

February 9, 2021

Governor's Office of Planning & Research

February 9, 2021

Rozalynne Thompson
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Submitted via email: rthompson@ci.milpitas.ca.gov

STATE CLEARINGHOUSE

Dear Rozalynne Thompson:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the 1000 Gibraltar Drive (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2020069024. The Project would result in the demolition of existing on-site buildings and the construction of a 491,040 square-foot warehouse building. Once in operation, the Project would introduce 3,303 daily vehicle trips, including 377 daily heavy-duty truck trips, along local roadways. The Project is located within the City of Milpitas (City), California, which is the lead agency for California Environmental Quality Act (CEQA) purposes.

CARB submitted a comment letter, which is attached to this letter, on the Notice of Preparation (NOP) for the DEIR released in June 2020. CARB's comments, dated July 14, 2020, highlighted the need for preparing a health risk assessment (HRA) for the Project and encouraged the City and applicant to implement all existing and emerging zero-emission technologies to minimize exposure to diesel particulate matter (diesel PM) and nitrogen oxides (NO_x) emissions for all neighboring communities, and to minimize the greenhouse gases that contribute to climate change. Due to the Project's proximity to residences already disproportionately burdened by multiple sources of pollution, CARB's comments expressed concerns with the potential cumulative health risks associated with the construction and operation of the Project.

I. It Is Unclear Whether the Proposed Project Would Include Cold Storage Space

The air pollutant emissions and cancer risks reported in the DEIR were estimated under the assumption that the Project would not be used for cold storage. However, Chapter IV.C (Greenhouse Gas Emissions) of the DEIR includes a greenhouse gas reduction measure that would require the applicant to provide electrical connections for trucks with transport refrigeration units (TRU). TRUs are refrigeration systems powered by integral diesel engines that protect perishable goods during transport and are commonly associated with cold storage warehouse operations. Since the Project description in the DEIR did not explicitly state that

the proposed warehouse buildings would not include cold storage space, there is a possibility that trucks and trailers visiting the Project site would be equipped with TRUs.¹

TRUs on trucks and trailers can emit large quantities of diesel exhaust while operating within the Project site. Residences and other sensitive receptors (e.g., daycare facilities, senior care facilities, and schools) located near where these TRUs could be operating would be exposed to diesel exhaust emissions that would result in significant cancer risk. CARB urges the applicant and City to clearly define the Project's description, so the public can fully understand the potential environmental effects of the Project on their communities.

If the Project will not be used for cold storage, CARB urges the City to include one of the following design measures in the Final Environmental Impact Report (FEIR):

- 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 does allow TRUs within the Project site, CARB urges the City to model air pollutant emissions from TRUs in the FEIR, as well as include potential cancer risks from TRUs in the Project's revised HRA. The revised HRA should account for all potential health risks from Project-related diesel PM emission sources such as backup generators, TRUs, and heavy-duty truck traffic.

II. The DEIR Did Not Model Mobile Air Pollutant Emissions Using CARB's 2021 Emission Factor Model (EMFAC2021)

The City and applicant modeled the Project's air pollutant emissions using mobile emission factors obtained from CARB's 2014 Emission Factors model (EMFAC2014). Since the public release of EMFAC2014 in May 2015, CARB has made many updates to the EMFAC model. These updates are reflected in EMFAC2017, released in May 2018, and EMFAC2021, released in January 2021. Some of the updates to the EMFAC model included updates to the heavy-duty truck activity and emission rates, and implementation of CARB's latest regulations.

EMFAC2014 underestimated diesel PM emission rates from diesel heavy-duty trucks due to limited in-use test data for engine model year 2010 and newer, thus the Project's mobile source diesel PM emissions are likely underestimated in the DEIR. CARB urges the City and

¹ Project descriptions "must include (a) the precise location and boundaries of the proposed project, (b) a statement of the objectives sought by the proposed project, (c) a general description of the project's technical, economic and environmental characteristics, and (d) a statement briefly describing the intended use of the EIR." (*stopthemillenniumhollywood.com v. City of Los Angeles* (2019) 39 Cal.App.5th 1, 16.) "This description of the project is an indispensable element of both a valid draft EIR and final EIR." (*Ibid.*) Without explicit acknowledgment in the project description that the proposed project will not include cold storage facilities, the current project description fails to meet the bare minimum of describing the project's technical and environmental characteristics.

applicant to model and report the Project's air pollution emissions from mobile sources using emission factors found in CARB's latest EMFAC2021. Mobile emission factors can be easily obtained by running the EMFAC2021 Web Database: <https://arb.ca.gov/emfac/emissions-inventory>.

