non-compliance with District rules, including potential public nuisances. Along these same lines, the District added the ability to easily submit complaints, including video and photographs, online and through mobile smartphone applications. District staff are required to keep the reporting party apprised of the investigation findings until it has been completed. The District provides a bilingual (Spanish-English) telephone complaint line and also has the capability to utilize multilingual translation services, in the field or over the telephone, to ensure that all communities and groups within the Valley are properly served.

Emissions Testing

District inspectors oversee hundreds of third-party emissions tests conducted at stationary sources each year for the purpose of measuring air pollutants and ensuring compliance with established standards from stationary sources of air pollution. District staff have three main tasks when overseeing source tests at stationary source sites. First they review the source test protocol, submitted by the third party source testing contractor, which outlines the testing methods that testing period. District staff reviews the protocol to ensure the proper testing methods will be used and that the source test contractor has the proper equipment and certifications to conduct the test. The second task is to witness the test to ensure the source test contractor follows the correct testing procedures. Lastly, District staff reviews the source test results to ensure the data is properly reported and to act promptly on any compliance issues related to the testing.

In addition, the District utilizes its monitoring van and portable exhaust gas analyzers to assess the emissions from internal combustion engines, boilers, and other combustion devices to ensure they are operating according to specifications and complying with all permitted and/or rule emission limits.

Gasoline Station Permitting, Inspecting and Testing Program

Gasoline stations, in aggregate, are one of the largest potential sources of volatile organic compounds in the Valley. A comprehensive and effective permitting, inspection

and testing program is important to ensure the vapor recovery systems operate as designed and the Valley realizes the emission reductions anticipated in Rule 4621 (Gasoline Transfer Into Stationary Storage Containers, Delivery Vessels and Bulk Plants) and Rule 4622 (Gasoline Transfer into Motor Vehicle Fuel Tanks).

District staff continues to inspect gasoline station vapor recovery systems on a routine basis looking for torn hoses, damaged nozzles, and missing parts. However, during recent years there have been many changes in vapor recovery technology and state laws such that the simple visual inspections are no longer sufficient. More emphasis is now being placed on performance tests that evaluate gasoline station equipment effectiveness. As a result, the District implemented a gasoline dispensing tester certification and training program to ensure qualified third party contractors are available for operators of this equipment.

Wood Burning Heaters and Fireplaces

Further reducing residential wood smoke emissions is a high priority under the District's 2018 PM2.5 Plan given the significant localized health impacts associated with residential wood smoke. Scientific studies show that prolonged inhalation of wood smoke contributes to lung disease, pulmonary arterial hypertension, and pulmonary heart disease, which can eventually lead to heart failure. District Rule 4901 is designed to improve public health by reducing toxic wood smoke emissions in Valley neighborhoods during the peak PM2.5 winter season (November through February).

Since 2004, the District has had a robust enforcement program for designated wood burning curtailment days to ensure the District is achieving the expected emission reductions as a result of the requirements of the rule. This includes having a significant portion of field staff mandatorily assigned to conduct proactive surveillance in counties with declared wood burning curtailments. The District also conducts surveillance in counties with curtailments on days that District offices are closed and performs periodic night-time surveillance throughout the Check Before You Burn season.

In the District's ongoing efforts to utilize the latest forms of technology to improve efficiency and effectiveness, the District tested several technologies for nighttime fireplace and wood burning heater enforcement. The District purchased ultra-low light cameras, which have the greatest capacity to capture non-compliance through photographic and video evidence. The use of the cameras are able to clearly document smoke coming from chimneys in extremely low-light conditions in a way that previous technologies used and tested were unable to match.

Compliance Assistance

The District believes in working closely with businesses and residents to assist in achieving compliance with air pollution rules and regulations. The Compliance Assistance program has emphasized an educational approach to help Valley residents and businesses comply with a variety of air pollution regulations. Businesses and individuals throughout the Valley are provided with:

- **Individualized Assistance:** Personal, one-on-one help is provided to thousands of businesses and residents to ensure they understand the federal, state, and District's requirements.

- **Compliance Assistance Bulletins:** Actively evaluate upcoming rule compliance dates and develop educational materials that are sent to affected groups including, but not limited to, residents, realtors, building departments, contractors, and industrial and commercial facilities.

- **Compliance Schools:** The District provides training classes regarding information on the topics of open burning, gasoline vapor recovery, and wood burning fireplaces and wood burning heaters to individuals who have received a Notice of Violation from the District. In addition to discussing the aforementioned specific topics, the courses also provide general air pollution training, discuss the air quality challenges of the San Joaquin Valley, and opportunities for them to contribute to improving air quality in the Valley.

- **Gasoline Station Tester Training:** Ongoing training for contractors is provided for those wishing to perform vapor recovery tests within the District. District rules require testers be certified to ensure there are a qualified pool of contractors from which businesses can choose to perform their equipment's testing.

- **Asbestos Training:** Comprehensive assistance on asbestos regulations is provided to the public, building industry, building departments, fire departments, and realtors. Staff continues to spend considerable time providing one-on-one assistance, in addition to group trainings, to the regulated community. The District has also developed online tools and resources to educate the public on asbestos notification requirements in the Valley.

- **Residential Wood Burning Heater Professional Training:** Training requirements for qualified individuals (those people having either a certification from the Fireplace Investigation Research and Education, Chimney Safety Institute of America, or the National Fireplace Institute or has documentation demonstrating they are qualified to perform inspections, maintenance and cleaning activities on wood burning heaters) who may be hired to perform inspections of wood burning heaters and pellet stoves to ensure they can be operated in a compliant manner prior for individuals who voluntarily request to register their wood burning heaters and pellet stoves.

- **Fugitive Dust Education:** Staff organizes and conducts classroom training for all groups required to submit dust control plans for construction activities and provides ongoing training and outreach as needed and as requested to businesses and entities that may be subject to the requirements.

- **Prescribed Burning Outreach:** The District meets periodically with the land managers of the USDA Forest Service, National Park Service, US Fish and Wildlife

Service, Bureau of Land Management, California Department of Forestry and Fire Protection, and Southern California Edison Company in order to minimize impacts of smoke from prescribed burns and wildfires. Compliance staff participate on the daily calls during fire season to keep abreast of wildfire and prescribed burn activities throughout the area.

- **Access to District Policies:** District policies are available on the internet for stakeholders to review, comment on, and use to assist them with complying with District requirements. The internet is updated regularly with new or modified policies to ensure availability of current information.

Emission Reduction Incentive Program Inspections

To ensure that the emission reduction projects funded by the District's incentive programs are real and permanent, the District monitors the pre-contract and post-contract performance of grant recipients. Thousands of field inspections are conducted to verify that equipment is appropriately replaced or controlled, adequately maintained, and also verifies that older equipment has been properly disposed of.

Incentive projects requiring compliance inspections include the replacement of older trucks with new less polluting ones, school bus replacements, agricultural pump engine replacements, emissions controls on trucks, and other related control strategies. Each funded project requires a minimum of two initial inspections and several types of projects require ongoing inspections and recordkeeping requirements to assure emission reductions are realized for the life of the project.

5.3 SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT ENFORCEMENT HISTORY IN STOCKTON AB 617 COMMUNITY

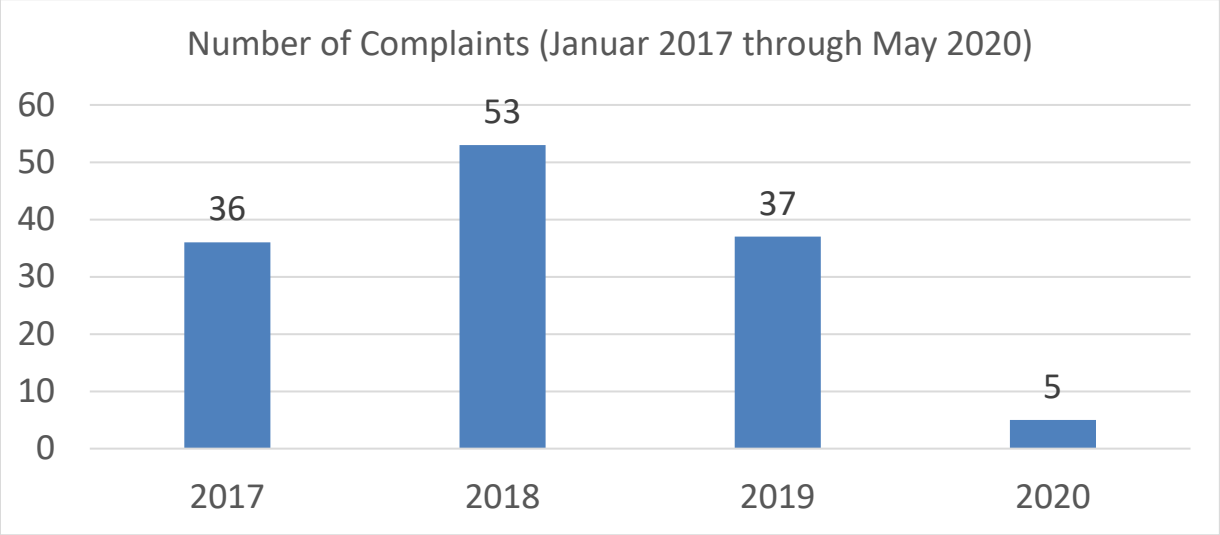
The District's enforcement presence within the Stockton AB 617 Community is comprised of many different facets including, but not limited to, performing facility inspections, investigating complaints from the public, investigating breakdowns, and overseeing third-party emissions testing at facilities. Since 2017, the District has conducted inspections of 2,409 equipment units during 1,121 inspections at permitted facilities within the Stockton AB 617 Community, has received and responded to 131 air quality complaints from the public, and has issued 212 enforcement actions associated with violations of air pollution rules and regulations. A listing of the facilities, inspections, complaints, and enforcement actions can be found in Appendix F.

5.3.1 RESPONSE TO PUBLIC AIR POLLUTION COMPLAINTS

The public plays an important role in protecting public health by reporting local air quality issues that they observe in their communities. Often these complaints serve as the first warning of an air pollution compliance issue that needs to be addressed. The District places the highest priority of responding to complaints from the public and responds to each and every complaint received. In addition, the District operates an "on-call" program to ensure that complaints received outside of normal business hours can be appropriately addressed since air pollution related issues are not bound by

normal business hours. The process of responding to a complaint can be unique for each complaint received depending on factors such as whether the issue is currently in progress, whether the issue is a recurring/ongoing issue, the type of source, the time of day, and the number of complaints received about the issue. Figure 5-1 shows the number of complaints received by the District each year since 2017

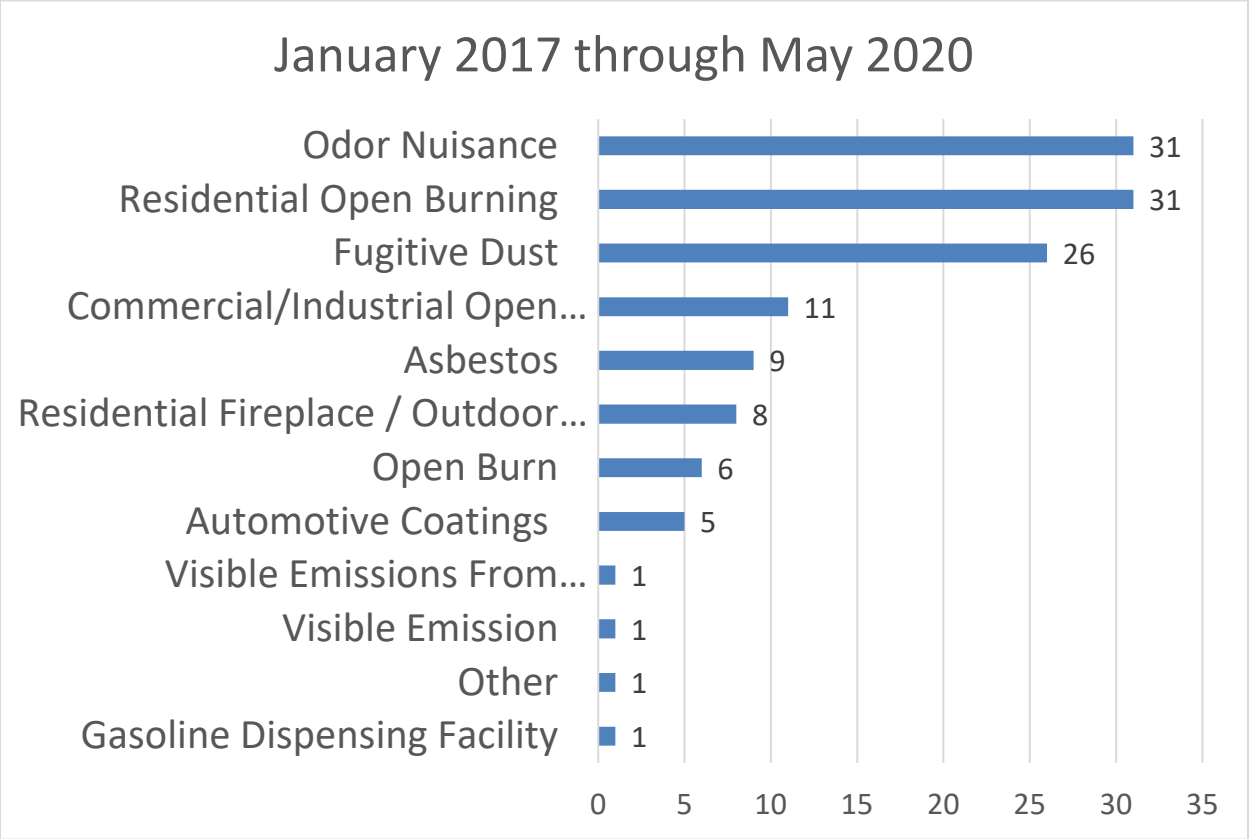
Figure 5-1 Number of Complaints by Year from 2017-2020



