PLACEWORKS

RESPONSE TO COMMENTS MEMORANDUM

DATE	January 17, 2023
TO	City of Pico Rivera Community and Economic Development Department
ADDRESS	6615 Passons Blvd Pico Rivera, CA 90660
CONTACT	Julia Gonzalez, Deputy Director
FROM	Addie Farrell, Principal in Charge Mariana Zimmermann, Project Manager
SUBJECT	Response to Comments to SAFER Supplemental Comment Letter (dated November 21, 2022)
PROJECT NUMBER	OPL-01

PlaceWorks reviewed the comment letter submitted by Lozeau Drury LLP on behalf of the Supporters Alliance for Environmental Responsibility ("SAFER") dated November 21, 2022 (Attachment A). As demonstrated below, the Initial Study/Mitigated Negative Declaration adequately analyzes the proposed project and an EIR is not warranted for the proposed project.

AIR QUALITY

The comments raised in Section I.A. of the comment letter related to air quality were addressed in the Response to Comments memo dated November 3, 2022, under Response O1-10 (Attachment B). No further response is necessary. As demonstrated in response to comments O1-10, the assumptions used for input into the modeling are well supported, and no revisions to the IS/MND are warranted. The changes to the model were based on information provided by the applicant and noted under Section 1.3, User Entered Comments & Non-Default, of the CalEEMod outputs for construction, mitigated construction, and operational models. Please see Response O1-10 for the explanation of changes to architectural coating, import or export material, number of gas fireplaces, operational fleet mix percentages, solid waste generation, indoor and outdoor water use, and wastewater treatment percentages.

This comment does not present new information. The IS/MND adequately analyzes air quality impacts of the proposed project and no further analysis is warranted.

HEALTH RISK ASSESSMENT

The comments raised in Section I.B. of the comment letter were addressed in Response O1-11 (see Attachment B). The project is not anticipated to generate significant diesel particulate matter (DPM) or toxic air contaminants (TAC). The project does not propose uses that would produce these contaminants, which include manufacturing processes, automotive repair, dry cleaning facilities, and other facilities that process

toxic materials. Furthermore, the use of the localized significance thresholds (LSTs) for the air quality analysis to assess potential construction emissions risks was appropriate and consistent with South Coast AQMD Methodology. In addition, it should also be noted that South Coast AQMD rules impose specific emissions reduction measures that target TACs and DPM, such as Rule 2305, Warehouse Indirect Source Review.

This comment does not present new information. The IS/MND adequately analyzes health risk impacts of the proposed project, and no further analysis is warranted.

GREENHOUSE GAS EMISSIONS

The comments raised in Section I.C. of the comment letter were addressed in Responses O1-15, O1-16, and O1-17 (see Attachment B). Changes to the default information are based on information from the Applicant and have been noted under Section 1.3, User Entered Comments & Non-Default, of the CalEEMod outputs for construction, mitigated construction, and operational models. In addition, the analysis relies on the South Coast AQMD Working Group GHG threshold, which remains unchanged and is 3,000 MTCO2e/year for all land use types. Furthermore, the IS/MND would not be required to use a performance-based standard to demonstrate consistency with the Scoping Plan because it does not specifically identify separate targets for existing versus new sources of emissions, targets for individual regions within the state, or targets for individual project types. Therefore, a quantitative threshold cannot be derived from the Scoping Plan until the California Air Resources Board (CARB) can provide additional data on a quantitative analysis for emissions forecast. Consistency with the Scoping Plan must rely on the policies and measures for individual sectors of the Scoping Plan.

The IS/MND would also not be required to use a performance-based standard to demonstrate consistency with the Southern California Association of Governments (SCAG) Connect SoCal Plan. As stated on page 73 of the IS/MND, Connect SoCal does not require that local general plans, specific plans, or zoning be consistent with the Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS), but provides incentives for consistency for governments and developers. However, as provided in the IS/MND on page 73, the proposed project would result in a reduction in vehicle miles traveled (VMT) within the city and the VMT per capita of 12.21 residential VMT would be below the City's calculated significance threshold of 12.23 VMT per capita. Because the proposed project would not generate emissions greater than the applicable South Coast AQMD Working Group threshold, the IS/MND would not require additional mitigation. Furthermore, the GHG emissions shown in the IS/MND only show the emissions from the proposed project and has not subtracted baseline emissions from former uses on the project site.

This comment does not present new information. The IS/MND adequately analyzes greenhouse gas emission impacts of the proposed project, and no further analysis is warranted.

ENERGY

The comments raised in Section II. of the comment letter are discussed on page 66 of the IS/MND. While the statewide Renewable Portfolio Standard (RPS) requirements do not directly apply to individual development projects, these requirements do apply to utilities and energy providers such as Southern California Edison (SCE) and Pico Rivera Innovative Municipal Energy (PRIME), which would provide electricity for the proposed project, whose compliance to RPS requirements would contribute to the state objective of transitioning to renewable energy. In addition, as noted in the project description and in Response O2-18 (see Attachment B), in accordance with the Specific Plan and the Building Energy Efficiency Standards, development of the proposed project would also include a photovoltaic system. However, specific reductions from renewable energy were not considered as part of the proposed project, as this information was not available at the time the proposed project was modeled. Furthermore, construction activities would

be conducted in compliance with California Code of Regulations (CCR) Section 2499, which would require non-essential idling of construction equipment to be restricted to five minutes or less.

The proposed project would also provide 47 electric vehicle charging station ready spaces as well as bicycle parking spaces and would make improvements to pedestrian and bicycle access. Furthermore, the proposed project would provide more opportunities for new residents to reside closer to nearby amenities and public transit options. All of these project features would promote increasing reliance on renewable energy resources and decreasing reliance on fossil fuels such as coal, natural gas and oil.

Furthermore, as seen in Section 3.14, *Population and Housing*, of the IS/MND based on growth projections in SCAG's Connect SoCal plan, the City is anticipated to experience growth of 6.14 percent, 11.44 percent, and 9.24 percent in population, housing, and employment respectively, by 2045 based on 2016 levels. The proposed project supports the City's General Plan Housing Element by accommodating housing needs under the Regional Housing Needs Assessment, as determined in Section 3.11, *Land Use and Planning*. The proposed project is intended to meet the existing need for additional housing within the City, compliance with the Building Energy Efficiency Standards and the California Green Building Standards Code (CALGreen) would only further ensure that the proposed project would not generate unnecessary energy demands.

Furthermore, as substantiated in Response O2-18, because the proposed project would have an energy demand of 2,176,599 kWh/year, or approximately 5,963 kWh/day, the overall impact on peak period and base period energy demands would be negligible in comparison to the PRIME peak load of 59 megawatts and total energy usage of 212 gigawatts in 2019. The proposed project would not require new or expanded electric power facilities other than connections to the existing electricity grid. In addition, the proposed project would comply with regulations and standards pertaining to natural gas and would connect to the existing natural gas infrastructure. Based on these project features; including use of renewable resources by providing a solar photovoltaic system, promotion of active modes transportation, reduction of VMT by providing housing closer to amenities and public transport options; the IS/MND has determined that the proposed project would not generate unnecessary energy demands that would result in wasteful, inefficient, or unnecessary consumption of energy resources.

This comment does not present new information. The IS/MND adequately analyzes energy impacts of the proposed project, and no further analysis is warranted.

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Attachment A

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November 21, 2022

Via E-mail

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Re: SAFER Supplemental Comment on the Initial Study and Mitigated Negative Declaration for the Mercury Mixed-Use Development Project at 8825 Washington Boulevard; November 21, 2022 Planning Commission Meeting Agenda Item No. 1

Dear Chairperson Garcia, Vice Chairperson Martinez, Commissioners Celiz, Estrada, and Martinez, and Deputy Director Gonzalez:

I am writing on behalf of Supporters Alliance for Environmental Responsibility ("SAFER") regarding the Initial Study and Mitigated Negative Declaration ("IS/MND") prepared for the Mercury Mixed-Use Development project, including all actions related or referring to the proposed construction of a six-story mixed-use development building with 255 residential units, approximately 5,730 square feet of commercial space, and a "wrap" style internal parking structure with 464 parking spaces, located at 8825 Washington Boulevard in Pico Rivera, California ("Project").

SAFER submitted comments on the IS/MND on August 5, 2022. SAFER's August comment was prepared with the assistance of expert review by Certified Industrial Hygienist Francis "Bud" Offerman, PE, CIH. Based on these expert reviews, we concluded that the IS/MND failed as an informational document, and that there was a fair argument that the Project may have adverse environmental impacts. Therefore, we requested that the City of Pico Rivera ("City") prepare an environmental impact report ("EIR") for the Project pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code ("PRC") section 21000, et seq.

SAFER submits the following supplemental comment and related exhibits to inform the Planning Commission of the new, significant impacts that the proposed Project will have on individuals living and working in the City of Pico Rivera that were neither addressed in the IS/MND, nor adequately mitigated. Specifically, the comment and related exhibits address the Project's potentially significant air quality, health risk, greenhouse gas, and energy impacts. As evidenced by the expert comments submitted by environmental consulting firm Soil/Water/Air Protection Enterprise ("SWAPE"), CEQA requires that an EIR, rather than an MND, be prepared for the Project. SWAPE's comment and curriculum vitae are attached as Exhibit 1 hereto and is incorporated herein by reference in its entirety. SAFER's August 5, 2022 comment, which includes Mr. Offermann's expert comments on the Project's significant indoor air quality and health risk impacts, are also attached as Exhibit 2 hereto and is incorporated herein by reference in its entirety.

As discussed below, SWAPE reported several issues related to the IS/MND requiring that the City prepare an EIR for the proposed Project.

DISCUSSION

I. THE IS/MND FAILED TO ADEQUATELY ANALYZE AND MITIGATE THE PROJECT'S AIR QUALITY AND GREENHOUSE GAS IMPACTS.

A. The IS/MND Relied on Unsubstantiated Input Parameters to Estimate Project Emissions and Thus the Project May Result in Significant Air Quality Impacts.

After reviewing the IS/MND and the Air Quality and Greenhouse Gas Analyses' CalEEMod output files, included as Appendix A to the IS/MND, SWAPE found that several model inputs used to generate a project's construction and operation emissions were found to not be consistent with information disclosed in the IS/MND. (See, Ex. 1, pp. 1-10.) As a result, SWAPE concluded that the Project's construction and operational emissions are underestimated. An EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that Project construction and operation will have on local and regional air quality.

Specifically, SWAPE found several values used in the IS/MND and the Air Quality and Greenhouse Gas Analyses were found to be either inconsistent with information provided in the IS/MND or otherwise unjustified (Ex. 1, pp. 2-10), including:

1. Unsubstantiated Reduction to Architectural Coating Emission Factor (Ex. 1, pp. 2-3);
2. Failure to Substantiate Amount of Material Import or Export (Ex. 1, pp. 3-4);
3. Unsubstantiated Reduction to Number of Gas Fireplaces (Ex. 1, pp. 4-5);
4. Unsubstantiated Changes to Operational Vehicle Fleet Mix Percentages (Ex. 1, pp. 5-7);
5. Underestimated Solid Waste Generation Rates (Ex. 1, pp. 7-8);

6. Unsubstantiated Changes to Indoor and Outdoor Water Use Rates (Ex. 1, pp. 8-9); and
7. Unsubstantiated Changes to Wastewater Treatment System Percentages (Ex. 1, pp. 9-10).

As a result of these errors in the IS/MND, the Project's construction and operational emissions were underestimated and cannot be relied upon to determine the significance of the Project's air quality impacts. Thus, an EIR is needed to adequately address the air quality impacts of the proposed Project, and to mitigate those impacts accordingly.

B. There is Substantial Evidence of a Fair Argument that the Project May Have Significant Health Impacts as a Result of Diesel Particulate Emissions.

An EIR is required to evaluate the significant health impacts to individuals and workers from the Project's operational and construction-related diesel particulate matter ("DPM") emissions as a result of the Project. SWAPE's analysis of health risks related to the Project concluded that the IS/MND failed to adequately analyze the health impacts related to the Project's operational and construction DPM emissions, and provides substantial evidence of a fair argument that the Project will have significant health impacts as a result of such emissions. (See, Ex. 1, pp. 10-17.)

1. <u>The IS/MND fails to adequately evaluate health risks from DPM emissions.</u>

An EIR should be prepared to evaluate the significant health impacts to individuals and workers from the Project's operational and construction-related DPM emissions. According to SWAPE, the IS/MND incorrectly concluded that the Project would have a less-than-significant health risk impact without conducting a quantified construction or operational health risk analysis ("HRA"). (Ex. 1, pp. 10-12 (citing IS/MND, pp. 56-57).) However, the IS/MND fails to mention or evaluate the toxic air contaminant ("TAC") emissions associated with Project construction or operation whatsoever. As such, the IS/MND's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect for several reasons.

First, the IS/MND's use of a screening-level localized significance threshold ("LST") analysis to determine the health risk impacts posed to nearby, existing sensitive receptors as a result of the Project's construction-related TAC emissions is incorrect. (Ex. 1, p. 11.) SWAPE points out that the IS/MND's LST analysis only evaluates impacts from criteria pollutants. (*Id.*) Because the LST method cannot be used to determine whether emissions from TACs, specifically DPM, a known human carcinogen, would result in a significant health risk impact to nearby sensitive receptors, the IS/MND fails to analyze the health impacts from exposure to TACs, such as DPM, from the Project. (*Id.*)

Second, by failing to prepare a quantified construction and operational HRA, the IS/MND fails to quantitatively evaluate construction and operational-related TACs, or make a reasonable effort to connect emissions to health impacts posed to nearby existing sensitive receptors from the Project. (Ex. 1, p. 11.) SWAPE identifies potential emissions from both the exhaust stacks of construction equipment and daily vehicle trips. (*Id.* (citing IS/MND, pp. 16, 52).) As such, the IS/MND fails to meet the CEQA requirement that projects correlate increases in project-generated emissions to adverse impacts on human health caused by those emissions.

Third, the IS/MND's conclusion is also inconsistent with the most recent guidance published by the Office of Health Hazard Assessment ("OEHHA"), the organization responsible for providing guidance on conducting HRAs in California, as well as local air district guidelines.[1] (Ex. 1, p. 12.) OEHHA recommends that projects lasting at least 2 months be evaluated for cancer risks to nearby sensitive receptors, a time period which this Project easily exceeds. (*Id.*) The OEHHA document also recommends that if a project is expected to last over 6 months, the exposure should be evaluated throughout the project using a 30-year exposure duration to estimate individual cancer risks. (*Id.*) Based on its extensive experience, SWAPE reasonably assumes that the Project will last at least 30 years, and therefore recommends that health risk impacts from the Project be evaluated. (*Id.*) An EIR is therefore required to analyze these impacts. (*Id.*)

Fourth, by failing to prepare a quantified construction and operational HRA for nearby, existing sensitive receptors, the IS/MND fails to compare the excess health risk impact of the Project to the SCAQMD's specific numeric threshold of 10 in one million. (Ex. 1, p. 12.) Without conducting a quantified construction and operational HRA, the IS/MND also fails to evaluate the cumulative lifetime cancer risk to nearby, existing receptors from the Project's construction and operation together. This is incorrect, and as a result, the IS/MND's evaluation cannot be relied upon to determine Project significance. OEHHA guidance requires that the excess cancer risk be calculated separately for all sensitive receptor age bins, then summed to evaluate the total cancer risk posed by all Project activities. Therefore, in accordance with the most relevant guidance, an assessment of the health risk posed to nearby, existing receptors from Project construction and operation should have been conducted and compared to the SCAQMD threshold of 10 in one million.

Thus, to more accurately determine the health risks associated with the Project's operational and construction-related DPM emissions, an EIR should be prepared that includes updated health risk calculations using correct guidance.

2. <u>There is substantial evidence that the Project may have a significant health risk impact.</u>

Correcting the above errors, SWAPE prepared a screening-level HRA to evaluate potential impacts from the construction and operation of the Project. (Ex. 1, pp. 12-17.) SWAPE

[1] "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

prepared a screening-level HRA to evaluate potential health risk impacts posed to residential sensitive receptors as a result of the Project's construction and operational TAC emissions. SWAPE used AERSCREEN, the leading screening-level air quality dispersion model. SWAPE applied a sensitive receptor distance of 75 meters and analyzed impacts to individuals at different stages of life based on OEHHA and SCAQMD guidance utilizing age sensitivity factors.

While utilizing the recommended age sensitivity factors, SWAPE found that the excess cancer risks at a sensitive receptor located approximately 75 meters away over the course of Project construction and operation is approximately 212 in one million for infants, 118 in one million for children, and 13.1 in one million for adults. (*Id.*, p. 16.) SWAPE also concluded that the total excess lifetime cancer risk over the course of project construction and operation is approximately 352 in one million. (*Id.*) Therefore, the cancer risk for infants, children, adults, and lifetime residents exceeds the SCAQMD's threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the IS/MND. Hence, an EIR is required for the Project.

CEQA requires an agency to include an analysis of health risks that connects the Project's air emissions with the health risk posed by those emissions. SWAPE's screening-level HRA demonstrates that the Project's construction and operation may have a significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. Because SWAPE's screening-level HRA indicates a potentially significant impact, the City must prepare an EIR. This EIR should also include a construction and operational HRA which makes a reasonable effort to connect the Project's air quality emissions and the potential health risks posed to nearby receptors. Thus, as SWAPE recommends, "an EIR should be prepared to include a refined health risk analysis which adequately and accurately evaluates health risk impacts associated with both Project construction and operation." (*Id.*, p. 17.)

C. The IS/MND Failed to Adequately Analyze Greenhouse Gas Impacts and Thus the Project May Result in Significant Greenhouse Gas Emissions Requiring an EIR.

SWAPE's review of the IS/MND and Air Quality and Greenhouse Gas Analyses (included at Appendix A), found that the City failed to adequately evaluate the Project's greenhouse gas ("GHG") impacts. (Ex. 1, pp. 17-22.) The IS/MND estimates that the Project would generate net annual GHG emissions of 2,958 metric tons of carbon dioxide equivalents per year ("MT CO_2e/year"), which would not exceed the SCAQMD threshold of 3,000 MT CO_2e/year. (IS/MND, p. 72, Table 13.) Furthermore, the IS/MND's analysis relies upon the Project's consistency with the CARB 2017 Scoping Plan and SCAG 2020-2045 RTP/SCS to conclude that the Project would result in a less-than-significant GHG impact. (*Id.*, pp. 72-73.) However, the IS/MND's analysis, as well as the subsequent less-than-significant impact conclusion, is incorrect for six reasons:

1. The IS/MND's quantitative GHG analysis relies upon an incorrect and unsubstantiated air model;

2. The IS/MND's quantitative GHG analysis relies upon an outdated threshold;
3. The IS/MND fails to identify a potentially significant impact;
4. SWAPE's updated model indicates a potentially significant GHG impact;
5. The IS/MND fails to consider the performance-based standard under CARB's Scoping Plan; and
6. The IS/MND fails to consider the performance-based standard under SCAG's RTP/SCS.

First, the IS/MND's analysis relies upon a flawed air model, as discussed above. As a result, GHG emissions are underestimated and the IS/MND's quantitative GHG analysis should not be relied upon to determine Project significance. (*Id.,* p. 18.) An EIR should be prepared and emissions remodeled and compared to the applicable thresholds.

Second, the IS/MND utilizes an outdated GHG threshold. (*Id.,* pp. 18-19.) When compared to the correct quantitative threshold, SWAPE found the Project's GHG emissions are demonstrably significant. (*Id.*)

Third, the IS/MND's unsubstantiated air model indicates a potentially significant impact. (Ex. 1, p. 19.) Specifically, SWAPE found that the Project's service population efficiency value, as estimated by the IS/MND's asserted net annual GHG emissions (IS/MND, p. 72, Table 13), and service population (i.e. the number of residents and employees supported by the Project, 823 people) (*id.*), exceed the SCAQMD 2035 efficiency target of 3.0 MT CO_2e/SP/year, indicating a potentially significant impact not previously addressed by the IS/MND. (Ex. 1, p. 19.) Consequently, the IS/MND's less-than-significant GHG impact conclusion is incorrect and should not be relied upon. Thus, an EIR must be prepared and should include an updated GHG analysis and incorporate mitigation measures intended to reduce GHG emissions to less-than-significant levels.

Fourth, the IS/MND's unsubstantiated air model indicates a potentially significant GHG impact. (Ex. 1, pp. 19-20.) Specifically, SWAPE found that the Project's total net annual GHG emissions, when amortizing the Project's construction-related GHG emissions over a period of 30 years and summing them with the Project's operational GHG emissions, were approximately 3,264 MT CO_2e/year, exceeding the SCAQMD threshold of 3,000 MT CO_2e/year. (*Id.,* p. 20.) Consequently, the IS/MND's less-than-significant GHG impact conclusion is incorrect and should not be relied upon. (*Id.*) Thus, SWAPE concluded that an EIR must be prepared and should include an updated GHG analysis and incorporate mitigation measures intended to reduce GHG emissions to less-than-significant levels. (*Id.*)

Fifth, the IS/MND fails to consider the performance-based standards underlying CARB's Scoping Plan. (Ex. 1, pp. 20-21.) Based on SWAPE's quantitative consistency evaluation utilizing these standards, SWAPE concluded that the IS/MND's GHG significance determination regarding the Project's consistency with applicable plans and policies should not be relied upon. (*Id.*) Instead, an EIR should be prepared that includes a quantitative consistency evaluation utilizing the appropriate standards, as well as mitigation measures to reduce GHG emissions to less-than-significant levels. (*Id.,* p. 21.)

Sixth, the IS/MND fails to consider the performance-based standards underlying SCAG's RTP/SCS. (Ex. 1, pp. 21-22.) Based on SWAPE's quantitative consistency evaluation utilizing these standards, SWAPE concluded that the IS/MND's GHG significance determination regarding the Project's consistency with applicable plans and policies should not be relied upon. (*Id.*) Instead, an EIR should be prepared that includes a quantitative consistency evaluation utilizing the appropriate standards, as well as mitigation measures to reduce GHG emissions to less-than-significant levels. (*Id.*, p. 22.)

Lastly, since the IS/MND's analysis demonstrates that the Project would result in potentially significant air quality, health risk, and GHG impacts that should be mitigated further in an effort to reduce emissions, SWAPE identified several feasible mitigation measures that are applicable to the Project. (See, e.g., Ex. 1, pp 22-28.) In conclusion, an EIR should be prepared to include all feasible mitigation measures, as well as an updated air quality and health risk analyses to ensure that the necessary mitigation measures are implemented to reduce emissions to below significance thresholds. (*Id.*, p. 28.)

II. THE IS/MND's ANALYSIS OF ENERGY IMPACTS IS CONCLUSORY AND FAILS TO PROVIDE SUBSTANTIAL EVIDENCE THAT THE PROJECT'S ENERGY IMPACTS ARE LESS THAN SIGNIFICANT.

Contrary to the IS/MND, the construction and operation of the Project could potentially cause wasteful, inefficient, and unnecessary consumption of energy. (See, e.g., IS/MND, pp. 62-66.)

Regarding the Project's impacts related to electricity demand, the IS/MND concludes that the impacts will be less than significant because:

> ***While the proposed project would result in a higher electricity demand than existing conditions, it would be consistent with the requirements of the [2019] Building Energy Efficiency Standards [i.e. Title 24]***. Additionally, ***the proposed project would also be required to comply with CALGreen***. Therefore, operation of the proposed project would not result in wasteful or unnecessary electricity demands and would not result in a significant impact related to electricity.

(IS/MND, p. 64 (emphasis added).)

Turning to the Project's natural gas energy impacts, IS/MND concludes that the impacts will be less than significant, stating:

> ***While the proposed project would result in a higher natural gas demand than existing conditions, it would be consistent with the requirements of the Building Energy Efficiency Standards, including requirements for natural gas consumption***, which would ensure that the proposed project would not result in wasteful or unnecessary natural gas demands. Therefore, operation of the

> proposed project would result in less than significant impacts with respect to natural gas usage.

(*Id.*, pp. 64-65 (emphasis added).)

Lastly, concerning whether or not the Project would "[c]onflict with or obstruct a state or local plan for renewable energy or energy efficiency," the IS/MND concludes:

> The Statewide [renewable portfolios standard or] RPS goal is not directly applicable to individual development projects, but to utilities and energy providers such as [Pico Rivera Innovative Municipal Energy or] PRIME, which is the utility that would provide all of electricity needs for the proposed project. Compliance of PRIME in meeting the RPS goals would ensure the State meets its objective in transitioning to renewable energy. ***The proposed project also would comply with the latest 2019 Building Energy Efficiency Standards and CALGreen*.** Therefore, implementation of the proposed project would not conflict or obstruct plans for renewable energy and energy efficiency, and no impact would occur.

(*Id.*, p. 66 (emphasis added).)

The standard under CEQA is whether the Project would result in wasteful, inefficient, or unnecessary consumption of energy resources. Failing to undertake "an investigation into renewable energy options that might be available or appropriate for a project" violates CEQA. (*California Clean Energy Committee v. City of Woodland* (2014) 225 Cal.App.4th 173, 213; see also, *League to Save Lake Tahoe Mountain etc. v. County of Placer* ("*League to Save Lake Tahoe*") (2022) 75 Cal.App.5th 63, 164-168.)

Energy conservation under CEQA is defined as the "wise and efficient use of energy." (CEQA Guidelines, app. F, § I.) The "wise and efficient use of energy" is achieved by "(1) decreasing overall per capita energy consumption, (2) decreasing reliance on fossil fuels such as coal, natural gas and oil, and (3) increasing reliance on renewable energy resources." (*Id.*)

Noting compliance with the California Building Energy Efficiency Standards (Cal. Code Regs., tit. 24, part 6 (Title 24)) does not constitute an adequate analysis of energy. (*Ukiah Citizens for Safety First v. City of Ukiah* (2016) 248 Cal.App.4th 256, 264-65.) Similarly, the court in *City of Woodland* held unlawful an energy analysis that relied on compliance with Title 24, that failed to assess transportation energy impacts, and that failed to address renewable energy impacts. (25 Cal.App.4th at pp. 209-13.) As such, the IS/MND's reliance on Title 24's 2019 Building Energy Efficiency Standards and CalGreen Building Code compliance does not satisfy the requirements for an adequate discussion of the Project's energy impacts.

The IS/MND summarily concludes that the Project would not result in the inefficient, wasteful, and unnecessary consumption of energy. There is no discussion of the Project's cost effectiveness in terms of energy requirements. There is no adequate discussion of energy

consuming equipment and processes that will be used during the construction or operation of the Project, including, *inter alia*, the energy necessary for heating, cooling, and ventilation of buildings; water heating; operation of electrical systems, use of on-site equipment and appliances; and indoor, outdoor, and perimeter lighting. The Project's energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, and maintenance were also not identified.

In addition, the effect of the Project on peak and base period demands for electricity has not been addressed. This is of particular concern given that California's electric grid has recently been significantly impacted by an unprecedented high energy demand as a result of a prolonged, record-breaking heat wave that affected the entire State of California for multiple days. For example, at the start of September 2022, California experienced extreme heat, with temperatures across the state 10 to 20 degrees hotter than normal, driving up energy demand and straining power generation equipment as people ran their air conditioning. On September 6, 2022, as a result of electricity supplies running low in the face of record heat and demand, the California Independent System Operator (Cal-ISO) issued an Energy Emergency Alert (EEA) 3, the highest energy alert, authorizing the grid operator to order rotating power outages to lower demand and stabilize the system if necessary.[2] As grid conditions worsened, energy supplies were determined to be insufficient to cover demand and reserves, and an EEA 3 was declared, meaning controlled power outages were imminent or in process according to each utility's emergency plan. The EEA 3 was in response to an evening peak electricity demand that was forecasted at more than 52,000 megawatts, which Cal-ISO stated was "a new historic all-time high for the grid, as the state endured the hottest day in this prolonged, record-breaking heat wave."[3] Here, the IS/MND fails to adequately analyze energy conservation. As such, the IS/MND's conclusions are unsupported by the necessary discussions of the Project's energy impacts under CEQA.

In addition, under *League to Save Lake Tahoe*, the agency has to implement all feasible energy mitigation measures unless it has substantial evidence to show that the proposed measures are infeasible. (*Save Lake Tahoe*, 75 Cal.App.5th at 166-168; see also, *id.*, pp. 159-163.) An example of a feasible mitigation measure, which has recently been adopted as a new ordinance in San Francisco, is the requirement that 100% of parking spaces have electric vehicle charging stations. According to the IS/MND, of the 464 parking spaces included in the Project, only "47 electric vehicle charging station (EVCS) ready spaces would be provided." (See, e.g., IS/MND, pp. 17, 83.) Since requiring all parking spaces to have EVCS is likely feasible, the IS/MND must implement it as an energy efficient mitigation measure, or at minimum, provide substantial evidence that implementing the mitigation measure is unfeasible. As such, the IS/MND's conclusions are unsupported by the necessary discussions of the Project's energy impacts under CEQA.

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[2] Cal-ISO. News Release. Rotating power outages are now possible to protect grid Energy Emergency Alert (EEA) 3 declared; next step is to begin outages." September 6, 2022. *Available at:* http://www.caiso.com/Documents/rotating-power-outages-are-now-possible-to-protect-grid.pdf.

[3] Cal-ISO. News Release. Rotating power outages are now possible to protect grid Energy Emergency Alert (EEA) 3 declared; next step is to begin outages." September 6, 2022. *Available at:* http://www.caiso.com/Documents/rotating-power-outages-are-now-possible-to-protect-grid.pdf.

In conclusion, because the IS/MND failed to adequately analyze and mitigate the Project's potentially wasteful, inefficient, and unnecessary consumption of energy, an EIR should be prepared to address the Project's potential significant energy impacts, and to mitigate those impacts accordingly.

CONCLUSION

For the foregoing reasons, the IS/MND for the Project is in violation of CEQA. Thus, an EIR must be prepared for the proposed Project and should be circulated for public review and comment in accordance with CEQA. SAFER reserves the right to supplement these comments in advance of and during public hearings concerning the Project. (*Galante Vineyards v. Monterey Peninsula Water Management Dist*., 60 Cal. App. 4th 1109, 1121 (1997).) Thank you for considering these comments.