III. The Health Risk Assessment Does Not Account for All Emission Sources of Diesel Particulate Matter When Evaluating the Project's Cancer Risk Impacts

The HRA prepared for the Project and presented in Appendix F (Air Quality and Greenhouse Gas Emissions Data) of the DEIR, concluded that residences near the Project site would be exposed to diesel PM emissions that would result in cancer risks of 0.89 chances per million during Project construction and 3.1 chances per million during Project operation. Since the Project's cancer risks are below the Bay Area Air Quality Management District's (BAAQMD) 10 chances per million significance threshold, 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 did not account for haul trucks along local roadways during Project construction. According to Chapter IV.B (Air Quality) of the DEIR, a total of 4,852 one-way heavy-duty truck trips would be required to transport asphalt and cement to the site during Project construction. Based on CARB's review of Appendix F, the City did not account for the potential cancer risk impacts that could result at residences located adjacent to the Project's truck haul routes. To better understand the Project's potential impacts on public health, CARB urges the City to account for cancer risks from heavy-duty trucks during Project construction in the FEIR.

When modeling the Project's health risk impacts, it was assumed in the HRA that each heavy-duty truck accessing the Project site would have a diesel PM emission rate of 0.00242 grams per second. Based on CARB's review of Appendix F of the DEIR, it is unclear if the latest emission factors from EMFAC were used to estimate mobile diesel PM emission rates. In addition, the HRA did not account for mobile diesel PM emissions while trucks are transiting and idling within the Project site. When estimating cancer risks from Project-related truck activities, the City should obtain idling emission factors for trucks loading/unloading goods within the Project site and exhaust emission factors for trucks transiting at speeds of five 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.

IV. The DEIR Does Not Include All Feasible Mitigation Measures to Reduce the Project's Significant and Unavoidable Impact on Air Quality

Chapter IV.B (Air Quality) of the DEIR reports the Project's operational air pollution emissions for the years 2022, 2023, and 2024. As shown in Table IV.B-8 (Estimated Unmitigated and

Mitigated Project Operation Emissions) of the DEIR, the Project's operational emissions of nitrogen oxides (NO_x), would exceed the BAAQMD's significance threshold under the 2022 and 2023 operational scenarios. The table also shows the Project's operational air pollution emissions under the 2024 operational scenario are expected to be below the BAAQMD's significance threshold. Consequently, the DEIR concludes the Project would result in a significant and unavoidable impact on air quality. To reduce the Project's significant impact on air quality, the DEIR included Mitigation Measure Air-1 (MM Air-1) and Mitigation Measure Air-2 (MM Air-2).

MM Air-1 would require any tenant-owned vehicles above 14,000 pounds gross vehicle weight rating accessing the Project site to be solely powered by 2010 or newer engine models. Since the Project's operational air pollution emissions were not found to exceed the BAAQMD's significance thresholds under the 2024 operational scenario, the DEIR states that compliance with MM Air-1 would end in 2024. MM Air-1 is nearly identical to CARB's Truck and Bus Regulation, which requires trucks, by law, to have 2010 or newer model year engine by January 1, 2023.² Once the Project is fully operational in the year 2022, trucks with a model year of 2006 or older would already have been required to comply with the regulation. Although complying with CARB's regulations would reduce the Project's mobile source air pollutant emissions, the Project would have to comply with these regulations by law, which would not expire in 2024 as stated in MM Air-1. Compliance with laws and regulations should not be used exclusively to mitigate the Project's impact on air quality.