Based on the resulting complaint investigations, the District confirmed a violation of District rules or regulations and took enforcement action in 18 of the complaints, determined that the issue did not constitute a violation of any federal, state, or local air quality rule in 29 of the complaints, referred 2 complaints to the proper agency with jurisdiction over the issue, and was unable to confirm whether or not a violation occurred in the 82 remaining complaints (at times, the issues associated with public complaints can be transient in nature and the information provided by the reporting party may lack sufficient information to track down and confirm the issue). Of the 18 enforcement actions taken as the result of public complaints, 7 were for illegal residential open burning of waste, 2 were for illegal use of a residential fireplace or outdoor wood burning device, 2 were for fugitive dust related issues, 3 were for permitting/registration related issues, 1 were for agricultural open burns, and 3 was for work practices issues at an automobile coating operation

Figure 5-2 below details the complaints received by type since 2017. Complaints concerning odor nuisance and residential open burning each made up 23% of the total complaints received in the community. Complaints regarding fugitive dust made up approximately 20% of the complaints received in the community. In total, these three categories made up over 66% of the complaints received.

Figure 5-2 Number of Complaints by Type from 2017-2020



The District received and responded to 39 complaints regarding residential open burning and residential fireplace/outdoor wood burning devices during this period. The District confirmed illegal open burning and took enforcement action in 8 of these cases, determined that 3 were not a violation (permissible fireplace burn day or outdoor cooking fire), and was unable to confirm 28 of the complaints. In addition to the complaints received in these categories, members of the Community Steering Committee have suggested increased outreach/education and enforcement in these categories. The District has included specific enhanced enforcement and outreach/education measures as part of the CERP to reduce the potential for localized air quality impacts associated with failure to comply with District rules pertaining to residential open burning and residential fireplace/outdoor wood burning devices.

The District received 31 odor complaints during this period and determined that none of the complaints resulted in a violation failing under the District's jurisdiction. Under state law, odors are regulated under public nuisance requirements. To become a violation, an odor must cause "injury, detriment, nuisance, or annoyance" to a considerable number of people or the public. Each of the odor complaints were separate instances from a single party; and therefore, did not rise to the level of a public nuisance under state law. Three of the complaints fell outside of the District's jurisdiction and were referred to the appropriate agency.

Of the 26 fugitive dust complaints received, the District issued an enforcement action in 2 of the cases. In 2 of the instances, the District determined that the operation was complying with the District's Regulation VIII fugitive dust rules and public nuisance rules. In 22 of the instances, the District was unable to confirm the complaint. The complaints that did not result in enforcement actions or were unable to be confirmed were primarily associated with construction/ earthmoving activities track out or open areas. The District has included specific enhanced enforcement measures as part of the CERP to reduce the potential for localized air quality impacts associated with fugitive dust from construction/earthmoving activities and open areas subject to District Regulation VIII. Since the majority of the complaints have been received between April and September, these enhanced enforcement efforts will be conducted during the 2nd and 3rd calendar quarters.

The District received 11 complaints associated with commercial/industrial open burning. The District found that 9 were cooking fires which are exempt from open burning rules, 1 was a spontaneous combustion fire, and in the 1 remaining the District was either unable to locate the burn or the responsible party for the burn. The enhanced enforcement and outreach/education CERP measures for residential open burning will aid in compliance with the rules pertaining to illegal open outdoor burning.

The District received 9 complaints regarding federal asbestos requirements associated with regulated demolitions and renovations. The District issued enforcement actions in 3 of these instances, the District was unable to confirm 3 complaints in this category. The District took no enforcement action in 3 cases as the projects were either complying with federal asbestos requirements or were exempt under federal law.

The District received 2 complaints regarding visible emissions from equipment at facilities within the community. The District was unable to confirm whether or not a violation occurred in the 2 complaints in this category. As discussed below under the District Enforcement Action section, the District has included specific enhanced enforcement measures as part of the CERP to address failure to comply with emission standards at permitted facilities.

5.3.2 DISTRICT ENFORCEMENT ACTIONS

Federal and state law, along with local rules, require the enforcement of air quality rules and regulations. The District takes formal enforcement action for all violations of applicable federal, state, and local rules and regulations within its jurisdiction. In addition, the District enforces conditional permit requirements, Hearing Board orders, and at times seeks delegation to enforce statewide mobile source and greenhouse gas measures. Generally a Notice of Violation (NOV), which normally results in a civil penalty, is issued to document a violation. Under the limited circumstances specified in District Rule 1180, a Notice to Comply (NTC) may be issued for first-time, minor violations. An NTC does not carry a monetary penalty but does require quick resolution of the minor violation. Should a party not correct the violation within the timeframe established by the NTC, an NOV will be issued.

Over the past 3 years, the District has issued 175 NOVs and 37 NTCs in the Stockton AB 617 Community. Figure 5-3 shows the annual breakdown of NOVs and NTCs since 2017.

Figure 5-3 Number of Enforcement Actions Issued by Year (2017-2020)

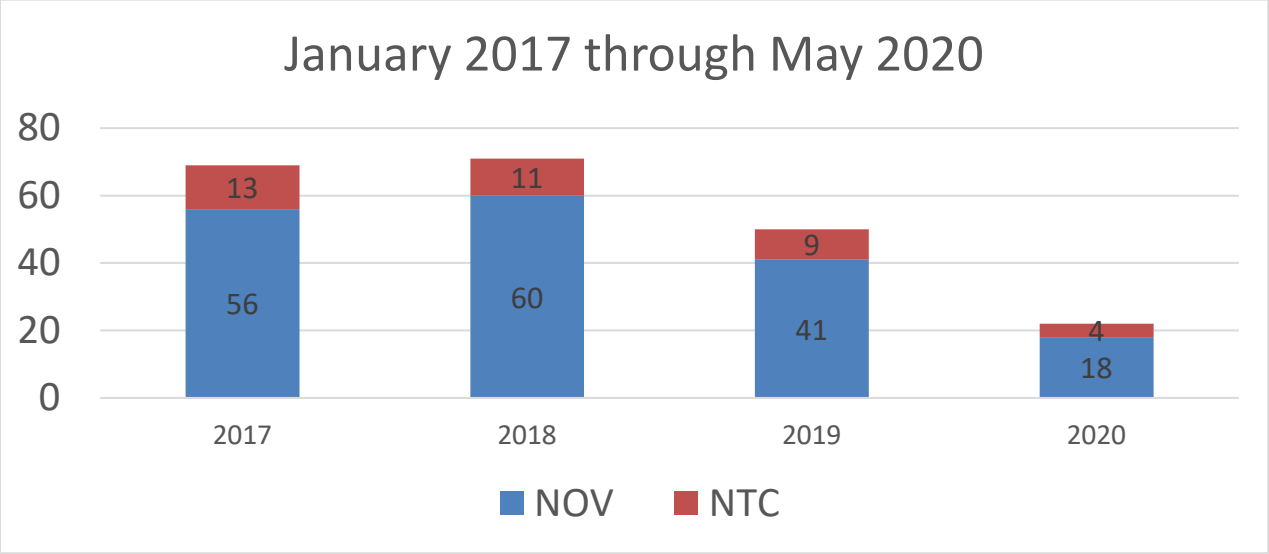
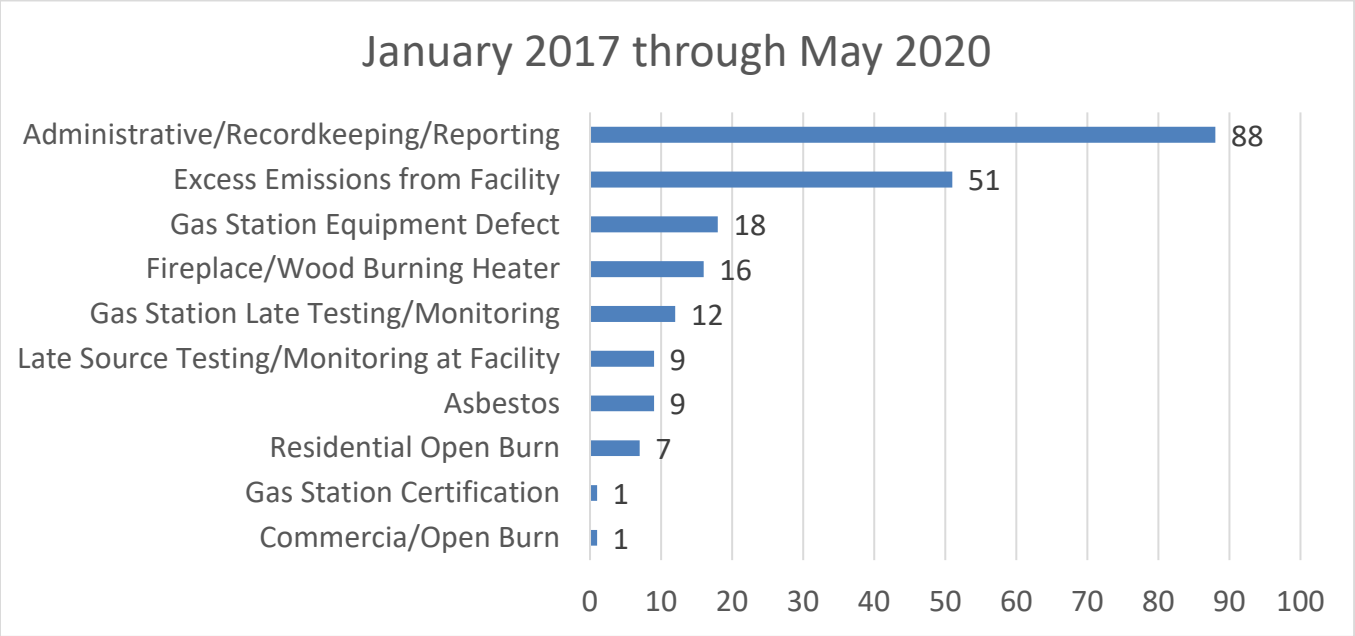


Figure 5-4 shows the enforcement actions categorized by type. Since 2017, 88 of the 212 enforcement actions resulted from violations of administrative requirements such as recordkeeping, late report submittal, operating with a suspended permit, or operating without a permit. The District issued 51 enforcement actions for violations resulting in excess emissions from facilities (not including gas stations). These violations occurred at 13 permitted facilities in the area and 1 ocean-going vessel. The District also issued 18 enforcement actions to gas stations for violations resulting in excess emissions and 1 gas station certification enforcement action. These violations occurred at 14 gas stations in the area. The District believes that more frequent inspections for these 27 facilities would be prudent to limit the potential for air quality impacts associated with failure to comply with emission standards established by District permit, rule, or regulation.

In addition, the District believes a new pilot training program for conducting self-inspections of equipment at gas stations may help to limit the potential for air quality impacts associated with vapor recovery defects at gasoline dispensing operations. Accordingly, the District has included a compliance assistance CERP measure to develop a new training program to instruct gas station operators on conducting thorough self-inspections to aid in the identifications and timely repair of system defects. The District will provide the hands on training to each gas station operator in the community.