Sincerely,

Victoria Yundt
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EXHIBIT 1

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Victoria Yundt
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Subject: Comments on The Mercury Project

Dear Ms. Yundt,

We have reviewed the July 2022 Initial Study ("IS") for The Mercury Project ("Project") located in the City of Pico Rivera ("City"). The Project proposes to construct a mixed-use building consisting of 258,720-square-feet ("SF") of residential space with 255 dwelling units, 5,370-SF of retail space, and 190,000-SF of parking on the 2.85-acre site.

Our review concludes that the IS fails to adequately evaluate the Project's air quality, health risk, and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An Environmental Impact Report ("EIR") should be prepared to adequately assess and mitigate the potential air quality, health risk, and greenhouse gas impacts that the project may have on the environment.

Air Quality

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The IS's air quality analysis relies on emissions calculated with California Emissions Estimator Model ("CalEEMod") Version 2020.4.0 (p. 52). [1] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence. Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and

[1] "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* http://www.aqmd.gov/caleemod/download-model.

"output files" are generated. These output files disclose to the reader what parameters are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected.

When reviewing the Project's CalEEMod output files, provided in the Air Quality and Greenhouse Gas Analysis ("AQ & GHG Analysis") as Appendix A to the IS, we found that several model inputs were not consistent with information disclosed in the IS. As a result, the Project's construction and operational emissions may be underestimated. An EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Unsubstantiated Reduction to Architectural Coating Emission Factor

Review of the CalEEMod output files demonstrates that the "Washington and Rosemead Mixed-Use Project Construction Run" and "Washington and Rosemead Mixed-Use Project Mitigated Construction Run" models include a manual reduction to one of the default architectural coating emission factors (see excerpt below) (Appendix A, pp. 79, 111, 143, 176, 208, 240).

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00

As demonstrated in the excerpt above, the nonresidential exterior architectural coating emission factor is reduced from the default value of 100- to 50-grams per liter ("g/L"). As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[2] According to the "User Entered Comments & Non-Default Data" table, the justification provided for this change is:

> "based on info from applicant, residential includes area for pool, nonresidential includes area for int/ext parking structure, parking only includes parking" (Appendix A, pp. 79, 111, 143, 176, 208, 240).

Furthermore, the IS includes Mitigation Measure ("MM") AQ-1 which states:

> "The construction contractor(s) shall only use interior paints with a VOC (volatile organic compound) content of 0 grams per liter (g/L) to reduce VOC emissions. All building and site plans shall note use of paints with a VOC content of 0 g/L. Prior to construction, the construction contractor(s) shall ensure that all construction plans submitted to the City's Building Division clearly show the requirement for use on interior paint with a VOC content of 0 g/L for the specified buildings, herein" (p. 53).

However, this change remains unsupported, as MM AQ-1 only substantiates the revised *interior* architectural coating emission factors. As such, we cannot verify the reduction to the *exterior* architectural coating emission factor.

[2] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 1, 14.

This unsubstantiated reduction presents an issue, as CalEEMod uses the architectural coating emission factors to calculate the Project's reactive organic gas/volatile organic compound ("ROG"/"VOC") emissions.[3] Thus, by including an unsubstantiated reduction to the exterior architectural coating emission factor, the models may underestimate the Project's construction-related ROG/VOC emissions and should not be relied upon to determine Project significance.

Failure to Substantiate Amount of Material Import or Export

According to the CalEEMod User's Guide:

> "Grading involves the cut and fill of land to ensure that the proper base and slope is created for the foundation." [4]

As demonstrated above, grading involves the use of material import (fill) and export (cut). According to the IS:

> "The project would involve asphalt demolition and debris haul, site preparation, *rough and fine grading and grading soil haul*, utilities trenching, paving, building construction, and architectural coating" (emphasis added) (p. 52).

As demonstrated above, construction of the proposed Project requires grading. However, the IS fails to discuss the amount of material import or export required for Project construction whatsoever. Review of the CalEEMod output files demonstrates that the "Washington and Rosemead Mixed-Use Project Construction Run" and "Washington and Rosemead Mixed-Use Project Mitigated Construction Run" models include a total of 27,400-cubic-yards ("cy") of material export (see excerpt below) (Appendix A, pp. 80, 112, 144, 177, 209, 241).

Table Name	Column Name	Default Value	New Value
tblGrading	MaterialExported	0.00	7,400.00
tblGrading	MaterialExported	0.00	20,000.00

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[5] However, the "User Entered Comments & Non-Default Data" table fails to provide a justification for these values. Furthermore, the AQ & GHG Analysis provides the following soil haul assumptions (see excerpt below) (pp. 42):

[3] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 35, 40.
[4] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 32.
[5] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 1, 14.

Soil Haul[1]

Construction Activities	Volume (CY)
Rough Grading (Export)	7,400
Fine Grading (Export)	20,000

However, this justification is insufficient, as the AQ & GHG Analysis fails to provide a source for the soil haul assumptions. This is incorrect, as according to the CalEEMod User's Guide:

> "CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA."[6]

Here, as the IS fails to discuss the amount of material import or export required for Project construction, and the AQ & GHG Analysis fails to provide substantial evidence justifying the soil haul assumptions, we cannot verify the values. As such, the models may underestimate the amount of material import and export required during Project construction.

This potential underestimation presents an issue, as the inclusion of material import and export within the model is necessary to calculate emissions produced from material movement, which includes truck loading and unloading, as well as additional hauling truck trips.[7] As the IS fails to substantiate the amount of material import or export, the models may underestimate the Project's construction-related emissions and should not be relied upon to determine Project significance. An EIR should be prepared to verify the amount of required material import and export and revise the model, if necessary.

Unsubstantiated Reduction to Number of Gas Fireplaces

Review of the CalEEMod output files demonstrates that the "Washington and Rosemead Mixed Use Project Operations Run" model includes several reductions to the default gas fireplace values (see excerpt below) (Appendix A, pp. 273, 288, 298).

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceDayYear	25.00	104.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	216.75	3.00
tblFireplaces	NumberNoFireplace	25.50	252.00
tblFireplaces	NumberWood	12.75	0.00

As demonstrated in the excerpt above, the model assumes that the Project would include only three gas fireplaces. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults

[6] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 13-14.
[7] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 34.

be justified. [8] According to the "User Entered Comments & Non-Default Data" table, the justification provided for this assumption is:

> "assumes 3 barbecue grills operating for 3 hours each on weekends" (Appendix A, pp. 273, 288, 298).

Furthermore, the AQ & GHG Analysis provides the following fireplace assumptions (see excerpt below) (pp. 49):

Fireplaces

**assuming no woodstoves*

Land Use	# Wood	# Gas	# Propane	# No Fireplace	Hours/Day	Days/Year[1]
Grill[2]	0	3	0	252	3	104
Average Use	0	3	0	252	3	104

1 *assumes weekend use only*

However, this justification is insufficient, as the AQ & GHG Analysis fails to provide a source for the assumption that Project design would not feature gas fireplaces in the residential units. As previously mentioned, this is incorrect. According to the CalEEMod User's Guide:

> "CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA."[9]

Here, as the IS fails to discuss the number of gas fireplaces, and the AQ & GHG Analysis fails to provide substantial evidence justifying the assumption that only three gas fireplaces would be included in the Project design, we cannot verify the changes.

This potential underestimation presents an issue, as CalEEMod uses the number of gas fireplaces to calculate the Project's area-source operational emissions.[10] Thus, by including unsubstantiated reductions to the gas fireplace values, the model may underestimate the Project's area-source operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Changes to Operational Vehicle Fleet Mix Percentages

Review of the CalEEMod output files demonstrates that the "Washington and Rosemead Mixed Use Project Operations Run" model includes several changes to the default operational vehicle fleet mix percentages (see excerpt below) (Appendix A, pp. 273, 274, 288, 289, 298, 299).

[8] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 1.
[9] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 13, 14.
[10] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 40, 41.

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	8.0120e-003	1.5490e-003
tblFleetMix	LDA	0.54	0.64
tblFleetMix	LDT1	0.06	0.07
tblFleetMix	LDT2	0.19	0.22
tblFleetMix	LHD1	0.02	4.4630e-003
tblFleetMix	LHD2	6.0830e-003	1.1760e-003
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MDV	0.13	0.02
tblFleetMix	MH	3.3740e-003	6.5200e-004
tblFleetMix	MHD	0.01	2.0250e-003
tblFleetMix	OBUS	9.2500e-004	0.00
tblFleetMix	SBUS	6.9800e-004	1.3500e-004
tblFleetMix	UBUS	6.1100e-004	0.00

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[11] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is:

> "see fleet mix adjustment for apartments in assumptions file" (Appendix A, pp. 273, 288, 298).

Furthermore, the AQ & GHG Analysis provides the following operational vehicle fleet mix assumptions (see excerpt below) (pp. 50):

Default	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
FleetMix (Model Default)	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374	100%
Trips	859	99	296	201	36	10	17	13	1	1	38	1	5	1,577
Percent	82%			13%	5%									100%
without buses/MH	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0	0	0.024394	0.000698	0.003374	100%
Percent	82%			13%	5%									100%
Adjusted without buses/MH	0.544785	0.062844	0.187478	0.127235	0.023775	0.006264	0.010786	0.008250	0.000000	0.000000	0.025118	0.000719	0.003474	
Percent adjusted	82%			13%	5%									100%
Assumed Mix	97.0%			2.00%	1.00%									100%
adjusted with Assumed	**0.644264**	**0.074319**	**0.221712**	**0.020000**	**0.004463**	**0.001176**	**0.002025**	**0.001549**	**0.000000**	**0.000000**	**0.029705**	**0.000135**	**0.000652**	**100%**
Percent Check:	97%			2%	1%									
Trips	1,016	117	350	32	7	2	3	2	0	0	47	0	1	1,577
	1,530			*32*	*15*									

Fleet mix for the project is modified to reflect a higher proportion of passenger vehicles that the regional VMT. Assumes a mix of approximately 97% passenger vehicles, 2% medium duty trucks, and 1% heavy duty trucks and buses.

However, these changes remain unsupported, as the AQ & GHG Analysis fails to provide a source for the revised operational vehicle fleet mix percentages. As previously mentioned, this is incorrect. According to the CalEEMod User's Guide:

> "CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA."[12]

[11] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 1.

[12] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 13-14.

Here, as the IS fails to discuss the Project's anticipated operational fleet mix, and the AQ & GHG Analysis fails to provide substantial evidence justifying the revised percentages, we cannot verify the changes.

These unsubstantiated changes present an issue, as operational vehicle fleet mix percentages are used by CalEEMod to calculate the Project's operational emissions associated with on-road vehicles.[13] Thus, by including unsubstantiated changes to the default operational vehicle fleet mix, the model may underestimate the Project's mobile-source operational emissions and should not be relied upon to determine Project significance.

Underestimated Solid Waste Generation Rates

According to the IS:

> "Regarding project operation, based on a solid waste generation of approximately 10 pounds per dwelling unit per day for multifamily and 0.006 pounds per square foot per day for commercial retail (CalRecycle n.d.), the mixed-use building would generate approximately 2,250 pounds per day from residential and 35 pounds per day from retail for a total of 2,285 pounds of solid waste per day or approximately 1.14 tons per day" (p. 120).

As such, the model should have included 416.1-tons per year ("tpy") of solid waste for the Project's proposed land uses.[14] However, review of the CalEEMod output files demonstrates that the "Washington and Rosemead Mixed Use Project Operations Run" model includes only 229.87-tpy[15] of solid waste (see excerpt below) (Appendix A, pp. 285).

[13] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 37.
[14] Calculated: 1.14 tons/day * 365 days = 416.1 tons/year.
[15] Calculated: 117.3 + 32.73 + 76.95 + 2.89 = 229.87-typ.

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	117.3	23.8108	1.4072	0.0000	58.9904
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	32.73	6.6439	0.3926	0.0000	16.4600
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	76.95	15.6202	0.9231	0.0000	38.6983
Regional Shopping Center	2.89	0.5866	0.0347	0.0000	1.4534
Total		**46.6615**	**2.7576**	**0.0000**	**115.6020**

As demonstrated in the excerpt above, the total amount of solid waste is underestimated by 186.23-tpy.[16] Thus, the model is underestimated and inconsistent with the information provided in the IS.

This underestimation presents an issue, as CalEEMod uses the solid waste generation rates to calculate the Project's operational GHG emissions associated with the disposal of solid waste into landfills.[17] Thus, by including underestimated solid waste generation rates, the model underestimates the Project's operational GHG emissions and should not be relied upon to determine Project significance.

Unsubstantiated Changes to Indoor and Outdoor Water Use Rates

Review of the CalEEMod output files demonstrates that the "Washington and Rosemead Mixed Use Project Operations Run" model includes reductions to the default indoor and outdoor water use rates (see excerpt below) (Appendix A, pp. 275, 290, 300).

Table Name	Column Name	Default Value	New Value
tblWater	IndoorWaterUseRate	871,141.75	834,717.71
tblWater	IndoorWaterUseRate	1,035,005.02	798,432.44
tblWater	IndoorWaterUseRate	212,588.14	203,699.43
tblWater	OutdoorWaterUseRate	55,604.79	53,279.85
tblWater	OutdoorWaterUseRate	634,357.92	489,361.82
tblWater	OutdoorWaterUseRate	130,295.95	124,848.04

[16] Calculated: 416.1-typ proposed – 229.87-typ modeled = 186.23-tpy underestimated.
[17] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 46.

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[18] However, the "User Entered Comments & Non-Default Data" table fails to provide a justification for these changes. Furthermore, regarding the Project's expected water use, the IS states:

> "Based on the CalEEMod model conducted as part of the Air Quality and Greenhouse Gas Analysis (see Appendix A), the proposed project, including indoor and outdoor water use, is anticipated to be approximately 81,076 gallons per day (29,592,834 gallons per year or approximately 91 acre-feet per year), which is within the District's groundwater pumping capacity" (p. 117).

However, the changes remain unsupported, as the above-mentioned values provided for the Project's expected water use are based on the CalEEMod output files themselves. This is incorrect, as the Project documents should substantiate the changes included in the CalEEMod model, not vice versa.[19] As the IS fails to provide an adequate source for the revised water use rates, cannot verify the changes.

These unsubstantiated reductions present an issue, as CalEEMod uses indoor water use rates to estimate the amount of wastewater, which has direct emissions of GHGs.[20] By including unsubstantiated reductions to the default indoor and outdoor water use rates, the model underestimates the Project's water-related operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Changes to Wastewater Treatment System Percentages

Review of the CalEEMod output files demonstrates that the "Washington and Rosemead Mixed Use Project Operations Run" model includes a manual change to the default wastewater treatment system percentage (see excerpt below) (Appendix A, pp. 275, 290, 300).

Table Name	Column Name	Default Value	New Value
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

As demonstrated in the excerpt above, the model assumes that the Project's wastewater would be treated 100% aerobically. As previously mentioned, the CalEEMod User's Guide requires any changes to

[18] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 1.
[19] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 13, 14.
[20] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 44, 45.

model defaults be justified. [21] According to the "User Entered Comments & Non-Default Data" table, the justification provided for this change is:

> "Assumes 100% aerobic treatment" (Appendix A, pp. 273, 288, 298).

Furthermore, regarding wastewater, the IS states:

> "The collected wastewater flows south towards the Los Coyotes Water Reclamation Plant of LACSD in the city of Cerritos"

However, review of the Los Coyotes Water Reclamation' Wastewater Treatment Process demonstrates that some anaerobic treatment is used during the solids processing stage. [22, 23] As such, the inclusion of 100% aerobic treatment in the model is incorrect.

This presents an issue, as each type of wastewater treatment system is associated with different GHG emission factors, which are used by CalEEMod to calculate the Project's total GHG emissions. [24] Thus, by including an unsubstantiated change to the wastewater treatment system percentage, the model may underestimate the Project's GHG emissions and should not be relied upon to determine Project significance.

Diesel Particulate Matter Emissions Inadequately Evaluated

The IS concludes that the Project would have a less-than-significant health risk impact without conducting a quantified construction or operational health risk analysis ("HRA"). Regarding the health risk impacts associated with the Project construction, the IS states:

> "Emissions from construction equipment primarily consist of diesel particulate matter (DPM). In 2015, the Office of Environmental Health Hazards Assessment (OEHHA) adopted guidance for preparation of health risk assessments, which included the development of a cancer risk factor and non-cancer chronic reference exposure level for DPM over a 30-year time frame (OEHHA 2015). Currently, South Coast AQMD does not require the evaluation of long-term excess cancer risk or chronic health impacts for a short-term construction project. The proposed project's construction period is anticipated to be completed in approximately 23 months, which would limit the exposure of adjacent sensitive receptors to construction emissions. Project construction would comply with required health and safety standards and construction best practices. Furthermore, construction activities would not generate onsite exhaust emissions that would exceed the screening-level construction LSTs, as shown in Table 8, above. Thus,

[21] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 1, 14.
[22] "Wastewater Treatment Process." Los Angeles County Sanitation Districts, *available at:* https://www.lacsd.org/services/wastewater-sewage/facilities/wastewater-treatment-process
[23] "Los Coyotes Water Reclamation Plant." Los Angeles County Sanitation Districts, *available at:* https://www.lacsd.org/services/wastewater-sewage/facilities/los-coyotes-water-reclamation-plant
[24] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 45.

construction emissions would not pose a health risk to onsite and offsite receptors, and project-related construction health impacts would be less than significant" (p. 56, 57).

As demonstrated above, the IS concludes a less-than-significant health risk impact during Project construction because the short-term construction schedule and compliance with best practices would generate only limited amounts of diesel particulate matter ("DPM"). Furthermore, the Project's onsite exhaust emissions would be below screening-level localized significance thresholds ("LSTs"). However, the IS fails to mention or evaluate the toxic air contaminant ("TAC") emissions associated with Project operation whatsoever. As such, the IS's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect for four reasons.

First, the IS's claim that the Project's construction-related health risk impact would be less-than-significant because "construction activities would not generate onsite exhaust emissions that would exceed the screening-level construction LSTs" is insufficient (p. 57). The use of an LST analysis to determine the health risk impacts posed to nearby, existing sensitive receptors as a result of the Project's construction-related TAC emissions is incorrect. While the LST method assesses the impact of pollutants at a local level, it only evaluates impacts from criteria air pollutants. According to the *Final Localized Significance Threshold Methodology* document prepared by the SCAQMD, LST analyses are only applicable to NO_x, CO, PM_{10}, and $PM_{2.5}$ emissions, which are collectively referred to as criteria air pollutants.[25] Because the LST method can only be applied to criteria air pollutants, this method cannot be used to determine whether emissions from TACs, specifically DPM, a known human carcinogen, would result in a significant health risk impact to nearby sensitive receptors. As a result, health impacts from exposure to TACs, such as DPM, were not analyzed, thus leaving a gap in the IS's analysis.

Second, by failing to prepare a quantified construction and operational HRA, the Project is inconsistent with CEQA's requirement to make "a reasonable effort to substantively connect a project's air quality impacts to likely health consequences."[26] This poses a problem, as construction of the Project would produce DPM emissions through the exhaust stacks of construction equipment over a duration of approximately 23 months (p. 52). Furthermore, operation of the Project is expected to generate 1,594 net new daily vehicle trips, which would produce additional exhaust emissions and continue to expose nearby, existing sensitive receptors to DPM emissions (p. 16). However, the IS fails to evaluate the TAC emissions associated with Project construction and operation or indicate the concentrations at which such pollutants would trigger adverse health effects. Thus, without making a reasonable effort to connect the Project's TAC emissions to the potential health risks posed to nearby receptors, the IS is inconsistent with CEQA's requirement to correlate Project-generated emissions with potential adverse impacts on human health.

[25] "Final Localized Significance Threshold Methodology." SCAQMD, Revised July 2008, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf.

[26] "Sierra Club v. County of Fresno." Supreme Court of California, December 2018, a*vailable at:* https://ceqaportal.org/decisions/1907/Sierra%20Club%20v.%20County%20of%20Fresno.pdf.

Third, the Office of Environmental Health Hazard Assessment ("OEHHA"), the organization responsible for providing guidance on conducting HRAs in California, released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments* in February 2015. This guidance document describes the types of projects that warrant the preparation of an HRA. Specifically, OEHHA recommends that all short-term projects lasting at least 2 months assess cancer risks.[27] Furthermore, according to OEHHA:

> "Exposure from projects lasting more than 6 months should be evaluated for the duration of the project. In all cases, for assessing risk to residential receptors, the exposure should be assumed to start in the third trimester to allow for the use of the ASFs (OEHHA, 2009)."[28]

Thus, as the Project's anticipated construction duration exceeds the 2-month and 6-month requirements set forth by OEHHA, construction of the Project meets the threshold warranting a quantified HRA under OEHHA guidance and should be evaluated for the entire 23-month construction period. Furthermore, OEHHA recommends that an exposure duration of 30 years should be used to estimate the individual cancer risk at the maximally exposed individual resident ("MEIR").[29] While the IS fails to provide the expected lifetime of the proposed Project, we can reasonably assume that the Project would operate for at least 30 years, if not more. Therefore, operation of the Project also exceeds the 2-month and 6-month requirements set forth by OEHHA and should be evaluated for the entire 30-year residential exposure duration, as indicated by OEHHA guidance. These recommendations reflect the most recent state health risk policies, and as such, an EIR should be prepared to include an analysis of health risk impacts posed to nearby sensitive receptors from Project-generated DPM emissions.

Fourth, by claiming a less-than-significant impact without conducting a quantified construction or operational HRA for nearby, existing sensitive receptors, the IS fails to compare the Project's excess cancer risk to the SCAQMD's specific numeric threshold of 10 in one million.[30] Thus, in accordance with the most relevant guidance, an assessment of the health risk posed to nearby, existing receptors as a result of Project construction and operation should be conducted.

Screening-Level Analysis Demonstrates Significant Impacts

In order to conduct our screening-level risk assessment we relied upon AERSCREEN, which is a screening level air quality dispersion model.[31] As discussed above, the model replaced SCREEN3, and AERSCREEN is included in the OEHHA and the California Air Pollution Control Officers Associated ("CAPCOA") guidance

[27] "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-18.
[28] "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-18.
[29] "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 2-4.
[30] "South Coast AQMD Air Quality Significance Thresholds." SCAQMD, April 2019, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf.
[31] "AERSCREEN Released as the EPA Recommended Screening Model," U.S. EPA, April 2011, *available at:* http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf

as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs").[32, 33] A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary HRA of the Project's construction and operational health risk impact to residential sensitive receptors using the annual PM_{10} exhaust estimates from the IS's CalEEMod output files. Consistent with recommendations set forth by OEHHA, we assumed residential exposure begins during the third trimester stage of life.[34] The IS's CalEEMod model indicates that construction activities will generate approximately 361 pounds of DPM over the 699-day construction period.[35] The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{361.4\ lbs}{699\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00271\ g/s}$$

Using this equation, we estimated a construction emission rate of 0.00271 grams per second ("g/s"). Subtracting the 699-day construction period from the total residential duration of 30 years, we assumed that after Project construction, the sensitive receptor would be exposed to the Project's operational DPM for an additional 28.08 years. The IS's operational CalEEMod emissions indicate that operational activities will generate approximately 87 net pounds of DPM per year throughout operation. Applying the same equation used to estimate the construction DPM rate, we estimated the following emission rate for Project operation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{86.6\ lbs}{365\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00125\ g/s}$$

Using this equation, we estimated an operational emission rate of 0.00125 g/s. Construction and operation were simulated as a 2.85-acre rectangular area source in AERSCREEN, with approximate dimensions of 152- by 76-meters. A release height of three meters was selected to represent the height of stacks of operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban

[32] "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.
[33] "Health Risk Assessments for Proposed Land Use Projects." CAPCOA, July 2009, *available at:* http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf.
[34] "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-18.
[35] See Attachment B for health risk calculations.

meteorological setting was selected with model-default inputs for wind speed and direction distribution. The population of Pico Rivera was obtained from U.S. 2020 Census data.[36]

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project Site. The U.S. EPA suggests that the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10% in screening procedures.[37] According to the IS the nearest sensitive receptor are single-family residences directly adjacent to the Project site (p. 85). However, review of the AERSCREEN output files demonstrates that the MEIR is located approximately 75 meters from the Project site. Thus, the single-hour concentration estimated by AERSCREEN for Project construction is approximately 7.093 $\mu g/m^3$ DPM at approximately 75 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.7093 $\mu g/m^3$ for Project construction at the MEIR. For Project operation, the single-hour concentration estimated by AERSCREEN is 3.256 $\mu g/m^3$ DPM at approximately 75 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.3256 $\mu g/m^3$ for Project operation at the MEIR.

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by OEHHA, as recommended by SCAQMD.[38] Specifically, guidance from OEHHA and the California Air Resources Board ("CARB") recommends the use of a standard point estimate approach, including high-point estimate (i.e. 95th percentile) breathing rates and age sensitivity factors ("ASF") in order to account for the increased sensitivity to carcinogens during early-in-life exposure and accurately assess risk for susceptible subpopulations such as children. The residential exposure parameters, such as the daily breathing rates ("BR/BW"), exposure duration ("ED"), age sensitivity factors ("ASF"), fraction of time at home ("FAH"), and exposure frequency ("EF") utilized for the various age groups in our screening-level HRA are as follows:

[36] "Pico Rivera." U.S. Census Bureau, 2020, *available at:* https://datacommons.org/place/geoId/0656924.
[37] "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised." U.S. EPA, October 1992, *available at:* http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf.
[38] "AB 2588 and Rule 1402 Supplemental Guidelines." SCAQMD, October 2020, *available at:* http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab-2588-supplemental-guidelines.pdf?sfvrsn=19, p. 2.

Exposure Assumptions for Residential Individual Cancer Risk						
Age Group	**Breathing Rate** (L/kg-day)[39]	**Age Sensitivity Factor**[40]	**Exposure Duration** (years)	**Fraction of Time at Home**[41]	**Exposure Frequency** (days/year)[42]	**Exposure Time** (hours/day)
3rd Trimester	361	10	0.25	1	350	24
Infant (0 - 2)	1090	10	2	1	350	24
Child (2 - 16)	572	3	14	1	350	24
Adult (16 - 30)	261	1	14	0.73	350	24

For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify dose for each age group. Once determined, contaminant dose is multiplied by the cancer potency factor ("CPF") in units of inverse dose expressed in milligrams per kilogram per day ($mg/kg/day^{-1}$) to derive the cancer risk estimate. Therefore, to assess exposures, we utilized the following dose algorithm:

$$Dose_{AIR,per\ age\ group} = C_{air} \times EF \times \left[\frac{BR}{BW}\right] \times A \times CF$$

where:

$Dose_{AIR}$ = dose by inhalation (mg/kg/day), per age group
C_{air} = concentration of contaminant in air (µg/m3)
EF = exposure frequency (number of days/365 days)
BR/BW = daily breathing rate normalized to body weight (L/kg/day)
A = inhalation absorption factor (default = 1)
CF = conversion factor (1x10-6, µg to mg, L to m3)

To calculate the overall cancer risk, we used the following equation for each appropriate age group:

$$Cancer\ Risk_{AIR} = Dose_{AIR} \times CPF \times ASF \times FAH \times \frac{ED}{AT}$$

[39] "Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act." SCAQMD, October 2020, available at: http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab-2588-supplemental-guidelines.pdf?sfvrsn=19, p. 19; see also "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.
[40] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 8-5 Table 8.3.
[41] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 5-24.
[42] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 5-24.

where:

$Dose_{AIR}$ = dose by inhalation (mg/kg/day), per age group
CPF = cancer potency factor, chemical-specific $(mg/kg/day)^{-1}$
ASF = age sensitivity factor, per age group
FAH = fraction of time at home, per age group (for residential receptors only)
ED = exposure duration (years)
AT = averaging time period over which exposure duration is averaged (always 70 years)

Consistent with the 699-day construction schedule, the annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years) and the first 1.67 years of the infantile stage of life (0 – 2 years). The annualized average concentration for operation was used for the remainder of the 30-year exposure period, which makes up the latter 0.33 years of the infantile stage of life, as well as the entire child (2 – 16) and adult (16 – 30 years) stages of life. The results of our calculations are shown in the table below.

The Maximally Exposed Individual at an Existing Residential Receptor

Age Group	**Emissions Source**	**Duration** (years)	**Concentration** (ug/m3)	**Cancer Risk**
3rd Trimester	Construction	0.25	0.70930	9.65E-06
	Construction	*1.67*	*0.70930*	*1.94E-04*
	Operation	*0.33*	*0.32560*	*1.79E-05*
Infant (0 - 2)	Total	2		2.12E-04
Child (2 - 16)	Operation	14	0.32560	1.18E-04
Adult (16 - 30)	Operation	14	0.32560	1.31E-05
Lifetime		**30**		**3.52E-04**

As demonstrated in the table above, the excess cancer risks for the 3rd trimester of pregnancy, infants, children, and adults at the MEIR located approximately 75 meters away, over the course of Project construction and operation, are approximately 9.65, 212, 118, and 13.1 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years) is approximately 352 in one million. The child and lifetime cancer risks exceed the SCAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the IS.

Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection. The purpose of the screening-level HRA is to demonstrate the potential link between Project-generated emissions and adverse health risk impacts. According to the U.S. EPA:

> "EPA's Exposure Assessment Guidelines recommend completing exposure assessments iteratively using a tiered approach to 'strike a balance between the costs of adding detail and refinement to an assessment and the benefits associated with that additional refinement' (U.S. EPA, 1992).
>
> In other words, an assessment using basic tools (e.g., simple exposure calculations, default values, rules of thumb, conservative assumptions) can be conducted as the first phase (or tier) of the overall assessment (i.e., a screening-level assessment).
>
> The exposure assessor or risk manager can then determine whether the results of the screening-level assessment warrant further evaluation through refinements of the input data and exposure assumptions or by using more advanced models."

As demonstrated above, screening-level analyses warrant further evaluation in a refined modeling approach. Thus, as our screening-level HRA demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, an EIR should be prepared to include a refined health risk analysis which adequately and accurately evaluates health risk impacts associated with both Project construction and operation.

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The IS estimates that the Project would generate net annual greenhouse gas ("GHG") emissions of 2,958 metric tons of carbon dioxide equivalents per year ("MT CO_2e/year"), which would not exceed the SCAQMD bright-line threshold of 3,000 MT CO_2e/year (see excerpt below) (p. 72, Table 13).