MM Air-2 would require the applicant to either implement a Project-specific offset program to achieve a total annual reduction of 1.8 tons of NO_x or pay a mitigation offset fee to BAAQMD's Bay Area Clean Air Foundation. The offset fee is to be determined at the time of the impact. CARB urges the City and applicant to implement all feasible mitigation measures to reduce the Project's significant and unavoidable impact on air quality prior to implementing an offset program or paying into the Bay Area Clean Air Foundation.

CARB urges the City to not rely solely on existing regulations and off-site credits to mitigate the Project's air quality impacts. CEQA requires that all feasible mitigation measures be incorporated into the EIR before a lead agency can determine if an impact is still significant and unavoidable (see California Public Resources Code § 21081; title 14 CCR § § 15092, 15126.2(b)). To meet this requirement, CARB urges the City and applicant to implement all applicable air pollutant emission reduction measures provided in Appendix A of this letter.

V. Conclusion

CARB is concerned about the potential public health impacts should the City approve the Project. As concluded in Chapter IV.B (Air Quality) of the DEIR, the Project's operation would expose residences to NO_x emissions that would result in a significant and unavoidable impact

² CARB. Truck and Bus Regulation Compliance Requirement Overview. June 18, 2019. Accessible at <https://ww3.arb.ca.gov/msprog/onrdiesel/documents/fsregsum.pdf>

on air quality. The Project's air quality analysis should be revised in the FEIR using the latest version of EMFAC (i.e., EMFAC2021). The Project's HRA should be revised in the FEIR to Project site. The FEIR should specify whether 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. Lastly, to reduce the Project's impact on public health, CARB urges the City to implement all applicable mitigation measures listed in Attachment A of this letter.

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. If you have questions, please contact Stanley Armstrong, Air Pollution Specialist, via email at stanley.armstrong@arb.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Heather Arias".

Heather Arias, Chief
Transportation and Toxics Division

Attachment

cc: See next page.

Rozalynne Thompson

February 9, 2021

Page 6

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Continued next page.

Rozalynne Thompson
February 9, 2021
Page 7

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ATTACHMENT A

July 14, 2020

Rozalynne Thompson
Senior Planner
City of Milpitas
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Submitted via email: rthompson@ci.milpitas.ca.gov

Dear Rozalynne Thompson:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the Notice of Preparation (NOP) for the 1000 Gibraltar Drive Project (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2020069024. The Project includes the demolition of on-site buildings and the development of a single warehouse building totaling 491,040 square feet. The proposed Project is within the City of Milpitas, California, which is the lead agency for California Environmental Quality Act (CEQA) purposes.

Freight facilities, such as warehouse and distribution facilities, 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.¹ CARB has reviewed the NOP and is concerned about the air pollution and health risk impacts that would result should the City approve the Project.

I. The Project Would Increase Exposure to Air Pollution in Disadvantaged Communities

The Project, if approved, will expose nearby disadvantaged communities to elevated levels of air pollution. Residences are located approximately 440 feet south of the Project's southern boundary. In addition to residences, six schools (Laneview Elementary School, John Sinnott Elementary School, Rancho Milpitas Middle School, Milpitas Montessori School, Robert Randall Elementary School, and Pearl Zanker Elementary School) are located within 1 mile of the Project. The community is surrounded by existing toxic diesel particulate matter (diesel PM) emission sources, which include existing industrial uses and vehicular traffic along Interstate 680 (I-680). Due to the Project's proximity to residences already disproportionately burdened by

¹ 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.

multiple sources of air pollution, CARB is concerned with the potential cumulative health impacts associated with the construction and operation of the Project.

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 the community, which is already disproportionately impacted by air pollution from traffic on I-680.

II. The DEIR Should Quantify and Discuss the Potential Cancer Risks from On-site Transport Refrigeration Units

Since the Project description does not explicitly state that the proposed industrial land uses would not be used for cold storage, there is a possibility that trucks and trailers visiting the Project site would be equipped with transport refrigeration units (TRU).² TRUs on trucks and trailers can emit large quantities of diesel exhaust while operating within the Project site. Residences and other sensitive receptors (e.g., daycare facilities, senior care facilities, and schools) located near where these TRUs could be operating, would be exposed to diesel exhaust emissions that would result in a significant cancer risk impact.