Figure 5-4 Enforcement Actions by Type from 2017-2020



A review of the data also shows that the District has issued 7 violations for residential open burning, and 16 enforcement actions for fireplace/outdoor wood burning heater violations. This further demonstrates the need to include the aforementioned enhanced enforcement and outreach/education CERP measures.

5.4 CALIFORNIA AIR RESOURCES BOARD PROGRAM OVERVIEW AND ENFORCEMENT HISTORY IN STOCKTON

Section 5.4 Provided by the California Air Resources Board

The California Air Resources Board (CARB) enforcement programs cover the vehicles we drive, the diesel engines that power our economy, consumer products that we purchase and greenhouse gas (GHG) emissions from our industries and activities. The goal of Stockton's enforcement programs is to achieve comprehensive compliance in every regulation CARB adopts. Through enforcement, CARB works to bring responsible parties into compliance, and in doing so, achieves a level playing field across industry so that no company can benefit from non-compliance at the expense of another. CARB also works to deter industries from future violations and takes compliance seriously, because the success of our programs and the protection of public health depend on it.

CARB applies enforcement programs professionally in accordance with our enforcement policy,[27] which was updated in 2017. CARB uses program data, complaints and inspections to identify potential non-compliance, and then investigates each case. Once a violation is identified, CARB notifies the responsible party and evaluates what happened. CARB works with the party to achieve compliance and measure the relevant facts and circumstances of each case, relative to the eight statutory factors as described in our enforcement policy, to determine an appropriate penalty. The case is settled when the responsible party has achieved compliance and both parties have agreed upon an appropriate penalty. If a mutual settlement cannot be reached, CARB refers the case to California's Attorney General for civil litigation.

Field inspectors are a critical component of CARB's Heavy-Duty Diesel Enforcement Program. The inspectors work across the state to inspect trucks and other equipment for compliance with CARB's diesel regulations, such as the Heavy-Duty Diesel Vehicle Inspection Program (HDVIP), Drayage Truck, Truck and Bus Regulation, SmartWay and Transport Refrigeration Unit (TRU) Air Toxic Control Measure. Field inspectors also conduct inspections for compliance with In-Use Off-Road and School Bus Idling regulations. CARB inspectors examine heavy-duty vehicles and equipment at numerous locations throughout California, such as at California Highway Patrol (CHP) scale facilities, warehouses, fleet yards, construction sites, random roadside locations, truck stops, rest areas, ports and rail yards.

CARB'S THREE YEAR ENFORCEMENT HISTORY IN STOCKTON

The following section provides an overview of CARB enforcement actions across several enforcement programs within the Stockton Assembly Bill 617 (AB 617) community boundary for years 2017 through 2019.

Under the heavy-duty vehicles and marine enforcement program sub-sections, CARB staff provide overviews of enforcement activities along with maps to display the approximate locations of program inspections, which may help to determine gaps in CARB enforcement activity as well as locations where enhanced enforcement is necessary to deter potential violators within the community. Additional sub-sections include overviews of CARB's fuel enforcement activities, statewide consumer product enforcement activities, case settlements, Supplemental Environmental Projects, and more.

CARB will work closely with the Community Steering Committee (CSC) to determine areas of non-compliance within the Stockton AB 617 area that needs an enforcement presence. CARB acknowledges enforcement presence can be increased in this area and will work with CSC and the San Joaquin Valley Air Pollution Control District (SJVAPCD) to identify opportunities for enhanced enforcement.

[27] https://ww2.arb.ca.gov/resources/documents/enforcement-policy

Heavy-Duty Vehicles Programs

Over the last three years, CARB has conducted 244 inspections on Heavy-Duty Diesel Vehicles (HDDV) within the selected Stockton AB 617 Community. These inspections occurred across 7 of 12 CARB HDDV enforcement programs, as described in Appendix 4.1.

Table 5-1 below summarizes HDDV enforcement actions in Stockton from 2017 to 2019. Of the five citations issued to HDDVs within the community boundary, four were for emissions violations and one was for a non-emissions violation. Emissions violations further contribute to air pollution while non-emissions violations do not (e.g., a truck not meeting labeling or reporting requirements). CARB is working to compile information on the resolution of violations issued in Stockton and will provide this data to CSC as it becomes available.

Table 5-1 HDDV Enforcement in Stockton: 2017-2019

Program	Inspections	Violations	
		Emissions	Non-Emissions
Drayage	25	0	1
Heavy-Duty Vehicle Inspection Program (HDVIP)	134	0	0
Idling	31	0	0
Off-Road	3	0	0
Smart Way	33	0	0
Transportation Refrigeration Unit (TRU)	2	2	0
Truck and Bus	16	3	0
Total	**244**	**5**	**1**

Figure 5-5 below provides a year-to-year comparison of HDDV enforcement actions and overall compliance rates from 2017 to 2019. Although overall compliance remains high (at and above 96 percent) over the three-year period, the low number of total inspections under the Drayage, Off-Road, TRU and Truck and Bus programs, demonstrate the need for more targeted inspections in the Stockton community. CARB will work closely with CSC to determine methods to identify areas of non-compliance by evaluating emissions inventory, air monitoring data, CARB's three-year history and community groundtruthing information within the Stockton AB 617 boundary.

Figure 5-5 Year-to-Year Comparison of HDDV Enforcement in Stockton

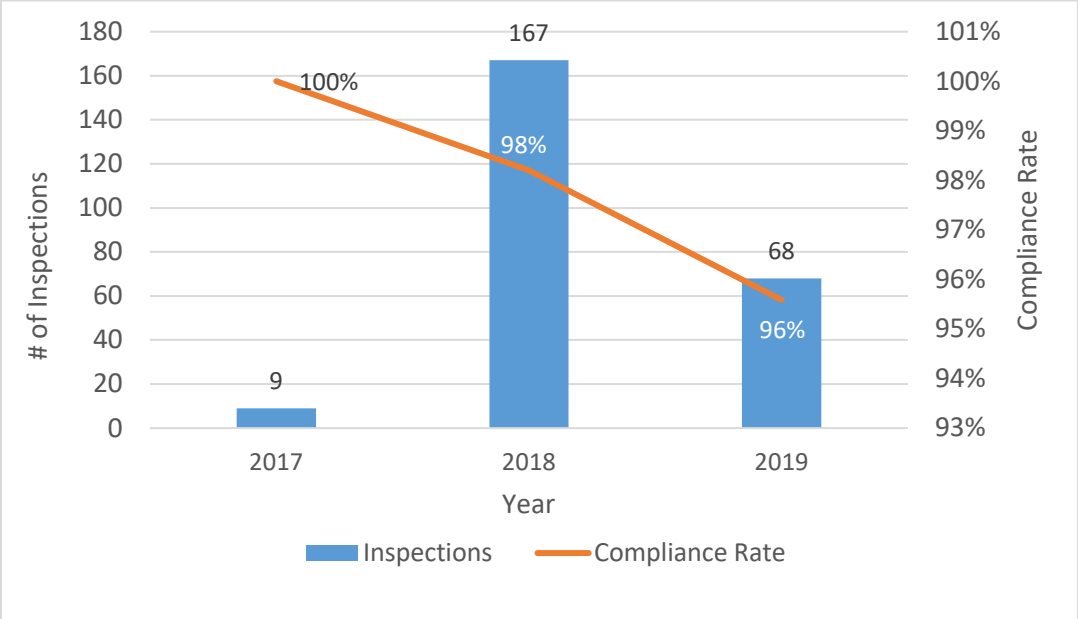


Figure 5-6 below shows the approximate locations (indicated by the truck icons) of the above-mentioned HDDV program inspections in the Stockton community boundary. Visualizing inspection locations helps CARB staff to determine any locations where enhanced enforcement is needed within the community. In the past, CARB staff would target areas with large concentrations of HDDVs such as truck stops and distribution centers. It is important to note that each location represents multiple inspections across the various HDDV programs. In addition, implementing random roadside inspections can be difficult because field staff, in coordination with the California Highway Patrol, must have enough space to perform inspections safely on the side of the road.

Figure 5-6 Map of Heavy-Duty Diesel Vehicle Inspections in Stockton: 2017-2019

In April 2017, the Governor signed into law Senate Bill 1 (SB 1),[28] a legislative package meant to generate significant funding for transportation projects (e.g., to repair local streets, bridges, and roadways) across California. SB 1 includes a provision that aims to bring old, polluting buses and trucks into compliance with applicable emission standards as outlined in the Statewide Truck and Bus Regulation, and authorizes DMV to deny registration to non-compliant heavy-duty vehicles[29] starting January 1, 2020, through December 31, 2023. By the end of 2023, 100 percent of trucks and buses registered in California, which are subject to the rule, will comply with this regulation.

In response to the legislation, CARB began a streamlined enforcement process to increase outreach to owners of heavy-duty diesel trucks and buses and provide an opportunity for vehicle owners to demonstrate compliance. Those with older vehicle models that could potentially be out of compliance were sent Notices of Non-Compliance (NC) and Notices of Violation (NOV)[30] from 2018 through 2019. In the last quarter of 2019, CARB sent warning letters to fleet owners who appeared to have vehicles that could potentially be out of compliance beginning January 1, 2020. HDDV owners are now required to show proof of compliance to Department of Motor Vehicles (DMV) with their vehicle registrations.

[28] https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB1
[29] The regulation applies to nearly all diesel-fueled trucks, buses, and school buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds.
[30] A Notice of Non-Compliance letter is sent to request proof of compliance. If compliance cannot be verified, a Notice of Violation is sent.

Table 5-2 Summary of letters sent under SB 1 in Stockton: 2018-2019

Type of Letter	Number of Letters Sent
Warning letters	189
NC and NOV letters	157
Total	**346**

In Stockton, CARB identified 1,512 HDDVs within the Stockton community. As shown in Table 5-2 above, CARB issued 189 warning letters and 157 NCs and NOVs to owners of vehicles within the area in 2019. Of the 157 vehicle owners sent NCs or NOVs, 29 demonstrated compliance, whereas 118 vehicles were found to be non-compliant and were issued registration holds by DMV and were removed from the road. In total, CARB issued warning letters or took enforcement action against 346 vehicle owners. No enforcement action was taken on 10 other vehicles that were found not to be subject to the Truck and Bus Regulation.

Marine Programs

From 2017 to 2019, CARB staff performed 171 inspections for marine regulation enforcement at the Port of Stockton. Descriptions of the related marine enforcement programs are provided in CARB's Appendix.

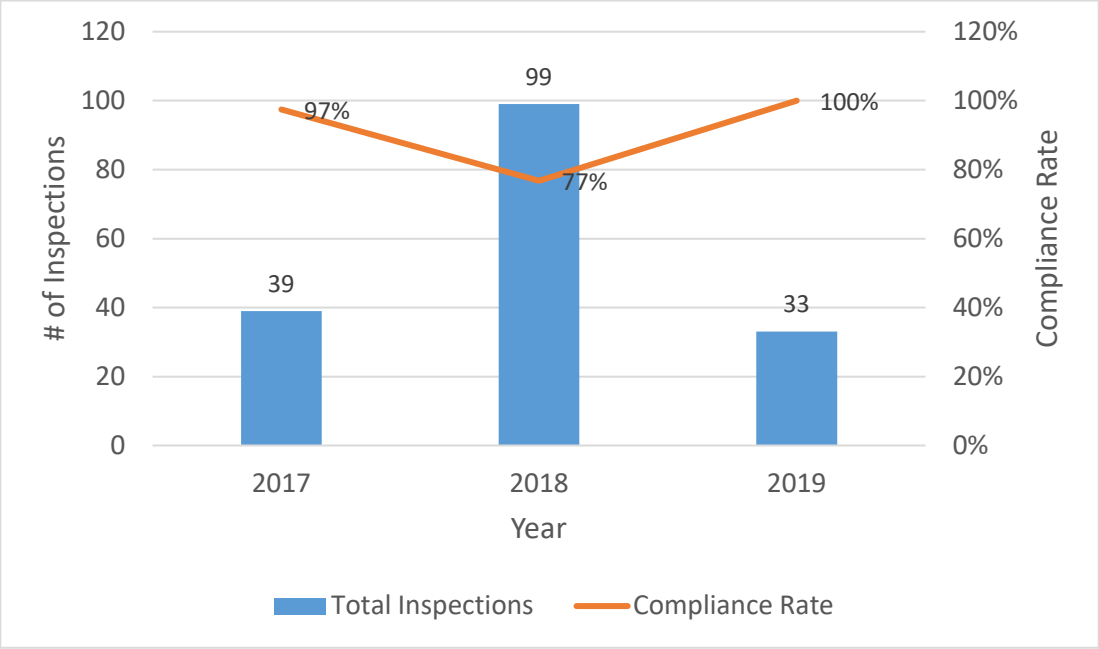
Table 5-3 Marine Enforcement in Stockton: 2017-2019

Program	Total Inspections	Violations
CHE	121	23
CHC	21	0
OGV	29	1
Total	**171**	**24**

As shown above, marine enforcement focused mainly on the Cargo Handling Equipment (CHE) Regulation. During this period, 24 NOVs were issued for violations of CHE and Ocean Going Vessels (OGV) programs. CARB staff did not find any violations of the Commercial Harbor Craft (CHC) Regulation.

below provides a year-to-year comparison of marine enforcement activities and overall compliance rates from 2017 through 2019.