Table 13 Project-Related Operation GHG Emissions

Source	GHG ($MTCO_2e$/Year)
Area	7
Energy[2]	927
Mobile (Vehicle Trips)	1,774
Solid Waste	116
Water	105
Amortized Construction Emissions[1]	29
Total	2,958
South Coast AQMD Bright-Line Threshold	3,000 $MTCO_2e$/Yr
Exceeds Bright-Line Threshold?	**No**

Source: CalEEMod, Version 2020.4.
Notes: MTons = metric tons; $MTCO_2e$ = metric ton of carbon dioxide equivalent
1 Total construction emission are amortized over 30 years per South Coast AQMD methodology.
2 Energy use is adjusted by 4 percent to reflect a slightly larger building square footage to align with the project description.

Furthermore, the IS's analysis relies upon the Project's consistency with the CARB 2017 *Scoping Plan* and SCAG 2020-2045 *RTP/SCS* to conclude that the Project would result in a less-than-significant GHG impact (p. 72, 73). However, the IS's analysis, as well as the subsequent less-than-significant impact conclusion, is incorrect for six reasons.

(1) The IS's quantitative GHG analysis relies upon an incorrect and unsubstantiated air model;
(2) The IS's quantitative GHG analysis relies upon an outdated threshold;
(3) The IS fails to identify a potentially significant impact;
(4) SWAPE's updated model indicates a potentially significant GHG impact;
(5) The IS fails to consider the performance-based standards under CARB's *Scoping Plan*; and
(6) The IS fails to consider the performance-based standards under SCAG's RTP/SCS.

1) Incorrect and Unsubstantiated Quantitative Analysis of Emissions

As previously stated, the IS estimates that the Project would generate net annual GHG emissions of 2,958 MT CO_2e/year (p. 72, Table 13). However, the IS's quantitative GHG analysis is unsubstantiated. As previously discussed, when we reviewed the Project's CalEEMod output files, provided in the AQ & GHG Analysis as Appendix A to the IS, we found that several of the values inputted into the models are not consistent with information disclosed in the IS. As a result, the models underestimate the Project's emissions, and the IS's quantitative GHG analysis should not be relied upon to determine Project significance. An EIR should be prepared that adequately assesses the potential GHG impacts that construction and operation of the proposed Project may have on the environment.

2) Incorrect Reliance on an Outdated Quantitative GHG Threshold

As previously stated, the IS estimates that the Project would generate net annual GHG emissions of 2,958 MT CO_2e/year, which would not exceed the SCAQMD bright-line threshold of 3,000 MT CO_2e/year (p. 72, Table 13). However, the guidance that provided the 3,000 MT CO_2e/year threshold, SCAQMD's 2008 *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules, and Plans* report, was developed when the Global Warming Solutions Act of 2006, commonly known as "AB 32", was the governing statute for GHG reductions in California. AB 32 requires California to reduce GHG emissions to 1990 levels by 2020. [43] Furthermore, AEP guidance states:

> "[F]or evaluating projects with a post 2020 horizon, the threshold will need to be revised based on a new gap analysis that would examine 17 development and reduction potentials out to the next GHG reduction milestone." [44]

As it is currently August 2022, thresholds for 2020 are not applicable to the proposed Project and should be revised to reflect the current GHG reduction target. As such, the SCAQMD bright-line threshold of 3,000 MT CO_2e/year is outdated and inapplicable to the proposed Project, and the IS's less-than-significant GHG impact conclusion should not be relied upon. Instead, we recommend that the Project apply the SCAQMD 2035 service population efficiency target of 3.0 metric tons of carbon dioxide

[43] HEALTH & SAFETY CODE 38550, *available at:* https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=HSC&sectionNum=38550.
[44] "Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California." Association of Environmental Professionals (AEP), October 2016, *available at:* https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf, p. 39.

equivalents per service population per year ("MT CO_2e/SP/year"), which was calculated by applying a 40% reduction to the 2020 targets.[45]

3) Failure to Identify a Potentially Significant GHG Impact

In an effort to quantitatively evaluate the Project's GHG emissions, we compared the Project's GHG emissions, as estimated by the IS, to the SCAQMD 2035 efficiency target of 3.0 MT CO_2e/SP/year. When applying this threshold, the Project's incorrect and unsubstantiated air model indicates a potentially significant GHG impact.

As previously stated, the IS estimates that the Project would generate net annual GHG emissions of 2,958 MT CO_2e/year (p. 72, Table 13). According to CAPCOA's *CEQA & Climate Change* report, a service population ("SP") is defined as "the sum of the number of residents and the number of jobs supported by the project."[46] According to the IS, the Project would support 812 residents and 11 employees. As such, we estimate an SP of 823 people.[47] When dividing the Project's net annual GHG emissions, as estimated by the IS, by a SP of 823 people, we find that the Project would emit approximately 3.6 MT CO_2e/SP/year (see table below).[48]

IS Greenhouse Gas Emissions	
Annual Emissions (MT CO_2e/year)	2,958
Service Population	823
Service Population Efficiency (MT CO_2e/SP/year)	3.6
SCAQMD Threshold	**3.0**
Exceeds?	***Yes***

As demonstrated above, the Project's service population efficiency value, as estimated by the IS's net annual GHG emissions estimates and SP, exceeds the SCAQMD 2035 efficiency target of 3.0 MT CO_2e/SP/year, indicating a potentially significant impact not previously identified or addressed by the IS. As a result, the IS's less-than-significant GHG impact conclusion should not be relied upon. An EIR should be prepared, including an updated GHG analysis and incorporating additional mitigation measures to reduce the Project's GHG emissions to less-than-significant levels.

4) Updated Analysis Indicates a Potentially Significant GHG Impact

In an effort to more accurately estimate the Project's operational emissions, we prepared an updated CalEEMod model, using the Project-specific information provided by the IS. In our updated model, we

[45] "Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15." SCAQMD, September 2010, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf, p. 2.
[46] "CEQA & Climate Change." California Air Pollution Control Officers Association (CAPCOA), January 2008, *available at:* http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf, p. 71-72.
[47] Calculated: 812 residents + 11 employees = 823 total SP.
[48] Calculated: (2,985 MT CO_2e/year) / (823 SP) = (3.60 MT CO_2e/SP/year).

omitted the unsubstantiated changes to the architectural coating emission factor, number of gas fireplaces, operational vehicle fleet mix percentages, indoor and outdoor water use rates, and wastewater treatment system percentages, as well as included the correct solid waste generation rates.

SWAPE's updated air model indicates a potentially significant GHG impact, when applying the outdated SCAQMD bright-line threshold of 3,000 MT CO_2e/year. The updated CalEEMod output files disclose the Project's mitigated emissions, which include approximately 3,235 MT CO_2e/year of annual operational emissions (sum of area-, energy-, mobile-, waste-, and water-related emissions). When amortizing the Project's construction-related GHG emissions over a period of 30 years and summing them with the Project's operational GHG emissions, we estimate net annual GHG emissions of approximately 3,264 MT CO_2e/year (see table below).

SWAPE Annual Greenhouse Gas Emissions	
Project Phase	**Proposed Project** (MT CO_2e/year)
Construction (amortized over 30 years)[49]	29
Area	*57*
Energy	*892*
Mobile	*1,960*
Waste	*209*
Water	*118*
Annual Operational	3,235
Total Net Annual GHG Emissions	**3,264**
SCAQMD Bright-Line Threshold	3,000
Exceeds?	***Yes***

As demonstrated above, the Project's estimated annual GHG emissions, as estimated by SWAPE, exceed the outdated SCAQMD threshold of 3,000 MT CO_2e/year, thus resulting in a significant impact not previously addressed or mitigated in the IS. As a result, the IS's less-than-significant GHG impact conclusion should not be relied upon. An EIR should be prepared, including an updated GHG analysis and incorporating additional mitigation measures to reduce the Project's GHG emissions to less-than-significant levels.

5) Failure to Consider Performance-based Standards Under CARB's 2017 Scoping Plan

As previously discussed, the IS concludes that the Project would be consistent with CARB's 2017 Climate Change Scoping Plan (p. 72). However, this is incorrect, as the IS fails to consider performance-based measures proposed by CARB.

[49] Amortized construction GHG emissions based on estimates from the IS.

i. Passenger & Light Duty VMT Per Capita Benchmarks per SB 375

In reaching the State's long-term GHG emission reduction goals, CARB's 2017 *Scoping Plan* explicitly cites to SB 375 and the VMT reductions anticipated under the implementation of Sustainable Community Strategies.[50] CARB has identified the population and daily VMT from passenger autos and light-duty vehicles at the state and county level for each year between 2010 to 2050 under a "baseline scenario" that includes "current projections of VMT included in the existing Regional Transportation Plans/Sustainable Communities Strategies (RTP/SCSs) adopted by the State's 18 Metropolitan Planning Organizations (MPOs) pursuant to SB 375 as of 2015."[51] By dividing the projected daily VMT by the population, we calculated the daily VMT per capita for each year at the state and county level for 2010 (baseline year), 2023 (Project operational year), and 2030 (target years under SB 32) (see table below).

2017 Scoping Plan Daily VMT Per Capita

	Los Angeles County			State		
Year	Population	LDV VMT Baseline	VMT Per Capita	Population	LDV VMT Baseline	VMT Per Capita
2010	9,838,771	216,979,221.64	22.05	37,335,085	836,463,980.46	22.40
2023	10,581,976	221,156,313.83	20.90	41,659,526	924,184,228.61	22.18
2030	10,868,614	215,539,586.12	19.83	43,939,250	957,178,153.19	21.78

As the IS fails to evaluate the Project's consistency with the CARB 2017 *Scoping Plan* performance-based daily VMT per capita projections, the IS's claim that the proposed Project would not conflict with the CARB 2017 *Scoping Plan* is unsupported. An EIR should be prepared for the proposed Project to provide additional information and analysis to conclude less-than-significant GHG impacts.

6) Failure to Consider Performance-based Standards under SCAG's RTP/SCS

As previously discussed, the IS concludes that the Project would be consistent with SCAG's *RTP/SCS* (p. 7). However, the IS fails to consider whether or not the Project meets any of the specific performance-based goals underlying SCAG's *RTP/SCS* and SB 375, such as: i) per capita GHG emission targets, or ii) daily vehicles miles traveled ("VMT") per capita benchmarks.

i. SB 375 Per Capita GHG Emission Goals

SB 375 was signed into law in September 2008 to enhance the state's ability to reach AB 32 goals by directing CARB to develop regional 2020 and 2035 GHG emission reduction targets for passenger vehicles (autos and light-duty trucks). In March 2018, CARB adopted updated regional targets requiring a 19 percent decrease in VMT for the SCAG region by 2035. This goal is reflected in SCAG's 2020 RTP/SCS

[50] "California's 2017 Climate Change Scoping Plan." CARB, November 2017, *available at*: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf, p. 25, 98, 101-103.
[51] "Supporting Calculations for 2017 Scoping Plan-Identified VMT Reductions," California Air Resources Board (CARB), January 2019, *available at*: https://ww2.arb.ca.gov/resources/documents/carb-2017-scoping-plan-identified-vmt-reductions-and-relationship-state-climate; *see also:* https://ww2.arb.ca.gov/sites/default/files/2019-01/sp_mss_vmt_calculations_jan19_0.xlsx.

Program Environmental Impact Report ("PEIR"), in which the 2020 RTP/SCS PEIR updates the per capita emissions to 18.8 lbs/day in 2035 (see excerpt below). [52]

Table 3.8-10
SB 375 Analysis

	2005 (Baseline)	2020 (Plan)	2035 (Plan)
Resident population (per 1,000)	17,161	19,194	21,110
CO2 emissions (per 1,000 tons)	204.0/a/	204.5/b/	198.6/b/
Per capita emissions (pounds/day)	23.8	21.3	18.8
% difference from Plan (2020) to Baseline (2005)			–8%
% difference from Plan (2035) to Baseline (2005)			–19%/c/

Note:
/a/ Based on EMFAC2007
/b/Based on EMFAC2014 and SCAG modeling, 2019.
/c/ Includes off-model adjustments for 2035 and 2045
Source: SCAG modeling, 2019.
http://www.scag.ca.gov/committees/CommitteeDocLibrary/jointRCPC110515fullagn.pdf

As the IS fails to evaluate the Project's consistency with the SCAG's per capita emissions, the IS's claim that the proposed Project would be consistent with SCAG's *RTP/SCS* is unsupported. An EIR should be prepared for the proposed Project to provide additional information and analysis to conclude less-than-significant GHG impacts.

ii. SB 375 RTP/SCS Daily VMT Per Capita Target

Under the SCAG's 2020 *RTP/SCS*, daily VMT per capita in the SCAG region should decrease from 23.2 VMT in 2016 to 20.7 VMT by 2045.[53] Daily VMT per capita in Los Angeles County should decrease from 22.2 to 19.2 VMT during that same period.[54] Here, however, the IS fails to consider any of the above-mentioned performance-based VMT targets. As the IS fails to evaluate the Project's consistency with the SCAG's performance-based daily VMT per capita projections, the IS's claim that the proposed Project would be consistent with SCAG's *RTP/SCS* is unsupported. An EIR should be prepared for the proposed Project to provide additional information and analysis to conclude less-than-significant GHG impacts.

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project would result in potentially significant health risk and GHG impacts that should be mitigated further. As such, in an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project. Therefore, to reduce the Project's emissions, we recommend consideration of SCAG's 2020 *RTP/SCS* PEIR's Air Quality Project

[52] "Connect SoCal Certified Final Program Environmental Impact Report." SCAG, May 2020, *available at*: https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocal_complete.pdf?1607981618, p. 3.8-74.
[53] "Connect SoCal." SCAG, September 2020, *available at*: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176, pp. 138.
[54] "Connect SoCal." SCAG, September 2020, *available at*: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176, pp. 138.

Level Mitigation Measures ("PMM-AQ-1") and Greenhouse Gas Project Level Mitigation Measures ("PMM-GHG-1"), as described below: [55]

SCAG RTP/SCS 2020-2045
Air Quality Project Level Mitigation Measures – PMM-AQ-1: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the *State CEQA Guidelines*, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the Lead Agency:
a) Minimize land disturbance.
b) Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes.
c) Cover trucks when hauling dirt.
d) Stabilize the surface of dirt piles if not removed immediately.
e) Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.
f) Minimize unnecessary vehicular and machinery activities.
g) Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
h) Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities.
i) On Caltrans projects, Caltrans Standard Specifications 10-Dust Control, 17-Watering, and 18-Dust Palliative shall be incorporated into project specifications.
j) Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of 40 or more hours for the construction project. Prepare a plan for approval by the applicable air district demonstrating achievement of the applicable percent reduction for a CARB-approved fleet.
k) Ensure that all construction equipment is properly tuned and maintained.
l) Minimize idling time to 5 minutes—saves fuel and reduces emissions.
m) Provide an operational water truck on-site at all times. Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas. Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
n) Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.
o) Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.

[55] "4.0 Mitigation Measures." Connect SoCal Program Environmental Impact Report Addendum #1, September 2020, available at: https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocal_addendum_4_mitigationmeasures.pdf?1606004420, p. 4.0-2 – 4.0-10; 4.0-19 – 4.0-23; See also: "Certified Final Connect SoCal Program Environmental Impact Report." Southern California Association of Governments (SCAG), May 2020, *available at:* https://scag.ca.gov/peir.

p) As appropriate require that portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, obtain CARB Portable Equipment Registration with the state or a local district permit. Arrange appropriate consultations with the CARB or the District to determine registration and permitting requirements prior to equipment operation at the site.
q) Require projects within 500 feet of residences, hospitals, or schools to use Tier 4 equipment for all engines above 50 horsepower (hp) unless the individual project can demonstrate that Tier 4 engines would not be required to mitigate emissions below significance thresholds.
r) Projects located within the South Coast Air Basin should consider applying for South Coast AQMD "SOON" funds which provides funds to applicable fleets for the purchase of commercially available low-emission heavy-duty engines to achieve near-term reduction of NOx emissions from in-use off-road diesel vehicles.
s) Projects located within AB 617 communities should review the applicable Community Emissions Reduction Plan (CERP) for additional mitigation that can be applied to individual projects.
t) Where applicable, projects should provide information about air quality related programs to schools, including the Environmental Justice Community Partnerships (EJCP), Clean Air Ranger Education (CARE), and Why Air Quality Matters programs.
u) Projects should work with local cities and counties to install adequate signage that prohibits truck idling in certain locations (e.g., near schools and sensitive receptors).
v) As applicable for airport projects, the following measures should be considered…
w) As applicable for port projects, the following measures should be considered: - Develop specific timelines for transitioning to zero emission cargo handling equipment (CHE) - Develop interim performance standards with a minimum amount of CHE replacement each year to ensure adequate progress. - Use short side electric power for ships, which may include tugboats and other ocean-going vessels or develop incentives to gradually ramp up the usage of shore power. - Install the appropriate infrastructure to provide shore power to operate the ships. Electrical hookups should be appropriately sized. - Maximize participation in the Port of Los Angeles' Vessel Speed Reduction Program or the Port of Long Beach's Green Flag Initiation Program in order to reduce the speed of vessel transiting within 40 nautical miles of Point Fermin. - Encourage the participation in the Green Ship Incentives. - Offer incentives to encourage the use of on-dock rail.
x) As applicable for rail projects, the following measures should be considered…
y) Projects that will introduce sensitive receptors within 500 feet of freeways and other sources should consider installing high efficiency of enhanced filtration units, such as Minimum Efficiency Reporting Value (MERV) 13 or better. Installation of enhanced filtration units can be verified during occupancy inspection prior to the issuance of an occupancy permit.
z) Develop an ongoing monitoring, inspection, and maintenance program for the MERV filters.
aa) Consult the SCAG Environmental Justice Toolbox for potential measures to address impacts to low-income and/or minority communities.
bb) The following criteria related to diesel emissions shall be implemented on by individual project sponsors as appropriate and feasible: - Diesel nonroad vehicles on site for more than 10 total days shall have either (1) engines that meet EPA on road emissions standards or (2) emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85% - Diesel generators on site for more than 10 total days shall be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%. - Nonroad diesel engines on site shall be Tier 2 or higher. - Diesel nonroad construction equipment on site for more than 10 total days shall have either (1) engines meeting EPA Tier 4 nonroad emissions standards or (2) emission control technology verified by EPA or CARB for use with nonroad engines to reduce PM emissions by a minimum of 85% for engines for 50 hp and greater and by a minimum of 20% for engines less than 50 hp.

- Emission control technology shall be operated, maintained, and serviced as recommended by the emission control technology manufacturer.
- Diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend approved by the original engine manufacturer with sulfur content of 15 ppm or less.
- The construction contractor shall maintain a list of all diesel vehicles, construction equipment, and generators to be used on site. The list shall include the following:
    i. Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment.
    ii. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation.
    iii. For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level, and installation date and hour-meter reading on installation date.
- The contractor shall establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on abutters, the general public, and especially sensitive receptors such as hospitals, schools, daycare facilities, elderly housing, and convalescent facilities.
- The contractor shall maintain a monthly report that, for each on road diesel vehicle, nonroad construction equipment, or generator onsite, includes:
    i. Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date.
    ii. Any problems with the equipment or emission controls.
    iii. Certified copies of fuel deliveries for the time period that identify:
        1. Source of supply
        2. Quantity of fuel
        3. Quantity of fuel, including sulfur content (percent by weight)

cc) Project should exceed Title-24 Building Envelope Energy Efficiency Standards (California Building Standards Code). The following measures can be used to increase energy efficiency:

- Provide pedestrian network improvements, such as interconnected street network, narrower roadways and shorter block lengths, sidewalks, accessibility to transit and transit shelters, traffic calming measures, parks and public spaces, minimize pedestrian barriers.
- Provide traffic calming measures, such as:
    i. Marked crosswalks
    ii. Count-down signal timers
    iii. Curb extensions iv. Speed tables
    iv. Raised crosswalks
    v. Raised intersections
    vi. Median islands
    vii. Tight corner radii
    viii. Roundabouts or mini-circles
    ix. On-street parking
    x. Chicanes/chokers
- Create urban non-motorized zones
- Provide bike parking in non-residential and multi-unit residential projects
- Dedicate land for bike trails
- Limit parking supply through:
    i. Elimination (or reduction) of minimum parking requirements
    ii. Creation of maximum parking requirements
    iii. Provision of shared parking
- Require residential area parking permit.
- Provide ride-sharing programs

i. Designate a certain percentage of parking spacing for ride sharing vehicles
ii. Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles
iii. Providing a web site or messaging board for coordinating rides
iv. Permanent transportation management association membership and finding requirement.

Greenhouse Gas Project Level Mitigation Measures – PMM-GHG-1

In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the *State CEQA Guidelines*, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the Lead Agency:

b) Reduce emissions resulting from projects through implementation of project features, project design, or other measures, such as those described in Appendix F of the State CEQA Guidelines.

c) Include off-site measures to mitigate a project's emissions.

d) Measures that consider incorporation of Best Available Control Technology (BACT) during design, construction and operation of projects to minimize GHG emissions, including but not limited to:

i. Use energy and fuel-efficient vehicles and equipment;
ii. Deployment of zero- and/or near zero emission technologies;
iii. Use lighting systems that are energy efficient, such as LED technology;
iv. Use the minimum feasible amount of GHG-emitting construction materials;
v. Use cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production;
vi. Incorporate design measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse;
vii. Incorporate design measures to reduce energy consumption and increase use of renewable energy;
viii. Incorporate design measures to reduce water consumption;
ix. Use lighter-colored pavement where feasible;
x. Recycle construction debris to maximum extent feasible;
xi. Plant shade trees in or near construction projects where feasible; and
xii. Solicit bids that include concepts listed above.

e) Measures that encourage transit use, carpooling, bike-share and car-share programs, active transportation, and parking strategies, including, but not limited to the following:

i. Promote transit-active transportation coordinated strategies;
ii. Increase bicycle carrying capacity on transit and rail vehicles;
iii. Improve or increase access to transit;
iv. Increase access to common goods and services, such as groceries, schools, and day care;
v. Incorporate affordable housing into the project;
vi. Incorporate the neighborhood electric vehicle network;
vii. Orient the project toward transit, bicycle and pedestrian facilities;
viii. Improve pedestrian or bicycle networks, or transit service;
ix. Provide traffic calming measures;
x. Provide bicycle parking;
xi. Limit or eliminate park supply;
xii. Unbundle parking costs;

xiii. Provide parking cash-out programs;

xiv. Implement or provide access to commute reduction program;

f) Incorporate bicycle and pedestrian facilities into project designs, maintaining these facilities, and providing amenities incentivizing their use; and planning for and building local bicycle projects that connect with the regional network;

g) Improving transit access to rail and bus routes by incentives for construction and transit facilities within developments, and/or providing dedicated shuttle service to transit stations; and

h) Adopting employer trip reduction measures to reduce employee trips such as vanpool and carpool programs, providing end-of-trip facilities, and telecommuting programs including but not limited to measures that:

i. Provide car-sharing, bike sharing, and ride-sharing programs;

ii. Provide transit passes;

iii. Shift single occupancy vehicle trips to carpooling or vanpooling, for example providing ride-matching services;

iv. Provide incentives or subsidies that increase that use of modes other than single-occupancy vehicle;

v. Provide on-site amenities at places of work, such as priority parking for carpools and vanpools, secure bike parking, and showers and locker rooms;

vi. Provide employee transportation coordinators at employment sites;

vii. Provide a guaranteed ride home service to users of non-auto modes.

i) Designate a percentage of parking spaces for ride-sharing vehicles or high-occupancy vehicles, and provide adequate passenger loading and unloading for those vehicles;

j) Land use siting and design measures that reduce GHG emissions, including:

i. Developing on infill and brownfields sites;

ii. Building compact and mixed-use developments near transit;

iii. Retaining on-site mature trees and vegetation, and planting new canopy trees;

iv. Measures that increase vehicle efficiency, encourage use of zero and low emissions vehicles, or reduce the carbon content of fuels, including constructing or encouraging construction of electric vehicle charging stations or neighborhood electric vehicle networks, or charging for electric bicycles; and

v. Measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse.

k) Consult the SCAG Environmental Justice Toolbox for potential measures to address impacts to low-income and/or minority communities. The measures provided above are also intended to be applied in low income and minority communities as applicable and feasible.

l) Require at least five percent of all vehicle parking spaces include electric vehicle charging stations, or at a minimum, require the appropriate infrastructure to facilitate sufficient electric charging for passenger vehicles and trucks to plug-in.

m) Encourage telecommuting and alternative work schedules, such as:

i. Staggered starting times

ii. Flexible schedules

iii. Compressed work weeks

n) Implement commute trip reduction marketing, such as:

i. New employee orientation of trip reduction and alternative mode options

ii. Event promotions

iii. Publications

o) Implement preferential parking permit program

p) Implement school pool and bus programs

q) Price workplace parking, such as:

i. Explicitly charging for parking for its employees;
ii. Implementing above market rate pricing;
iii. Validating parking only for invited guests;
iv. Not providing employee parking and transportation allowances; and
v. Educating employees about available alternatives.

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation. An EIR should be prepared to include all feasible mitigation measures, as well as include updated health risk and GHG analyses to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

Attachment A: CalEEMod Output Files
Attachment B: Health Risk Calculations
Attachment C: AERSCREEN Output Files
Attachment D: Matt Hagemann CV
Attachment E: Paul E. Rosenfeld CV

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Washington and Rosemead Mixed Use Project Operations Run

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	190.00	1000sqft	0.34	190,000.00	0
Other Asphalt Surfaces	45.00	1000sqft	1.03	45,000.00	0
Other Non-Asphalt Surfaces	21.00	1000sqft	0.48	21,000.00	0
High Turnover (Sit Down Restaurant)	2.87	1000sqft	0.00	2,865.00	0
Recreational Swimming Pool	17.50	1000sqft	0.00	17,500.00	0
Apartments Mid Rise	255.00	Dwelling Unit	0.99	260,220.00	729
Regional Shopping Center	2.87	1000sqft	0.00	2,865.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Pico Rivera Innovative Municipal Energy				
CO2 Intensity (lb/MWhr)	683.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the IS's model.

Land Use - Consistent with the IS's model.

Construction Phase - Consistent with the IS's model.

Vehicle Trips - Consistent with the IS's model.

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Annual

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Woodstoves - See SWAPE comment on "Unsubstantiated Reduction to Number of Gas Fireplaces"

Area Coating - Consistent with the IS's model.

Water And Wastewater - See SWAPE comments on "Unsubstantiated Reductions to Indoor and Outdoor Water Use Rates" and "Unsubstantiated Reductions to Wastewater System Treatment Percentages"

Solid Waste - See SWAPE comment on "Incorrect Solid Waste Generation Rates"

Fleet Mix - Consistent with the IS's model.