CARB urges the City to model air pollutant emissions from on-site TRUs in the DEIR, as well as include potential cancer risks from on-site TRUs in the Project's health risk assessment (HRA). The HRA prepared for the Project should account for all potential health risks from Project-related diesel PM emission sources such as backup generators, TRUs, and heavy-duty truck traffic, and include all the air pollutant reduction measures listed in Attachment A of this comment letter.

In addition to the health risks associated with operational emissions, health risks associated with construction emissions should also be included in the air quality section of the DEIR and the Project's HRA. Construction of the Project would result in short-term diesel emissions from the use of both on-road and off-road diesel equipment. The Office of Environmental Health Hazard Assessment's (OEHHA) guidance recommends assessing cancer risks for construction projects lasting longer than two months. Since construction would very likely occur over a period lasting longer than two months, the HRA prepared for the Project should include health risks for existing residences near the Project site during construction.

² TRUs are refrigeration systems powered by integral diesel engines that protect perishable goods during transport in an insulated truck and trailer vans, rail cars, and domestic shipping containers.

The HRA prepared in support of the Project should be based on the latest OEHHA guidance (2015 Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments),³ and the South Coast Air Quality Management District's (SCAQMD) CEQA Air Quality Handbook.⁴ The HRA should evaluate and present the existing baseline (current conditions), future baseline (full build-out year, without the Project), and future year with the Project. The health risks modeled under both the existing and the future baselines should reflect all applicable federal, state, and local rules and regulations. By evaluating health risks using both baselines, the public and City planners will have a complete understanding of the potential health impacts that would result from the Project.

III. Conclusion

To reduce the exposure of toxic diesel PM emissions in disadvantaged communities already disproportionately impacted by air pollution, the final design of the Project should include all existing and emerging zero-emission technologies to minimize diesel PM and oxides of nitrogen (NO_x) emissions, as well as the greenhouse gases that contribute to climate change. CARB encourages the City and applicant to implement the measures listed in Attachment A of this comment letter to reduce the Project's construction and operational air pollution emissions.

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.

³ Office of Environmental Health Hazard Assessment (OEHHA). Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. February 2015. Accessed at: <https://oehha.ca.gov/media/downloads/cmr/2015guidancemanual.pdf>.

⁴ SCAQMD's 1993 Handbook can be found at: <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook>.

Rozalynne Thompson

July 14, 2020

Page 4

CARB appreciates the opportunity to comment on the NOP for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. Please include CARB on your State Clearinghouse list of selected State agencies that will receive the DEIR as part of the comment period. If you have questions, please contact Michaela Nucal, Air Pollution Specialist via email at michaela.nucal@arb.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Richard Boyd". The signature is written in a cursive style.

Richard Boyd, Chief
Risk Reduction Branch
Transportation and Toxics Division

Attachment

cc: See next page.

Rozalynne Thompson

July 14, 2020

Page 5

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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 equal 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 optional low-NO_x emission standard is available at: <https://www.arb.ca.gov/msprog/onroad/optionnox/optionnox.htm>.

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 requiring all TRUs, trucks, and cars entering the Project site be zero-emission.
6. 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.
7. 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 2030.

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.

8. Include contractual language in tenant lease agreements that requires the tenant be in, and monitor compliance with, all current air quality regulations for on-road trucks including CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation,³ Periodic Smoke Inspection Program (PSIP),⁴ and the Statewide Truck and Bus Regulation.⁵
9. Include contractual language in tenant lease agreements restricting trucks and support equipment from idling longer than 5 minutes while on site.
10. Include contractual language in tenant lease agreements that limits on-site TRU diesel engine runtime to no longer than 15 minutes. If no cold storage operations are planned, include contractual language and permit conditions that prohibit cold storage operations unless a health risk assessment is conducted, and the health impacts fully mitigated.
11. 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.
12. Including language in tenant lease agreements, requiring the installing of vegetative walls⁶ or other effective barriers that separate loading docks and people living or working nearby.

³. 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://www.arb.ca.gov/cc/hdghg/hdghg.htm>.

⁴. 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>.

⁵. 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>.

⁶. 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>