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Governor's Office of Planning & Research

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STATE CLEARINGHOUSE

Dear Nicole Moore:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the Mariposa Industrial Park Project (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2020120283. The Project is proposed within the City of Stockton (City), California, which is the lead agency for California Environmental Quality Act (CEQA) purposes.

As part of the Project, the City plans to annex approximately 203 acres of land from the County of San Joaquin. Once annexed, the City will rezone the Project site from General Agriculture to Industrial Limited to construct and operate seven light industrial buildings totaling 3,616,870 square feet. Although the Project's future occupant(s) are unknown, the City expects that the proposed light industrial buildings would be occupied by a high-cube warehouse operator(s). Anticipated uses of the proposed light industrial buildings may include transload, short-term storage, cold storage, fulfillment center, or parcel hub uses. Once in operation, the Project is expected to generate 12,370 daily vehicle trips; the DEIR did not specify the number of daily truck trips out of the total daily vehicle trips that would serve the Project.

If approved, the Project will expose nearby communities to elevated levels of air pollution beyond the existing baseline emissions at the Project site. Residences are located north, east, and west of the Project, with the closest homes located within 50 feet of the Project's western boundary. In addition to residences, Hamilton Elementary School, Monroe Elementary School, and Montezuma Elementary School are located within 2 miles of the Project. These residences are already exposed to toxic diesel particulate matter (diesel PM) emissions generated by existing industrial buildings, vehicle traffic along State Route 99 (SR-99), and rail traffic along existing rail lines.

The State of California has placed additional emphasis on protecting local communities from the harmful effects of air pollution through the passage of Assembly Bill 617 (AB 617) (Garcia, Chapter 136, Statutes of 2017). AB 617 is a significant piece of air quality legislation that highlights the need for further emission reductions in communities with high exposure burdens, like those in which the Project is located. Diesel PM emissions generated during the construction and operation of the Project would negatively impact neighboring communities, which are already impacted by air pollution from existing industrial buildings, vehicle traffic along SR-99, and local rail traffic.

Through its authority under Health and Safety Code section 39711, the California Environmental Protection Agency (CalEPA) is charged with the duty to identify disadvantaged communities. CalEPA bases its identification of these communities on geographic, socioeconomic, public health, and environmental hazard criteria (Health and Safety Code, section 39711, subsection (a)). In this capacity, CalEPA currently defines a disadvantaged community, from an environmental hazard and socioeconomic standpoint, as a community that scores within the top 25 percent of the census tracts, as analyzed by the California Communities Environmental Health Screening Tool Version 3.0 (CalEnviroScreen). CalEnviroScreen uses a screening methodology to help identify California communities currently disproportionately burdened by multiple sources of pollution. The census tract containing the Project is within the top 1 percent for Pollution Burden¹ and is considered a disadvantaged community; therefore, the City must ensure that the Project does not adversely impact neighboring disadvantaged communities.

Industrial development, such as those proposed under the Project, can result in high daily volumes of heavy-duty diesel truck traffic and operation of on-site equipment (e.g., forklifts and yard tractors) that emit toxic diesel emissions, and contribute to regional air pollution and global climate change.² Due to the Project's proximity to residences already disproportionately burdened by multiple sources of pollution, CARB's comments below express concerns with the potential cumulative air quality impacts associated with the construction and operation of the Project. To protect the health of these communities, City and applicant have an obligation to construct and operate the Project using the zero-emission technologies provided in this letter.

The DEIR Does Not Specify if the Project Would be Used for Cold Storage

The City does not specify in the DEIR if the Project would include the operation of on-site cold storage uses. Consequently, air pollutant emissions associated with cold storage operation were not included in the DEIR. Should the Project later include cold storage uses, residences near the Project-site could be exposed to significantly higher levels of toxic diesel PM and nitrogen oxides (NOx), and greenhouse gases than trucks and trailers without TRUs. To ensure TRUs will not operate within the Project site without first quantifying and mitigating their potential impacts, the City must include one of the following design features in the Final Environmental Impact Report (FEIR):

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1. Pollution Burden represents the potential exposure to pollutants and the adverse environmental conditions caused by pollution.
 2. With regard to greenhouse gas emissions from this project, CARB has been clear that local governments and project proponents have a responsibility to properly mitigate these impacts. CARB's guidance, set out in detail in the Scoping Plan issued in 2017, makes clear that in CARB's expert view, local mitigation is critical to achieving climate goals and reducing greenhouse gases below levels of significance.