Figure 5-7 Year-to-Year Comparison of Marine Enforcement in Stockton



Error! Not a valid bookmark self-reference. 5-8 below indicates the approximate locations of the above-mentioned marine program areas at the Port of Stockton. This

map may assist the community in identifying locations that CARB is not aware of or locations where additional inspections can occur.

Figure 5-8 Marine Enforcement Activity at the Port of Stockton: 2017-2019

Consumer Products

Consumer products are chemically formulated products used by household and institutional consumers and can be sources of toxic air contaminants and volatile organic compounds that community members unknowingly bring into their homes.

Examples include:

- Detergents and cleaning compounds
- Polishes and floor finishes
- Cosmetics and personal care products
- Home, lawn and garden products
- Disinfectants and sanitizers
- Aerosol paints and automotive specialty products
- Composite wood products

Consumer product inspections are an important regulatory tool to improve public health in the community. CARB investigators in the Consumer Products program purchase samples of regulated consumer products from outlets all over California. They inspect products for compliance with registration and dating requirements and send selected products to the laboratory for testing.

From 2017 through 2019, CARB conducted 1,883 consumer product inspections statewide. Consumer products are reported statewide because it is assumed these products are sold and delivered throughout the state. Table 5-4 below represents a breakdown of enforcement action in the state.

Table 5-4 Consumer Product Inspections Statewide: 2017-2019

Program	Total Inspections	Violation	Under Investigation
Aerosol Coatings	118	24	72
Antiperspirant/Deodorants	35	4	16
Composite Wood	120	11	50
Other Consumer Products	1,610	73	618
Total	**1,883**	**112**	**756**

Vehicles and Engines

CARB is responsible for evaluating the emission control systems of new vehicles and engines, and evaporative emission control systems of engine-equipped devices. When CARB finds that the vehicle/engine/evaporative emission control system complies with all of California's emission standards and emissions-related requirements, the vehicle/engine/evaporative emission control system may operate in California.

CARB conducted six Vehicles and Engines inspections in the Stockton AB 617 Community during the 2017-2019 period. CARB staff found zero violations across the three programs listed in Table 5-5 below.

Table 5-5 Vehicles & Engines Program Inspections in Stockton: 2017-2019

Program	Inspections	Violations
49 State	1	0
Recreational Marine Engines	1	0
R134A	4	0
Total	**6**	**0**

Fuels Enforcement Program

CARB staff are responsible for setting standards and adopting regulations to achieve the maximum degree of emissions reduction possible from vehicular and other mobile sources. Motor vehicle emissions are responsible for approximately 55 percent of air pollution emissions statewide.

As seen in Table 5-6, from 2017 through 2019, CARB staff conducted 112 fuel inspections in the Stockton community. There were no violations issued for these inspections within the community.

Table 5-6 Fuels Program Inspections in Stockton: 2017-2019

Fuel Type	Inspections	Violations
Gas	75	0
Diesel	28	0
Ethanol	8	0
Bio	1	0
Total	**112**	**0**

Case Settlements

This section presents an overview of settlement agreements reached between CARB and companies in violation of CARB regulations in the Stockton community. In 2017, a company that failed to comply with requirements of the CHE Regulation signed a settlement agreement with a penalty of $170,625.00 that was paid to the California Air Pollution Control Fund. In August 2019, CARB settled a case with the Port of Stockton in the amount of $8,625.00 for violating the CHE Regulation. For further details on these cases, please visit https://ww2.arb.ca.gov/our-work/programs/enforcement-policy-reports/enforcement-case-settlements.

Complaints Summary and Resolution

CARB's previous complaint management system relating to HDDVs lacked the ability to track complaints by specific location. However, CARB staff have begun to work on and track all complaints through the California Environmental Protection Agency (CalEPA) Complaint Reporting System.[31] This will allow CARB staff to better track complaints by community and to see the resolution of the complaint. Furthermore, this process will enhance CARB's complaint response by encouraging better complaint referrals (e.g. referring complaints to the proper agency and/or identifying complaints that may require multiple agencies to be involved in their resolution). To increase the effectiveness of the complaint program, CARB Enforcement developed a training to help communities identify possible violations and report an enforceable complaint.

Complaints are a vital part of CARB's enforcement program and we encourage the community to report possible violations regularly. In 2019, CARB received eight diesel complaints through CARB's complaint reporting system for the Truck and Bus

[31] https://calepacomplaints.secure.force.com/complaints/Complaint

Regulation and four complaints through CalEPA's reporting system within the Stockton AB 617 Community. CARB referred the complaints received to the appropriate section in a timely manner.

Supplemental Environmental Projects

CARB has a Supplemental Environmental Project (SEP) Policy that allows community-based projects to be funded from a portion, up to 50 percent, of the penalties received during settlement of enforcement actions. Every year CARB initiates cases that result in settlements with monetary penalties. The goal of the SEP program is to improve public health, reduce pollution, increase environmental compliance and raise public awareness in neighborhoods most burdened by environmental harm. In Stockton, there is one school air filtration SEP that is currently pending approval for funding. In addition, there are three SEPs funded in the San Joaquin Valley Air District.

Area	AB617 Community	SEPs	Amount Funded	Funding Status
San Joaquin Valley	South Central Fresno	Healthy Air Neighborhoods-Fresno	$ 35,000.00	Fully funded
San Joaquin Valley	Southwest Stockton	Installation of Air Filtration Systems in Stockton-Washington Elementary School	$ 80,000.00	Fully funded
San Joaquin Valley	Shafter	Asthma Impact Model Kern	$ 113,480.00	Fully funded

CARB's SEP policy can be accessed at https://ww2.arb.ca.gov/our-work/programs/supplemental-environmental-projects-seps.

Outreach Materials

In an effort to provide communities with more knowledge, tools, and resources for enhanced enforcement, CARB Enforcement has developed the following outreach materials to further inform community members:

- **CARB's Enforcement Visualization Tool**

This web-based tool allows community members to see a map that details statewide field inspections and case settlements across California. This tool allows you to look up inspections by program, type, zip code, and date. A user guide has been developed to go along with the tool. This is a one-pager on how to use the Visualization Tool in your community. The Visualization Tool is available at https://webmaps.arb.ca.gov/edvs/.

- **Complaint Reporting**

  - CARB has developed a community-focused training to provide communities with the information necessary to report a complaint. The trainings are tailored to each region within the AB 617 Program. For instance, the training provided in the San Joaquin Valley may differ from training given in West Oakland, based on the types of emission sources within the region, as well as contact information for other regulatory parties.

  - As shown in Figure 5-9, CARB has also developed reporting cards (available in both English and Spanish) that include information on where to report complaints and what information to provide when reporting complaints. If the community is interested in receiving CARB's complaint reporting training or obtaining the Complaint Reporting business cards through the CSC or another outlet, please contact COES@arb.ca.gov, or speak to your local CARB Enforcement liaison.

Figure 5-9 CARB Complaint Reporting Business Cards

- **Supplemental Environmental Project Brochures**

  The SEP brochure outlines the SEP program and how to apply. It is available in both English and Spanish. To learn more about the SEP program, visit https://ww2.arb.ca.gov/our- work/programs/supplemental-environmental-projects-seps.

- **Informational Outreach Materials**. CARB staff are currently working on community outreach materials, including a multi-regulation booklet and a community idling factsheet. The booklet, geared towards community members, aims to provide information on the requirements for trucks and buses operating in their communities. For more information on any of the above outreach and training activities, please contact the Community Outreach and Enforcement Section at COES@arb.ca.gov.

CALEPA EJ INITIATIVE

In 2018 and 2019, CARB staff participated in a multi-agency initiative lead by CalEPA that focused on Stockton. As part of the initiative, CARB provided the City of Stockton with No-Idling signs. As of December 2019, seven signs were posted at various locations identified by the community as having high rates of idling trucks. Of the seven signs posted, three were on South Fresno Avenue, three were on Lincoln Street, near the DMV, and one was on Weber Avenue.

In addition, CARB developed a monitoring plan to help quantify the air pollution burden in the Boggs Tract community with a specific focus on George Washington Elementary School. CARB staff installed two Aeroqual sensors at the George Washington Elementary School and data was collected from July 30, 2019 to August 28, 2019. These sensors measured PM2.5, ozone and NO 2 concentrations in the community.

CARB also conducted mobile monitoring to characterize the air quality and its spatial pattern around the school and to identify possible sources of pollution. CARB staff collected monitoring data using a Mobile Sampling Platform. In total, CARB conducted 7 days of sampling from August 15, 2019 to August 30, 2019, making 19 rounds of the community and surrounding area. CARB concluded that areas in the vicinity of the school and near the port showed higher levels of PM10 (and other coarser PM), which was observed to be consistent with road dust from unpaved roads. Initial analysis of the combined monitoring efforts appeared to show that the highest concentrations of measured pollutants were lower than both the Federal and State air quality standards.

The results of CalEPAs environmental justice initiative are located at the following link: https://calrecycle.maps.arcgis.com/apps/Cascade/index.html?appid=99f5790b860844668bdef48f45dcfa00

CARB ENFORCEMENT STRATEGIES

The goal of our enforcement programs is to achieve comprehensive compliance in every regulation CARB adopts. CARB acknowledges that the high compliance rates identified in the enforcement history may not necessarily reflect compliance across the community. In cases where enhanced enforcement activities uncover non-compliance issues, CARB's goal will be to achieve the same or higher compliance rates as observed in CARB inspections throughout the AB 617 Community. In addition, CARB's

goal is to work closely with CSC, SJVACPD, local organizations and other agencies within Stockton (e.g. City government) to address gaps in the enforcement of mobile sources. In the past, CARB focused mobile enforcement on high traffic areas, truck stops, distribution centers and areas where complaints were reported.
To achieve these goals, CARB is committed to enhancing enforcement activities within Stockton by utilizing the following tools:

- An assessment of the enforcement history data
- Emissions inventory
- Air monitoring data
- Groundtruthing observations to assist in targeting areas that may require additional enforcement with guidance from CSC

CARB will utilize current regulations and enforcement programs across all sources CARB regulates to target areas of non-compliance within the Stockton community. Listed below are CARB's enforcement strategies to help improve air quality in the Stockton community:

1. **Increase the frequency of compliance inspections with guidance from CSC**

   CARB will collaborate with the Stockton CSC and the District to actively enhance enforcement activities throughout the community boundary. This will be done through a combination of improved complaint reporting, identifying multiple locations for focused inspections, inventory analysis, and community input. CARB will schedule report-back meetings to update CSC on both the status of inspections and to obtain additional areas of mobile source concerns. CARB will work with CSC to meet annually in order to prioritize enforcement strategies and identify possible locations where non-compliant vehicles, TRUs, and off-road equipment are present. CARB will report to the community the number of inspections performed, mapped locations of the enforcement, and the number of citations and NOVs issued.
   As of September 2020, through CSC monthly meetings, the committee and citizens have heard there is a need to focus enforcement efforts in the following areas:

   a. Knife River area
   b. Charter Way and Fresno Avenue
   c. South El Dorado
   d. Boggs Tract
   e. Idling HDDVs near schools and residential areas

   The fact that there were only two inspections of TRUs from 2017 to 2019, and both were determined to be non-compliant, warrants an increase of TRU inspections in Stockton. In 2021, with the help of CSC and SJVAPCD, CARB will increase TRU enforcement.

   If members of CSC have additional guidance on where CARB staff can enhance enforcement efforts, please reach out to the Community Outreach and Enforcement Section at COES@arb.ca.gov.