Water Mitigation - Consistent with the IS's model.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	2865	97865
tblAreaCoating	Area_Nonresidential_Interior	8595	293595
tblAreaCoating	Area_Parking	15360	11400
tblAreaCoating	Area_Residential_Exterior	175649	187461
tblAreaCoating	Area_Residential_Interior	526946	562383
tblFireplaces	NumberNoFireplace	25.50	38.25
tblFireplaces	NumberWood	12.75	0.00
tblLandUse	LandUseSquareFeet	2,870.00	2,865.00
tblLandUse	LandUseSquareFeet	255,000.00	260,220.00
tblLandUse	LandUseSquareFeet	2,870.00	2,865.00
tblLandUse	LotAcreage	4.36	0.34
tblLandUse	LotAcreage	0.07	0.00
tblLandUse	LotAcreage	0.40	0.00
tblLandUse	LotAcreage	6.71	0.99
tblLandUse	LotAcreage	0.07	0.00
tblSolidWaste	SolidWasteGenerationRate	117.30	279.19
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	HO_TL	8.70	10.08

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	HS_TL	5.90	10.08
tblVehicleTrips	HW_TL	14.70	10.08
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	ST_TR	4.91	4.57
tblVehicleTrips	ST_TR	122.40	110.47
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	46.12	39.27
tblVehicleTrips	SU_TR	4.09	4.57
tblVehicleTrips	SU_TR	142.64	110.47
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	21.10	39.27
tblVehicleTrips	WD_TR	5.44	4.57
tblVehicleTrips	WD_TR	112.18	110.47
tblVehicleTrips	WD_TR	28.82	0.00
tblVehicleTrips	WD_TR	37.75	39.27
tblWoodstoves	NumberCatalytic	12.75	0.00
tblWoodstoves	NumberNoncatalytic	12.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0173	0.1666	0.1444	2.5000e-004	1.4200e-003	8.3900e-003	9.8100e-003	3.8000e-004	7.8400e-003	8.2200e-003	0.0000	22.2569	22.2569	5.4000e-003	3.0000e-005	22.4015
Maximum	**0.0173**	**0.1666**	**0.1444**	**2.5000e-004**	**1.4200e-003**	**8.3900e-003**	**9.8100e-003**	**3.8000e-004**	**7.8400e-003**	**8.2200e-003**	**0.0000**	**22.2569**	**22.2569**	**5.4000e-003**	**3.0000e-005**	**22.4015**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0173	0.1666	0.1444	2.5000e-004	1.4200e-003	8.3900e-003	9.8100e-003	3.8000e-004	7.8400e-003	8.2200e-003	0.0000	22.2569	22.2569	5.4000e-003	3.0000e-005	22.4015
Maximum	**0.0173**	**0.1666**	**0.1444**	**2.5000e-004**	**1.4200e-003**	**8.3900e-003**	**9.8100e-003**	**3.8000e-004**	**7.8400e-003**	**8.2200e-003**	**0.0000**	**22.2569**	**22.2569**	**5.4000e-003**	**3.0000e-005**	**22.4015**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-1-2022	9-30-2022	0.1708	0.1708
		Highest	0.1708	0.1708

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2426	0.0753	2.6530	4.3000e-004		0.0182	0.0182		0.0182	0.0182	0.0000	56.3523	56.3523	5.1500e-003	9.5000e-004	56.7653
Energy	0.0216	0.1861	0.0927	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	888.5564	888.5564	0.0367	7.8600e-003	891.8152
Mobile	0.8917	1.0643	9.5543	0.0207	2.1340	0.0152	2.1492	0.5693	0.0141	0.5834	0.0000	1,931.7924	1,931.7924	0.1299	0.0830	1,959.7861
Waste						0.0000	0.0000		0.0000	0.0000	84.4645	0.0000	84.4645	4.9917	0.0000	209.2573
Water						0.0000	0.0000		0.0000	0.0000	5.9431	114.6070	120.5501	0.6159	0.0151	140.4436
Total	**2.1559**	**1.3257**	**12.3000**	**0.0223**	**2.1340**	**0.0483**	**2.1823**	**0.5693**	**0.0472**	**0.6165**	**90.4077**	**2,991.3080**	**3,081.7157**	**5.7794**	**0.1069**	**3,258.0674**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2426	0.0753	2.6530	4.3000e-004		0.0182	0.0182		0.0182	0.0182	0.0000	56.3523	56.3523	5.1500e-003	9.5000e-004	56.7653
Energy	0.0216	0.1861	0.0927	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	888.5564	888.5564	0.0367	7.8600e-003	891.8152
Mobile	0.8917	1.0643	9.5543	0.0207	2.1340	0.0152	2.1492	0.5693	0.0141	0.5834	0.0000	1,931.7924	1,931.7924	0.1299	0.0830	1,959.7861
Waste						0.0000	0.0000		0.0000	0.0000	84.4645	0.0000	84.4645	4.9917	0.0000	209.2573
Water						0.0000	0.0000		0.0000	0.0000	4.7545	97.0969	101.8514	0.4930	0.0121	117.7821
Total	**2.1559**	**1.3257**	**12.3000**	**0.0223**	**2.1340**	**0.0483**	**2.1823**	**0.5693**	**0.0472**	**0.6165**	**89.2190**	**2,973.7980**	**3,063.0170**	**5.6564**	**0.1040**	**3,235.4060**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.31**	**0.59**	**0.61**	**2.13**	**2.79**	**0.70**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2022	8/26/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 1.85

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0169	0.1662	0.1396	2.4000e-004		8.3800e-003	8.3800e-003		7.8300e-003	7.8300e-003	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2120
Total	**0.0169**	**0.1662**	**0.1396**	**2.4000e-004**		**8.3800e-003**	**8.3800e-003**		**7.8300e-003**	**7.8300e-003**	**0.0000**	**21.0777**	**21.0777**	**5.3700e-003**	**0.0000**	**21.2120**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.7000e-004	4.8300e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1792	1.1792	3.0000e-005	3.0000e-005	1.1896
Total	**4.5000e-004**	**3.7000e-004**	**4.8300e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1792**	**1.1792**	**3.0000e-005**	**3.0000e-005**	**1.1896**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0169	0.1662	0.1396	2.4000e-004		8.3800e-003	8.3800e-003		7.8300e-003	7.8300e-003	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2119
Total	**0.0169**	**0.1662**	**0.1396**	**2.4000e-004**		**8.3800e-003**	**8.3800e-003**		**7.8300e-003**	**7.8300e-003**	**0.0000**	**21.0777**	**21.0777**	**5.3700e-003**	**0.0000**	**21.2119**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.7000e-004	4.8300e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1792	1.1792	3.0000e-005	3.0000e-005	1.1896
Total	**4.5000e-004**	**3.7000e-004**	**4.8300e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1792**	**1.1792**	**3.0000e-005**	**3.0000e-005**	**1.1896**

4.0 Operational Detail - Mobile

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.8917	1.0643	9.5543	0.0207	2.1340	0.0152	2.1492	0.5693	0.0141	0.5834	0.0000	1,931.7924	1,931.7924	0.1299	0.0830	1,959.7861
Unmitigated	0.8917	1.0643	9.5543	0.0207	2.1340	0.0152	2.1492	0.5693	0.0141	0.5834	0.0000	1,931.7924	1,931.7924	0.1299	0.0830	1,959.7861

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,165.35	1,165.35	1165.35	4,275,809	4,275,809
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	317.05	317.05	317.05	1,016,956	1,016,956
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Regional Shopping Center	112.70	112.70	112.70	387,748	387,748
Total	1,595.10	1,595.10	1,595.10	5,680,513	5,680,513

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.08	10.08	10.08	40.20	19.20	40.60	100	0	0
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	100	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Enclosed Parking with Elevator	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
High Turnover (Sit Down Restaurant)	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Non-Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Recreational Swimming Pool	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Regional Shopping Center	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	675.2855	675.2855	0.0326	3.9500e-003	677.2769
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	675.2855	675.2855	0.0326	3.9500e-003	677.2769
NaturalGas Mitigated	0.0216	0.1861	0.0927	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.2709	213.2709	4.0900e-003	3.9100e-003	214.5383
NaturalGas Unmitigated	0.0216	0.1861	0.0927	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.2709	213.2709	4.0900e-003	3.9100e-003	214.5383

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.33198e+006	0.0180	0.1535	0.0653	9.8000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	177.8072	177.8072	3.4100e-003	3.2600e-003	178.8638
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	659895	3.5600e-003	0.0324	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003	0.0000	35.2145	35.2145	6.7000e-004	6.5000e-004	35.4238
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	4669.95	3.0000e-005	2.3000e-004	1.9000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2492	0.2492	0.0000	0.0000	0.2507
Total		**0.0216**	**0.1861**	**0.0927**	**1.1700e-003**		**0.0149**	**0.0149**		**0.0149**	**0.0149**	**0.0000**	**213.2709**	**213.2709**	**4.0800e-003**	**3.9100e-003**	**214.5383**

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.33198e+006	0.0180	0.1535	0.0653	9.8000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	177.8072	177.8072	3.4100e-003	3.2600e-003	178.8638
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	659895	3.5600e-003	0.0324	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003	0.0000	35.2145	35.2145	6.7000e-004	6.5000e-004	35.4238
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	4669.95	3.0000e-005	2.3000e-004	1.9000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2492	0.2492	0.0000	0.0000	0.2507
Total		**0.0216**	**0.1861**	**0.0927**	**1.1700e-003**		**0.0149**	**0.0149**		**0.0149**	**0.0149**	**0.0000**	**213.2709**	**213.2709**	**4.0800e-003**	**3.9100e-003**	**214.5383**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	981584	304.5347	0.0147	1.7800e-003	305.4327
Enclosed Parking with Elevator	1.0336e+006	320.6725	0.0155	1.8800e-003	321.6181
High Turnover (Sit Down Restaurant)	123969	38.4610	1.8600e-003	2.2000e-004	38.5744
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	37445.6	11.6174	5.6000e-004	7.0000e-005	11.6517
Total		**675.2855**	**0.0326**	**3.9500e-003**	**677.2769**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	981584	304.5347	0.0147	1.7800e-003	305.4327
Enclosed Parking with Elevator	1.0336e+006	320.6725	0.0155	1.8800e-003	321.6181
High Turnover (Sit Down Restaurant)	123969	38.4610	1.8600e-003	2.2000e-004	38.5744
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	37445.6	11.6174	5.6000e-004	7.0000e-005	11.6517
Total		**675.2855**	**0.0326**	**3.9500e-003**	**677.2769**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2426	0.0753	2.6530	4.3000e-004		0.0182	0.0182		0.0182	0.0182	0.0000	56.3523	56.3523	5.1500e-003	9.5000e-004	56.7653
Unmitigated	1.2426	0.0753	2.6530	4.3000e-004		0.0182	0.0182		0.0182	0.0182	0.0000	56.3523	56.3523	5.1500e-003	9.5000e-004	56.7653

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1803					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9776					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.2600e-003	0.0449	0.0191	2.9000e-004		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003	0.0000	52.0497	52.0497	1.0000e-003	9.5000e-004	52.3590
Landscaping	0.0796	0.0304	2.6339	1.4000e-004		0.0146	0.0146		0.0146	0.0146	0.0000	4.3025	4.3025	4.1500e-003	0.0000	4.4063
Total	**1.2426**	**0.0753**	**2.6530**	**4.3000e-004**		**0.0182**	**0.0182**		**0.0182**	**0.0182**	**0.0000**	**56.3523**	**56.3523**	**5.1500e-003**	**9.5000e-004**	**56.7653**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1803					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9776					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.2600e-003	0.0449	0.0191	2.9000e-004		3.6300e-003	3.6300e-003		3.6300e-003	3.6300e-003	0.0000	52.0497	52.0497	1.0000e-003	9.5000e-004	52.3590
Landscaping	0.0796	0.0304	2.6339	1.4000e-004		0.0146	0.0146		0.0146	0.0146	0.0000	4.3025	4.3025	4.1500e-003	0.0000	4.4063
Total	**1.2426**	**0.0753**	**2.6530**	**4.3000e-004**		**0.0182**	**0.0182**		**0.0182**	**0.0182**	**0.0000**	**56.3523**	**56.3523**	**5.1500e-003**	**9.5000e-004**	**56.7653**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	101.8514	0.4930	0.0121	117.7821
Unmitigated	120.5501	0.6159	0.0151	140.4436

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	16.6143 / 10.4742	108.4914	0.5464	0.0134	126.1396
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0.871142 / 0.0556048	3.9872	0.0286	6.9000e-004	4.9076
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	1.03501 / 0.634358	6.6961	0.0340	8.3000e-004	7.7953
Regional Shopping Center	0.212588 / 0.130296	1.3754	6.9900e-003	1.7000e-004	1.6011
Total		**120.5501**	**0.6160**	**0.0151**	**140.4436**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	13.2914 / 9.83529	91.8115	0.4373	0.0107	105.9448
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0.696913 / 0.0522129	3.2164	0.0229	5.5000e-004	3.9528
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.828004 / 0.595662	5.6608	0.0272	6.7000e-004	6.5411
Regional Shopping Center	0.170071 / 0.122348	1.1627	5.6000e-003	1.4000e-004	1.3435
Total		**101.8514**	**0.4930**	**0.0121**	**117.7821**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	84.4645	4.9917	0.0000	209.2573
Unmitigated	84.4645	4.9917	0.0000	209.2573

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	279.19	56.6731	3.3493	0.0000	140.4051
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	34.15	6.9321	0.4097	0.0000	17.1741
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	99.75	20.2484	1.1966	0.0000	50.1644
Regional Shopping Center	3.01	0.6110	0.0361	0.0000	1.5137
Total		**84.4645**	**4.9917**	**0.0000**	**209.2573**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	279.19	56.6731	3.3493	0.0000	140.4051
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	34.15	6.9321	0.4097	0.0000	17.1741
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	99.75	20.2484	1.1966	0.0000	50.1644
Regional Shopping Center	3.01	0.6110	0.0361	0.0000	1.5137
Total		**84.4645**	**4.9917**	**0.0000**	**209.2573**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Washington and Rosemead Mixed Use Project Operations Run

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	190.00	1000sqft	0.34	190,000.00	0
Other Asphalt Surfaces	45.00	1000sqft	1.03	45,000.00	0
Other Non-Asphalt Surfaces	21.00	1000sqft	0.48	21,000.00	0
High Turnover (Sit Down Restaurant)	2.87	1000sqft	0.00	2,865.00	0
Recreational Swimming Pool	17.50	1000sqft	0.00	17,500.00	0
Apartments Mid Rise	255.00	Dwelling Unit	0.99	260,220.00	729
Regional Shopping Center	2.87	1000sqft	0.00	2,865.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Pico Rivera Innovative Municipal Energy				
CO2 Intensity (lb/MWhr)	683.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the IS's model.

Land Use - Consistent with the IS's model.

Construction Phase - Consistent with the IS's model.

Vehicle Trips - Consistent with the IS's model.

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Woodstoves - See SWAPE comment on "Unsubstantiated Reduction to Number of Gas Fireplaces"

Area Coating - Consistent with the IS's model.

Water And Wastewater - See SWAPE comments on "Unsubstantiated Reductions to Indoor and Outdoor Water Use Rates" and "Unsubstantiated Reductions to Wastewater System Treatment Percentages"

Solid Waste - See SWAPE comment on "Incorrect Solid Waste Generation Rates"

Fleet Mix - Consistent with the IS's model.

Water Mitigation - Consistent with the IS's model.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	2865	97865
tblAreaCoating	Area_Nonresidential_Interior	8595	293595
tblAreaCoating	Area_Parking	15360	11400
tblAreaCoating	Area_Residential_Exterior	175649	187461
tblAreaCoating	Area_Residential_Interior	526946	562383
tblFireplaces	NumberNoFireplace	25.50	38.25
tblFireplaces	NumberWood	12.75	0.00
tblLandUse	LandUseSquareFeet	2,870.00	2,865.00
tblLandUse	LandUseSquareFeet	255,000.00	260,220.00
tblLandUse	LandUseSquareFeet	2,870.00	2,865.00
tblLandUse	LotAcreage	4.36	0.34
tblLandUse	LotAcreage	0.07	0.00
tblLandUse	LotAcreage	0.40	0.00
tblLandUse	LotAcreage	6.71	0.99
tblLandUse	LotAcreage	0.07	0.00
tblSolidWaste	SolidWasteGenerationRate	117.30	279.19
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	HO_TL	8.70	10.08

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	HS_TL	5.90	10.08
tblVehicleTrips	HW_TL	14.70	10.08
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	ST_TR	4.91	4.57
tblVehicleTrips	ST_TR	122.40	110.47
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	46.12	39.27
tblVehicleTrips	SU_TR	4.09	4.57
tblVehicleTrips	SU_TR	142.64	110.47
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	21.10	39.27
tblVehicleTrips	WD_TR	5.44	4.57
tblVehicleTrips	WD_TR	112.18	110.47
tblVehicleTrips	WD_TR	28.82	0.00
tblVehicleTrips	WD_TR	37.75	39.27
tblWoodstoves	NumberCatalytic	12.75	0.00
tblWoodstoves	NumberNoncatalytic	12.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.7339	16.6546	14.4729	0.0255	0.1453	0.8388	0.9841	0.0385	0.7837	0.8223	0.0000	2,458.6334	2,458.6334	0.5958	3.2500e-003	2,474.4965
Maximum	**1.7339**	**16.6546**	**14.4729**	**0.0255**	**0.1453**	**0.8388**	**0.9841**	**0.0385**	**0.7837**	**0.8223**	**0.0000**	**2,458.6334**	**2,458.6334**	**0.5958**	**3.2500e-003**	**2,474.4965**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.7339	16.6546	14.4729	0.0255	0.1453	0.8388	0.9841	0.0385	0.7837	0.8223	0.0000	2,458.6334	2,458.6334	0.5958	3.2500e-003	2,474.4965
Maximum	**1.7339**	**16.6546**	**14.4729**	**0.0255**	**0.1453**	**0.8388**	**0.9841**	**0.0385**	**0.7837**	**0.8223**	**0.0000**	**2,458.6334**	**2,458.6334**	**0.5958**	**3.2500e-003**	**2,474.4965**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.4015	3.8383	22.6010	0.0241		0.4073	0.4073		0.4073	0.4073	0.0000	4,627.9420	4,627.9420	0.1246	0.0842	4,656.1327
Energy	0.1181	1.0198	0.5079	6.4400e-003		0.0816	0.0816		0.0816	0.0816		1,288.1695	1,288.1695	0.0247	0.0236	1,295.8244
Mobile	5.0659	5.3318	53.3654	0.1174	11.9584	0.0836	12.0420	3.1852	0.0776	3.2628		12,093.0495	12,093.0495	0.7697	0.4782	12,254.7808
Total	**12.5855**	**10.1899**	**76.4744**	**0.1479**	**11.9584**	**0.5724**	**12.5308**	**3.1852**	**0.5664**	**3.7516**	**0.0000**	**18,009.1610**	**18,009.1610**	**0.9190**	**0.5859**	**18,206.7379**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.4015	3.8383	22.6010	0.0241		0.4073	0.4073		0.4073	0.4073	0.0000	4,627.9420	4,627.9420	0.1246	0.0842	4,656.1327
Energy	0.1181	1.0198	0.5079	6.4400e-003		0.0816	0.0816		0.0816	0.0816		1,288.1695	1,288.1695	0.0247	0.0236	1,295.8244
Mobile	5.0659	5.3318	53.3654	0.1174	11.9584	0.0836	12.0420	3.1852	0.0776	3.2628		12,093.0495	12,093.0495	0.7697	0.4782	12,254.7808
Total	**12.5855**	**10.1899**	**76.4744**	**0.1479**	**11.9584**	**0.5724**	**12.5308**	**3.1852**	**0.5664**	**3.7516**	**0.0000**	**18,009.1610**	**18,009.1610**	**0.9190**	**0.5859**	**18,206.7379**

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2022	8/26/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.85

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0450	0.0329	0.5124	1.3300e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		135.2165	135.2165	3.6600e-003	3.2500e-003	136.2774
Total	**0.0450**	**0.0329**	**0.5124**	**1.3300e-003**	**0.1453**	**9.3000e-004**	**0.1462**	**0.0385**	**8.6000e-004**	**0.0394**		**135.2165**	**135.2165**	**3.6600e-003**	**3.2500e-003**	**136.2774**

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0450	0.0329	0.5124	1.3300e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		135.2165	135.2165	3.6600e-003	3.2500e-003	136.2774
Total	**0.0450**	**0.0329**	**0.5124**	**1.3300e-003**	**0.1453**	**9.3000e-004**	**0.1462**	**0.0385**	**8.6000e-004**	**0.0394**		**135.2165**	**135.2165**	**3.6600e-003**	**3.2500e-003**	**136.2774**

4.0 Operational Detail - Mobile

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.0659	5.3318	53.3654	0.1174	11.9584	0.0836	12.0420	3.1852	0.0776	3.2628		12,093.0495	12,093.0495	0.7697	0.4782	12,254.7808
Unmitigated	5.0659	5.3318	53.3654	0.1174	11.9584	0.0836	12.0420	3.1852	0.0776	3.2628		12,093.0495	12,093.0495	0.7697	0.4782	12,254.7808

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,165.35	1,165.35	1165.35	4,275,809	4,275,809
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	317.05	317.05	317.05	1,016,956	1,016,956
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Regional Shopping Center	112.70	112.70	112.70	387,748	387,748
Total	1,595.10	1,595.10	1,595.10	5,680,513	5,680,513

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.08	10.08	10.08	40.20	19.20	40.60	100	0	0
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	100	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Enclosed Parking with Elevator	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
High Turnover (Sit Down Restaurant)	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Non-Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Recreational Swimming Pool	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Regional Shopping Center	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1181	1.0198	0.5079	6.4400e-003		0.0816	0.0816		0.0816	0.0816		1,288.1695	1,288.1695	0.0247	0.0236	1,295.8244
NaturalGas Unmitigated	0.1181	1.0198	0.5079	6.4400e-003		0.0816	0.0816		0.0816	0.0816		1,288.1695	1,288.1695	0.0247	0.0236	1,295.8244

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9128.71	0.0985	0.8413	0.3580	5.3700e-003		0.0680	0.0680		0.0680	0.0680		1,073.9663	1,073.9663	0.0206	0.0197	1,080.3484
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	1807.93	0.0195	0.1773	0.1489	1.0600e-003		0.0135	0.0135		0.0135	0.0135		212.6980	212.6980	4.0800e-003	3.9000e-003	213.9619
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	12.7944	1.4000e-004	1.2500e-003	1.0500e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5052	1.5052	3.0000e-005	3.0000e-005	1.5142
Total		**0.1181**	**1.0198**	**0.5079**	**6.4400e-003**		**0.0816**	**0.0816**		**0.0816**	**0.0816**		**1,288.1695**	**1,288.1695**	**0.0247**	**0.0236**	**1,295.8245**

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9.12871	0.0985	0.8413	0.3580	5.3700e-003		0.0680	0.0680		0.0680	0.0680		1,073.9663	1,073.9663	0.0206	0.0197	1,080.3484
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	1.80793	0.0195	0.1773	0.1489	1.0600e-003		0.0135	0.0135		0.0135	0.0135		212.6980	212.6980	4.0800e-003	3.9000e-003	213.9619
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.0127944	1.4000e-004	1.2500e-003	1.0500e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5052	1.5052	3.0000e-005	3.0000e-005	1.5142
Total		**0.1181**	**1.0198**	**0.5079**	**6.4400e-003**		**0.0816**	**0.0816**		**0.0816**	**0.0816**		**1,288.1695**	**1,288.1695**	**0.0247**	**0.0236**	**1,295.8245**

6.0 Area Detail

6.1 Mitigation Measures Area

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.4015	3.8383	22.6010	0.0241		0.4073	0.4073		0.4073	0.4073	0.0000	4,627.9420	4,627.9420	0.1246	0.0842	4,656.1327
Unmitigated	7.4015	3.8383	22.6010	0.0241		0.4073	0.4073		0.4073	0.4073	0.0000	4,627.9420	4,627.9420	0.1246	0.0842	4,656.1327

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3565					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4208	3.5955	1.5300	0.0230		0.2907	0.2907		0.2907	0.2907	0.0000	4,590.0000	4,590.0000	0.0880	0.0842	4,617.2761
Landscaping	0.6366	0.2428	21.0710	1.1100e-003		0.1166	0.1166		0.1166	0.1166		37.9420	37.9420	0.0366		38.8566
Total	**7.4015**	**3.8383**	**22.6010**	**0.0241**		**0.4073**	**0.4073**		**0.4073**	**0.4073**	**0.0000**	**4,627.9420**	**4,627.9420**	**0.1246**	**0.0842**	**4,656.1327**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3565					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4208	3.5955	1.5300	0.0230		0.2907	0.2907		0.2907	0.2907	0.0000	4,590.0000	4,590.0000	0.0880	0.0842	4,617.2761
Landscaping	0.6366	0.2428	21.0710	1.1100e-003		0.1166	0.1166		0.1166	0.1166		37.9420	37.9420	0.0366		38.8566
Total	**7.4015**	**3.8383**	**22.6010**	**0.0241**		**0.4073**	**0.4073**		**0.4073**	**0.4073**	**0.0000**	**4,627.9420**	**4,627.9420**	**0.1246**	**0.0842**	**4,656.1327**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Washington and Rosemead Mixed Use Project Operations Run

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	190.00	1000sqft	0.34	190,000.00	0
Other Asphalt Surfaces	45.00	1000sqft	1.03	45,000.00	0
Other Non-Asphalt Surfaces	21.00	1000sqft	0.48	21,000.00	0
High Turnover (Sit Down Restaurant)	2.87	1000sqft	0.00	2,865.00	0
Recreational Swimming Pool	17.50	1000sqft	0.00	17,500.00	0
Apartments Mid Rise	255.00	Dwelling Unit	0.99	260,220.00	729
Regional Shopping Center	2.87	1000sqft	0.00	2,865.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Pico Rivera Innovative Municipal Energy				
CO2 Intensity (lb/MWhr)	683.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the IS's model.

Land Use - Consistent with the IS's model.

Construction Phase - Consistent with the IS's model.

Vehicle Trips - Consistent with the IS's model.

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Woodstoves - See SWAPE comment on "Unsubstantiated Reduction to Number of Gas Fireplaces"

Area Coating - Consistent with the IS's model.

Water And Wastewater - See SWAPE comments on "Unsubstantiated Reductions to Indoor and Outdoor Water Use Rates" and "Unsubstantiated Reductions to Wastewater System Treatment Percentages"

Solid Waste - See SWAPE comment on "Incorrect Solid Waste Generation Rates"

Fleet Mix - Consistent with the IS's model.

Water Mitigation - Consistent with the IS's model.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	2865	97865
tblAreaCoating	Area_Nonresidential_Interior	8595	293595
tblAreaCoating	Area_Parking	15360	11400
tblAreaCoating	Area_Residential_Exterior	175649	187461
tblAreaCoating	Area_Residential_Interior	526946	562383
tblFireplaces	NumberNoFireplace	25.50	38.25
tblFireplaces	NumberWood	12.75	0.00
tblLandUse	LandUseSquareFeet	2,870.00	2,865.00
tblLandUse	LandUseSquareFeet	255,000.00	260,220.00
tblLandUse	LandUseSquareFeet	2,870.00	2,865.00
tblLandUse	LotAcreage	4.36	0.34
tblLandUse	LotAcreage	0.07	0.00
tblLandUse	LotAcreage	0.40	0.00
tblLandUse	LotAcreage	6.71	0.99
tblLandUse	LotAcreage	0.07	0.00
tblSolidWaste	SolidWasteGenerationRate	117.30	279.19
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	HO_TL	8.70	10.08

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	HS_TL	5.90	10.08
tblVehicleTrips	HW_TL	14.70	10.08
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	ST_TR	4.91	4.57
tblVehicleTrips	ST_TR	122.40	110.47
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	46.12	39.27
tblVehicleTrips	SU_TR	4.09	4.57
tblVehicleTrips	SU_TR	142.64	110.47
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	21.10	39.27
tblVehicleTrips	WD_TR	5.44	4.57
tblVehicleTrips	WD_TR	112.18	110.47
tblVehicleTrips	WD_TR	28.82	0.00
tblVehicleTrips	WD_TR	37.75	39.27
tblWoodstoves	NumberCatalytic	12.75	0.00
tblWoodstoves	NumberNoncatalytic	12.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.7371	16.6580	14.4309	0.0254	0.1453	0.8388	0.9841	0.0385	0.7837	0.8223	0.0000	2,451.4842	2,451.4842	0.5958	3.4800e-003	2,467.4148
Maximum	**1.7371**	**16.6580**	**14.4309**	**0.0254**	**0.1453**	**0.8388**	**0.9841**	**0.0385**	**0.7837**	**0.8223**	**0.0000**	**2,451.4842**	**2,451.4842**	**0.5958**	**3.4800e-003**	**2,467.4148**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.7371	16.6580	14.4309	0.0254	0.1453	0.8388	0.9841	0.0385	0.7837	0.8223	0.0000	2,451.4842	2,451.4842	0.5958	3.4800e-003	2,467.4148
Maximum	**1.7371**	**16.6580**	**14.4309**	**0.0254**	**0.1453**	**0.8388**	**0.9841**	**0.0385**	**0.7837**	**0.8223**	**0.0000**	**2,451.4842**	**2,451.4842**	**0.5958**	**3.4800e-003**	**2,467.4148**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.4015	3.8383	22.6010	0.0241		0.4073	0.4073		0.4073	0.4073	0.0000	4,627.9420	4,627.9420	0.1246	0.0842	4,656.1327
Energy	0.1181	1.0198	0.5079	6.4400e-003		0.0816	0.0816		0.0816	0.0816		1,288.1695	1,288.1695	0.0247	0.0236	1,295.8244
Mobile	4.9805	5.7619	51.9745	0.1124	11.9584	0.0836	12.0420	3.1852	0.0776	3.2628		11,575.4487	11,575.4487	0.7904	0.4996	11,744.0977
Total	**12.5001**	**10.6200**	**75.0835**	**0.1429**	**11.9584**	**0.5725**	**12.5309**	**3.1852**	**0.5665**	**3.7517**	**0.0000**	**17,491.5601**	**17,491.5601**	**0.9396**	**0.6074**	**17,696.0548**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.4015	3.8383	22.6010	0.0241		0.4073	0.4073		0.4073	0.4073	0.0000	4,627.9420	4,627.9420	0.1246	0.0842	4,656.1327
Energy	0.1181	1.0198	0.5079	6.4400e-003		0.0816	0.0816		0.0816	0.0816		1,288.1695	1,288.1695	0.0247	0.0236	1,295.8244
Mobile	4.9805	5.7619	51.9745	0.1124	11.9584	0.0836	12.0420	3.1852	0.0776	3.2628		11,575.4487	11,575.4487	0.7904	0.4996	11,744.0977
Total	**12.5001**	**10.6200**	**75.0835**	**0.1429**	**11.9584**	**0.5725**	**12.5309**	**3.1852**	**0.5665**	**3.7517**	**0.0000**	**17,491.5601**	**17,491.5601**	**0.9396**	**0.6074**	**17,696.0548**

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2022	8/26/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.85

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0482	0.0363	0.4704	1.2600e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		128.0673	128.0673	3.7000e-003	3.4800e-003	129.1958
Total	**0.0482**	**0.0363**	**0.4704**	**1.2600e-003**	**0.1453**	**9.3000e-004**	**0.1462**	**0.0385**	**8.6000e-004**	**0.0394**		**128.0673**	**128.0673**	**3.7000e-003**	**3.4800e-003**	**129.1958**

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0482	0.0363	0.4704	1.2600e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		128.0673	128.0673	3.7000e-003	3.4800e-003	129.1958
Total	**0.0482**	**0.0363**	**0.4704**	**1.2600e-003**	**0.1453**	**9.3000e-004**	**0.1462**	**0.0385**	**8.6000e-004**	**0.0394**		**128.0673**	**128.0673**	**3.7000e-003**	**3.4800e-003**	**129.1958**

4.0 Operational Detail - Mobile

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.9805	5.7619	51.9745	0.1124	11.9584	0.0836	12.0420	3.1852	0.0776	3.2628		11,575.4487	11,575.4487	0.7904	0.4996	11,744.0977
Unmitigated	4.9805	5.7619	51.9745	0.1124	11.9584	0.0836	12.0420	3.1852	0.0776	3.2628		11,575.4487	11,575.4487	0.7904	0.4996	11,744.0977

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,165.35	1,165.35	1165.35	4,275,809	4,275,809
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	317.05	317.05	317.05	1,016,956	1,016,956
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Regional Shopping Center	112.70	112.70	112.70	387,748	387,748
Total	1,595.10	1,595.10	1,595.10	5,680,513	5,680,513

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.08	10.08	10.08	40.20	19.20	40.60	100	0	0
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	100	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Enclosed Parking with Elevator	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
High Turnover (Sit Down Restaurant)	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Non-Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Recreational Swimming Pool	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Regional Shopping Center	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1181	1.0198	0.5079	6.4400e-003		0.0816	0.0816		0.0816	0.0816		1,288.1695	1,288.1695	0.0247	0.0236	1,295.8244
NaturalGas Unmitigated	0.1181	1.0198	0.5079	6.4400e-003		0.0816	0.0816		0.0816	0.0816		1,288.1695	1,288.1695	0.0247	0.0236	1,295.8244

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9128.71	0.0985	0.8413	0.3580	5.3700e-003		0.0680	0.0680		0.0680	0.0680		1,073.9663	1,073.9663	0.0206	0.0197	1,080.3484
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	1807.93	0.0195	0.1773	0.1489	1.0600e-003		0.0135	0.0135		0.0135	0.0135		212.6980	212.6980	4.0800e-003	3.9000e-003	213.9619
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	12.7944	1.4000e-004	1.2500e-003	1.0500e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5052	1.5052	3.0000e-005	3.0000e-005	1.5142
Total		**0.1181**	**1.0198**	**0.5079**	**6.4400e-003**		**0.0816**	**0.0816**		**0.0816**	**0.0816**		**1,288.1695**	**1,288.1695**	**0.0247**	**0.0236**	**1,295.8245**