- A Project design measure requiring contractual language in tenant lease agreements that prohibits tenants from operating TRUs within the Project-site; or
- A condition requiring a restrictive covenant over the parcel that prohibits the applicant's use of TRUs on the property, unless the applicant seeks and receives an amendment to its conditional use permit allowing such use.

If the City later chooses to allow TRUs to operate within the Project site, the City must re-model the Project's air quality impact analysis and HRA to account for potential health risks. The updated air quality impact analysis and HRA should include the following air pollutant emission reduction measures:

- Include contractual language in tenant lease agreements that requires all loading/unloading docks and trailer spaces to be equipped with electrical hookups for trucks with TRU or auxiliary power units. This requirement will substantially decrease the amount of time that a TRU powered by a fossil-fueled internal combustion engine can operate at the Project-site. Use of zero-emission all-electric plug-in TRUs, hydrogen fuel cell transport refrigeration, and cryogenic transport refrigeration are encouraged and can also be included in lease agreements.³
- Include contractual language in tenant lease agreements that requires all TRUs entering the project site to be plug-in capable.

The City Uses Inappropriate Trip Lengths When Modeling the Project's Air Quality Impacts from Mobile Sources

The Project's operational mobile source air pollutant emissions may have been underestimated in the DEIR by using vehicle trip lengths unsupported by substantial evidence. The Project's operational air pollutant emissions were estimated using the California Emissions Estimator Model (CalEEMod). Based on CARB's review of the CalEEMod outputs found in Appendix C (Air Quality Modeling Results) of the DEIR, the City relied on CalEEMod vehicle trip length defaults to estimate the Project's mobile source air pollutant emissions. After applying these defaults, 59 percent of the Project's total vehicle trips would have a travel distance of 9.5 miles and 41 percent of the Project's total vehicle trips would have a travel distance 15 miles.

The DEIR does not specify the distance workers and truck drivers would need to travel to operate the proposed light industrial buildings. The Project is located within a short distance from the Port of Stockton and other industrial warehouses, which the Project could serve. However, the heavy-duty trucks transporting goods to the proposed light industrial buildings could travel greater distances, such as Port of Oakland or Port of Point San Pablo. Unless the City restricts the Project's truck trip distances to those specified in the Project's air quality

³ CARB's Technology Assessment for Transport Refrigerators provides information on the current and projected development of TRUs, including current and anticipated costs. The assessment is available at: https://www.arb.ca.gov/msprog/tech/techreport/tru_07292015.pdf.

analysis, the City must remodel the Project's air quality impacts assuming a truck trip distance supported by substantial evidence.

The City Used Inappropriate Vehicle Fleet Mixes to Evaluate the Project's Air Quality Impacts from Mobile Sources.

The Project's operational mobile source air pollutant emissions may have been underestimated in the DEIR by using inappropriate vehicle fleet mixes. The Project's operational air pollutant emissions were estimated assuming 9 percent of the Project's 12,370 daily vehicle trips would consist of heavy-duty trucks. The City obtained this fleet mix using CalEEMod default assumptions.

CARB believes it would be more appropriate to base the air quality and health risk impact analysis on the fleet mixes supported by substantial evidence, rather than modeling defaults. For example, according to the Fontana Truck Trip Generation Study,⁴ 20.4 percent of the total daily vehicle trips from a warehouse greater than 100,000 square feet (heavy warehouse) would consist of trucks. This example study is based on traffic counts from warehouses. Furthermore, the risk impacts evaluated in the Project's HRA assumed that 25 percent of the Project total daily vehicle trips would consist of heavy-duty trucks, which is inconsistent with the 9 percent assumed in the Project's air quality analysis. CARB recommends that the City reevaluate the Project's air quality impacts assuming a conservative fleet mix, supported by substantial evidence.