2. Provide in-person community specific training

CARB will develop and offer training opportunities to the Stockton AB 617 Community. Information will cover topics like the fundamentals of enforcement, how the enforcement process works, instructions on filing a thorough complaint and what to expect from the enforcement process after filing a complaint. Through this program, community members will be able to better support CARB or SJVAPCD enforcement processes. In light of social distance mandates due to COVID-19, CARB may develop online trainings.

3. Achieve compliance with the Truck and Bus Regulation via SB 1

As mentioned earlier, SB 1 includes a provision that, beginning in 2020, a vehicle must demonstrate compliance with the Truck and Bus Regulation before it can be registered with the DMV. Beginning in 2020, the DMV, in conjunction with data provided by CARB, will deny vehicle registration to non-compliant HDDVs based on the model year of the vehicle. Under this legislation, compliance with the Truck and Bus Regulation will be fully implemented by 2023.

4. Coordinate with other agencies

CARB will seek opportunities to coordinate with other agencies with enforcement authority in Stockton such as the City of Stockton, school districts and other CalEPA agencies. For example, CARB staff may work with the City of Stockton to provide truck *No Idling* signage in areas where community members observe trucks idling. In addition, CARB may provide assistance in other areas such as land-use and urban planning, if needed.

5. Enhance CARB's data management practices

CARB is committed to enhancing the quality of enforcement data for the Stockton community. Moving forward, CARB will maintain the location of enforcement activity and received complaints to provide CSC with the most accurate data available. CARB has recently completed a visualization tool that makes CARB enforcement data more transparent and available. This tool can be accessed online by visiting https://webmaps.arb.ca.gov/edvs/.

6. Provide annual report of enforcement activities

CARB's Enforcement Division will provide an annual report to CSC to summarize CARB's enforcement activities within the community and update strategies as require

7. Update enforcement strategies as applicable

CARB staff are committed to updating enforcement strategies as requested by the CSC, if said strategies fall within CARB's jurisdiction and if CARB can reasonably accommodate the request (e.g., additional enforcement training for idling vehicles).

As CARB adopts new regulations, CARB will enforce these measures and integrate associated activities and data into the Stockton enforcement measures.

APPENDIX

ENFORCEMENT PROGRAMS DESCRIPTION

Heavy-Duty Vehicle Inspection Program (HDVIP). The HDVIP requires inspection of heavy-duty trucks and buses for excessive smoke and tampering, and engine certification label compliance. Any heavy-duty vehicle traveling in California, including vehicles registered in other states and foreign countries may be tested. CARB inspection teams perform tests at border crossings, CHP weigh stations, fleet facilities, and randomly selected roadside locations. Owners of trucks and buses found in violation are subject to minimum penalties starting at $300 per violation and up to $1,000 a day.

Off-Road Construction Equipment (Off-road Regulation). Construction equipment is a major contributor to air pollution, especially when large construction projects are adjacent to neighborhoods. To address this source of air pollution, CARB adopted the nation's first regulation aimed at cleaning up off-road construction equipment such as bulldozers, graders and backhoes. The Off-Road Regulation requires off-road fleets to meet fleet average emission standards and be equipped with best available control technology.

The Tractor-Trailer GHG Regulation (Smart Way). This regulation requires 53-foot or longer dry van or refrigerated van trailers and the tractors that pull them on California highways to use certain equipment that the U.S. EPA Smart Way program has verified or designated to meet their efficiency standards and reduce fuel consumption.

Solid Waste Collection Vehicles (SWCVs). The SWCV Regulation required vehicle owners to upgrade SWCVs by December 31, 2010. On January 24, 2019, the Board approved amendments that now require reporting for SWCVs with 2006 model year and older engines to avoid unnecessary registration delays at the California DMV starting in 2020 due to SB 1 requirements. The approved amendments also added heavy diesel-fueled on-road single engine cranes to the regulation and became effective on July 1, 2019. These specialized cranes are required to phase-in 2010 or newer model year engines from 2019 to 2027.

Transport Refrigeration Unit (TRU). TRUs are refrigeration systems powered by diesel internal combustion engines designed to refrigerate or heat perishable products that are transported in various containers, including semi-trailers, truck vans, shipping containers, and rail cars. Because diesel particulate matter (diesel PM) is an identified toxic air contaminant, CARB adopted an airborne toxic control measure (ATCM) for TRUs and TRU generator sets. CARB staff inspect TRUs to ensure that the units are meeting labeling and in-use performance standards identified in the TRU Regulation.

Drayage. The Drayage Truck Regulation is part of CARB's ongoing efforts to reduce particulate matter (PM) and oxides of nitrogen (NOx) emissions from diesel-fueled engines and improve air quality associated with goods movement. Heavy-duty vehicles that carry goods to or from a port or intermodal facility are required to be equipped with a 2007 or newer model year engine. This requirement becomes stricter in 2023, when drayage trucks are required to be equipped with a 2010 or newer model year engine, because drayage trucks will be required to meet the standards of the Statewide Truck and Bus Regulation.

Statewide Truck and Bus (STB). The STB Regulation requires diesel trucks with a gross vehicle weight rating (GVWR) greater than 14,000 pounds that operate in California to install diesel particulate filters, or replace older engines with cleaner engine technology, on a schedule based on the model year of the engine and GVWR. The following timeline outlines the engine requirements HDDV must meet to be in compliance with the regulation.

Idling. Idling and opacity inspections are performed to ensure an HDDV is compliant with emission standards and is not violating CARB's Idling Regulation. Idling for more than five minutes is prohibited unless the HDDV is certified clean idle and the vehicle is more than 100 feet away from a school or restricted area (exceptions apply). Vehicle owners and drivers in violation are subject to minimum penalties starting at $300 per violation and up to $1000 per day.

FUELS INSPECTIONS

California's reformulated gasoline requirements are designed to reduce emissions from evaporation and the burning of gasoline, and Low Carbon Fuel Standard requirements are designed to reduce GHG emissions by reducing the carbon content of fossil fuels. To enforce these programs, CARB staff conduct inspections and review reporting information. When CARB identifies a violation, staff pursue compliance through corrective action and through the issuance and settlement of NOVs.

VEHICLES AND ENGINES

The New Vehicle/Engine Programs evaluate the emission control systems of new vehicles, engines, and evaporative emission control systems produced for California. When all emissions related requirements are met, CARB issues an Executive Order certifying the vehicle/engine/evaporative emission control system as compliant with California's emissions requirements. Vehicles and engines are not legal for sale in California until certified.

MARINE ENFORCEMENT PROGRAMS DESCRIPTION

Ocean Going Vessel (OGV) Fuels Regulation. The OGV Regulation is intended to reduce PM, diesel PM, NOx, and sulfur oxide emissions from ocean-going vessels. Such vessels are required to switch to a low sulfur distillate fuel within 24 nautical miles of the California coast.

Cargo Handling Equipment (CHE). The Mobile CHE Regulation was adopted in 2005 to reduce toxic and criteria emissions such as diesel PM and NOx to protect public health. As part of CARB's continuing efforts to reduce emissions of air pollution in California, CARB staff conduct compliance inspections of CHE used at ports and intermodal rail yards. CHE transfers goods, performs maintenance and repair activities, and includes equipment such as yard trucks, rubber-tired gantry cranes, top handlers, side handlers, forklifts, and loaders. CARB staff also conduct smoke audits on CHE at regulated facilities to insure equipment is maintained to manufacturer specifications.

Commercial Harbor Craft (CHC). There are several types of harbor craft in California, including crew and supply boats, fishing vessels, ferries, excursion vessels, tug boats, barges, dredges, and other vessel types. The CHC Regulation was adopted in 2007 to reduce emissions of diesel PM, NOx, and Reactive Organic Gases from diesel engines used on CHC operated in Regulated California Waters (within 24 nautical miles of the California coast).

CONSUMER PRODUCTS PROGRAMS DESCRIPTION

Composite Wood Products. CARB's ATCM to control formaldehyde emissions from composite wood specifically focuses on three products: hardwood plywood, particleboard, and medium density fiberboard. Investigators in the Composite Wood Products program purchase samples of regulated products from outlets all over California. They inspect products and packaging for compliance with labeling requirements and send selected products to the laboratory for testing.

Consumer Products. Consumer products are chemically formulated products used by household and institutional consumers. Some examples are detergents and cleaning compounds; polishes and floor finishes; cosmetics and personal care products; home, lawn, and garden products; disinfectants and sanitizers; and aerosol paints and automotive specialty products. Consumer products do not include other paint products, furniture coatings, or architectural coatings. Investigators in the Consumer Products program purchase samples of regulated consumer products from outlets all over California. They inspect product containers for compliance with registration and dating requirements and send selected products to the laboratory for testing.

MARINE INSPECTIONS IN STOCKTON

Year	Date	Program	Street	City	Compliant (Yes/No)
2018	4/5/2018	Cargo Handling Equipment	2201 West Washington Street	Stockton	No
2018	2/1/2018	Cargo Handling Equipment	2321 W. Washington St. Ste J	Stockton	Yes
2018	4/4/2018	Cargo Handling Equipment	2201 West Washington Street	Stockton	Yes

Year	Date	Program	Street	City	Compliant (Yes/No)
2018	2/1/2018	Cargo Handling Equipment	2321 W. Washington St. Ste H	Stockton	Yes
2018	1/26/2018	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2018	2/23/2018	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2018	2/23/2018	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2018	2/26/2018	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2018	2/26/2018	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2018	3/1/2018	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2018	3/1/2018	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2018	3/26/2018	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2018	3/26/2018	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2019	6/13/2019	Cargo Handling Equipment	205 Port Rd 1	Stockton	Yes
2019	7/11/2019	Ocean Going Vessel	n/a	Stockton	Yes
2019	7/11/2019	Ocean Going Vessel	n/a	Stockton	Yes
2019	7/11/2019	Ocean Going Vessel	n/a	Stockton	Yes
2019	10/8/2019	Ocean Going Vessel	n/a	Stockton	Yes
2019	10/8/2019	Ocean Going Vessel	n/a	Stockton	Yes
2019	10/8/2019	Ocean Going Vessel	n/a	Stockton	Yes
2019	10/24/2019	Ocean Going Vessel	n/a	Stockton	Yes
2019	10/24/2019	Ocean Going Vessel	n/a	Stockton	Yes
2019	12/11/2019	Ocean Going Vessel	n/a	Stockton	Yes
2017	6/20/2017	Ocean Going Vessel	2201 West Washington Street	Stockton	No

Year	Date	Program	Street	City	Compliant (Yes/No)
2017	1/9/2017	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2017	1/9/2017	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2017	3/6/2017	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2017	3/6/2017	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2017	3/6/2017	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2017	3/7/2017	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2017	3/13/2017	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2017	3/13/2017	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2017	6/20/2017	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2017	6/20/2017	Ocean Going Vessel	2201 West Washington Street	Stockton	Yes
2019	1/23/2019	Commercial Harbor Craft	Port of Stockton	Stockton	Yes
2019	1/23/2019	Commercial Harbor Craft	Port of Stockton	Stockton	Yes
2019	1/23/2019	Commercial Harbor Craft	Port of Stockton	Stockton	Yes
2019	1/23/2019	Commercial Harbor Craft	Port of Stockton	Stockton	Yes
2019	1/11/2019	Commercial Harbor Craft	Port of Stockton West Complex	Stockton	Yes

COMPLAINTS IN STOCKTON

Complaint ID	Company City	Date Submitted	Complaint type
2619	Stockton	3/21/2019 8:11	Smoking Vehicle - Periodic Smoke Inspection
2869	Stockton	6/6/2019 9:08	Smoking Vehicle - Periodic Smoke Inspection
2870	Stockton	6/6/2019 9:27	Smoking Vehicle - Periodic Smoke Inspection
2984	Stockton	7/15/2019 14:18	Truck & Bus

3040	Stockton	8/2/2019 10:14	Smoking Vehicle - Periodic Smoke Inspection
3257	Stockton	10/8/2019 9:16	Truck & Bus
3259	Stockton	10/8/2019 9:50	Truck & Bus
3316	Stockton	12/5/2019 12:20	Tampering
COMP-45923	Stockton	9/5/2019 15:51	Excessive dust from construction site
COMP-41415	Stockton	1/14/2019 9:27	Indoor air quality concern
COMP-46297	Stockton	10/23/2019 11:01	unpermitted automotive painting business/illegal hazardous waste dumping
COMP-11902	Stockton	1/19/2017 19:37	Air pollution caused by Duraflame facility

HDDV CITATIONS IN STOCKTON

Year	Insp Date	Program	Inspection	Citation (Y/N)	Street
2017	10/2/2017	Idling	Commercial	N	817 NAVY DR.
2017	10/2/2017	Idling	Commercial	N	817 NAVY DR.
2017	10/2/2017	Idling	Commercial	N	817 NAVY DR.
2017	10/2/2017	Idling	Commercial	N	817 NAVY DR.
2017	10/2/2017	Idling	Commercial	N	817 NAVY DR.
2017	10/2/2017	Idling	Commercial	N	817 NAVY DR.
2017	10/2/2017	Idling	Commercial	N	817 NAVY DR.
2017	10/2/2017	Off-Road		N	817 NAVY DR.
2017	10/2/2017	Off-Road		N	817 NAVY DR.
2018	2/12/2018	Drayage		Y	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	Drayage		N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	Drayage		N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	Drayage		N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	Drayage		N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	4/16/2018	Drayage		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Drayage		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Drayage		N	PORT RD. 13 @ PORT RD. G

Year	Insp Date	Program	Inspection	Citation (Y/N)	Street
2018	4/16/2018	Drayage		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Drayage		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Drayage		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Drayage		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Drayage		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Drayage		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Drayage		N	PORT RD. 13 @ PORT RD. G
2018	11/8/2018	Drayage		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Drayage		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Drayage		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Drayage		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Drayage		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Drayage		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Drayage		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Drayage		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Drayage		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Drayage		N	PORT RD 13 @ PORT RD G
2018	2/12/2018	HDVIP	Quick Snap	N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	HDVIP	ECL	N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	HDVIP	Tampering	N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	HDVIP	Quick Snap	N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.