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9.12871	0.0985	0.8413	0.3580	5.3700e-003		0.0680	0.0680		0.0680	0.0680		1,073.9663	1,073.9663	0.0206	0.0197	1,080.3484
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	1.80793	0.0195	0.1773	0.1489	1.0600e-003		0.0135	0.0135		0.0135	0.0135		212.6980	212.6980	4.0800e-003	3.9000e-003	213.9619
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.0127944	1.4000e-004	1.2500e-003	1.0500e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5052	1.5052	3.0000e-005	3.0000e-005	1.5142
Total		**0.1181**	**1.0198**	**0.5079**	**6.4400e-003**		**0.0816**	**0.0816**		**0.0816**	**0.0816**		**1,288.1695**	**1,288.1695**	**0.0247**	**0.0236**	**1,295.8245**

6.0 Area Detail

6.1 Mitigation Measures Area

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.4015	3.8383	22.6010	0.0241		0.4073	0.4073		0.4073	0.4073	0.0000	4,627.9420	4,627.9420	0.1246	0.0842	4,656.1327
Unmitigated	7.4015	3.8383	22.6010	0.0241		0.4073	0.4073		0.4073	0.4073	0.0000	4,627.9420	4,627.9420	0.1246	0.0842	4,656.1327

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3565					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4208	3.5955	1.5300	0.0230		0.2907	0.2907		0.2907	0.2907	0.0000	4,590.0000	4,590.0000	0.0880	0.0842	4,617.2761
Landscaping	0.6366	0.2428	21.0710	1.1100e-003		0.1166	0.1166		0.1166	0.1166		37.9420	37.9420	0.0366		38.8566
Total	**7.4015**	**3.8383**	**22.6010**	**0.0241**		**0.4073**	**0.4073**		**0.4073**	**0.4073**	**0.0000**	**4,627.9420**	**4,627.9420**	**0.1246**	**0.0842**	**4,656.1327**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3565					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4208	3.5955	1.5300	0.0230		0.2907	0.2907		0.2907	0.2907	0.0000	4,590.0000	4,590.0000	0.0880	0.0842	4,617.2761
Landscaping	0.6366	0.2428	21.0710	1.1100e-003		0.1166	0.1166		0.1166	0.1166		37.9420	37.9420	0.0366		38.8566
Total	**7.4015**	**3.8383**	**22.6010**	**0.0241**		**0.4073**	**0.4073**		**0.4073**	**0.4073**	**0.0000**	**4,627.9420**	**4,627.9420**	**0.1246**	**0.0842**	**4,656.1327**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Construction			Total	
2022				
Annual Emissions (tons/year)	0.1084		Total DPM (lbs)	361.3808219
Daily Emissions (lbs/day)	0.593972603		Total DPM (g)	163922.3408
Construction Duration (days)	365		Emission Rate (g/s)	0.002714234
Total DPM (lbs)	216.8		Release Height (meters)	3
Total DPM (g)	98340.48		Total Acreage	2.85
Start Date	1/1/2022		Max Horizontal (meters)	151.88
End Date	1/1/2023		Min Horizontal (meters)	75.94
Construction Days	365		Initial Vertical Dimension (meters)	1.5
2023			Setting	Urban
Annual Emissions (tons/year)	0.079		Population	60,764
Daily Emissions (lbs/day)	0.432876712		Start Date	1/1/2022
Construction Duration (days)	334		End Date	12/1/2023
Total DPM (lbs)	144.5808219		Total Construction Days	699
Total DPM (g)	65581.86082		Total Years of Construction	1.92
Start Date	1/1/2023		Total Years of Operation	28.08
End Date	12/1/2023			
Construction Days	334			

Operation	
Emission Rate	
Annual Emissions (tons/year)	0.0433
Daily Emissions (lbs/day)	0.237260274
Total DPM (lbs)	86.6
Emission Rate (g/s)	0.001245616
Release Height (meters)	3
Total Acreage	2.85
Max Horizontal (meters)	151.88
Min Horizontal (meters)	75.94
Initial Vertical Dimension (meters)	1.5
Setting	Urban
Population	60,764

Start date and time 08/15/22 10:36:22

AERSCREEN 21112

The Mercury - Construction

The Mercury - Construction

---------- DATA ENTRY VALIDATION ----------

	METRIC	ENGLISH
** AREADATA **	---	---
Emission Rate:	0.271E-02 g/s	0.215E-01 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	151.88 meters	498.29 feet
Area Source Width:	75.94 meters	249.15 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	60764	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u*): not adjusted

DEBUG OPTION ON

AERSCREEN output file:

2022.08.15_TheMercury_AERSCREEN_Construction.out

*** AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

****

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR started 08/15/22 10:38:22

****

Running AERMOD

Processing Winter

Processing surface roughness sector 1

```
**************************************************

Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************

Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   5

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  10

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
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**************************************************

Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

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```
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  30

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 *****************************************

  Running AERMOD

 Processing Spring

Processing surface roughness sector  1

**************************************************

Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   5
```

```
    ********   WARNING MESSAGES    ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  10


    ********   WARNING MESSAGES    ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  15


    ********   WARNING MESSAGES    ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  20
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  25


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   7


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  30


    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 ******************************************


  Running AERMOD

 Processing Summer


Processing surface roughness sector  1
```

```
**************************************************

Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************

Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   5

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  10

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
```

```
Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  15

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  20

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  25

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   7
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  30


    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 ******************************************


  Running AERMOD

 Processing Autumn


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   5
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  10


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  15


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  20


    ********   WARNING MESSAGES   ********
```

```
               ***  NONE  ***

**************************************************
Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  25

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  30

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

FLOWSECTOR   ended 08/15/22 10:38:31

REFINE       started 08/15/22 10:38:31

 AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0

    ********   WARNING MESSAGES   ********
```

*** NONE ***

REFINE ended 08/15/22 10:38:32

****

AERSCREEN Finished Successfully

With no errors or warnings

Check log file for details

****

Ending date and time 08/15/22 10:38:34

Concentration	Distance	Elevation	Diag	Season/Month	Zo sector	Date	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	HT	REF TA	HT
0.53161E+01	1.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.60200E+01	25.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.65775E+01	50.00	0.00	5.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.70928E+01	75.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
* 0.71229E+01	77.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.50629E+01	100.00	0.00	20.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.36003E+01	125.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.28335E+01	150.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.23097E+01	175.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.19323E+01	200.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.16505E+01	225.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.14334E+01	250.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.12614E+01	275.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.11220E+01	300.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.10078E+01	325.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.91146E+00	350.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.83066E+00	375.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.76188E+00	400.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.70169E+00	425.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.64935E+00	450.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.60364E+00	475.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.56341E+00	500.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.52728E+00	525.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.49509E+00	550.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.46625E+00	575.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.44013E+00	600.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.41643E+00 625.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.39491E+00 650.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.37525E+00 675.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.35707E+00 700.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.34038E+00 725.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.32503E+00 750.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.31086E+00 775.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.29772E+00 800.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.28554E+00 825.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.27421E+00 850.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.26365E+00 875.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.25379E+00 900.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.24451E+00 925.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.23580E+00 950.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.22763E+00 975.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.21992E+00 1000.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.21262E+00 1025.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.20573E+00 1050.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.19923E+00 1075.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.19308E+00 1100.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.18726E+00 1125.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.18173E+00 1150.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.17649E+00 1175.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.17150E+00 1200.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.16675E+00 1225.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.16222E+00 1250.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.15791E+00 1275.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.15379E+00 1300.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.14986E+00 1325.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.14610E+00 1350.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.14250E+00 1375.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.13905E+00 1400.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.13678E+00 1425.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.13355E+00 1450.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.13046E+00 1475.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.12749E+00 1500.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.12463E+00 1525.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.12188E+00 1550.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.11924E+00 1575.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.11669E+00 1600.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.11423E+00 1625.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.11187E+00 1650.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.10959E+00 1675.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.10738E+00 1700.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.10526E+00 1725.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.10320E+00 1750.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.10121E+00 1775.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.99294E-01 1800.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.97435E-01 1825.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.95635E-01 1850.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.93892E-01 1875.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.92204E-01 1900.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.90567E-01 1924.99 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.88980E-01 1950.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.87440E-01 1975.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.85946E-01 2000.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.84496E-01 2025.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.83088E-01 2050.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.81720E-01 2075.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.80390E-01 2100.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.79098E-01 2125.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.77840E-01 2150.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.76618E-01 2175.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.75428E-01 2200.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.74270E-01 2224.99 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.73142E-01 2250.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.72043E-01 2275.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.70973E-01 2300.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.69930E-01 2325.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.68913E-01 2350.00 0.00 25.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.67922E-01 2375.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.66955E-01 2400.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.66012E-01 2425.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.65091E-01 2449.99 0.00 25.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.64192E-01 2475.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.63315E-01 2500.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.62458E-01 2525.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.61621E-01 2550.00 0.00 30.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.60804E-01 2575.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.60005E-01 2600.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.59224E-01 2625.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.58460E-01 2650.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.57714E-01 2675.00 0.00 25.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.56983E-01 2700.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.56269E-01 2725.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.55570E-01 2750.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.54886E-01 2775.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.54216E-01 2800.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.53560E-01 2825.00 0.00 30.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.52918E-01 2850.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.52289E-01 2875.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.51673E-01 2900.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.51070E-01 2925.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.50478E-01 2950.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.49899E-01 2975.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.49330E-01 3000.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.48773E-01 3025.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.48227E-01 3050.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.47691E-01 3075.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.47166E-01 3100.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.46650E-01 3125.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.46144E-01 3150.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.45647E-01 3174.99 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.45160E-01 3200.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.44682E-01 3225.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.44212E-01 3250.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.43751E-01 3275.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.43298E-01 3300.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.42853E-01 3325.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.42416E-01 3350.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.41987E-01 3375.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.41565E-01 3400.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.41150E-01 3425.00 0.00 25.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.40743E-01 3450.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.40342E-01 3475.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.39949E-01 3500.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.39561E-01 3525.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.39181E-01 3550.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.38806E-01 3575.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.38438E-01 3600.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.38076E-01 3625.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.37719E-01 3650.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.37369E-01 3675.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.37024E-01 3700.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.36684E-01 3724.99 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.36350E-01 3750.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.36021E-01 3775.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.35697E-01 3800.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.35378E-01 3825.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.35064E-01 3849.99 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.34755E-01 3875.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.34451E-01 3900.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.34151E-01 3925.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.33856E-01 3950.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.33565E-01 3975.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.33278E-01 4000.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.32996E-01 4025.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.32717E-01 4050.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.32443E-01 4075.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.32173E-01 4100.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.31906E-01 4125.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.31644E-01 4149.99 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.31385E-01 4175.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.31129E-01 4200.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.30878E-01 4225.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.30630E-01 4250.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.30385E-01 4275.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.30143E-01 4300.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.29905E-01 4325.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.29670E-01 4350.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.29439E-01 4375.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.29210E-01 4400.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.28985E-01 4425.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.28762E-01 4450.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.28543E-01 4475.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.28326E-01 4500.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.28112E-01 4525.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.27901E-01 4550.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.27693E-01 4575.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.27487E-01 4600.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.27284E-01 4625.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.27084E-01 4650.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.26886E-01 4675.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.26690E-01 4700.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.26497E-01 4725.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.26307E-01 4750.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.26119E-01 4775.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.25933E-01 4800.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.25749E-01 4825.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.25568E-01 4850.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.25389E-01 4875.00 0.00 25.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.25212E-01 4900.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.25037E-01 4925.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.24864E-01 4950.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.24693E-01 4975.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.24525E-01 5000.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0

Start date and time 08/15/22 13:16:56

AERSCREEN 21112

The Mercury - Operations

---------- DATA ENTRY VALIDATION ----------

	METRIC	ENGLISH
** AREADATA **	---	---
Emission Rate:	0.125E-02 g/s	0.989E-02 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	151.88 meters	498.29 feet
Area Source Width:	75.94 meters	249.15 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	60764	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

```
 Dominant Surface Profile: Urban
 Dominant Climate Type:    Average Moisture

 Surface friction velocity (u*): not adjusted

DEBUG OPTION ON



 AERSCREEN output file:
 2022.08.15_TheMercury_AERSCREEN_Operations.out


 *** AERSCREEN Run is Ready to Begin



 No terrain used, AERMAP will not be run
************************************************

SURFACE CHARACTERISTICS & MAKEMET
Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture
```

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR started 08/15/22 13:17:52

****

Running AERMOD

Processing Winter

Processing surface roughness sector 1

****

```
Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   5

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  10

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   4
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
Processing wind flow sector   7
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  30

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 ******************************************

  Running AERMOD

 Processing Spring

Processing surface roughness sector  1

**************************************************

Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   5

    ********   WARNING MESSAGES   ********
```

*** NONE ***

****

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 10

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 15

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 20

******** WARNING MESSAGES ********

*** NONE ***

```
**************************************************

Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  25

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************

Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  30

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
 ****************************************

  Running AERMOD
 Processing Summer

Processing surface roughness sector  1

**************************************************

Processing wind flow sector   1
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   5

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   4
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  30
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 ******************************************

  Running AERMOD

 Processing Autumn


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   5


    ********   WARNING MESSAGES   ********

               ***  NONE  ***
```

```
**************************************************
Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  10

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  15

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  20

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

```
**************************************************
Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  25

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  30

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

FLOWSECTOR   ended 08/15/22 13:18:00

REFINE       started 08/15/22 13:18:00

 AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

```
REFINE       ended 08/15/22 13:18:01


 *********************************************
 AERSCREEN Finished Successfully
 With no errors or warnings
 Check log file for details
 *********************************************


 Ending date and time  08/15/22 13:18:03
```

Concentration	Distance	Elevation	Diag	Season/Month	Zo sector	Date	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	HT	REF TA	HT
0.24400E+01	1.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.27631E+01	25.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.30190E+01	50.00	0.00	5.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.32555E+01	75.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
* 0.32693E+01	77.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.23238E+01	100.00	0.00	20.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.16525E+01	125.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.13005E+01	150.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.10601E+01	175.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.88691E+00	200.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.75758E+00	225.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.65790E+00	250.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.57898E+00	275.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.51497E+00	300.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.46258E+00	325.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.41835E+00	350.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.38126E+00	375.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.34969E+00	400.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.32207E+00	425.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.29804E+00	450.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.27706E+00	475.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.25860E+00	500.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.24201E+00	525.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.22724E+00	550.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.21400E+00	575.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0
0.20201E+00	600.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	310.0	2.0

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.19114E+00 625.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.18126E+00 650.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.17224E+00 675.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.16389E+00 700.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.15623E+00 725.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.14919E+00 750.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.14268E+00 775.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.13665E+00 800.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.13106E+00 825.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.12586E+00 850.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.12101E+00 875.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.11649E+00 900.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.11223E+00 925.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.10823E+00 950.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.10448E+00 975.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.10094E+00 1000.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.97589E-01 1025.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.94429E-01 1050.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.91444E-01 1075.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.88620E-01 1100.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.85951E-01 1125.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.83414E-01 1150.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.81005E-01 1175.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.78715E-01 1200.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.76535E-01 1225.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.74459E-01 1250.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.72479E-01 1275.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.70590E-01 1300.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.68784E-01 1325.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.67059E-01 1350.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.65407E-01 1375.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.63825E-01 1400.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.62778E-01 1425.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.61299E-01 1450.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.59878E-01 1475.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.58514E-01 1500.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.57203E-01 1525.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.55942E-01 1550.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.54728E-01 1575.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.53559E-01 1600.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.52433E-01 1625.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.51347E-01 1650.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.50299E-01 1675.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.49288E-01 1700.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.48312E-01 1725.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.47369E-01 1750.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.46457E-01 1775.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.45575E-01 1800.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.44721E-01 1825.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.43895E-01 1850.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.43095E-01 1875.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.42320E-01 1900.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.41569E-01 1924.99 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.40841E-01 1950.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.40134E-01 1975.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.39448E-01 2000.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.38783E-01 2025.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.38136E-01 2050.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.37508E-01 2075.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.36898E-01 2100.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.36305E-01 2125.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.35728E-01 2150.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.35167E-01 2175.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.34621E-01 2200.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.34089E-01 2225.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.33571E-01 2250.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.33067E-01 2275.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.32576E-01 2300.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.32097E-01 2325.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.31630E-01 2350.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.31175E-01 2375.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.30731E-01 2400.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.30298E-01 2425.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.29876E-01 2449.99 0.00 25.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.29463E-01 2475.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.29061E-01 2500.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.28668E-01 2525.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.28284E-01 2550.00 0.00 30.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.27908E-01 2575.00 0.00 25.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.27541E-01 2600.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.27183E-01 2625.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.26833E-01 2650.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.26490E-01 2675.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.26155E-01 2700.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.25827E-01 2725.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.25506E-01 2750.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.25192E-01 2775.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.24884E-01 2800.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.24583E-01 2825.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.24289E-01 2850.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.24000E-01 2875.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.23718E-01 2900.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.23441E-01 2925.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.23169E-01 2950.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.22903E-01 2975.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.22642E-01 3000.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.22386E-01 3025.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.22136E-01 3050.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.21890E-01 3075.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.21649E-01 3100.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.21412E-01 3125.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.21180E-01 3150.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.20952E-01 3175.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.20728E-01 3200.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.20508E-01 3225.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.20293E-01 3250.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.20081E-01 3275.00 0.00 30.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.19873E-01 3300.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.19669E-01 3325.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.19468E-01 3350.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.19271E-01 3375.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.19078E-01 3400.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.18887E-01 3425.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.18700E-01 3450.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.18517E-01 3475.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.18336E-01 3500.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.18158E-01 3525.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.17983E-01 3550.00 0.00 25.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.17812E-01 3575.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.17643E-01 3600.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.17476E-01 3625.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.17313E-01 3650.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.17152E-01 3675.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.16993E-01 3700.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.16838E-01 3725.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.16684E-01 3750.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.16533E-01 3775.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.16385E-01 3800.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.16238E-01 3825.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.16094E-01 3850.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.15952E-01 3875.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.15812E-01 3900.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.15675E-01 3925.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.15539E-01 3950.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.15406E-01 3975.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.15274E-01 4000.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.15145E-01 4025.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.15017E-01 4050.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.14891E-01 4075.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.14767E-01 4100.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.14645E-01 4125.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.14524E-01 4150.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.14405E-01 4175.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.14288E-01 4200.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.14172E-01 4225.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.14059E-01 4250.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.13946E-01 4275.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.13835E-01 4300.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.13726E-01 4325.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.13618E-01 4350.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.13512E-01 4375.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.13407E-01 4400.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.13304E-01 4425.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.13202E-01 4450.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.13101E-01 4475.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.13001E-01 4500.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.12903E-01 4525.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.12806E-01 4550.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.12711E-01 4575.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.12616E-01 4600.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.12523E-01 4625.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.12431E-01 4650.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.12340E-01 4675.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.12251E-01 4700.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
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SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International*

Conferences on Soils Sediment and Water. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 5-14-2021
Trial, October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty, Plaintiff vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,
Case No.: No. 18-L-6845
Rosenfeld Deposition, 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe, Plaintiff vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail, Defendants
Case No.: No. 17-cv-8517
Rosenfeld Deposition, 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa
Mary Tryon et al., Plaintiff vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case Number CV20127-094749
Rosenfeld Deposition: 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al *Plaintiffs*, vs. CNA Insurance Company et al.
Case Number 1:17-cv-000508
Rosenfeld Deposition: 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, *Plaintiff,* vs. Marathon Petroleum, LP, *Defendant.*
Case No.: 1716-CV10006
Rosenfeld Deposition. 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case No.: 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No.: 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case: No 1:19-cv-00315-RHW
Rosenfeld Deposition, 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., *Plaintiffs*, vs. International Paper Company, *Defendant*.
Civil Action Number 2:09-cv-232-WHA-TFM
Rosenfeld Deposition: July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., *Plaintiffs*, vs. Drummond Company Inc., et al., *Defendants*
Civil Action No. CV 2008-2076
Rosenfeld Deposition: September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants*.
Case Number 2:07CV1052
Rosenfeld Deposition: July 2009

EXHIBIT 2

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August 5, 2022

Via E-mail

Julia Gonzalez, Deputy Director
Community & Economic Development Department, Planning Division
City of Pico Rivera
6615 Passons Boulevard
Pico Rivera, CA 90660
juliagonzalez@pico-rivera.org

Re: Comment on the Initial Study and Mitigated Negative Declaration for the Mercury Mixed-Use Development Project at 8825 Washington Boulevard

Dear Deputy Director Gonzalez:

I am writing on behalf of Supporters Alliance for Environmental Responsibility ("SAFER") regarding the Initial Study and Mitigated Negative Declaration ("IS/MND") prepared for the Mercury Mixed-Use Development project, including all actions related or referring to the proposed construction of a six-story mixed-use development building with 255 residential units, approximately 5,730 square feet of commercial space, and a "wrap" style internal parking structure with 464 parking spaces, located at 8825 Washington Boulevard in Pico Rivera, California ("Project").

After reviewing the IS/MND, we conclude that the IS/MND fails as an informational document, and that there is a fair argument that the Project may have adverse environmental impacts. Therefore, we request that the City of Pico Rivera ("City") prepare an environmental impact report ("EIR") for the Project pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code section 21000, et seq.

This comment has been prepared with the assistance of Certified Industrial Hygienist Francis Offerman, PE, CIH. Mr. Offermann's comment and curriculum vitae are attached as Exhibit A hereto and are incorporated herein by reference in their entirety.

I. PROJECT DESCRIPTION

The Project applicant, Mercury Bowl, LLC: Green Rivera, LLC, is seeking approval from the City of Pico Rivera for implementation of The Mercury Specific Plan (Specific Plan) that includes the development of a three to six-story mixed-use building with a 6.5-level parking structure in the core, including 1 level of subterranean parking, ground-floor retail and residential

uses, and residential uses in floors two through six (proposed project) on a 2.85-acre site in Pico Rivera. (IS/MND, pp. 1, 11.)

The proposed Project would develop 255 dwelling units (approximately 258,720 square feet) consisting of a mix of studios, one-bedrooms, two-bedrooms, and three bedrooms; up to 5,730 square feet of retail; up to 1,750 square feet of ground-floor lobby/leasing space; up to 17,010 square feet of rooftop pool/community recreation; and up to 190,000 square feet of parking. (See, IS/MND, pp. 11-12.) Thirteen residential units would be dedicated as affordable. The first floor of the proposed building is a mix of retail, residential, public seating areas, and a main lobby/leasing office. Floors two through six include residential units, parking, and related residential amenities. Parking levels would extend from all floors that are interior to the building and one level of subterranean parking. The roof deck of the parking structure would include a pool and recreation facilities such as a gym and clubhouse for use by residents only. According to the Project applicant, the building would have a wrap-style design, i.e., the commercial space and apartments "wrap" around the internal parking structure. (See, e.g., *id.*, p. 13 [Figure 4 - Site Plan].)

The Project is located at 8825 Washington Boulevard (APN: 6370-027-018) in the central part of Pico Rivera in Los Angeles County, California. The Project site is bounded by Washington Boulevard to the south and adjacent commercial uses to the north, east, and west. A single-family residential neighborhood borders the site to the northwest. (IS/MND, p. 1; see also, *id.*, p. 9 [Figure 3 - Aerial Photograph of Project site].) The General Plan designation is Mixed-Use/Housing Element Site Opportunity Area 8 (the Rosemead Boulevard and Washington Boulevard Opportunity Area). The zoning is General Commercial (C-G).

The 2.85 acres project site is currently vacant and fenced off with no public access. According to the IS/MND, the Project site was previously developed with a commercial building that operated as a nightclub until March 2015 and was subsequently demolished in 2020. (IS/MND, p. 1.) The site is currently paved and contains ornamental landscaping, including palm trees.

Implementation of the proposed Project would require a General Plan amendment, zone code amendment, zone reclassification, conditional use permit, and approval of a Specific Plan. The City prepared an IS/MND for the proposed Project. Based on the IS/MND's findings, the City concluded that the impacts of the proposed Project would be mitigated to less-than-significant levels with the implementation of mitigation measures for the following areas:

- Air Quality
- Biological Resources
- Cultural Resources
- Noise
- Tribal Cultural Resources

(IS/MND, p. 38.)

However, based on the information provided in the IS/MND and associated appendices, we recommend that the Planning Division of the Community & Economic Development Department refrain from approving the Project and MND until the City prepares an EIR to adequately analyze and mitigate the indoor and outdoor air quality, greenhouse gas, and noise impacts related to the proposed Project.

II. LEGAL STANDARD

As the California Supreme Court has held, "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR." (*Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319–20 ["*CBE v. SCAQMD*"] [citing *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 88; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491, 504-505].) "Significant environmental effect" is defined very broadly as "a substantial or potentially substantial adverse change in the environment." (Pub. Res. Code ("PRC") § 21068; see also, 14 CCR § 15382.) An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." (*No Oil, Inc.*, 13 Cal.3d at 83.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Env't v. Cal. Res. Agency* (2002) 103 Cal.App.4th 98, 109 ["*CBE v. CRA*"].)

The EIR is the very heart of CEQA. (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214 ["*Bakersfield Citizens*"]; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927.) The EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return." (*Bakersfield Citizens*, 124 Cal.App.4th at 1220.) The EIR also functions as a "document of accountability," intended to "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." (*Laurel Heights Improvements Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 392.) The EIR process "protects not only the environment but also informed self-government." (*Pocket Protectors*, 124 Cal.App.4th at 927.)

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment." (PRC § 21080(d); see also, *Pocket Protectors*, 124 Cal.App.4th at 927.) In very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact thus requiring no EIR (14 CCR § 15371), only if there is not even a "fair argument" that the project will have a significant environmental effect. (PRC §§ 21100, 21064.) Since "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process," by allowing the agency "to dispense with the duty [to prepare an EIR]," negative declarations are allowed only in cases

where "the proposed project will not affect the environment at all." (*Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440.)

Mitigation measures may not be construed as project design elements or features in an environmental document under CEQA. The MND must "separately identify and analyze the significance of the impacts … before proposing mitigation measures…." (*Lotus vs. Department of Transportation* (2014) 223 Cal.App.4th 645, 658.) A "mitigation measure" is a measure designed to minimize a project's significant environmental impacts, (PRC § 21002.1(a)), while a "project" is defined as including "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." (CEQA Guidelines § 15378(a).) Unlike mitigation measures, project elements are considered prior to making a significance determination. Measures are not technically "mitigation" under CEQA unless they are incorporated to avoid or minimize "significant" impacts. (PRC § 21100(b)(3).)

To ensure that the project's potential environmental impacts are fully analyzed and disclosed, and that the adequacy of proposed mitigation measures is considered in depth, mitigation measures that are not included in the project's design should not be treated as part of the project description. (*Lotus*, 223 Cal.App.4th at 654-55, 656 fn.8.) Mischaracterization of a mitigation measure as a project design element or feature is "significant," and therefore amounts to a material error, "when it precludes or obfuscates required disclosure of the project's environmental impacts and analysis of potential mitigation measures." (*Mission Bay Alliance v. Office of Community Investment & Infrastructure* (2016) 6 Cal.App.5th 160, 185.)

Where an initial study shows that the project may have a significant effect on the environment, a mitigated negative declaration may be appropriate. However, a mitigated negative declaration is proper *only* if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study "to a point where clearly no significant effect on the environment would occur, and…there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (PRC §§ 21064.5, 21080(c)(2); *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331.) In that context, "may" means a reasonable possibility of a significant effect on the environment. (PRC §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors*, 124 Cal.App.4th at 927; *League for Protection of Oakland's etc. Historic Res. v. City of Oakland* (1997) 52 Cal.App.4th 896, 904–05.)

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (14 CCR § 15064(f)(1); *Pocket Protectors*, 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-51; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602.) The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. (*Pocket Protectors*, 124 Cal.App.4th at 928.)

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

> This 'fair argument' standard is very different from the standard normally followed by public agencies in their decision making. Ordinarily, public agencies weigh the evidence in the record and reach a decision based on a preponderance of the evidence. [Citation]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact.

(Kostka & Zishcke, *Practice Under the CEQA*, §6.37 (2d ed. Cal. CEB 2021).) The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with *a preference for resolving doubts in favor of environmental review*." (*Pocket Protectors*, 124 Cal.App.4th at 928 [emph. in original].)

CEQA requires that an environmental document include a description of the project's environmental setting or "baseline." (CEQA Guidelines § 15063(d)(2).) The CEQA "baseline" is the set of environmental conditions against which to compare a project's anticipated impacts. (*CBE v. SCAQMD*, 48 Cal.4th at 321.) CEQA Guidelines section 15125(a) states, in pertinent part, that a lead agency's environmental review under CEQA:

> …must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time [environmental analysis] is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant.

(*See Save Our Peninsula Committee v. County of Monterey* (2001) 87 Cal.App.4th 99, 124-25 ("*Save Our Peninsula*").) As the court of appeal has explained, "the impacts of the project must be measured against the 'real conditions on the ground,'" and not against hypothetical permitted levels. (*Id*. at 121-23.)

III. DISCUSSION

There is a fair argument that the proposed Project may have unmitigated adverse environmental impacts. An EIR is therefore required to adequately analyze and mitigate the impacts of the Project.

A. There is Substantial Evidence of a Fair Argument that the Project Will Have a Significant Health Risk Impact from its Indoor Air Quality Impacts.

Certified Industrial Hygienist, Francis "Bud" Offermann, PE, CIH, has conducted a review of the proposed Project and relevant documents regarding the Project's indoor air

emissions. Indoor Environmental Engineering Comments (August 5, 2022) (Exhibit A). Mr. Offermann concludes that it is likely that the Project will expose residents and commercial employees of the Project to significant impacts related to indoor air quality, and in particular, emissions of the cancer-causing chemical formaldehyde. Mr. Offermann is a leading expert on indoor air quality and has published extensively on the topic. Mr. Offermann's expert comments and curriculum vitae are attached as Exhibit A.

Mr. Offermann explains that many composite wood products used in building materials and furnishings commonly found in offices, warehouses, residences, hotels, and commercial spaces contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. He states, "The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims." (Ex. A, pp. 2-3.)

Formaldehyde is a known human carcinogen. Mr. Offermann states that there is a fair argument that future residents will be exposed to a cancer risk from formaldehyde of approximately 120 per million, assuming all materials are compliant with the California Air Resources Board's formaldehyde airborne toxics control measure. (*Id*., pp. 3-4) This exceeds the South Coast Air Quality Management District's ("SCAQMD") CEQA significance threshold for airborne cancer risk of 10 per million. (*Id.*, p. 3.)