The DEIR Did Not Account for Air Pollutant Emissions from Heavy Duty Trucks During On-Site Grading

The DEIR did not account for mobile source air pollutant emissions from grading operations during the Project's construction phase. According to Chapter 3.3.5 (Project Construction), the construction of the proposed light industrial buildings would involve mass grading and extensive excavation. However, based on CARB's review of the CalEEMod outputs, found in Appendix C (Air Quality Modeling Results) of the DEIR, the City assumed that no heavy-duty truck trips would be required to import or export soil during the on-site mass grading and excavation. Furthermore, the DEIR does not explicitly state the quantity of soil needed to grade the Project site to support this assumption. If soil must be imported or exported to grade the Project site, the truck trips needed to accomplish that must be accounted for.

The City must remodel the Project's construction air pollutant emissions using accurate heavy duty truck trip estimates. Residences and other sensitive receptors (e.g., daycare facilities, senior care facilities, and schools) located near construction haul routes could be exposed to diesel exhaust emissions that were not evaluated in the DEIR. The DEIR should clearly state

⁴ City of Fontana. Truck Trip Generation Study. August 2003. Accessible at:
<https://tampabayfreight.com/pdfs/Freight%20Library/Fontana%20Truck%20Generation%20Study.pdf>

the total number of heavy-duty truck trips expected during Project construction so the public can fully understand the potential environmental effects of the Project on their communities.

The Health Risk Assessment Used Inappropriate Assumptions When Modeling the Project's Health Risk Impacts

The HRA prepared for the Project and presented in Appendix I (Health Risk Assessment) of the DEIR, concluded that residences near the Project site would be exposed to diesel PM emissions that would result in cancer risks of 1.56 chances per million during Project construction and 10.45 chances per million during Project operation. Since the Project's cancer risks are below the San Joaquin Valley Air Pollution Control District's significance threshold of 20 chances per million, the DEIR concluded that the Project would result in a less than significant impact on public health. CARB has reviewed the Project's HRA and is concerned that the Project's cancer risk impacts may have been underestimated for the reasons detailed below.

The HRA prepared for the Project evaluated the operational cancer risks using exhaust emission factors from EMFAC2017 while assuming aggregated vehicle speeds for heavy-duty trucks. When estimating cancer risks from Project-related truck activities, the City should obtain exhaust emission factors for trucks transiting at speeds of 5 miles per hour (mph) within the project site and 25 mph along local roadways. To better understand the Project's potential impacts on public health, the City should revise the Project's HRA using the latest diesel PM emission factors obtained from EMFAC2021 and report the revised cancer risks in the FEIR.

The Project traffic trip rates presented in the HRA are not consistent with those shown in the Project's Traffic Impact Study. As presented in Table 15 (Trip Generation Estimate) of Appendix G (Traffic Impact Study), the operation of the Project would result in 12,370 daily vehicle trips. However, according to the Project's HRA, the Project would result in 10,572 daily vehicle trips. Since the daily vehicle trips reported in the Project's CalEEMod outputs are below what is presented in the DEIR, CARB is concerned that the cancer risk impacts reported in the DEIR are underestimated. The City must remodel the Project's cancer risks using the vehicle trips presented in Project's traffic impact analysis.

The DEIR Did Not Include Mitigation Measures to Minimize the Project's Significant and Unavoidable Impact on Air Quality

The City did not include any meaningful project-specific mitigation measures in the DEIR to reduce the Project's operational NO_x emissions. Chapter 6 (Air Quality) of the DEIR concludes that the operation of the Project would result in emissions of NO_x that would exceed the San Joaquin Valley Air Pollution Control District's (SJVAPCD) significance threshold. Consequently, the City concluded in the DEIR that that Project would significantly impact air quality. Although the DEIR does not include mitigation measures to reduce the Project's operational NO_x emissions, the City commits to implementing the applicable

measures listed in Appendix B (Additional Air Quality Improvement Measures) of the DEIR and comply with local air district rules, such as SJVAPCD Rule's 9410 and 9510, and state regulations, such as the Advanced Clean Truck Regulation. Even after implementing applicable local air district rules and state regulations and the City's Additional Air Quality Improvement Measures, the City concluded in the DEIR that the Project's impact on air quality would remain significant and unavoidable.