Year	Insp Date	Program	Inspection	Citation (Y/N)	Street
2018	2/12/2018	HDVIP	ECL	N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	HDVIP	Tampering	N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	HDVIP	Quick Snap	N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	HDVIP	ECL	N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	HDVIP	Tampering	N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	HDVIP	Quick Snap	N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	HDVIP	ECL	N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	HDVIP	Tampering	N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	HDVIP	ECL	N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	HDVIP	Tampering	N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	2/12/2018	HDVIP	Quick Snap	N	BNSF RAIL YARD, ARCH RD.@AUSTIN RD.
2018	4/16/2018	HDVIP	ECL	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	DEF	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Quick Snap	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	ECL	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Tampering	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Quick Snap	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	ECL	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Tampering	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Quick Snap	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	ECL	N	PORT RD. 13 @ PORT RD. G

Year	Insp Date	Program	Inspection	Citation (Y/N)	Street
2018	4/16/2018	HDVIP	Tampering	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Quick Snap	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	ECL	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	DEF	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Tampering	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Quick Snap	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	ECL	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	DEF	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Tampering	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Quick Snap	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	ECL	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	DEF	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Tampering	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Quick Snap	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	ECL	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Tampering	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Quick Snap	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	ECL	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	DEF	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Tampering	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Quick Snap	N	PORT RD. 13 @ PORT RD. G

Year	Insp Date	Program	Inspection	Citation (Y/N)	Street
2018	4/16/2018	HDVIP	ECL	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	DEF	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Tampering	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Quick Snap	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	ECL	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	DEF	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Tampering	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Quick Snap	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	ECL	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Tampering	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Quick Snap	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	ECL	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	DEF	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Tampering	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Quick Snap	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	ECL	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	DEF	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Tampering	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Quick Snap	N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	HDVIP	Tampering	N	PORT RD. 13 @ PORT RD. G
2018	11/8/2018	HDVIP	ECL	N	PORT RD 13 @ PORT RD G

Year	Insp Date	Program	Inspection	Citation (Y/N)	Street
2018	11/8/2018	HDVIP	ECL	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	ECL	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	ECL	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	ECL	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	ECL	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	ECL	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	ECL	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	ECL	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Quick Snap	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	ECL	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	DEF	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Tampering	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Quick Snap	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	ECL	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	DEF	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Tampering	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Quick Snap	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	ECL	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Tampering	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Quick Snap	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	DEF	N	PORT RD 13 @ PORT RD G

Year	Insp Date	Program	Inspection	Citation (Y/N)	Street
2018	11/8/2018	HDVIP	Tampering	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Quick Snap	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Tampering	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Quick Snap	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	DEF	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Tampering	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Quick Snap	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	DEF	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Tampering	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Quick Snap	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	DEF	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Tampering	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Quick Snap	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	DEF	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Tampering	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Quick Snap	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	DEF	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Tampering	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Quick Snap	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Tampering	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Quick Snap	N	PORT RD 13 @ PORT RD G

Year	Insp Date	Program	Inspection	Citation (Y/N)	Street
2018	11/8/2018	HDVIP	DEF	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Tampering	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Quick Snap	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	DEF	N	PORT RD 13 @ PORT RD G
2018	11/8/2018	HDVIP	Tampering	N	PORT RD 13 @ PORT RD G
2018	4/16/2018	Smart Way		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Smart Way		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Smart Way		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Smart Way		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Smart Way		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Smart Way		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Smart Way		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Smart Way		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Smart Way		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Smart Way		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Smart Way		N	PORT RD. 13 @ PORT RD. G
2018	11/8/2018	Smart Way		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Smart Way		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Smart Way		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Smart Way		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Smart Way		N	PORT RD 13 @ PORT RD G

Year	Insp Date	Program	Inspection	Citation (Y/N)	Street
2018	11/8/2018	Smart Way		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Smart Way		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Smart Way		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Smart Way		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Smart Way		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Smart Way		N	PORT RD 13 @ PORT RD G
2018	11/8/2018	Smart Way		N	PORT RD 13 @ PORT RD G
2018	4/16/2018	Truck & Bus		Y	PORT RD. 13 @ PORT RD. G
2018	11/8/2018	Truck & Bus		Y	PORT RD 13 @ PORT RD G
2018	4/16/2018	Truck & Bus		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Truck & Bus		N	PORT RD. 13 @ PORT RD. G
2018	4/16/2018	Truck & Bus		N	PORT RD. 13 @ PORT RD. G
2019	2/20/2019	HDVIP	Quick Snap	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	Quick Snap	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	Quick Snap	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	Quick Snap	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	Quick Snap	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	Quick Snap	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	Tampering	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	ECL	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	DEF	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	Tampering	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	ECL	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	Tampering	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	ECL	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	DEF	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	Tampering	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	ECL	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	DEF	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	Tampering	N	FRESNO @ SONORA

Year	Insp Date	Program	Inspection	Citation (Y/N)	Street
2019	2/20/2019	HDVIP	ECL	N	FRESNO @ SONORA
2019	2/20/2019	HDVIP	Tampering	N	FRESNO @ SONORA
2019	1/30/2019	Idling	Commercial	N	SONORA AND FRESNO STREET
2019	1/30/2019	Idling	Commercial	N	SONORA AND FRESNO STREET
2019	12/12/2019	Idling	Commercial	N	225 Fresno st
2019	12/12/2019	Idling	Commercial	N	225 Fresno st
2019	12/12/2019	Idling	Commercial	N	225 Fresno st
2019	12/16/2019	Idling	Commercial	N	55 S Lincoln St
2019	12/16/2019	Idling	Commercial	N	55 S Lincoln St
2019	12/16/2019	Idling	Commercial	N	55 S Lincoln St
2019	12/16/2019	Idling	Commercial	N	55 S Lincoln St
2019	12/16/2019	Idling	Commercial	N	55 S Lincoln St
2019	2/20/2019	Idling	Commercial	N	FRESNO @ SONORA
2019	3/4/2019	Idling	Commercial	N	405 SOUTH FRESNO ST
2019	3/4/2019	Idling	Commercial	N	405 SOUTH FRESNO ST
2019	3/4/2019	Idling	Commercial	N	405 SOUTH FRESNO ST
2019	3/4/2019	Idling	Commercial	N	55 SOUTH LINCOLN ST
2019	3/4/2019	Idling	Commercial	N	55 SOUTH LINCOLN ST
2019	3/4/2019	Idling	Commercial	N	55 SOUTH LINCOLN ST
2019	3/7/2019	Idling	Commercial	N	233 SOUTH FRESNO AVE
2019	6/3/2019	Idling	Commercial	N	205 SOUTH FRESNO ST
2019	6/3/2019	Idling	Commercial	N	55 SOUTH LINCON ST
2019	6/3/2019	Idling	Commercial	N	55 SOUTH LINCON ST
2019	6/3/2019	Idling	Commercial	N	55 SOUTH LINCON ST
2019	6/3/2019	Idling	Commercial	N	55 SOUTH LINCON ST
2019	6/3/2019	Idling	Commercial	N	55 SOUTH LINCON ST
2019	2/20/2019	Off-Road		N	FRESNO @ SONORA
2019	12/12/2019	Smart Way		N	225 Fresno st

Year	Insp Date	Program	Inspection	Citation (Y/N)	Street
2019	12/12/2019	Smart Way		N	225 Fresno st
2019	2/20/2019	Smart Way		N	FRESNO @ SONORA
2019	2/20/2019	Smart Way		N	FRESNO @ SONORA
2019	2/20/2019	Smart Way		N	FRESNO @ SONORA
2019	2/20/2019	Smart Way		N	FRESNO @ SONORA
2019	2/20/2019	Smart Way		N	FRESNO @ SONORA
2019	2/20/2019	Smart Way		N	FRESNO @ SONORA
2019	2/20/2019	Smart Way		N	FRESNO @ SONORA
2019	3/4/2019	Smart Way		N	55 SOUTH LINCOLN ST
2019	2/20/2019	TRU		Y	FRESNO @ SONORA
2019	2/20/2019	TRU		Y	FRESNO @ SONORA
2019	6/3/2019	Truck & Bus		Y	205 SOUTH FRESNO ST
2019	1/30/2019	Truck & Bus		N	SONORA AND FRESNO STREET
2019	1/30/2019	Truck & Bus		N	SONORA AND FRESNO STREET
2019	2/20/2019	Truck & Bus		N	FRESNO @ SONORA
2019	2/20/2019	Truck & Bus		N	FRESNO @ SONORA
2019	2/20/2019	Truck & Bus		N	FRESNO @ SONORA
2019	6/3/2019	Truck & Bus		N	55 SOUTH LINCON ST
2019	6/3/2019	Truck & Bus		N	55 SOUTH LINCON ST
2019	6/3/2019	Truck & Bus		N	55 SOUTH LINCON ST
2019	6/3/2019	Truck & Bus		N	55 SOUTH LINCON ST

Year	Insp Date	Program	Inspection	Citation (Y/N)	Street
2019	6/3/2019	Truck & Bus		N	55 SOUTH LINCON ST

5.5 LEVERAGING COMMUNITY INVOLVEMENT IN ENFORCING RULES TO REDUCE AIR POLLUTION

Members of the community play an important role in protecting public health by reporting air quality issues that they observe to both the District and CARB. The District and CARB value input from the public who reside and work in the community. The complaint process aids both agencies in identifying issues within the communities and ensuring timely resolution. Filing a complaint is easy. The following is the contact information for the District and CARB.

San Joaquin Valley Air Pollution Control District

Stationary Sources - Smoke, Dust, Odors or Other Contaminants

Phone: 1-800-870-1037

Valley Air Smart Phone App

Online: https://www.valleyair.org/busind/comply/onlinecomplaint.htm

California Air Resources Board

Automobiles, Trucks, Off-road Equipment, or Other Vehicles

Phone: 1-800-END-SMOG

Online: https://calepa.ca.gov/enforcement/complaints/

An effective complaint should contain as much information and as many details as possible as this helps the inspector in responding to the issue and conducting the investigation. The following information is helpful when filing a complaint:

- Time, date, and location of possible violation; including name of facility if known.
- Type of air quality concern. Describe what you see, smell, and feel.
    - See: smoke, fire, dust falling ash, etc.
    - Smell: rotten eggs, gasoline, oil, sweet, sour, smoke, etc.
    - Feel: burning eyes, throat/nose irritation, breathing problem, headache, etc.
- Is the issue still occurring? If not, when did it occur? Is it recurring? If so when?

  - Time of day
  - Day of week
- Your name and contact information – anonymous complaints can be filed but contact information often helpful in fine tuning the investigation.