In addition, Mr. Offermann states that there is a fair argument that the employees of the Project's commercial spaces are expected to experience significant work-day exposures. (*Id*., pp. 4-5.) This exposure of employees would result in "significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in offices, warehouses, residences and hotels." (*Id*., p. 4.) Assuming they work eight hour days, five days per week, an employee would be exposed to a cancer risk of approximately 17.7 per million, assuming all materials are compliant with the California Air Resources Board's formaldehyde airborne toxics control measure. (*Id.*, pp. 4-5.) This is more than the SCAQMD CEQA significance threshold for airborne cancer risk of 10 per million. (Ex. A, p. 5.)

Mr. Offermann also notes that the high cancer risk that may be posed by the Project's indoor air emissions likely will be exacerbated by the additional cancer risk that exists as a result of the Project's location near roadways with moderate to high traffic (i.e. East Washington Boulevard, Rosemead Boulevard, Crossway Drive, etc.) and the high levels of PM2.5 already present in the ambient air. (*Id.*, pp. 10-12.) No analysis has been conducted of the significant cumulative health impacts that will result to future residents and employees of the Project.

Mr. Offermann concludes that these significant environmental impacts should be analyzed in an EIR and mitigation measures should be imposed to reduce the risk of formaldehyde exposure. (*Id*., p. 5.) Mr. Offermann identifies mitigation measures that are available to reduce these significant health risks, including the installation of air filters and a

requirement that the applicant use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins or ultra-low emitting formaldehyde (ULEF) resins in the buildings' interiors. (*Id.*, pp. 12-13.)

The City has a duty to investigate issues relating to a project's potential environmental impacts, especially those issues raised by an expert's comments. (See, *Cty. Sanitation Dist. No. 2 v. Cty. of Kern*, (2005) 127 Cal.App.4th 1544, 1597–98 ["under CEQA, the lead agency bears a burden to investigate potential environmental impacts"].) In addition to assessing the Project's potential health impacts to residents and employees, Mr. Offermann identifies the investigatory path that the City should be following in developing an EIR to more precisely evaluate the Projects' future formaldehyde emissions and establishing mitigation measures that reduce the cancer risk below the SCAQMD level. (Ex. A, pp. 6-10.) Such an analysis would be similar in form to the air quality modeling and traffic modeling typically conducted as part of a CEQA review.

The failure to address the Project's formaldehyde emissions is contrary to the California Supreme Court's decision in *California Building Industry Ass'n v. Bay Area Air Quality Mgmt. Dist.* (2015) 62 Cal.4th 369, 386 ("*CBIA*"). At issue in *CBIA* was whether the Air District could enact CEQA guidelines that advised lead agencies that they must analyze the impacts of adjacent environmental conditions on a project. The Supreme Court held that CEQA does not generally require lead agencies to consider the environment's effects on a project. (*CBIA*, 62 Cal.4th at 800-801.) However, to the extent a project may exacerbate existing adverse environmental conditions at or near a project site, those would still have to be considered pursuant to CEQA. (*Id*. at 801 ["CEQA calls upon an agency to evaluate existing conditions in order to assess whether a project could exacerbate hazards that are already present"].) In so holding, the Court expressly held that CEQA's statutory language required lead agencies to disclose and analyze "impacts on ***a project's users or residents*** that arise ***from the project's effects*** on the environment." (*Id*. at 800 [emph. added].)

The carcinogenic formaldehyde emissions identified by Mr. Offermann are not an existing environmental condition. Those emissions to the air will be from the Project. Residents and commercial employees will be users of the Project. Currently, there is presumably little if any formaldehyde emissions at the site. Once the project is built, emissions will begin at levels that pose significant health risks. Rather than excusing the City from addressing the impacts of carcinogens emitted into the indoor air from the project, the Supreme Court in *CBIA* expressly finds that this type of effect by the project on the environment and a "project's users and residents" must be addressed in the CEQA process.

The Supreme Court's reasoning is well-grounded in CEQA's statutory language. CEQA expressly includes a project's effects on human beings as an effect on the environment that must be addressed in an environmental review. "Section 21083(b)(3)'s express language, for example, requires a finding of a 'significant effect on the environment' (§ 21083(b)) whenever the 'environmental effects of a project will cause substantial adverse effects *on human beings*, either

directly or indirectly.'" (*CBIA*, 62 Cal.4th at 800 [emph. in original].) Likewise, "the Legislature has made clear—in declarations accompanying CEQA's enactment—that public health and safety are of great importance in the statutory scheme." (*Id*., citing e.g., §§ 21000, subds. (b), (c), (d), (g), 21001, subds. (b), (d).) It goes without saying that the future residents and commercial employees of the Project are human beings and the health and safety of those residents and workers is as important to CEQA's safeguards as nearby residents currently living near the project site.

Because Mr. Offermann's expert review is substantial evidence of a fair argument of a significant environmental impact to future users of the Project, an EIR must be prepared to disclose and mitigate those impacts.

B. The IS/MND Failed to Adequately Analyze and Mitigate the Project's Air Quality and Greenhouse Gas Impacts.

1. <u>The IS/MND relied on unsubstantiated input parameters to estimate project emissions and thus the Project may result in significant air quality impacts.</u>

After reviewing the IS/MND and the Air Quality and Greenhouse Gas Analyses' CalEEMod output files, included as Appendix A to the IS/MND, several model inputs used to generate a project's construction and operation emissions were found to not be consistent with information disclosed in the IS/MND. As a result, the Project's construction and operational emissions are underestimated. An EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that Project construction and operation will have on local and regional air quality.

Specifically, several values used in the IS/MND and the Air Quality and Greenhouse Gas Analyses were found to be either inconsistent with information provided in the IS/MND or otherwise unjustified, including:

1. Unsubstantiated Reduction to Architectural Coating Emission Factor;
2. Failure to Substantiate Amount of Material Export;
3. Unsubstantiated Reduction to Number of Gas Fireplaces;
4. Unsubstantiated Changes to Operational Vehicle Fleet Mix Percentages;
5. Failure to Model Proposed Amount of Solid Waste;
6. Unsubstantiated Reductions to Indoor and Outdoor Water Use Rates;
7. Unsubstantiated Reductions to Wastewater System Treatment Percentages; and
8. Incorrect Application of Construction-Related Mitigation Measures.

As a result of these errors in the IS/MND, the Project's construction and operational emissions were underestimated and cannot be relied upon to determine the significance of the Project's air quality impacts. Thus, an EIR is needed to adequately address the air quality impacts of the proposed Project, and to mitigate those impacts accordingly.

2. The IS/MND failed to adequately evaluate health risks from diesel particulate matter emissions and thus the Project may result in significant health impacts as a result of diesel particulate matter emissions.

An EIR should be prepared to evaluate the significant health impacts to individuals and workers from the Project's operational and construction-related diesel particulate matter ("DPM") emissions. The IS/MND incorrectly concluded that the Project would have a less-than-significant health risk impact without conducting a quantified construction or operational health risk analysis ("HRA"). (See, IS/MND, pp. 56-57.) However, the IS/MND fails to mention or evaluate the toxic air contaminant ("TAC") emissions associated with Project operation whatsoever. As such, the IS/MND's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect for two reasons.

First, by failing to prepare a quantified construction and operational HRA, the Project is inconsistent with CEQA's requirement to correlate the increase in emissions that the Project would generate to the adverse impacts on human health caused by those emissions. The IS/MND's conclusion is also inconsistent with the most recent guidance published by the Office of Health Hazard Assessment ("OEHHA"). (See, "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.)

Second, by failing to prepare a quantified construction and operational HRA for nearby, existing sensitive receptors, the IS/MND fails to compare the excess health risk impact of the Project to the SCAQMD's specific numeric threshold of 10 in one million. Without conducting a quantified construction and operational HRA, the IS/MND also fails to evaluate the cumulative lifetime cancer risk to nearby, existing receptors from the Project's construction and operation together. This is incorrect, and as a result, the IS/MND's evaluation cannot be relied upon to determine Project significance. OEHHA guidance requires that the excess cancer risk be calculated separately for all sensitive receptor age bins, then summed to evaluate the total cancer risk posed by all Project activities. Therefore, in accordance with the most relevant guidance, an assessment of the health risk posed to nearby, existing receptors from Project construction and operation should have been conducted and compared to the SCAQMD threshold of 10 in one million.

Thus, to more accurately determine the health risks associated with the Project's operational and construction-related DPM emissions, an EIR should be prepared that includes updated health risk calculations using correct guidance.

3. The IS/MND failed to adequately analyze greenhouse gas impacts and thus the Project may result in significant greenhouse gas emissions.

Review of the IS/MND and Air Quality and Greenhouse Gas Analyses (included at Appendix A), found that the City failed to adequately evaluate the Project's greenhouse gas ("GHG") impacts. The IS/MND estimates that the Project would generate net annual GHG

emissions of 2,958 metric tons of carbon dioxide equivalents per year ("MT CO2e/year"), which would not exceed the SCAQMD threshold of 3,000 MT CO2e/year. (IS/MND, p. 72, Table 13.) Furthermore, the IS/MND's analysis relies upon the Project's consistency with the CARB 2017 Scoping Plan and SCAG 2020-2045 RTP/SCS to conclude that the Project would result in a less-than-significant GHG impact. (*Id.*, pp. 72-73.) However, the IS/MND's analysis, as well as the subsequent less-than-significant impact conclusion, is incorrect for three reasons.

First, the IS/MND's analysis relies upon a flawed air model, as discussed above. As a result, GHG emissions are underestimated and the IS/MND's quantitative GHG analysis should not be relied upon to determine Project significance. An EIR should be prepared and emissions remodeled and compared to the applicable thresholds.

Second, the IS/MND utilizes an outdated GHG threshold. When compared to the correct quantitative threshold, the Project's GHG emissions are demonstrably significant.

Third, the IS/MND fails to consider the performance-based standards underlying CARB's Scoping Plan. As a result, the IS/MND's GHG significance determination regarding the Project's consistency with applicable plans and policies should not be relied upon. Instead, an EIR should be prepared that includes a quantitative consistency evaluation utilizing the appropriate standards, as well as mitigation measures to reduce GHG emissions to less-than-significant levels.

C. There is Substantial Evidence of a Fair Argument that the Project Will Have Significant Noise Impacts.

Review of the proposed Project and the Noise and Vibration Analysis, which is included as Appendix D to the IS/MND, provides substantial evidence that the IS/MND improperly analyzed construction noise levels and failed to adequately mitigate significant construction noise impacts.

According to the IS/MND, "[t]he nearest sensitive receptors are single-family residences adjacent to the proposed project site, to the north and west." (IS/MND, p. 85.) Based on the noise levels presented in the IS/MND, "construction-related noise levels could, at times, exceed the 80 dBA $Leq_{(8hr)}$ threshold at the nearest sensitive receptors, and therefore this impact would be potentially significant," without adequate mitigation. (IS/MND, p. 89.) Moreover, the IS/MND found that Project construction could also result in vibration annoyance and vibration-induced architectural damage to nearby, sensitive receptors (i.e. single-family residences to the north and west) that would exceed threshold levels without adequate mitigation. Specifically, the IS/MND stated:

> A significant impact would occur if vibration levels would exceed 72 VdB at sensitive receptors. Vibration from the project would be generated from temporary construction activities…. The nearest acoustical center to single-family residences to the west would be approximately 95 feet away from the proposed project. The nearest acoustical center to single-family residences to the north

> would be approximately 210 feet away…. ***[V]ibration levels could potentially exceed the 72 VdB threshold at residences to the west during paving if a vibratory roller is used***. (IS/MND, p. 94 [emph. added].)
>
> A significant impact would occur if vibration levels would exceed 0.2 in/sec PPV at the façade of the surrounding structures. Construction activity could occur within 15 feet of sensitive receptors (single-family residences to the north and west). This would include grading and paving…. ***[V]ibration levels could exceed 0.20 in/sec PPV. Specifically, if a vibratory roller is used within 25 feet of a residential structure and if grading equipment such as a large dozer operates within approximately 15 feet of a nearby residential structure. Therefore, impacts would be potentially significant.*** (*Id.*, pp. 94-95 [emph. added].)

Although the IS/MND concludes that noise mitigation measures will place noise impacts under significant thresholds, the IS/MND and related appendix fail to provide substantial evidence that demonstrates that these mitigation measures would actually reduce significant noise impacts to less than significant levels. Instead, the IS/MND and appendix provide substantial evidence that the Project will result in significant construction and vibration noise impacts for which the IS/MND fails to adequately mitigate.

As the court in *Communities for a Better Environment v. California Resources Agency* stated, the application of an established regulatory standard cannot be applied in a way that would foreclose the consideration of any other substantial evidence showing there may be a significant effect. (*Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 114.) The court in *Keep Our Mountains Quiet v. County of Santa Clara* also held that an EIR is required if substantial evidence supports a fair argument that the project may have significant unmitigated noise impacts, even if other evidence shows that the project will not generate noise in excess of a noise ordinance. (See, *Keep Out Mountains Quiet v. County of Santa Clara* (2015) 236 Cal.App.4th 714, 732.) Thus, an EIR to analyze potentially unmitigated noise impacts is required.

IV. CONCLUSION

For the foregoing reasons, the IS/MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts. SAFER reserves the light to supplement these comments in advance of and during public hearings concerning the Project. (*Galante Vineyards v. Monterey Peninsula Water Management Dist*., 60 Cal. App. 4th 1109, 1121 (1997).) Thank you for your attention to these comments.

Sincerely,

Victoria Yundt
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EXHIBIT A

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From: Francis J. Offermann PE CIH

Subject: Indoor Air Quality: The Mercury Project, Pico Rivera, CA
(IEE File Reference: P-4618)

Pages: 19

Indoor Air Quality Impacts

Indoor air quality (IAQ) directly impacts the comfort and health of building occupants, and the achievement of acceptable IAQ in newly constructed and renovated buildings is a well-recognized design objective. For example, IAQ is addressed by major high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014). Indoor air quality in homes is particularly important because occupants, on average, spend approximately ninety percent of their time indoors with the majority of this time spent at home (EPA, 2011). Some segments of the population that are most susceptible to the effects of poor IAQ, such as the very young and the elderly, occupy their homes almost continuously. Additionally, an increasing number of adults are working from home at least some of the time during the workweek. Indoor air quality also is a serious concern for workers in hotels, offices and other business establishments.

The concentrations of many air pollutants often are elevated in homes and other buildings relative to outdoor air because many of the materials and products used indoors contain

and release a variety of pollutants to air (Hodgson et al., 2002; Offermann and Hodgson, 2011). With respect to indoor air contaminants for which inhalation is the primary route of exposure, the critical design and construction parameters are the provision of adequate ventilation and the reduction of indoor sources of the contaminants.

Indoor Formaldehyde Concentrations Impact. In the California New Home Study (CNHS) of 108 new homes in California (Offermann, 2009), 25 air contaminants were measured, and formaldehyde was identified as the indoor air contaminant with the highest cancer risk as determined by the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), No Significant Risk Levels (NSRL) for carcinogens. The NSRL is the daily intake level calculated to result in one excess case of cancer in an exposed population of 100,000 (i.e., ten in one million cancer risk) and for formaldehyde is 40 µg/day. The NSRL concentration of formaldehyde that represents a daily dose of 40 µg is 2 µg/m^3, assuming a continuous 24-hour exposure, a total daily inhaled air volume of 20 m^3, and 100% absorption by the respiratory system. All of the CNHS homes exceeded this NSRL concentration of 2 µg/m^3. The median indoor formaldehyde concentration was 36 µg/m^3, and ranged from 4.8 to 136 µg/m^3, which corresponds to a median exceedance of the 2 µg/m^3 NSRL concentration of 18 and a range of 2.3 to 68.

Therefore, the cancer risk of a resident living in a California home with the median indoor formaldehyde concentration of 36 µg/m^3, is 180 per million as a result of formaldehyde alone. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the South Coast Air Quality Management District (SCAQMD, 2015).

Besides being a human carcinogen, formaldehyde is also a potent eye and respiratory irritant. In the CNHS, many homes exceeded the non-cancer reference exposure levels (RELs) prescribed by California Office of Environmental Health Hazard Assessment (OEHHA, 2017b). The percentage of homes exceeding the RELs ranged from 98% for the Chronic REL of 9 µg/m^3 to 28% for the Acute REL of 55 µg/m^3.

The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and

particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.

In January 2009, the California Air Resources Board (CARB) adopted an airborne toxics control measure (ATCM) to reduce formaldehyde emissions from composite wood products, including hardwood plywood, particleboard, medium density fiberboard, and also furniture and other finished products made with these wood products (California Air Resources Board 2009). While this formaldehyde ATCM has resulted in reduced emissions from composite wood products sold in California, they do not preclude that homes built with composite wood products meeting the CARB ATCM will have indoor formaldehyde concentrations below cancer and non-cancer exposure guidelines.

A follow up study to the California New Home Study (CNHS) was conducted in 2016-2018 (Singer et. al., 2019), and found that the median indoor formaldehyde in new homes built after 2009 with CARB Phase 2 Formaldehyde ATCM materials had lower indoor formaldehyde concentrations, with a median indoor concentrations of 22.4 $\mu g/m^3$ (18.2 ppb) as compared to a median of 36 $\mu g/m^3$ found in the 2007 CNHS. Unlike in the CNHS study where formaldehyde concentrations were measured with pumped DNPH samplers, the formaldehyde concentrations in the HENGH study were measured with passive samplers, which were estimated to under-measure the true indoor formaldehyde concentrations by approximately 7.5%. Applying this correction to the HENGH indoor formaldehyde concentrations results in a median indoor concentration of 24.1 $\mu g/m^3$, which is 33% lower than the 36 $\mu g/m^3$ found in the 2007 CNHS.

Thus, while new homes built after the 2009 CARB formaldehyde ATCM have a 33% lower median indoor formaldehyde concentration and cancer risk, the median lifetime cancer risk is still 120 per million for homes built with CARB compliant composite wood products. This median lifetime cancer risk is more than 12 times the OEHHA 10 in a million cancer risk threshold (OEHHA, 2017a).

With respect to The Mercury Project, Pico Rivera, CA, the buildings consist of residential and commercial spaces.

The residential occupants will potentially have continuous exposure (e.g. 24 hours per day, 52 weeks per year). These exposures are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in residential construction.

Because these residences will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor residential formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 $\mu g/m^3$ (Singer et. al., 2020)

Assuming that the residential occupants inhale 20 m^3 of air per day, the average 70-year lifetime formaldehyde daily dose is 482 µg/day for continuous exposure in the residences. This exposure represents a cancer risk of 120 per million, which is more than 12 times the CEQA cancer risk of 10 per million. For occupants that do not have continuous exposure, the cancer risk will be proportionally less but still substantially over the CEQA cancer risk of 10 per million (e.g. for 12/hour/day occupancy, more than 6 times the CEQA cancer risk of 10 per million).

The employees of the commercial building spaces are expected to experience significant indoor exposures (e.g., 40 hours per week, 50 weeks per year). These exposures for employees are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in offices, warehouses, residences and hotels.

Because these commercial building spaces will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 $\mu g/m^3$ (Singer et. al., 2020)

Assuming that the commercial building space employees work 8 hours per day and inhale

20 m^3 of air per day, the formaldehyde dose per work-day is 161 µg/day.

Assuming that these employees work 5 days per week and 50 weeks per year for 45 years (start at age 20 and retire at age 65) the average 70-year lifetime formaldehyde daily dose is 70.9 µg/day.

This is 1.77 times the NSRL (OEHHA, 2017a) of 40 µg/day and represents a cancer risk of 17.7 per million, which exceeds the CEQA cancer risk of 10 per million. This impact should be analyzed in an environmental impact report ("EIR"), and the agency should impose all feasible mitigation measures to reduce this impact. Several feasible mitigation measures are discussed below and these and other measures should be analyzed in an EIR.

Appendix A, Indoor Formaldehyde Concentrations and the CARB Formaldehyde ATCM, provides analyses that show utilization of CARB Phase 2 Formaldehyde ATCM materials will not ensure acceptable cancer risks with respect to formaldehyde emissions from composite wood products.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

The following describes a method that should be used, prior to construction in the environmental review under CEQA, for determining whether the indoor concentrations resulting from the formaldehyde emissions of specific building materials/furnishings selected exceed cancer and non-cancer guidelines. Such a design analyses can be used to identify those materials/furnishings prior to the completion of the City's CEQA review

and project approval, that have formaldehyde emission rates that contribute to indoor concentrations that exceed cancer and non-cancer guidelines, so that alternative lower emitting materials/furnishings may be selected and/or higher minimum outdoor air ventilation rates can be increased to achieve acceptable indoor concentrations and incorporated as mitigation measures for this project.

Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment

This formaldehyde emissions assessment should be used in the environmental review under CEQA to assess the indoor formaldehyde concentrations from the proposed loading of building materials/furnishings, the area-specific formaldehyde emission rate data for building materials/furnishings, and the design minimum outdoor air ventilation rates. This assessment allows the applicant (and the City) to determine, before the conclusion of the environmental review process and the building materials/furnishings are specified, purchased, and installed, if the total chemical emissions will exceed cancer and non-cancer guidelines, and if so, allow for changes in the selection of specific material/furnishings and/or the design minimum outdoor air ventilations rates such that cancer and non-cancer guidelines are not exceeded.

1.) Define Indoor Air Quality Zones. Divide the building into separate indoor air quality zones, (IAQ Zones). IAQ Zones are defined as areas of well-mixed air. Thus, each ventilation system with recirculating air is considered a single zone, and each room or group of rooms where air is not recirculated (e.g. 100% outdoor air) is considered a separate zone. For IAQ Zones with the same construction material/furnishings and design minimum outdoor air ventilation rates. (e.g. hotel rooms, apartments, condominiums, etc.) the formaldehyde emission rates need only be assessed for a single IAQ Zone of that type.

2.) Calculate Material/Furnishing Loading. For each IAQ Zone, determine the building material and furnishing loadings (e.g., m^2 of material/m^2 floor area, units of furnishings/m^2 floor area) from an inventory of all potential indoor formaldehyde sources, including flooring, ceiling tiles, furnishings, finishes, insulation, sealants,

adhesives, and any products constructed with composite wood products containing urea-formaldehyde resins (e.g., plywood, medium density fiberboard, particleboard).

3.) Calculate the Formaldehyde Emission Rate. For each building material, calculate the formaldehyde emission rate (µg/h) from the product of the area-specific formaldehyde emission rate (µg/m^2-h) and the area (m^2) of material in the IAQ Zone, and from each furnishing (e.g. chairs, desks, etc.) from the unit-specific formaldehyde emission rate (µg/unit-h) and the number of units in the IAQ Zone.

NOTE: As a result of the high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014), most manufacturers of building materials furnishings sold in the United States conduct chemical emission rate tests using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), or other equivalent chemical emission rate testing methods. Most manufacturers of building furnishings sold in the United States conduct chemical emission rate tests using ANSI/BIFMA M7.1 Standard Test Method for Determining VOC Emissions (BIFMA, 2018), or other equivalent chemical emission rate testing methods.

CDPH, BIFMA, and other chemical emission rate testing programs, typically certify that a material or furnishing does not create indoor chemical concentrations in excess of the maximum concentrations permitted by their certification. For instance, the CDPH emission rate testing requires that the measured emission rates when input into an office, school, or residential model do not exceed one-half of the OEHHA Chronic Exposure Guidelines (OEHHA, 2017b) for the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017). These certifications themselves do not provide the actual area-specific formaldehyde emission rate (i.e., µg/m^2-h) of the product, but rather provide data that the formaldehyde emission rates do not exceed the maximum rate allowed for the certification. Thus, for example, the data for a certification of a specific type of flooring may be used to calculate that the area-specific emission rate of formaldehyde is less than 31 µg/m^2-h, but not the actual measured specific emission rate, which may be 3, 18, or 30 µg/m^2-h. These area-specific emission rates determined

from the product certifications of CDPH, BIFA, and other certification programs can be used as an initial estimate of the formaldehyde emission rate.

If the actual area-specific emission rates of a building material or furnishing is needed (i.e. the initial emission rates estimates from the product certifications are higher than desired), then that data can be acquired by requesting from the manufacturer the complete chemical emission rate test report. For instance if the complete CDPH emission test report is requested for a CDHP certified product, that report will provide the actual area-specific emission rates for not only the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017), but also all of the cancer and reproductive/developmental chemicals listed in the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), all of the toxic air contaminants (TACs) in the California Air Resources Board Toxic Air Contamination List (CARB, 2011), and the 10 chemicals with the greatest emission rates.

Alternatively, a sample of the building material or furnishing can be submitted to a chemical emission rate testing laboratory, such as Berkeley Analytical Laboratory (https://berkeleyanalytical.com), to measure the formaldehyde emission rate.

4.) Calculate the Total Formaldehyde Emission Rate. For each IAQ Zone, calculate the total formaldehyde emission rate (i.e. µg/h) from the individual formaldehyde emission rates from each of the building material/furnishings as determined in Step 3.

5.) Calculate the Indoor Formaldehyde Concentration. For each IAQ Zone, calculate the indoor formaldehyde concentration (µg/m^3) from Equation 1 by dividing the total formaldehyde emission rates (i.e. µg/h) as determined in Step 4, by the design minimum outdoor air ventilation rate (m^3/h) for the IAQ Zone.

$$C_{in} = \frac{E_{total}}{Q_{oa}} \quad \text{(Equation 1)}$$

where:

C_{in} = indoor formaldehyde concentration (µg/m^3)

E_{total} = total formaldehyde emission rate (µg/h) into the IAQ Zone.

Q_{oa} = design minimum outdoor air ventilation rate to the IAQ Zone (m^3/h)

The above Equation 1 is based upon mass balance theory, and is referenced in Section 3.10.2 "Calculation of Estimated Building Concentrations" of the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017).

6.) Calculate the Indoor Exposure Cancer and Non-Cancer Health Risks. For each IAQ Zone, calculate the cancer and non-cancer health risks from the indoor formaldehyde concentrations determined in Step 5 and as described in the OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments (OEHHA, 2015).

7.) Mitigate Indoor Formaldehyde Exposures of exceeding the CEQA Cancer and/or Non-Cancer Health Risks. In each IAQ Zone, provide mitigation for any formaldehyde exposure risk as determined in Step 6, that exceeds the CEQA cancer risk of 10 per million or the CEQA non-cancer Hazard Quotient of 1.0.

Provide the source and/or ventilation mitigation required in all IAQ Zones to reduce the health risks of the chemical exposures below the CEQA cancer and non-cancer health risks.

Source mitigation for formaldehyde may include:

1.) reducing the amount materials and/or furnishings that emit formaldehyde
2.) substituting a different material with a lower area-specific emission rate of formaldehyde

Ventilation mitigation for formaldehyde emitted from building materials and/or furnishings may include:

1.) increasing the design minimum outdoor air ventilation rate to the IAQ Zone.

NOTE: Mitigating the formaldehyde emissions through use of less material/furnishings, or use of lower emitting materials/furnishings, is the preferred mitigation option, as

mitigation with increased outdoor air ventilation increases initial and operating costs associated with the heating/cooling systems.

Further, we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), and use the procedure described earlier above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Impact. Another important finding of the CNHS, was that the outdoor air ventilation rates in the homes were very low. Outdoor air ventilation is a very important factor influencing the indoor concentrations of air contaminants, as it is the primary removal mechanism of all indoor air generated contaminants. Lower outdoor air exchange rates cause indoor generated air contaminants to accumulate to higher indoor air concentrations. Many homeowners rarely open their windows or doors for ventilation as a result of their concerns for security/safety, noise, dust, and odor concerns (Price, 2007). In the CNHS field study, 32% of the homes did not use their windows during the 24-hour Test Day, and 15% of the homes did not use their windows during the entire preceding week. Most of the homes with no window usage were homes in the winter field session. Thus, a substantial percentage of homeowners never open their windows, especially in the winter season. The median 24-hour measurement was 0.26 air changes per hour (ach), with a range of 0.09 ach to 5.3 ach. A total of 67% of the homes had outdoor air exchange rates below the minimum California Building Code (2001) requirement of 0.35 ach. Thus, the relatively tight envelope construction, combined with the fact that many people never open their windows for ventilation, results in homes with low outdoor air exchange rates and higher indoor air contaminant concentrations.

This Project is close to roads with moderate to high traffic (e.g., East Washington Boulevard, Rosemead Boulevard, Crossway Drive etc.). The Project Initial Study (Placeworks, 2022) contains no assessment of the existing or future ambient noise levels (dBA CNEL), only the projected Project noise level increases are reported in Table 17. Because of Project's proximity to roads with moderate to high traffic, an acoustic study needs to conducted to determine the sound transmission class rating of the building exterior elements required to achieve acceptable indoor noise levels.

As a result of the high outdoor noise levels, the current project will require a mechanical supply of outdoor air ventilation to allow for a habitable interior environment with closed windows and doors. Such a ventilation system would allow windows and doors to be kept closed at the occupant's discretion to control exterior noise within building interiors.

$PM_{2.5}$ Outdoor Concentrations Impact. An additional impact of the nearby motor vehicle traffic associated with this project, are the outdoor concentrations of $PM_{2.5}$. This Project is located in the South Coast Air Basin, which is a State and Federal non-attainment area for $PM_{2.5}$.

An air quality analyses should to be conducted to determine the concentrations of $PM_{2.5}$ in the outdoor and indoor air that people inhale each day. This air quality analyses needs to consider the cumulative impacts of the project related emissions, existing and projected future emissions from local $PM_{2.5}$ sources (e.g. stationary sources, motor vehicles, and airport traffic) upon the outdoor air concentrations at the Project site. If the outdoor concentrations are determined to exceed the California and National annual average $PM_{2.5}$ exceedence concentration of 12 $\mu g/m^3$, or the National 24-hour average exceedence concentration of 35 $\mu g/m^3$, then the buildings need to have a mechanical supply of outdoor air that has air filtration with sufficient removal efficiency, such that the indoor concentrations of outdoor $PM_{2.5}$ particles is less than the California and National $PM_{2.5}$ annual and 24-hour standards.

It is my experience that based on the projected high traffic noise levels, the annual average concentration of $PM_{2.5}$ will exceed the California and National $PM_{2.5}$ annual and 24-hour

standards and warrant installation of high efficiency air filters (i.e. MERV 13 or higher) in all mechanically supplied outdoor air ventilation systems.