Although complying with local air district rules and state regulations would reduce the Project's air pollutant emissions, the Project would have to abide by these State and district rules and regulations and they should not be exclusively relied on to reduce the Project's impact on air quality. In the DEIR, the City states that the Project would comply with SJVAPCD Rule 9510. This rule requires the applicant to reduce the Project's operational NOx and PM10 emissions by 33.3 and 45 percent, respectively. To achieve these reductions, the applicant will need to pay into an off-site mitigation fund managed by the SJVAPCD for any emission reductions required by the rule that are not achieved through on-site emission reductions. The City must explain in the DEIR how the rule will achieve the desired emission reductions after all feasible mitigation measures are implemented. The City must list all the project design features and mitigation measures that would reduce the Project's operational air pollutant emissions and the amount of money the applicant will pay into SJVAPCD's off-site mitigation fund.

The City must include meaningful mitigation measures in the DEIR to reduce the Project's operational NOx emissions. As previously mentioned, the DEIR states that the City will implement the applicable measures listed in Appendix B (Additional Air Quality Improvement Measures) of the DEIR to reduce the Project's operational emissions. The Additional Air Quality Improvement Measures listed in Appendix B are specific to the Sanchez-Hogan Annexation Project FEIR approved by the City in June 2020. In Appendix B, the City states that since the Project is similar in type, size, location, scale of development to the Sanchez-Hogan Annexation Project, the mitigation measures listed in the Sanchez-Hogan Annexation Project FEIR are referenced in this DEIR. If the City plans to implement the measures listed in Appendix B, the City must conduct a project-specific analysis to ensure that the type of mitigation measures used in the Sanchez-Hogan Annexation Project FEIR will lessen the Project's air quality impacts. The City cannot simply cite mitigation measures from an FEIR, not related to the Project, to mitigate the Project's significant air quality impact simply because the two projects are similar in type and size.

The Additional Air Quality Improvement Measures listed in Appendix B include: requiring compliance with CARB regulations and SJVAPVD Rules, the use of Tier 4 off-road equipment during Project construction, compliance with cool roof specifications as specified in the 2016 CALGreen Building Standards, all off-road equipment to be powered by zero to near-zero technologies, tenant-owned and operated fleet equipment with a gross vehicle weight rating greater than 14,000 pounds accessing the site meet or exceed 2010 model year emissions equivalent engine standards. These measures also require the use of electrically powered landscaping equipment, use haul trucks and large on-site diesel-powered equipment that are equipped with CARB Tier IV-compliant engines or better, use zero-emission light - and

medium-duty vehicles, utilize electric-powered or zero-emission forklifts, tuggers, and other off-road mobile equipment, and providing electric TRU electrical connections at dock doors and vehicle charging stations proposal to demand. The measures listed in Appendix B also include measures that are not related to the Project. These measures include requiring the applicant of the Sanchez-Hoggan Annexation Project to retain a qualified person to prepare a detailed air quality plan and to install a screen wall to the north of the Sanchez-Hoggan property to serve as a visual and sound buffer.

If the City plans to implement the air quality Improvement measures listed in Appendix B, the City must include these measures as either project-specific mitigation measures or project design features in the FEIR. The City must explain in the FEIR how they would lessen the Project's significant and unavoidable impact on air quality. The mitigation measures and design features must clearly explain their objectives; specifically, how they will be implemented, who is responsible for implementation, where they will occur and when they will occur.

Under CEQA, Projects that will have a significant and unavoidable impact on the environment must implement all feasible mitigation measures to reduce those impacts (see California Public Resources Code § 21081; 14 CCR § 15126.2(b)). Based on CARB's review of the DEIR, the City has failed to meet this requirement under CEQA. To meet the minimum requirements of CEQA and protect public health, the City must include meaningful and project-specific mitigation measures in the FEIR to reduce the Project's air pollutant emissions. Appendix A of this letter contains a list of feasible measures that can be applied to the Project to minimize air pollution. The mitigation measures in the FEIR must be fully enforceable and imposed by the City.