To better leverage community involvement, the District and CARB will also assign a dedicated team to work with the Community Steering Committee to follow-up on community concerns, and to conduct community-level compliance assistance, outreach, and education related to compliance and enforcement of local and state rules and regulations. As part of this partnership, the District and CARB will track and report back to the Community Steering Committee on the ongoing enforcement activities within the community to monitor progress in meeting community enforcement measures and to look for innovative strategies to enforcement practices with the goal of increased compliance with air pollution rules and regulations within the community.

5.6 ENFORCEMENT STRATEGIES

5.6.1 DISTRICT ENFORCEMENT STRATEGIES

The District has used the assessment of the three (3) year compliance history in the Stockton AB 617 Community and comments shared by the Community Steering Committee to develop the list of enforcement strategies below which aim to reduce the potential for localized air quality impacts within the Stockton AB 617 Community. During implementation, District staff will provide regular updates on enforcement measures and will solicit guidance and feedback to continue to look for opportunities to evaluate and improve enforcement activities.

1. **Enhanced enforcement of District Rule 4901 (*Wood Burning Fireplace and Wood Burning Heaters*) mandatory wood burning curtailments:**

   This measure is still being considered by the Stockton Steering Committee and may be included in a later draft.

2. **Enhanced enforcement of District Rule 4103 (*Open Burning*) to reduce the illegal open burning of residential waste:**

   To limit the potential for localized PM2.5 and toxic impacts associated with the illegal open burning of residential waste, District will conduct targeted surveillance efforts within the Stockton AB 617 Community. Building on the District's existing surveillance and complaint response efforts, the District will conduct additional targeted surveillance efforts in Stockton AB 617 Community at least once per quarter for the next 5 years. The District will work with the Community Steering Committee to focus surveillance efforts in areas where illegal residential open burning has historically occurred.

3. **Enhanced inspection frequency of permitted sources:**

   To limit the potential for localized air quality impacts associated with the failure to comply with emissions standards established by District permit, rule, or regulation, the District will increase the frequency of inspection at each facility that has had an

emission violation over the past three (3) years. These facilities will be inspected at least twice per calendar year for the next five (5) years or until the facility has 4 consecutive inspections without an emission violation, whichever occurs first.

4. **Enhanced enforcement of fugitive dust requirements**
   To limit the potential for localized air quality impacts associated with fugitive dust from construction/earthmoving activities and open areas subject to District Regulation VIII, the District will conduct targeted surveillance efforts within the Stockton AB 617 Community. Building on the District's existing surveillance and complaint response efforts, the District will conduct at least one targeted enforcement effort within the Stockton AB 617 Community during both the 2nd and 3rd quarter for the next five (5) years.

5. **Pilot training program for conducting self-inspections at gas stations:**
   This measure is still being considered by the Stockton Steering Committee and may be included in a later draft.

6. **Enhanced enforcement of the state's heavy-duty vehicle anti-idling regulation:**
   To limit the potential for localized PM2.5 and toxic air quality impacts associated with failure to comply with the state's heavy-duty vehicle anti-idling regulation, the District will partner with CARB to conduct additional targeted anti-idling enforcement efforts in Stockton AB 617 Community at least once per quarter for the next 5 years. The District and CARB will work with the Community Steering Committee to identify heavy-duty vehicle idling "hot spots," especially those near schools, to aid in focusing the enforcement efforts.

7. **Report back to the Community Steering Committee on Enforcement Activities:**
   The District will track and provide an annual report to the Community Steering Committee to summarize the District enforcement efforts within the community and to monitor progress in implementing community enforcement measures and meeting enforcement goals.

8. **Coordinate with other agencies**
   The District will seek opportunities to coordinate with other agencies within the Stockton AB 617 Community to address multimedia compliance issues as they arise.

9. **Update enforcement strategies as appropriate**
   The District committed to evaluating the results of ongoing compliance activities within the Stockton AB 617 Community and moving forward will work with the Community Steering Committee to update measures as appropriate.

5.6.2 CARB ENFORCEMENT STRATEGIES

CARB acknowledges that the high compliance rates identified in the enforcement history may not necessarily reflect compliance across the community. In cases where enhanced enforcement activities uncover non-compliance issues, CARB's goal will be

to achieve the same or higher compliance rates as observed in the three-year history. CARB staff will also work closely with the community steering committee, the Air District, and other agencies to address gaps in the enforcement of mobile sources and seek opportunities to close these gaps.

To support achieving these goals, CARB is committed to enhancing enforcement activities within Stockton AB 617 Community by utilizing the following tools:

- An assessment of the enforcement history data
- Targeting areas that may require additional enforcement with guidance from the community steering committee

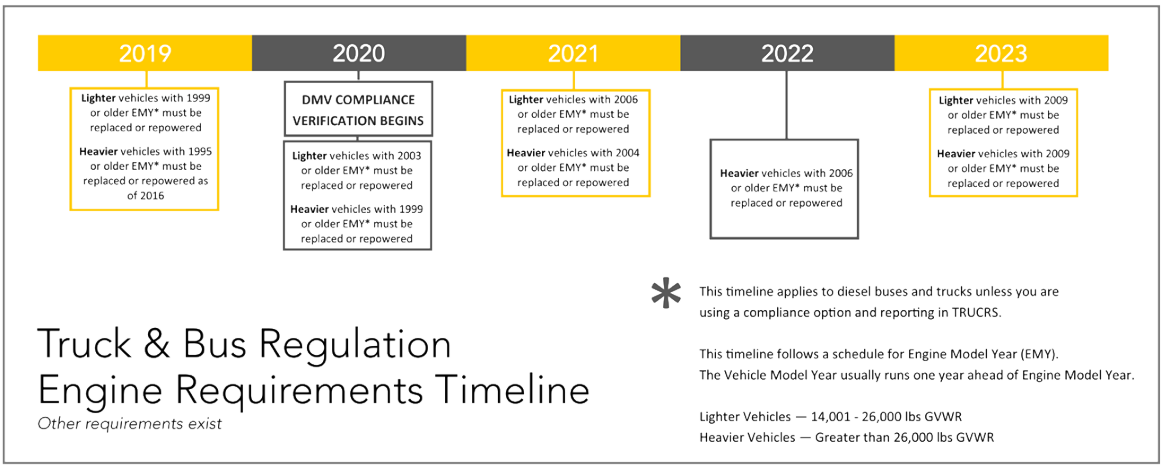
CARB will utilize current regulations and enforcement programs across all sources CARB regulates to target areas of non-compliance within the Stockton AB 617 Community.

Listed below are CARB's enforcement strategies to help improve air quality in the Stockton AB 617 Community:

1. **Increase the frequency of compliance inspections with guidance from the community steering committee:**
   CARB will collaborate with the Stockton AB 617 Community steering committee to actively enhance enforcement activities. This will be done through a combination of improved complaint reporting, more focused inspections, and report-back meetings to update the community steering committee on both the status of inspections and to obtain additional areas of mobile source concern. CARB will work with the steering committee to meet annually in order to prioritize enforcement strategies and identify possible locations where non-compliant vehicles are present. CARB will additionally report to the community the number of inspections performed, mapped locations of the enforcement, and the number of citations and/or Notices of Violations issued.

2. **Achieve Compliance with the Truck and Bus Regulation via Senate Bill 1:**
   In April 2017, the Governor signed Senate Bill 1 (SB 1) into law which included a provision that, beginning in 2020, a vehicle must demonstrate compliance with the STB regulation before it can be registered with the Department of Motor Vehicles (DMV). Beginning in 2020, the DMV, in conjunction with data provided by CARB, will deny vehicle registration to non-compliant HDVs based on the model year of the HDV.

Figure 5-10 Truck and Bus Regulation Engine Requirements Timeline



3. **Provide Annual Report of Enforcement Activities**
   CARB's enforcement division will provide an annual report to the CSC to update and summarize CARB's enforcement activities within the community.

4. **Coordinate with other agencies**
   CARB will seek opportunities to coordinate with other agencies with enforcement authority in Stockton AB 617 Community.

5. **Enhance CARB's Data Management Practices**
   CARB is committed to enhancing the quality of enforcement data for the Stockton AB 617 Community. Moving forward, CARB will maintain the location of enforcement activity and received complaints to provide the community steering committee with the most accurate data available. CARB has recently completed a visualization tool that makes CARB enforcement data more transparent and available. The tool can be accessed online by visiting https://webmaps.arb.ca.gov/edvs/.

6. **Provide in-person community specific training**
   CARB will develop and implement a new program that will be offered to the Stockton AB 617 Community. Information will cover topics like the fundamentals of enforcement, how the enforcement process works, instructions on filing a thorough complaint, and what to expect from the enforcement process after filing a complaint. Through this program, community members will be able to better support CARB or air district enforcement processes. CARB may also develop online trainings in the future.

7. **Update enforcement strategies as applicable**
   CARB staff are committed to updating enforcement strategies as requested by the community steering committee, if said strategies are enforceable by CARB

staff or if CARB can reasonably accommodate the request (e.g., additional enforcement training for idling vehicles).

6. METRICS TO TRACK PROGRESS

6.1 METRICS FOR FIVE-YEAR MILESTONE EVALUATION

Strategies implemented as a part of this CERP are designed to improve air quality in the community of Stockton. The five-year milestone evaluation is intended, per CARB guidance, to illustrate community scale emissions reductions and air quality trends that may not be evident on an annual reporting basis. To this end, the five year milestone report submitted to CARB for Stockton will include a comprehensive report explaining how air quality data obtained as part of the CAMP and the resulting analyses provided to CSC members helped inform ongoing implementation of CERP strategies and, to the extent possible, how these strategies resulted in lowering emissions in the community. Additionally, the report will include a complete accounting of all projects, emissions reductions, and associated co-benefits implemented as a result of AB 617 program implementation in the community of Stockton.

Table 6-1 Emission Reduction Targets for Incentives Measures

Measure #	Community Suggested Measures	Unit Type	# of Units	Allocation Amount	Cost per Unit (Averaged)	Direct Reductions Estimate Lifetime (Tons)
	Community					
VB.1	Vegetative Barriers	Projects	2	$ 1,000,000	$500,000	0.5
UG.1	Trees and Urban Greening	Projects	2	$ 1,000,000	$500,000	-
LG.1	Residential Lawn and Garden Equipment	Equipment	50	$ 20,000	$400	0.3
LG.2	Commercial Lawn and Garden Equipment	Equipment	5	$ 100,000	$25,000	
SC.1	Air Filtration in Schools (all schools in community)	Schools	33	$ 2,640,000	$80,000	-
IAQ.1	Home weatherization, Solar, Electrification, Air Filtration in Homes	Units	2000	$ 1,000,000	$500	-
	Older Vehicles					
TP.1	Targeted Tune-In Tune-Up Events within Community	Events (400 cars/event)	5	$ 300,000	$60,000	3.7
TP.2	Drive Clean Vehicle Replacement	Cars	100	$ 800,000	$8,000	0.2
TP.3	EV Charging Stations	Chargers	15	$ 375,000	$25,000	-
TP.4	EV Mechanic Training	Trainings	10	$ 150,000	$15,000	-
TP.5	Car Share Program	Program	1	$ 1,000,000	$1,000,000	-
	Land Use					
LU.2	Bike Paths and Infrastructure	Bike Paths	5	$ 500,000	$100,000	11
	Heavy Duty Mobile Sources					
HD.1	Zero & Near-Zero Emission Heavy Duty Trucks	Trucks	50	$ 10,000,000	$200,000	209
HD.3	Heavy Duty Electric Vehicle Charging Infrastructure	Fueling Stations	1	$ 1,000,000	$1,000,000	-
HD.5	Truck Idling Plug-Ins	Plug Stations	33	$ 100,000	$3,030	-
HD.7	Electric School Buses	Buses	10	$ 4,000,000	$400,000	22
HD.10	Locomotive Switchers	Locomotive Switchers	4	$ 6,800,000	$1,700,000	546
HD.11	Truck Reroute Study	Study	2	$ 1,000,000	$50,000	-
	Residential Wood Burning					
RB.1	Incentives to Replace Wood Burning Devices	Devices	100	$ 300,000	$3,000	49
	Port					
P.2	Zero and Near-Zero Emission Technology at Port	Vehicles	10	$ 2,000,000	$200,000	3
P.3	Tug Boat	Boat	1	$ 1,000,000	$1,000,000	30
P.4	Marine Exhaust Intake	Project	1	$ 2,000,000	$2,000,000	240