Indoor Air Quality Impact Mitigation Measures

The following are recommended mitigation measures to minimize the impacts upon indoor quality:

Indoor Formaldehyde Concentrations Mitigation. Use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins (CARB, 2009). CARB Phase 2 certified composite wood products, or ultra-low emitting formaldehyde (ULEF) resins, do not insure indoor formaldehyde concentrations that are below the CEQA cancer risk of 10 per million. Only composite wood products manufactured with CARB approved no-added formaldehyde (NAF) resins, such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

Alternatively, conduct the previously described Pre-Construction Building Material/Furnishing Chemical Emissions Assessment, to determine that the combination of formaldehyde emissions from building materials and furnishings do not create indoor formaldehyde concentrations that exceed the CEQA cancer and non-cancer health risks.

It is important to note that we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017), and use the procedure described above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Mitigation. Provide each habitable room with a continuous mechanical supply of outdoor air that meets or exceeds the California 2016 Building Energy Efficiency Standards (California Energy Commission, 2015) requirements of the greater of 15 cfm/occupant or 0.15 cfm/ft^2 of floor area. Following installation of the system conduct testing and balancing to insure that required amount of outdoor air is entering each habitable room and provide a written report documenting the outdoor airflow rates. Do not use exhaust only mechanical outdoor air systems, use only balanced outdoor air supply and exhaust systems or outdoor air supply only systems. Provide a manual for the occupants or maintenance personnel, that describes the purpose of the mechanical outdoor air system and the operation and maintenance requirements of the system.

$PM_{2.5}$ Outdoor Air Concentration Mitigation. Install air filtration with sufficient $PM_{2.5}$ removal efficiency (e.g. MERV 13 or higher) to filter the outdoor air entering the mechanical outdoor air supply systems, such that the indoor concentrations of outdoor $PM_{2.5}$ particles are less than the California and National $PM_{2.5}$ annual and 24-hour standards. Install the air filters in the system such that they are accessible for replacement by the occupants or maintenance personnel. Include in the mechanical outdoor air ventilation system manual instructions on how to replace the air filters and the estimated frequency of replacement.

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APPENDIX A

INDOOR FORMALDEHYDE CONCENTRATIONS
AND THE
CARB FORMALDEHYDE ATCM

With respect to formaldehyde emissions from composite wood products, the CARB ATCM regulations of formaldehyde emissions from composite wood products, do not assure healthful indoor air quality. The following is the stated purpose of the CARB ATCM regulation - *The purpose of this airborne toxic control measure is to "reduce formaldehyde emissions from composite wood products, and finished goods that contain composite wood products, that are sold, offered for sale, supplied, used, or manufactured for sale in California".* In other words, the CARB ATCM regulations do not "assure healthful indoor air quality", but rather "reduce formaldehyde emissions from composite wood products".

Just how much protection do the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products? Definitely some, but certainly the regulations do not "*assure healthful indoor air quality"* when CARB Phase 2 products are utilized. As shown in the Chan 2019 study of new California homes, the median indoor formaldehyde concentration was of 22.4 $\mu g/m^3$ (18.2 ppb), which corresponds to a cancer risk of 112 per million for occupants with continuous exposure, which is more than 11 times the CEQA cancer risk of 10 per million.

Another way of looking at how much protection the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products is to calculate the maximum number of square feet of composite wood product that can be in a residence without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy.

For this calculation I utilized the floor area (2,272 ft^2), the ceiling height (8.5 ft), and the number of bedrooms (4) as defined in Appendix B (New Single-Family Residence Scenario) of the Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers, Version 1.1, 2017, California

Department of Public Health, Richmond, CA. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

For the outdoor air ventilation rate I used the 2019 Title 24 code required mechanical ventilation rate (ASHRAE 62.2) of 106 cfm (180 m^3/h) calculated for this model residence. For the composite wood formaldehyde emission rates I used the CARB ATCM Phase 2 rates.

The calculated maximum number of square feet of composite wood product that can be in a residence, without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 15 ft^2 (0.7% of the floor area), or
Particle Board – 30 ft^2 (1.3% of the floor area), or
Hardwood Plywood – 54 ft^2 (2.4% of the floor area), or
Thin MDF – 46 ft^2 (2.0 % of the floor area).

For offices and hotels the calculated maximum amount of composite wood product (% of floor area) that can be used without exceeding the CEQA cancer risk of 10 per million for occupants, assuming 8 hours/day occupancy, and the California Mechanical Code minimum outdoor air ventilation rates are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 3.6 % (offices) and 4.6% (hotel rooms), or
Particle Board – 7.2 % (offices) and 9.4% (hotel rooms), or
Hardwood Plywood – 13 % (offices) and 17% (hotel rooms), or
Thin MDF – 11 % (offices) and 14 % (hotel rooms)

Clearly the CARB ATCM does not regulate the formaldehyde emissions from composite wood products such that the potentially large areas of these products, such as for flooring, baseboards, interior doors, window and door trims, and kitchen and bathroom cabinetry,

could be used without causing indoor formaldehyde concentrations that result in CEQA cancer risks that substantially exceed 10 per million for occupants with continuous occupancy.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

If CARB Phase 2 compliant or ULEF composite wood products are utilized in construction, then the resulting indoor formaldehyde concentrations should be determined in the design phase using the specific amounts of each type of composite wood product, the specific formaldehyde emission rates, and the volume and outdoor air ventilation rates of the indoor spaces, and all feasible mitigation measures employed to reduce this impact (e.g. use less formaldehyde containing composite wood products and/or incorporate mechanical systems capable of higher outdoor air ventilation rates). See the procedure described earlier (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Alternatively, and perhaps a simpler approach, is to use only composite wood products (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins.

Attachment B

RESPONSE TO COMMENTS MEMORANDUM

DATE	November 3, 2022
TO	City of Pico Rivera Community and Economic Development Department
ADDRESS	6615 Passons Blvd Pico Rivera, CA 90660
CONTACT	Julia Gonzalez, Deputy Director
FROM	Addie Farrell, Principal in Charge Mariana Zimmermann, Project Manager
SUBJECT	Response to Comments Received on The Mercury MND
PROJECT NUMBER	OPL-01

The Mercury Mitigated Negative Declaration (MND) went out for public review between July 8, 2022, and August 6, 2022, and a community meeting was held on August 11, 2022. A total of 16 public comments from agencies, organizations, and residents and interested parties were received; an overview of commenting agencies or persons is listed in Table 1. While responses to comments are not required for an MND, this memo provides responses to each comment received.

Table 1 Comments Received

Number Reference	Commenting Agency/Person	Date
Agencies		
A1	California Department of Transportation District 7 (Caltrans)	August 2, 2022
Organizations		
O1	Lozeau | Drury LLP, on behalf of Supporters Alliance for Environmental Responsibility (SAFER)	August 5, 2022
O2	Mitchell M. Tsai, Attorney at Law, on behalf of Southwest Regional Council of Carpenters (SWCC)	August 5, 2022
Residents and Interested Parties		
R1	Maria Susana Corcedo	August 11, 2022
R2	Leticia Santillan	August 11, 2022
R3	Elvia Alvarado	August 11, 2022

Table 1 Comments Received

Number Reference	Commenting Agency/Person	Date
R4	Miguel Santillan	August 11, 2022
R5	[no name given]	August 11, 2022
R6	Maricela Lizarraga	August 11, 2022
R7	Rafael Gonzales	August 11, 2022
R8	Veronica Malvido	August 11, 2022
R9	[no name given]	August 11, 2022
R10	[two residents, no names given]	August 11, 2022
R11	Emmanuel Sandoval	August 12, 2022
R12	Veronica Malvido	August 16, 2022
R13	Brad Morgan	August 19, 2022

Response to Comments

This section contains the responses to comments on the MND. The comment letter is first displayed, then the responses. Each comment letter is bracketed and labeled, and responses are provided for each bracketed comment.

Letter A1 – California Department of Transportation (4 pages)

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 269-1124
FAX (213) 897-1337
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life

A1

August 2, 2022

Julia Gonzalez, Deputy Director
City of Pico Rivera
6615 Passons Boulevard
Pico Rivera

RE: The Mercury Project
SCH # 2022070126
Vic. LA-605/PM R12.06, LA-05/PM 8.32
GTS # LA-2022-03998-MND

Dear Julia Gonzalez:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced environmental document. The proposed project involves development of a three to six-story mixed-use building with a 6.5-level parking structure in the core, 1 level of subterranean parking, ground-floor retail and residential uses, and residential uses in floors two through six on a 2.85-acre site. The building is a wrap-style with parking levels extending all floors interior to the building. The proposed project would develop 255 dwelling units consisting of a mix of studios, junior studios, one-bedrooms, two-bedrooms, and three-bedrooms, with 13 units set aside as affordable housing units. Up to 5,730 square feet of retail space, up to 1,750 square feet of ground-floor lobby/leasing space, up to 17,010 square feet of rooftop pool/community recreation, and up to 190,000 square feet of parking are included as part of the proposed project. A1-1

The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. Senate Bill 743 (2013) has codified into CEQA law and mandated that CEQA review of transportation impacts of proposed development be modified by using Vehicle Miles Traveled (VMT) as the primary metric in identifying transportation impacts for all future development projects. You may reference the Governor's Office of Planning and Research (OPR) for more information:

http://opr.ca.gov/ceqa/updates/guidelines/

"Provide a safe and reliable transportation network that serves all people and respects the environment"

As a reminder, VMT is the standard transportation analysis metric in CEQA for land use projects after July 1, 2020, which is the statewide implementation date.

Caltrans is aware of challenges that the region faces in identifying viable solutions to alleviating congestion on State and Local facilities. With limited room to expand vehicular capacity, all future developments should incorporate multi-modal and complete streets transportation elements that will actively promote alternatives to car use and better manage existing parking assets. Prioritizing and allocating space to efficient modes of travel such as bicycling and public transit can allow streets to transport more people in a fixed amount of right-of-way.

Caltrans supports the implementation of complete streets and pedestrian safety measures such as road diets and other traffic calming measures. Please note the Federal Highway Administration (FHWA) recognizes the road diet treatment as a proven safety countermeasure, and the cost of a road diet can be significantly reduced if implemented in tandem with routine street resurfacing. Overall, the environmental report should ensure all modes are served well by planning and development activities. This includes reducing single occupancy vehicle trips, ensuring safety, reducing vehicle miles traveled, supporting accessibility, and reducing greenhouse gas emissions. A1-1 cont'd

For this project, we encourage the Lead Agency to evaluate the potential of Transportation Demand Management (TDM) strategies and Intelligent Transportation System (ITS) applications in order to better manage the transportation network, as well as transit service and bicycle or pedestrian connectivity improvements. For additional TDM options, please refer to the Federal Highway Administration's *Integrating Demand Management into the Transportation Planning Process: A Desk Reference* (Chapter 8). This reference is available online at:

http://www.ops.fhwa.dot.gov/publications/fhwahop12035/fhwahop12035.pdf

Pedestrians and Bicycles

Public sidewalks and pedestrian facilities are provided on all streets within the project vicinity. The proposed project is designed to encourage pedestrian activity and walking as a transportation mode with a Walkability score for the project site of approximately 81 (Very Walkable) out of 100. Proposed project features would include landscaped pedestrian walkways connecting facilities within the site, as well as connections with the adjacent public sidewalks on the Washington Boulevard project frontage for access to nearby pedestrian and transit facilities. As part of the Specific Plan, street trees and streetscape plantings will be provided along the public frontages in accordance with the City's standards. In addition, project signage will include wayfinding pedestrian signage around the perimeter of the project site, building identification signs, and other sign types. A1-2

Wayfinding signs would be located at access points to the on-site amenities and facilities and parking areas.

Bicycle access to the project site will be facilitated by the County's bicycle roadway network. Walk Score calculates a bike score based on the topography, number and proximity of bike lanes, etc., and generates a bike score for the project site of approximately 58 (Bikeable) out of 100. Proposed bicycle facilities (e.g., Class I Bicycle Path, Class II Bicycle Lanes, Class III Bicycle Routes, Proposed Bicycle Routes, Bicycle Boulevards, etc.) identified in the City's Circulation Element12 will be located within an approximate one-mile radius from the project site. A Class II Bicycle Lane is proposed for Rosemead Boulevard between Gallatin Road and I-5 Freeway. In addition, a Class III Bicycle Route is proposed for Washington Boulevard between Telegraph Road and the San Gabriel River. A1-2 cont'd

Transit

Public transit service in the vicinity of the project is currently provided by the Los Angeles County Metropolitan Transportation Authority (Metro), Montebello Transit and Norwalk Transit. Metro is evaluating an extension of the Metro L (Gold) Line further east from its current terminus in East Los Angeles potentially through the cities of Commerce, Montebello, Pico Rivera, Santa Fe Springs and Whittier. The proposed light rail line would travel south along Atlantic Boulevard underground from the current Metro L (Gold) Line terminus at Pomona Boulevard and Atlantic Boulevard to the Citadel Outlets in the City of Commerce. The route would then proceed east along Washington Boulevard via aerial and/or at-grade (street level) configurations with an above grade station at Rosemead Boulevard and ending at Lambert Road in the City of Whittier. A1-3

VMT

The estimated residential VMT per capita for the proposed project is estimated at 14.13 residential VMT per capita which is higher than the residential significance threshold at 12.23 VMT per capita (15% below the existing baseline residential 14.39 VMT per capita). The following TDM strategies have been determined to be applicable as project design features:

- T-1. Increase Residential Density (9.79%)
- T-4: Integrate Affordable and Below Market Rate Housing (1.43%)
- T-15: Limit Residential Parking Supply (3.84%)

A1-4

The combination of the TDM measures discussed above results in a 14.49 percent (14.49%) reduction in VMT. The residential VMT per capita for the proposed project would subsequently be reduced to 12.08 residential VMT per capita, which is below the calculated City significance threshold of 12.23 residential VMT per capita. Therefore, the TDM measures which have been incorporated into the project design are expected to reduce the project's VMT to a less than significant level. It is concluded that development

of the project is not expected to result in a significant residential (household) VMT impact based on the City's significance thresholds contained herein.

We understand that VMT calculation is based on a VMT model in which the outcome is speculative without validation. However, a post-development VMT analysis with all mitigation measures should be prepared for monitoring purpose and for future project thresholds in the area. A post-development VMT analysis should include actual VMT survey and interview with real drivers. This VMT analysis would produce more accurate outcome in the area for the Lead Agency. Additional mitigation measure should be implemented when the post-development VMT analysis discloses any traffic significant impact. A1-4 cont'd

Other

As a reminder, any transportation of heavy construction equipment and/or materials which requires use of oversized-transport vehicles on State highways will need a Caltrans transportation permit. We recommend large size truck trips be limited to off-peak commute periods. A1-5

If you have any questions, please feel free to contact Mr. Alan Lin the project coordinator at (213) 269-1124 and refer to GTS # LA-2022-03998-MND.

Sincerely,

Miya Edmonson

MIYA EDMONSON
LDR/CEQA Branch Chief

email: State Clearinghouse

"Provide a safe and reliable transportation network that serves all people and respects the environment"

A1. Response to Comments from Miya Edmonson from California Department of Transportation (Caltrans), dated August 2, 2022.

A1-1 This comment expresses a statement of appreciation to the City of Pico Rivera for including Caltrans in the environmental review process and describes the proposed development project and current regulatory framework. These comments are introductory in nature and do not express a concern regarding the adequacy of the IS/MND analysis nor the transportation impact analysis report. The commenter also expresses acknowledgement and support for development projects that prioritize alternative modes of travel.

As outlined in the Section 3.17, Transportation, and Appendix F of the IS/MND (Transportation Impact Analysis Report), a vehicle miles traveled (VMT) analysis consistent with the California Office of Planning and Research's Technical Advisory was prepared for the proposed Project. Project-specific regional travel demand modeling was conducted using the SCAG Regional Travel Demand Model (RTDM). As discussed on pages 109 through 111, the VMT reducing strategies, referred to as transportation demand management (TDM) strategies contained in the California Air Pollution Control Officers Association's (CAPCOA*) Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*[1] ("2021 Handbook"), were evaluated to determine the applicability to the proposed project. The proposed project incorporates the following TDM measures: "Increase Residential Density," "Integrated Affordable and Below Market Rate Housing," and "limited Residential Parking Supply" (see pages 110 and 111).

The proposed project would support pedestrian and bicycling and alternative modes as transit. As discussed in Transportation threshold (a), the proposed project would support the City's Circulation Element, including goals and policies pertaining to complete streets, transit and public transportation, bicycle routes and pedestrian facilities, safety, and others. As discussed under Transportation threshold (c), the proposed project would not introduce hazards due to geometric design features nor incompatible uses. The proposed project would support vehicle and pedestrian safety. The comment does not express a concern regarding the adequacy of the MND, and the comments will be forwarded to the decision-makers for their required review and consideration prior to a final decision on the proposed project.

A1-2 This comment describes the existing pedestrian facilities in the vicinity of the project site and acknowledges the proposed project features to encourage and enhance pedestrian access and circulation to and from the project site as outlined in Section 3.17, *Transportation*, and Appendix F of the IS/MND (Transportation Impact Analysis Report). This comment also acknowledges the proposed bicycle facilities in the vicinity of the

[1] *Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity Final Draft*, California Air Pollution Control Officers Association, December 2021, adopted December 15, 2021.

proposed project as part of the County's bicycle roadway network, as summarized in Appendix F of the MND.

As noted by the commenter, the proposed project would include landscaped pedestrian walkways connecting facilities within the site as well to the adjacent public facilities along the Washington Boulevard project frontage to access nearby pedestrian and transit facilities. In addition, the proposed project is planned to provide bicycle parking and storage, with a minimum of 12 long-term bicycle spaces and a minimum of four short-term bicycle spaces. Thus, the proposed project would provide residents and visitors convenient access to public transit and opportunities for walking and biking, which would facilitate a reduction in regional VMT and related vehicular-related greenhouse gas emissions (GHG). The comment does not express a concern regarding the adequacy of the pedestrian and bicycle discussion in the IS/MND or within Appendix F of the MND. The comment is noted and will be forwarded to the decision-makers for their required review and consideration prior to a final decision on the proposed project.

A1-3 This comment acknowledges the public transit services that are provided in the vicinity of the proposed project as described in the IS/MND and Appendix F of the IS/MND (Transportation Impact Analysis Report). The commenter also acknowledges the current evaluation of the extension of the Metro L (Gold) Line further east, which is planned to extend along portions of Washington Boulevard within the project vicinity via aerial and/or at-grade (street level) configurations with a potential above-grade station at Rosemead Boulevard. The proposed project has purposely been sited to be in close proximity to these services so as to encourage future residents' use of other modes of transportation. It is important to note that the Draft Environmental Impact Report (Draft EIR) for the Eastside Transit Corridor Phase 2 Project is currently circulating for public review (as of the writing of these responses), and this Metro L Line (former Gold Line) extension is currently forecast to open and become operational in Year 2035, which is well beyond the opening date of the proposed project. This comment does not identify a deficiency in the analysis. The comment is noted and will be forwarded to the decision-makers for their required review and consideration prior to a final decision on the Project.

A1-4 This comment acknowledges and describes the results of the VMT analysis/assessment and conclusions as outlined in the IS/MND and within Appendix F of the IS/MND (Transportation Impact Analysis Report). The commenter acknowledges that the TDM measures, which have been incorporated into the project design, are expected to reduce the proposed project's VMT to a less than significant level. As such, the commenter acknowledges that development of the proposed project would not result in a significant residential (household) VMT impact based on the City's significance thresholds and mitigation measures are not warranted. The commenter provides the opinion that the VMT calculation is based on a VMT model in which the outcome is speculative and without validation.

The adopted CEQA Guidelines 15064.3 explains that a lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled and may use models to estimate a project's vehicle miles traveled. As outlined in the MND Transportation Section and Appendix F of the MND (Transportation Impact Analysis Report), a VMT analysis consistent with the California Office of Planning and Research's Technical Advisory was prepared for the proposed Project. Project-specific regional travel demand modeling was conducted using the Southern California Association of Governments (SCAG) Regional Travel Demand Model (RTDM). According to the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report,[2] the SCAG RTDM is the best available tool to estimate VMT in Los Angeles County. The VMT model used in the project-level VMT impact analysis is the same model utilized to develop the relevant thresholds of significance, and therefore rely on the same travel demand database.

The commenter further expresses the opinion that post-development surveys/interviews should be conducted to determine the actual VMT for monitoring purposes and for future project thresholds in the area, and that additional mitigation measures should be implemented in the event the post-development VMT analysis discloses significant impacts. The VMT calculations and thresholds are based upon average trip making behaviors in the project area and the City of Pico Rivera, respectively (similar to the vehicle trip generation rates published by the Institute of Transportation Engineers, which represent an average of driveway count studies conducted at existing land uses). While monitoring of actual travel behavior may improve future transportation model calibration and validation efforts, it is noted that the actual VMT generated by a residential project will depend on the individual circumstances of the residents at any given time. Actual VMT may vary year to year over the life of the project, and even month to month assuming a static mix of residents. It is for this reason that average travel behaviors are utilized when establishing thresholds and preparing project-level VMT calculations. The VMT estimates provided in the MND likely overstates travel by project residents. For example, the COVID-19 pandemic has substantially and likely permanently changed telework, which was not considered in the SCAG RTDM prepared pre-pandemic. By example, the Orange County Transportation Authority (OCTA) determined, based on an employment travel survey,[3] that in February 2020 (pre-pandemic), an average of 0.76 days per five-day work week, or 15.1 percent of working days, were worked via teleworking. OCTA further found that teleworking increased to an average of 2.56 days per work week, or 52.8 percent of working days, in response to the COVID-19 pandemic. Further, surveyed employees expect to telework 1.55 days per work week on average, or 31.2 percent of working days, in post-pandemic conditions. It is therefore expected that the percent of employees teleworking will remain elevated in

[2] Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report, Fehr & Peers, June 2020.
[3] "Employment & Travel Survey: Summary Report of Pandemic Impacts," prepared for OCTA by True North Research, Inc., December 14, 2021.

the post-pandemic period, substantially reducing VMT, which is not considered in the SCAG RTDM and therefore not in the VMT analysis provided in the MND.

A1-5 The commenter provides a reminder regarding the need of a Caltrans transportation permit for use of any oversized transport vehicles on State highways during construction of the proposed project and expresses the preference that large-sized truck trips be limited to off-peak commute periods. A construction phasing analysis has been prepared for the proposed project and is provided in Chapter 6.0 of the Transportation Impact Analysis Report contained within Appendix F of the IS/MND. As discussed in the Transportation Impact Analysis Report, the Applicant is preparing a Construction Staging and Traffic Management Plan, and it is anticipated that most haul truck activity to and from the project site would occur outside of the morning and afternoon peak hours (see page 57 of Appendix F). The project developer will comply with regulations pertaining to oversized-transport vehicles on State highways. The comments will be forwarded to the decision-makers for their required review and consideration prior to any action being taken on the proposed project.

Letter O1 – Supporters Alliance for Environmental Responsibility (32 pages)

O1

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August 5, 2022

Via E-mail

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Re: Comment on the Initial Study and Mitigated Negative Declaration for the Mercury Mixed-Use Development Project at 8825 Washington Boulevard

Dear Deputy Director Gonzalez:

I am writing on behalf of Supporters Alliance for Environmental Responsibility ("SAFER") regarding the Initial Study and Mitigated Negative Declaration ("IS/MND") prepared for the Mercury Mixed-Use Development project, including all actions related or referring to the proposed construction of a six-story mixed-use development building with 255 residential units, approximately 5,730 square feet of commercial space, and a "wrap" style internal parking structure with 464 parking spaces, located at 8825 Washington Boulevard in Pico Rivera, California ("Project").

After reviewing the IS/MND, we conclude that the IS/MND fails as an informational document, and that there is a fair argument that the Project may have adverse environmental impacts. Therefore, we request that the City of Pico Rivera ("City") prepare an environmental impact report ("EIR") for the Project pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code section 21000, et seq. O1-1

This comment has been prepared with the assistance of Certified Industrial Hygienist Francis Offerman, PE, CIH. Mr. Offermann's comment and curriculum vitae are attached as Exhibit A hereto and are incorporated herein by reference in their entirety.

I. PROJECT DESCRIPTION

The Project applicant, Mercury Bowl, LLC: Green Rivera, LLC, is seeking approval from the City of Pico Rivera for implementation of The Mercury Specific Plan (Specific Plan) that includes the development of a three to six-story mixed-use building with a 6.5-level parking structure in the core, including 1 level of subterranean parking, ground-floor retail and residential O1-2

uses, and residential uses in floors two through six (proposed project) on a 2.85-acre site in Pico Rivera. (IS/MND, pp. 1, 11.)

The proposed Project would develop 255 dwelling units (approximately 258,720 square feet) consisting of a mix of studios, one-bedrooms, two-bedrooms, and three bedrooms; up to 5,730 square feet of retail; up to 1,750 square feet of ground-floor lobby/leasing space; up to 17,010 square feet of rooftop pool/community recreation; and up to 190,000 square feet of parking. (See, IS/MND, pp. 11-12.) Thirteen residential units would be dedicated as affordable. The first floor of the proposed building is a mix of retail, residential, public seating areas, and a main lobby/leasing office. Floors two through six include residential units, parking, and related residential amenities. Parking levels would extend from all floors that are interior to the building and one level of subterranean parking. The roof deck of the parking structure would include a pool and recreation facilities such as a gym and clubhouse for use by residents only. According to the Project applicant, the building would have a wrap-style design, i.e., the commercial space and apartments "wrap" around the internal parking structure. (See, e.g., *id.*, p. 13 [Figure 4 - Site Plan].)

The Project is located at 8825 Washington Boulevard (APN: 6370-027-018) in the central part of Pico Rivera in Los Angeles County, California. The Project site is bounded by Washington Boulevard to the south and adjacent commercial uses to the north, east, and west. A single-family residential neighborhood borders the site to the northwest. (IS/MND, p. 1; see also, *id.*, p. 9 [Figure 3 - Aerial Photograph of Project site].) The General Plan designation is Mixed-Use/Housing Element Site Opportunity Area 8 (the Rosemead Boulevard and Washington Boulevard Opportunity Area). The zoning is General Commercial (C-G). O1-2

The 2.85 acres project site is currently vacant and fenced off with no public access. According to the IS/MND, the Project site was previously developed with a commercial building that operated as a nightclub until March 2015 and was subsequently demolished in 2020. (IS/MND, p. 1.) The site is currently paved and contains ornamental landscaping, including palm trees.

Implementation of the proposed Project would require a General Plan amendment, zone code amendment, zone reclassification, conditional use permit, and approval of a Specific Plan. The City prepared an IS/MND for the proposed Project. Based on the IS/MND's findings, the City concluded that the impacts of the proposed Project would be mitigated to less-than-significant levels with the implementation of mitigation measures for the following areas:

- Air Quality
- Biological Resources
- Cultural Resources
- Noise
- Tribal Cultural Resources

(IS/MND, p. 38.)

However, based on the information provided in the IS/MND and associated appendices, we recommend that the Planning Division of the Community & Economic Development Department refrain from approving the Project and MND until the City prepares an EIR to adequately analyze and mitigate the indoor and outdoor air quality, greenhouse gas, and noise impacts related to the proposed Project. O1-2 cont'd

II. LEGAL STANDARD

As the California Supreme Court has held, "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR." (*Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319–20 ["*CBE v. SCAQMD*"] [citing *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 88; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491, 504-505].) "Significant environmental effect" is defined very broadly as "a substantial or potentially substantial adverse change in the environment." (Pub. Res. Code ("PRC") § 21068; see also, 14 CCR § 15382.) An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." (*No Oil, Inc.*, 13 Cal.3d at 83.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Env't v. Cal. Res. Agency* (2002) 103 Cal.App.4th 98, 109 ["*CBE v. CRA*"].)

O1-3

The EIR is the very heart of CEQA. (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214 ["*Bakersfield Citizens*"]; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927.) The EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return." (*Bakersfield Citizens*, 124 Cal.App.4th at 1220.) The EIR also functions as a "document of accountability," intended to "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." (*Laurel Heights Improvements Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 392.) The EIR process "protects not only the environment but also informed self-government." (*Pocket Protectors*, 124 Cal.App.4th at 927.)

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment." (PRC § 21080(d); see also, *Pocket Protectors*, 124 Cal.App.4th at 927.) In very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact thus requiring no EIR (14 CCR § 15371), only if there is not even a "fair argument" that the project will have a significant environmental effect. (PRC §§ 21100, 21064.) Since "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process," by allowing the agency "to dispense with the duty [to prepare an EIR]," negative declarations are allowed only in cases

where "the proposed project will not affect the environment at all." (*Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440.)

Mitigation measures may not be construed as project design elements or features in an environmental document under CEQA. The MND must "separately identify and analyze the significance of the impacts … before proposing mitigation measures…." (*Lotus vs. Department of Transportation* (2014) 223 Cal.App.4th 645, 658.) A "mitigation measure" is a measure designed to minimize a project's significant environmental impacts, (PRC § 21002.1(a)), while a "project" is defined as including "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." (CEQA Guidelines § 15378(a).) Unlike mitigation measures, project elements are considered prior to making a significance determination. Measures are not technically "mitigation" under CEQA unless they are incorporated to avoid or minimize "significant" impacts. (PRC § 21100(b)(3).)

To ensure that the project's potential environmental impacts are fully analyzed and disclosed, and that the adequacy of proposed mitigation measures is considered in depth, mitigation measures that are not included in the project's design should not be treated as part of the project description. (*Lotus*, 223 Cal.App.4th at 654-55, 656 fn.8.) Mischaracterization of a mitigation measure as a project design element or feature is "significant," and therefore amounts to a material error, "when it precludes or obfuscates required disclosure of the project's environmental impacts and analysis of potential mitigation measures." (*Mission Bay Alliance v. Office of Community Investment & Infrastructure* (2016) 6 Cal.App.5th 160, 185.)

O1-3 cont'd

Where an initial study shows that the project may have a significant effect on the environment, a mitigated negative declaration may be appropriate. However, a mitigated negative declaration is proper *only* if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study "to a point where clearly no significant effect on the environment would occur, and…there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (PRC §§ 21064.5, 21080(c)(2); *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331.) In that context, "may" means a reasonable possibility of a significant effect on the environment. (PRC §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors*, 124 Cal.App.4th at 927; *League for Protection of Oakland's etc. Historic Res. v. City of Oakland* (1997) 52 Cal.App.4th 896, 904–05.)

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (14 CCR § 15064(f)(1); *Pocket Protectors,* 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-51; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602.) The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. (*Pocket Protectors*, 124 Cal.App.4th at 928.)

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

> This 'fair argument' standard is very different from the standard normally followed by public agencies in their decision making. Ordinarily, public agencies weigh the evidence in the record and reach a decision based on a preponderance of the evidence. [Citation]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact.