Conclusion

CARB is concerned about the potential public health impacts should the City approve the Project and how those impacts were evaluated in the DEIR. The City does not state if the proposed warehouse buildings would be used for cold storage. Should the City allow the Project to be used for cold storage, the City should update the Project's air quality analysis and HRA to account for the increase in air pollution and cancer risks resulting from trucks and trailers with TRUs visiting the Project site. The Project's air quality impact analysis and conclusions are based on heavy-duty truck trip distances and mixes that were not supported by substantial evidence. The DEIR did not account for air pollutant emissions from haul truck trips during on-site mass grading and excavation. The Project's HRA and air quality analysis have conflicting modeling assumptions. Lastly, the City did not include meaningful and project-specific mitigation measures in the DEIR to reduce the Project's significant and unavoidable impact on air quality.

Given the breadth and scope of projects subject to CEQA review throughout California that have air quality and greenhouse gas impacts, coupled with CARB's limited staff resources to substantively respond to all issues associated with a project, CARB must prioritize its substantive comments here based on staff time, resources, and its assessment of impacts.

CARB's deliberate decision to substantively comment on some issues does not constitute an admission or concession that it substantively agrees with the lead agency's findings and conclusions on any issues on which CARB does not substantively submit comments.

CARB appreciates the opportunity to comment on the DEIR for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. Please include CARB on your list of selected State agencies that will receive the FEIR. If you have questions, please contact Stanley Armstrong, Air Pollution Specialist via email at stanley.armstrong@arb.ca.gov.

Sincerely,



Robert Krieger, Branch Chief, Risk Reduction Branch

Attachment

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Stanley Armstrong, Air Pollution Specialist, Risk Reduction Branch

Attachment A

Attachment A

Recommended Air Pollution Emission Reduction Measures for Warehouses and Distribution Centers

The California Air Resources Board (CARB) recommends developers and government planners use all existing and emerging zero to near-zero emission technologies during project construction and operation to minimize public exposure to air pollution. Below are some measures, currently recommended by CARB, specific to warehouse and distribution center projects. These recommendations are subject to change as new zero-emission technologies become available.

Recommended Construction Measures

1. Ensure the cleanest possible construction practices and equipment are used. This includes eliminating the idling of diesel-powered equipment and providing the necessary infrastructure (e.g., electrical hookups) to support zero and near-zero equipment and tools.
2. Implement, and plan accordingly for, the necessary infrastructure to support the zero and near-zero emission technology vehicles and equipment that will be operating on site. Necessary infrastructure may include the physical (e.g., needed footprint), energy, and fueling infrastructure for construction equipment, on-site vehicles and equipment, and medium-heavy and heavy-heavy duty trucks.
3. In construction contracts, include language that requires all off-road diesel-powered equipment used during construction to be equipped with Tier 4 or cleaner engines, except for specialized construction equipment in which Tier 4 engines are not available. In place of Tier 4 engines, off-road equipment can incorporate retrofits, such that, emission reductions achieved are equal to or exceed that of a Tier 4 engine.
4. In construction contracts, include language that requires all off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers) used during project construction be battery powered.
5. In construction contracts, include language that requires all heavy-duty trucks entering the construction site, during the grading and building construction phases be model year 2014 or later. All heavy-duty haul trucks should also meet CARB's lowest optional low-oxides of nitrogen (NO_x) standard starting in the year 2022.¹

1. In 2013, CARB adopted optional low-NO_x emission standards for on-road heavy-duty engines. CARB encourages engine manufacturers to introduce new technologies to reduce NO_x emissions below the current mandatory on-road heavy-duty diesel engine emission standards for model-year 2010 and later. CARB's

6. In construction contracts, include language that requires all construction equipment and fleets to be in compliance with all current air quality regulations. CARB is available to assist in implementing this recommendation.