Table 6-2 Metrics for Tracking Progress of District Non-Incentive Measures

#	Measure	Type	2021	2022	2023	2024	2025
SC.2	Increase Participation in Healthy Air Living Schools	Outreach Activities	Ongoing Engagement				
O.1	Multilingual Outreach	Outreach Materials/ Events	Host 4 meetings, 1 targeted social media campaign annually.				
RB.2	Educate Public Regarding Harmful Effects of Residential Wood Burning Smoke	Outreach Materials/ Events	4	4	4	4	4
RB.4	Education about Illegal Residential Open Burning	Outreach Activities	1	1	1	1	1
RB.5	Enhanced Enforcement to Reduce Illegal Burning of Residential Waste	Additional Surveillance Efforts	4	4	4	4	4
HD.6	Enhanced Enforcement of Statewide Anti-Idling Regulation	Additional Surveillance Efforts	4	4	4	4	4
P.1	Collaborate with Port to Facilitate Information Sharing	Meetings and Outreach	Ongoing. Outreach will be based on CSC implementation.				
P.5	Addressing Algal Blooms	Meetings	2	2	2	2	2
LU.1	Support Projects that Reduce VMT	Ongoing Support	Ongoing				
LU.4	Integration of Local and Regional Planning Efforts	Meetings	1	1	1	1	1
SS.4	Inspection frequency for permitted stationary sources	Surveillance	Varies based on compliance by facility. Will begin immediately.				
SS.8	Evaluation of Rules to Determine Whether Additional Reductions are Possible for Sources of NOx and PM2.5	Rule Evaluations	x	x			
SS.9	Expedited Facility Risk Assessment And Risk Reduction	Risk Reduction Audits	See Appendix E for detailed list and schedule.				
FD.1	Enhanced Enforcement of Fugitive Dust Requirements	Surveillance	x	x	x	x	x

7. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) PROJECT REVIEW

According to Section 15061 (b)(3) of the California Environmental Quality Act (CEQA) Guidelines, a project is exempt from CEQA if, “the activity is covered by the common sense exemption 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.” Since the Project will result in an air quality benefit to the community, the Project is not expected to result in a significant impact under CEQA. As such, the common sense exemption applies.

In addition, this Project is an action taken by a regulatory agency, the San Joaquin Valley Air District, as authorized by state law for the protection and betterment of air quality in the San Joaquin Valley. CEQA Guidelines §15308 provides a categorical exemption for “actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for protection of the environment. Construction activities and relaxation of standards allowing environmental degradation are not included in this exemption.” No construction activities or relaxation of standards are included in this project. As such, for this additional reason, the District finds that the Project is exempt from CEQA.

Pursuant to Section 15062 of the CEQA Guidelines, the District will file a Notice of Exemption upon Governing Board approval of the Project.

GLOSSARY

AB 617 – Assembly Bill (AB) 617 (C. Garcia, Chapter 136, Statutes of 2017) directs the state and local air districts to identify communities in California that are exposed to high levels of air pollution and established the Community Air Protection Program. Air districts with input from residents and stakeholders are to develop community focused action plans and community air monitoring plans to address localized air pollution and reduce exposure to particulate matter and toxic air contaminants.

Area Sources – Sources of air pollutants that individually emit relatively small quantities of air pollutants, but that may emit considerable quantities of emissions when combined over a large area. Examples include water heaters, lawn maintenance equipment, and consumer products.

Best Available Control Technology (BACT) – These are the most stringent requirements for new or modified sources. An emissions limitation based on using the most up-to-date methods, systems, techniques, and production processes available to achieve the greatest level of emission reductions.

Best Available Retrofit Control Technology (BARCT) – An emissions limitation based on the maximum degree of reduction achievable for existing sources considering environmental, energy, and economic impacts.

Black Carbon – Black carbon is the sooty black material emitted from gasoline and diesel engines, and other sources that burn fossil fuel. It comprises a significant portion of particulate matter. Inhalation of black carbon is associated with health problems including respiratory and cardiovascular disease, cancer, and birth defects.

California Air Resources Board (CARB) – The State of California agency responsible for air pollution control. Responsibilities include: establishing State ambient air quality standards, setting allowable emission levels for mobile sources of emissions and consumer products.

California Environmental Quality Act (CEQA) – Legislation requiring state and local agencies to disclose the significant environmental impacts of a project through the preparation of an Initial Study, Negative Declaration or Environmental Impact Report, including actions to mitigate any significant environmental project impacts.

Cancer Risk – The likelihood that a person will develop cancer during their lifetime.

Carbon Monoxide (CO) - a colorless, odorless gas emitted from combustion processes like mobile sources.

Cargo Handling Equipment (CHE) – Equipment used to move containers within a marine terminal. Cargo-handling equipment includes rubber-tired gantry (RTG) cranes, yard tractors, side-picks, and top picks. The large ship-to-shore cranes that move

containers from the vessel to the container yard and vice-versa are not included in the definition of CHE.

Concentrations – Pollution in the air is typically expressed as a *concentration*. A concentration is the amount that could be extracted from a given volume of air (like a cubic meter). For example, the amount of particulate matter concentrations in terms of "micrograms per cubic meter (µg/m3)." This is a measure of the amount of particulate matter collected if you were to draw a cubic meter of air through a clean filter, and then weigh the filter on a scale that can measure millionths of a gram. Today we would expect, on average, to be able to collect about 10 µg of PM2.5 from a cubic meter of ambient air.

Control Device – Devices designed to capture, remove and/or reduce pollutants that would otherwise be emitted into the air. Examples are baghouses, scrubbers, dust collectors, direct flame afterburners, vapor recovery units, and water sprayers.

Criteria Air Pollutants – As required by the Clean Air Act, the U.S. Environmental Protection Agency (EPA) identifies and set standards to protect human health and welfare for six pollutants: ozone, carbon monoxide, particulate matter, sulfur dioxide, lead, and nitrogen oxide. The term "criteria pollutants" derives from the requirement that the U.S. EPA must describe the characteristics and potential health and welfare effects of these pollutants. U.S. EPA periodically reviews new scientific data and may propose revisions to the standards as a result.

Diesel Engine – An internal combustion engine in which ignition of the fuel, which is injected into the combustion chamber, is caused by the elevated temperature of the air in the cylinder due to mechanical compression.

Diesel Particulate Matter (DPM) – The particles found in the exhaust of diesel-fueled compression ignition engines. Diesel PM may combine and adsorb other species to form structures of complex physical and chemical properties.

Drayage Trucks – A truck used to haul containers to and from the container terminals. It consists of the tractor unit and a semitrailer consisting of the container on a chassis (wheeled base).

Emissions – A gas or liquid stream containing one or more air contaminants discharging or emitted into the atmosphere.

Enforcement Action – When non-compliance with District rules and regulations and local, state, and federal requirements which the District has authority over.

Environmental Protection Agency (EPA) – The federal agency in charge of creating and enforcing regulations to protect human health and the environment.

Fine Particulate Matter (PM2.5) – Particulate matter (PM) is a mixture of solid particles and liquid droplets suspended in the air. Of these particles, those less than 2.5 micrometers in diameter, called fine PM or PM2.5, pose the greatest risk to health. See particulate matter.

Gasoline Dispensing Facilities (GDF) – Retail service station or private facility that stores and/or dispenses gasoline into fuel tanks.

Greenhouse Gases (GHG) – Any gas that absorbs infrared radiation in the atmosphere. Greenhouse gases include water vapor, carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), halogenated fluorocarbons (HCFCs), ozone (O3), perfluorocarbons (PFCs), sulfur hexafluoride (SF6) and hydrofluorocarbons (HFCs).

Health Risk Assessment (HRA) – A detailed comprehensive analysis to evaluate and predict the dispersion of hazardous substances in the environment and the potential for exposure of human populations, and to assess and quantify both the individual and population wide health risks associated with those levels of exposure.

High Efficiency Particulate Air Filters (HEPA filters) – A high efficiency particulate air filter capable of filtering 0.3 micron particles with 99.97 percent efficiency.

Idling - keep the engine of a vehicle running while parked.

Indirect Sources – Land uses and facilities that attract or generate motor vehicle trips and thus result in air pollutant emissions; for example, shopping centers, office buildings, warehouses, and airports.

Minimum efficiency reporting value (MERV) – Developed by the American Society of Heating, Refrigerating and Air Conditioning Engineers, MERV rates the effectiveness of air filters. The higher the number, the finer the filtration.

Mixed Land Use – A range of land uses including residential, commercial, and industrial to be collocated in an integrated way that supports sustainable forms of transportation.

Mobile Sources Of Air Pollution – Any motor vehicle that produces air pollution, e.g., cars, trucks, motorcycles (on-road mobile sources) or airplanes, trains and construction equipment (off-road mobile sources).

National Ambient Air Quality Standards (NAAQS) – The Clean Air Act requires U.S. EPA to set National Ambient Air Quality Standards (NAAQS) at a levels determined to be protective of public health within an adequate margin of safety for six pollutants referred to as criteria pollutants. Standards are set based on scientific research and policy assessments reviewed by the Clean Air Scientific Advisory Committee.

New Source Review (NSR) – A pre-construction permitting review requirement that ensures that when a new source of air pollution is built, or when an existing source is modified, the source will implement effective emission control technology and will comply with related regulatory requirements pertaining to air emissions.

Nitrogen Oxides (NOx) - or "oxides of nitrogen" is a group of gases that are composed of nitrogen and oxygen. Two of the most common nitrogen oxides are nitric oxide (NO) and nitrogen dioxide (NO2).

Off-Road Vehicles – An off-road vehicle is any type of vehicle which can drive on and off paved or gravel surfaces. They are generally characterized by having large tires, open treads, a flexible suspension or caterpillar tracks. Other vehicles that do not travel public streets or highways are called off-highway vehicles and include tractors, forklifts, cranes, backhoes, bulldozers and golf carts.

On-Road Vehicles – A vehicle designed to legally carry people or cargo on public roads and highways such as buses, cars, trucks, vans, motor homes, and motorcycles.

Ozone (O3) - ground level or "bad" ozone which is not emitted directly into the air, it is created by chemical reactions between oxides of nitrogen (NOx) and volatile organic compounds (VOC) in the presence of sunlight.

Particulate Matter (PM) – PM includes a wide range of particles that vary in terms of their size and mass, physical state (solid or liquid), chemical composition, toxicity, and how they behave and transform in the atmosphere. PM is commonly characterized based on particle size. Ultrafine PM includes the very smallest particles less than 0.1 micron in diameter (one micron equals one-millionth of a meter). Fine PM, commonly referred to as PM2.5, consists of particles 2.5 microns or less in diameter (includes ultrafine PM). Coarse PM refers to particles between 2.5 microns and 10 microns in diameter. The term "coarse" particles may be misleading; it should be emphasized that even "coarse" particles are still very tiny, many times smaller than the diameter of a human hair. PM10 consists of particles 10 microns or less in diameter (includes ultrafine, fine and coarse PM).

Parts per Billion (ppb) – A weight-to-weight ratio used to describe concentrations. Parts per billion (ppb) is the number of units of mass of a contaminant in the air per 1000 million units of total mass.

Parts per Million (ppm) – A weight-to-weight ratio used to describe concentrations. Parts per million (ppm) is the number of units of mass of a contaminant in the air per million units of total mass.

Partial Zero Emission Vehicle (PZEV) – PZEV is an automobile that has zero *evaporative* emissions from its fuel system and meets Super Ultra Low Emissions Vehicle (SULEV) tailpipe-emission standards. Evaporative emissions are the gasoline fumes that escape during refueling or from the fuel tank and supply lines. See also ZEV.

Sensitive Receptors – Members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses.

Stationary Sources of Air Pollution (Stationary Sources) – A fixed, non-mobile producer of air pollution, usually found at industrial or commercial facilities.

Toxic Air Contaminants (TACs) – TACs are air pollutants, identified by CARB, which may cause or contribute to an increase in deaths or in serious illness, or which may pose a present or potential health hazard. Health effects may occur at extremely low levels of TACs.

Transport Refrigeration Unit (TRU) – Refrigeration systems powered by integral internal combustion engines designed to control the environment of temperature sensitive products that are transported in trucks and refrigerated trailers. TRUs may be capable of both cooling and heating.

Vehicle Miles Traveled (**VMT)** – One vehicle (whether a car carrying one passenger or a bus carrying 30 people) traveling one mile constitutes a vehicle mile.

Volatile Organic Compounds (VOCs) - are a large group of carbon-based chemicals that easily become vapors or gases. They include both human-made and naturally occurring chemical compounds.

Zero-Emission Vehicle (ZEV) – Vehicles which produce no emissions from the on-board source of power (for example, a fully electric vehicle).