Recommended Operation Measures

1. Include contractual language in tenant lease agreements that requires tenants to use the cleanest technologies available, and to provide the necessary infrastructure to support zero-emission vehicles and equipment that will be operating on site.
2. Include contractual language in tenant lease agreements that requires all loading/unloading docks and trailer spaces be equipped with electrical hookups for trucks with transport refrigeration units (TRU) or auxiliary power units. This requirement will substantially decrease the amount of time that a TRU powered by a fossil-fueled internal combustion engine can operate at the project site. Use of zero-emission all-electric plug-in TRUs, hydrogen fuel cell transport refrigeration, and cryogenic transport refrigeration are encouraged and can also be included in lease agreements.²
3. Include contractual language in tenant lease agreements that requires all TRUs entering the project-site be plug-in capable.
4. Include contractual language in tenant lease agreements that requires future tenants to exclusively use zero-emission light and medium-duty delivery trucks and vans.
5. Include contractual language in tenant lease agreements that requires all service equipment (e.g., yard hostlers, yard equipment, forklifts, and pallet jacks) used within the project site to be zero-emission. This equipment is widely available and can be purchased using incentive funding from CARB's Clean Off-Road Equipment Voucher Incentive Project (CORE).³
6. Include contractual language in tenant lease agreements that requires all heavy-duty trucks entering or on the project site to be model year 2014 or later, expedite a transition to zero-emission vehicles, and be fully zero-emission beginning in 2023. A list of commercially available zero-emission trucks can be obtained from the the Hybrid and Zero-emission Truck and Bus Voucher Incentive Project (HVIP).⁴ Additional incentive funds can be obtained from the Carl Moyer Program and Voucher Incentive Program.⁵
7. Include contractual language in tenant lease agreements that requires the tenant to be in, and monitor compliance with, all current air quality regulations for on-road trucks

optional low-NOx emission standard is available at: <https://ww2.arb.ca.gov/our-work/programs/optional-reduced-nox-standards> .

2. CARB's technology assessment for transport refrigerators provides information on the current and projected development of TRUs, including current and anticipated costs. The assessment is available at: https://www.arb.ca.gov/msprog/tech/techreport/tru_07292015.pdf

3 Clean Off-Road Equipment Voucher Incentive Project. Accessible at: <https://californiacore.org/how-to-participate/>

4 Zero-Emission Truck and Bus Voucher Incentive Project. Accessible at: <https://californiahvip.org/>

5 Carl Moyer Program and Voucher Incentive Program. <https://ww2.arb.ca.gov/carl-moyer-program-apply>

including CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation,⁶ Advanced Clean Trucks Regulation,⁷ Periodic Smoke Inspection Program (PSIP),⁸ and the Statewide Truck and Bus Regulation.⁹

8. Include contractual language in tenant lease agreements restricting trucks and support equipment from idling longer than two minutes while on site.
9. Include rooftop solar panels for each proposed warehouse to the extent feasible, with a capacity that matches the maximum allowed for distributed solar connections to the grid.
10. Include contractual language in tenant lease agreements, requiring the installing of vegetative walls¹⁰ or other effective barriers that separate loading docks and people living or working nearby.
11. Include contractual language in tenant lease agreements, requiring all emergency generators to be powered by a non-diesel fuel.
12. The project should be constructed to meet CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean air vehicles, electric vehicle charging, and bicycle parking, and achieve a certification of compliance with LEED green building standards.

6. In December 2008, CARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty tractors that pull 53-foot or longer box-type trailers. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation is available at: <https://ww2.arb.ca.gov/our-work/programs/ttghg>

7 On June 25, 2020, CARB approved the Advanced Clean Trucks Regulation. The regulation requires manufacturers to start the transition from diesel trucks and vans to zero-emission trucks beginning in 2024. The rule is expected to result in about 100,000 electric trucks in California by the end of 2030 and about 300,000 by 2035. CARB is expected to consider a fleet regulation in 2021 that would be compatible with the Advanced Clean Trucks regulation, requiring fleets to purchase a certain percentage of zero-emission trucks and vans for their fleet operations. <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks>

8. The PSIP program requires that diesel and bus fleet owners conduct annual smoke opacity inspections of their vehicles and repair those with excessive smoke emissions to ensure compliance. CARB's PSIP program is available at: <https://www.arb.ca.gov/enf/hdvp/hdvp.htm>

9. The regulation requires that newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model-year engines or equivalent. CARB's Statewide Truck and Bus Regulation is available at: <https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>

10. Effectiveness of Sound Wall-Vegetation Combination Barriers as Near-Roadway Pollutant Mitigation Strategies (2017) is available at: <https://ww2.arb.ca.gov/sites/default/files/classic/research/apr/past/13-306.pdf>