(Kostka & Zischke, *Practice Under the CEQA*, §6.37 (2d ed. Cal. CEB 2021).) The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with *a preference for resolving doubts in favor of environmental review*." (*Pocket Protectors*, 124 Cal.App.4th at 928 [emph. in original].)

CEQA requires that an environmental document include a description of the project's environmental setting or "baseline." (CEQA Guidelines § 15063(d)(2).) The CEQA "baseline" is the set of environmental conditions against which to compare a project's anticipated impacts. (*CBE v. SCAQMD*, 48 Cal.4th at 321.) CEQA Guidelines section 15125(a) states, in pertinent part, that a lead agency's environmental review under CEQA: O1-3 cont'd

> …must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time [environmental analysis] is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant.

(*See Save Our Peninsula Committee v. County of Monterey* (2001) 87 Cal.App.4th 99, 124-25 ("*Save Our Peninsula*").) As the court of appeal has explained, "the impacts of the project must be measured against the 'real conditions on the ground,'" and not against hypothetical permitted levels. (*Id.* at 121-23.)

III. DISCUSSION

There is a fair argument that the proposed Project may have unmitigated adverse environmental impacts. An EIR is therefore required to adequately analyze and mitigate the impacts of the Project. O1-4

A. There is Substantial Evidence of a Fair Argument that the Project Will Have a Significant Health Risk Impact from its Indoor Air Quality Impacts.

Certified Industrial Hygienist, Francis "Bud" Offermann, PE, CIH, has conducted a review of the proposed Project and relevant documents regarding the Project's indoor air

emissions. Indoor Environmental Engineering Comments (August 5, 2022) (Exhibit A). Mr. Offermann concludes that it is likely that the Project will expose residents and commercial employees of the Project to significant impacts related to indoor air quality, and in particular, emissions of the cancer-causing chemical formaldehyde. Mr. Offermann is a leading expert on indoor air quality and has published extensively on the topic. Mr. Offermann's expert comments and curriculum vitae are attached as Exhibit A.

Mr. Offermann explains that many composite wood products used in building materials and furnishings commonly found in offices, warehouses, residences, hotels, and commercial spaces contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. He states, "The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims." (Ex. A, pp. 2-3.) O1-4 cont'd

Formaldehyde is a known human carcinogen. Mr. Offermann states that there is a fair argument that future residents will be exposed to a cancer risk from formaldehyde of approximately 120 per million, assuming all materials are compliant with the California Air Resources Board's formaldehyde airborne toxics control measure. (*Id.*, pp. 3-4) This exceeds the South Coast Air Quality Management District's ("SCAQMD") CEQA significance threshold for airborne cancer risk of 10 per million. (*Id.*, p. 3.)

In addition, Mr. Offermann states that there is a fair argument that the employees of the Project's commercial spaces are expected to experience significant work-day exposures. (*Id.*, pp. 4-5.) This exposure of employees would result in "significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in offices, warehouses, residences and hotels." (*Id.*, p. 4.) Assuming they work eight hour days, five days per week, an employee would be exposed to a cancer risk of approximately 17.7 per million, assuming all materials are compliant with the California Air Resources Board's formaldehyde airborne toxics control measure. (*Id.*, pp. 4-5.) This is more than the SCAQMD CEQA significance threshold for airborne cancer risk of 10 per million. (Ex. A, p. 5.) O1-5

Mr. Offermann also notes that the high cancer risk that may be posed by the Project's indoor air emissions likely will be exacerbated by the additional cancer risk that exists as a result of the Project's location near roadways with moderate to high traffic (i.e. East Washington Boulevard, Rosemead Boulevard, Crossway Drive, etc.) and the high levels of PM2.5 already present in the ambient air. (*Id.*, pp. 10-12.) No analysis has been conducted of the significant cumulative health impacts that will result to future residents and employees of the Project. O1-6

Mr. Offermann concludes that these significant environmental impacts should be analyzed in an EIR and mitigation measures should be imposed to reduce the risk of formaldehyde exposure. (*Id.*, p. 5.) Mr. Offermann identifies mitigation measures that are available to reduce these significant health risks, including the installation of air filters and a O1-7

requirement that the applicant use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins or ultra-low emitting formaldehyde (ULEF) resins in the buildings' interiors. (*Id.*, pp. 12-13.)

O1-7 cont'd

The City has a duty to investigate issues relating to a project's potential environmental impacts, especially those issues raised by an expert's comments. (See, *Cty. Sanitation Dist. No. 2 v. Cty. of Kern*, (2005) 127 Cal.App.4th 1544, 1597–98 ["under CEQA, the lead agency bears a burden to investigate potential environmental impacts"].) In addition to assessing the Project's potential health impacts to residents and employees, Mr. Offermann identifies the investigatory path that the City should be following in developing an EIR to more precisely evaluate the Projects' future formaldehyde emissions and establishing mitigation measures that reduce the cancer risk below the SCAQMD level. (Ex. A, pp. 6-10.) Such an analysis would be similar in form to the air quality modeling and traffic modeling typically conducted as part of a CEQA review.

O1-8

The failure to address the Project's formaldehyde emissions is contrary to the California Supreme Court's decision in *California Building Industry Ass'n v. Bay Area Air Quality Mgmt. Dist.* (2015) 62 Cal.4th 369, 386 ("*CBIA*"). At issue in *CBIA* was whether the Air District could enact CEQA guidelines that advised lead agencies that they must analyze the impacts of adjacent environmental conditions on a project. The Supreme Court held that CEQA does not generally require lead agencies to consider the environment's effects on a project. (*CBIA*, 62 Cal.4th at 800-801.) However, to the extent a project may exacerbate existing adverse environmental conditions at or near a project site, those would still have to be considered pursuant to CEQA. (*Id.* at 801 ["CEQA calls upon an agency to evaluate existing conditions in order to assess whether a project could exacerbate hazards that are already present"].) In so holding, the Court expressly held that CEQA's statutory language required lead agencies to disclose and analyze "impacts on ***a project's users or residents*** that arise ***from the project's effects*** on the environment." (*Id.* at 800 [emph. added].)

O1-9

The carcinogenic formaldehyde emissions identified by Mr. Offermann are not an existing environmental condition. Those emissions to the air will be from the Project. Residents and commercial employees will be users of the Project. Currently, there is presumably little if any formaldehyde emissions at the site. Once the project is built, emissions will begin at levels that pose significant health risks. Rather than excusing the City from addressing the impacts of carcinogens emitted into the indoor air from the project, the Supreme Court in *CBIA* expressly finds that this type of effect by the project on the environment and a "project's users and residents" must be addressed in the CEQA process.

The Supreme Court's reasoning is well-grounded in CEQA's statutory language. CEQA expressly includes a project's effects on human beings as an effect on the environment that must be addressed in an environmental review. "Section 21083(b)(3)'s express language, for example, requires a finding of a 'significant effect on the environment' (§ 21083(b)) whenever the 'environmental effects of a project will cause substantial adverse effects *on human beings,* either

directly or indirectly.'" (*CBIA*, 62 Cal.4th at 800 [emph. in original].) Likewise, "the Legislature has made clear—in declarations accompanying CEQA's enactment—that public health and safety are of great importance in the statutory scheme." (*Id.*, citing e.g., §§ 21000, subds. (b), (c), (d), (g), 21001, subds. (b), (d).) It goes without saying that the future residents and commercial employees of the Project are human beings and the health and safety of those residents and workers is as important to CEQA's safeguards as nearby residents currently living near the project site. O1-9 cont'd

Because Mr. Offermann's expert review is substantial evidence of a fair argument of a significant environmental impact to future users of the Project, an EIR must be prepared to disclose and mitigate those impacts.

B. The IS/MND Failed to Adequately Analyze and Mitigate the Project's Air Quality and Greenhouse Gas Impacts.

1. <u>The IS/MND relied on unsubstantiated input parameters to estimate project emissions and thus the Project may result in significant air quality impacts.</u>

After reviewing the IS/MND and the Air Quality and Greenhouse Gas Analyses' CalEEMod output files, included as Appendix A to the IS/MND, several model inputs used to generate a project's construction and operation emissions were found to not be consistent with information disclosed in the IS/MND. As a result, the Project's construction and operational emissions are underestimated. An EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that Project construction and operation will have on local and regional air quality.

O1-10

Specifically, several values used in the IS/MND and the Air Quality and Greenhouse Gas Analyses were found to be either inconsistent with information provided in the IS/MND or otherwise unjustified, including:

1. Unsubstantiated Reduction to Architectural Coating Emission Factor;
2. Failure to Substantiate Amount of Material Export;
3. Unsubstantiated Reduction to Number of Gas Fireplaces;
4. Unsubstantiated Changes to Operational Vehicle Fleet Mix Percentages;
5. Failure to Model Proposed Amount of Solid Waste;
6. Unsubstantiated Reductions to Indoor and Outdoor Water Use Rates;
7. Unsubstantiated Reductions to Wastewater System Treatment Percentages; and
8. Incorrect Application of Construction-Related Mitigation Measures.

As a result of these errors in the IS/MND, the Project's construction and operational emissions were underestimated and cannot be relied upon to determine the significance of the Project's air quality impacts. Thus, an EIR is needed to adequately address the air quality impacts of the proposed Project, and to mitigate those impacts accordingly.

2. The IS/MND failed to adequately evaluate health risks from diesel particulate matter emissions and thus the Project may result in significant health impacts as a result of diesel particulate matter emissions.

An EIR should be prepared to evaluate the significant health impacts to individuals and workers from the Project's operational and construction-related diesel particulate matter ("DPM") emissions. The IS/MND incorrectly concluded that the Project would have a less-than-significant health risk impact without conducting a quantified construction or operational health risk analysis ("HRA"). (See, IS/MND, pp. 56-57.) However, the IS/MND fails to mention or evaluate the toxic air contaminant ("TAC") emissions associated with Project operation whatsoever. As such, the IS/MND's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect for two reasons. O1-11

First, by failing to prepare a quantified construction and operational HRA, the Project is inconsistent with CEQA's requirement to correlate the increase in emissions that the Project would generate to the adverse impacts on human health caused by those emissions. The IS/MND's conclusion is also inconsistent with the most recent guidance published by the Office of Health Hazard Assessment ("OEHHA"). (See, "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.) O1-12

Second, by failing to prepare a quantified construction and operational HRA for nearby, existing sensitive receptors, the IS/MND fails to compare the excess health risk impact of the Project to the SCAQMD's specific numeric threshold of 10 in one million. Without conducting a quantified construction and operational HRA, the IS/MND also fails to evaluate the cumulative lifetime cancer risk to nearby, existing receptors from the Project's construction and operation together. This is incorrect, and as a result, the IS/MND's evaluation cannot be relied upon to determine Project significance. OEHHA guidance requires that the excess cancer risk be calculated separately for all sensitive receptor age bins, then summed to evaluate the total cancer risk posed by all Project activities. Therefore, in accordance with the most relevant guidance, an assessment of the health risk posed to nearby, existing receptors from Project construction and operation should have been conducted and compared to the SCAQMD threshold of 10 in one million. O1-13

Thus, to more accurately determine the health risks associated with the Project's operational and construction-related DPM emissions, an EIR should be prepared that includes updated health risk calculations using correct guidance.

3. The IS/MND failed to adequately analyze greenhouse gas impacts and thus the Project may result in significant greenhouse gas emissions.

Review of the IS/MND and Air Quality and Greenhouse Gas Analyses (included at Appendix A), found that the City failed to adequately evaluate the Project's greenhouse gas ("GHG") impacts. The IS/MND estimates that the Project would generate net annual GHG O1-14

emissions of 2,958 metric tons of carbon dioxide equivalents per year ("MT CO2e/year"), which would not exceed the SCAQMD threshold of 3,000 MT CO2e/year. (IS/MND, p. 72, Table 13.) Furthermore, the IS/MND's analysis relies upon the Project's consistency with the CARB 2017 Scoping Plan and SCAG 2020-2045 RTP/SCS to conclude that the Project would result in a less-than-significant GHG impact. (*Id.*, pp. 72-73.) However, the IS/MND's analysis, as well as the subsequent less-than-significant impact conclusion, is incorrect for three reasons. O1-14 cont'd

First, the IS/MND's analysis relies upon a flawed air model, as discussed above. As a result, GHG emissions are underestimated and the IS/MND's quantitative GHG analysis should not be relied upon to determine Project significance. An EIR should be prepared and emissions remodeled and compared to the applicable thresholds. O1-15

Second, the IS/MND utilizes an outdated GHG threshold. When compared to the correct quantitative threshold, the Project's GHG emissions are demonstrably significant. O1-16

Third, the IS/MND fails to consider the performance-based standards underlying CARB's Scoping Plan. As a result, the IS/MND's GHG significance determination regarding the Project's consistency with applicable plans and policies should not be relied upon. Instead, an EIR should be prepared that includes a quantitative consistency evaluation utilizing the appropriate standards, as well as mitigation measures to reduce GHG emissions to less-than-significant levels. O1-17

C. There is Substantial Evidence of a Fair Argument that the Project Will Have Significant Noise Impacts.

Review of the proposed Project and the Noise and Vibration Analysis, which is included as Appendix D to the IS/MND, provides substantial evidence that the IS/MND improperly analyzed construction noise levels and failed to adequately mitigate significant construction noise impacts.

According to the IS/MND, "[t]he nearest sensitive receptors are single-family residences adjacent to the proposed project site, to the north and west." (IS/MND, p. 85.) Based on the noise levels presented in the IS/MND, "construction-related noise levels could, at times, exceed the 80 dBA $Leq_{(8hr)}$ threshold at the nearest sensitive receptors, and therefore this impact would be potentially significant," without adequate mitigation. (IS/MND, p. 89.) Moreover, the IS/MND found that Project construction could also result in vibration annoyance and vibration-induced architectural damage to nearby, sensitive receptors (i.e. single-family residences to the north and west) that would exceed threshold levels without adequate mitigation. Specifically, the IS/MND stated: O1-18

> A significant impact would occur if vibration levels would exceed 72 VdB at sensitive receptors. Vibration from the project would be generated from temporary construction activities.... The nearest acoustical center to single-family residences to the west would be approximately 95 feet away from the proposed project. The nearest acoustical center to single-family residences to the north

> would be approximately 210 feet away.... ***[V]ibration levels could potentially exceed the 72 VdB threshold at residences to the west during paving if a vibratory roller is used***. (IS/MND, p. 94 [emph. added].)
>
> A significant impact would occur if vibration levels would exceed 0.2 in/sec PPV at the façade of the surrounding structures. Construction activity could occur within 15 feet of sensitive receptors (single-family residences to the north and west). This would include grading and paving.... ***[V]ibration levels could exceed 0.20 in/sec PPV. Specifically, if a vibratory roller is used within 25 feet of a residential structure and if grading equipment such as a large dozer operates within approximately 15 feet of a nearby residential structure. Therefore, impacts would be potentially significant.*** (*Id.*, pp. 94-95 [emph. added].)

O1-18 cont'd

Although the IS/MND concludes that noise mitigation measures will place noise impacts under significant thresholds, the IS/MND and related appendix fail to provide substantial evidence that demonstrates that these mitigation measures would actually reduce significant noise impacts to less than significant levels. Instead, the IS/MND and appendix provide substantial evidence that the Project will result in significant construction and vibration noise impacts for which the IS/MND fails to adequately mitigate.

As the court in *Communities for a Better Environment v. California Resources Agency* stated, the application of an established regulatory standard cannot be applied in a way that would foreclose the consideration of any other substantial evidence showing there may be a significant effect. (*Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 114.) The court in *Keep Our Mountains Quiet v. County of Santa Clara* also held that an EIR is required if substantial evidence supports a fair argument that the project may have significant unmitigated noise impacts, even if other evidence shows that the project will not generate noise in excess of a noise ordinance. (See, *Keep Out Mountains Quiet v. County of Santa Clara* (2015) 236 Cal.App.4th 714, 732.) Thus, an EIR to analyze potentially unmitigated noise impacts is required.

O1-19

IV. CONCLUSION

For the foregoing reasons, the IS/MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts. SAFER reserves the light to supplement these comments in advance of and during public hearings concerning the Project. (*Galante Vineyards v. Monterey Peninsula Water Management Dist*., 60 Cal. App. 4th 1109, 1121 (1997).) Thank you for your attention to these comments.

O1-20

Sincerely,

Victoria Yundt
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EXHIBIT A

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From: Francis J. Offermann PE CIH

Subject: Indoor Air Quality: The Mercury Project, Pico Rivera, CA
(IEE File Reference: P-4618)

Pages: 19

Indoor Air Quality Impacts

Indoor air quality (IAQ) directly impacts the comfort and health of building occupants, and the achievement of acceptable IAQ in newly constructed and renovated buildings is a well-recognized design objective. For example, IAQ is addressed by major high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014). Indoor air quality in homes is particularly important because occupants, on average, spend approximately ninety percent of their time indoors with the majority of this time spent at home (EPA, 2011). Some segments of the population that are most susceptible to the effects of poor IAQ, such as the very young and the elderly, occupy their homes almost continuously. Additionally, an increasing number of adults are working from home at least some of the time during the workweek. Indoor air quality also is a serious concern for workers in hotels, offices and other business establishments. O1-21

The concentrations of many air pollutants often are elevated in homes and other buildings relative to outdoor air because many of the materials and products used indoors contain

and release a variety of pollutants to air (Hodgson et al., 2002; Offermann and Hodgson, 2011). With respect to indoor air contaminants for which inhalation is the primary route of exposure, the critical design and construction parameters are the provision of adequate ventilation and the reduction of indoor sources of the contaminants.

Indoor Formaldehyde Concentrations Impact. In the California New Home Study (CNHS) of 108 new homes in California (Offermann, 2009), 25 air contaminants were measured, and formaldehyde was identified as the indoor air contaminant with the highest cancer risk as determined by the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), No Significant Risk Levels (NSRL) for carcinogens. The NSRL is the daily intake level calculated to result in one excess case of cancer in an exposed population of 100,000 (i.e., ten in one million cancer risk) and for formaldehyde is 40 µg/day. The NSRL concentration of formaldehyde that represents a daily dose of 40 µg is 2 µg/m^3, assuming a continuous 24-hour exposure, a total daily inhaled air volume of 20 m^3, and 100% absorption by the respiratory system. All of the CNHS homes exceeded this NSRL concentration of 2 µg/m^3. The median indoor formaldehyde concentration was 36 µg/m^3, and ranged from 4.8 to 136 µg/m^3, which corresponds to a median exceedance of the 2 µg/m^3 NSRL concentration of 18 and a range of 2.3 to 68.

O1-21 cont'd

Therefore, the cancer risk of a resident living in a California home with the median indoor formaldehyde concentration of 36 µg/m^3, is 180 per million as a result of formaldehyde alone. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the South Coast Air Quality Management District (SCAQMD, 2015).

Besides being a human carcinogen, formaldehyde is also a potent eye and respiratory irritant. In the CNHS, many homes exceeded the non-cancer reference exposure levels (RELs) prescribed by California Office of Environmental Health Hazard Assessment (OEHHA, 2017b). The percentage of homes exceeding the RELs ranged from 98% for the Chronic REL of 9 µg/m^3 to 28% for the Acute REL of 55 µg/m^3.

The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and

particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.

In January 2009, the California Air Resources Board (CARB) adopted an airborne toxics control measure (ATCM) to reduce formaldehyde emissions from composite wood products, including hardwood plywood, particleboard, medium density fiberboard, and also furniture and other finished products made with these wood products (California Air Resources Board 2009). While this formaldehyde ATCM has resulted in reduced emissions from composite wood products sold in California, they do not preclude that homes built with composite wood products meeting the CARB ATCM will have indoor formaldehyde concentrations below cancer and non-cancer exposure guidelines.

A follow up study to the California New Home Study (CNHS) was conducted in 2016-2018 (Singer et. al., 2019), and found that the median indoor formaldehyde in new homes built after 2009 with CARB Phase 2 Formaldehyde ATCM materials had lower indoor formaldehyde concentrations, with a median indoor concentrations of 22.4 $\mu g/m^3$ (18.2 ppb) as compared to a median of 36 $\mu g/m^3$ found in the 2007 CNHS. Unlike in the CNHS study where formaldehyde concentrations were measured with pumped DNPH samplers, the formaldehyde concentrations in the HENGH study were measured with passive samplers, which were estimated to under-measure the true indoor formaldehyde concentrations by approximately 7.5%. Applying this correction to the HENGH indoor formaldehyde concentrations results in a median indoor concentration of 24.1 $\mu g/m^3$, which is 33% lower than the 36 $\mu g/m^3$ found in the 2007 CNHS. O1-21 cont'd

Thus, while new homes built after the 2009 CARB formaldehyde ATCM have a 33% lower median indoor formaldehyde concentration and cancer risk, the median lifetime cancer risk is still 120 per million for homes built with CARB compliant composite wood products. This median lifetime cancer risk is more than 12 times the OEHHA 10 in a million cancer risk threshold (OEHHA, 2017a).

With respect to The Mercury Project, Pico Rivera, CA, the buildings consist of residential and commercial spaces.

The residential occupants will potentially have continuous exposure (e.g. 24 hours per day, 52 weeks per year). These exposures are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in residential construction.

Because these residences will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor residential formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 $\mu g/m^3$ (Singer et. al., 2020)

Assuming that the residential occupants inhale 20 m^3 of air per day, the average 70-year lifetime formaldehyde daily dose is 482 µg/day for continuous exposure in the residences. This exposure represents a cancer risk of 120 per million, which is more than 12 times the CEQA cancer risk of 10 per million. For occupants that do not have continuous exposure, the cancer risk will be proportionally less but still substantially over the CEQA cancer risk of 10 per million (e.g. for 12/hour/day occupancy, more than 6 times the CEQA cancer risk of 10 per million). O1-21 cont'd

The employees of the commercial building spaces are expected to experience significant indoor exposures (e.g., 40 hours per week, 50 weeks per year). These exposures for employees are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in offices, warehouses, residences and hotels.

Because these commercial building spaces will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 $\mu g/m^3$ (Singer et. al., 2020)

Assuming that the commercial building space employees work 8 hours per day and inhale

20 m^3 of air per day, the formaldehyde dose per work-day is 161 µg/day.

Assuming that these employees work 5 days per week and 50 weeks per year for 45 years (start at age 20 and retire at age 65) the average 70-year lifetime formaldehyde daily dose is 70.9 µg/day.

This is 1.77 times the NSRL (OEHHA, 2017a) of 40 µg/day and represents a cancer risk of 17.7 per million, which exceeds the CEQA cancer risk of 10 per million. This impact should be analyzed in an environmental impact report ("EIR"), and the agency should impose all feasible mitigation measures to reduce this impact. Several feasible mitigation measures are discussed below and these and other measures should be analyzed in an EIR.

Appendix A, Indoor Formaldehyde Concentrations and the CARB Formaldehyde ATCM, provides analyses that show utilization of CARB Phase 2 Formaldehyde ATCM materials will not ensure acceptable cancer risks with respect to formaldehyde emissions from composite wood products.

O1-21 continued

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

The following describes a method that should be used, prior to construction in the environmental review under CEQA, for determining whether the indoor concentrations resulting from the formaldehyde emissions of specific building materials/furnishings selected exceed cancer and non-cancer guidelines. Such a design analyses can be used to identify those materials/furnishings prior to the completion of the City's CEQA review

and project approval, that have formaldehyde emission rates that contribute to indoor concentrations that exceed cancer and non-cancer guidelines, so that alternative lower emitting materials/furnishings may be selected and/or higher minimum outdoor air ventilation rates can be increased to achieve acceptable indoor concentrations and incorporated as mitigation measures for this project.

Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment

This formaldehyde emissions assessment should be used in the environmental review under CEQA to assess the indoor formaldehyde concentrations from the proposed loading of building materials/furnishings, the area-specific formaldehyde emission rate data for building materials/furnishings, and the design minimum outdoor air ventilation rates. This assessment allows the applicant (and the City) to determine, before the conclusion of the environmental review process and the building materials/furnishings are specified, purchased, and installed, if the total chemical emissions will exceed cancer and non-cancer guidelines, and if so, allow for changes in the selection of specific material/furnishings and/or the design minimum outdoor air ventilations rates such that cancer and non-cancer guidelines are not exceeded.

O1-21 cont'd

1.) Define Indoor Air Quality Zones. Divide the building into separate indoor air quality zones, (IAQ Zones). IAQ Zones are defined as areas of well-mixed air. Thus, each ventilation system with recirculating air is considered a single zone, and each room or group of rooms where air is not recirculated (e.g. 100% outdoor air) is considered a separate zone. For IAQ Zones with the same construction material/furnishings and design minimum outdoor air ventilation rates. (e.g. hotel rooms, apartments, condominiums, etc.) the formaldehyde emission rates need only be assessed for a single IAQ Zone of that type.

2.) Calculate Material/Furnishing Loading. For each IAQ Zone, determine the building material and furnishing loadings (e.g., m^2 of material/m^2 floor area, units of furnishings/m^2 floor area) from an inventory of all potential indoor formaldehyde sources, including flooring, ceiling tiles, furnishings, finishes, insulation, sealants,

adhesives, and any products constructed with composite wood products containing urea-formaldehyde resins (e.g., plywood, medium density fiberboard, particleboard).

3.) Calculate the Formaldehyde Emission Rate. For each building material, calculate the formaldehyde emission rate (µg/h) from the product of the area-specific formaldehyde emission rate (µg/m^2-h) and the area (m^2) of material in the IAQ Zone, and from each furnishing (e.g. chairs, desks, etc.) from the unit-specific formaldehyde emission rate (µg/unit-h) and the number of units in the IAQ Zone.

NOTE: As a result of the high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014), most manufacturers of building materials furnishings sold in the United States conduct chemical emission rate tests using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), or other equivalent chemical emission rate testing methods. Most manufacturers of building furnishings sold in the United States conduct chemical emission rate tests using ANSI/BIFMA M7.1 Standard Test Method for Determining VOC Emissions (BIFMA, 2018), or other equivalent chemical emission rate testing methods. O1-21 cont'd

CDPH, BIFMA, and other chemical emission rate testing programs, typically certify that a material or furnishing does not create indoor chemical concentrations in excess of the maximum concentrations permitted by their certification. For instance, the CDPH emission rate testing requires that the measured emission rates when input into an office, school, or residential model do not exceed one-half of the OEHHA Chronic Exposure Guidelines (OEHHA, 2017b) for the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017). These certifications themselves do not provide the actual area-specific formaldehyde emission rate (i.e., µg/m^2-h) of the product, but rather provide data that the formaldehyde emission rates do not exceed the maximum rate allowed for the certification. Thus, for example, the data for a certification of a specific type of flooring may be used to calculate that the area-specific emission rate of formaldehyde is less than 31 µg/m^2-h, but not the actual measured specific emission rate, which may be 3, 18, or 30 µg/m^2-h. These area-specific emission rates determined

from the product certifications of CDPH, BIFA, and other certification programs can be used as an initial estimate of the formaldehyde emission rate.

If the actual area-specific emission rates of a building material or furnishing is needed (i.e. the initial emission rates estimates from the product certifications are higher than desired), then that data can be acquired by requesting from the manufacturer the complete chemical emission rate test report. For instance if the complete CDPH emission test report is requested for a CDHP certified product, that report will provide the actual area-specific emission rates for not only the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017), but also all of the cancer and reproductive/developmental chemicals listed in the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), all of the toxic air contaminants (TACs) in the California Air Resources Board Toxic Air Contamination List (CARB, 2011), and the 10 chemicals with the greatest emission rates.

O1-21 cont'd

Alternatively, a sample of the building material or furnishing can be submitted to a chemical emission rate testing laboratory, such as Berkeley Analytical Laboratory (https://berkeleyanalytical.com), to measure the formaldehyde emission rate.

4.) Calculate the Total Formaldehyde Emission Rate. For each IAQ Zone, calculate the total formaldehyde emission rate (i.e. µg/h) from the individual formaldehyde emission rates from each of the building material/furnishings as determined in Step 3.

5.) Calculate the Indoor Formaldehyde Concentration. For each IAQ Zone, calculate the indoor formaldehyde concentration (µg/m^3) from Equation 1 by dividing the total formaldehyde emission rates (i.e. µg/h) as determined in Step 4, by the design minimum outdoor air ventilation rate (m^3/h) for the IAQ Zone.

$$C_{in} = \frac{E_{total}}{Q_{oa}} \quad \text{(Equation 1)}$$

where:

C_{in} = indoor formaldehyde concentration (µg/m^3)

E_{total} = total formaldehyde emission rate (µg/h) into the IAQ Zone.

Q_{oa} = design minimum outdoor air ventilation rate to the IAQ Zone (m^3/h)

The above Equation 1 is based upon mass balance theory, and is referenced in Section 3.10.2 "Calculation of Estimated Building Concentrations" of the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017).

6.) Calculate the Indoor Exposure Cancer and Non-Cancer Health Risks. For each IAQ Zone, calculate the cancer and non-cancer health risks from the indoor formaldehyde concentrations determined in Step 5 and as described in the OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments (OEHHA, 2015).

7.) Mitigate Indoor Formaldehyde Exposures of exceeding the CEQA Cancer and/or Non-Cancer Health Risks. In each IAQ Zone, provide mitigation for any formaldehyde exposure risk as determined in Step 6, that exceeds the CEQA cancer risk of 10 per million or the CEQA non-cancer Hazard Quotient of 1.0.

O1-21 cont'd

Provide the source and/or ventilation mitigation required in all IAQ Zones to reduce the health risks of the chemical exposures below the CEQA cancer and non-cancer health risks.

Source mitigation for formaldehyde may include:

1.) reducing the amount materials and/or furnishings that emit formaldehyde
2.) substituting a different material with a lower area-specific emission rate of formaldehyde

Ventilation mitigation for formaldehyde emitted from building materials and/or furnishings may include:

1.) increasing the design minimum outdoor air ventilation rate to the IAQ Zone.

NOTE: Mitigating the formaldehyde emissions through use of less material/furnishings, or use of lower emitting materials/furnishings, is the preferred mitigation option, as

mitigation with increased outdoor air ventilation increases initial and operating costs associated with the heating/cooling systems.

Further, we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), and use the procedure described earlier above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Impact. Another important finding of the CNHS, was that the outdoor air ventilation rates in the homes were very low. Outdoor air ventilation is a very important factor influencing the indoor concentrations of air contaminants, as it is the primary removal mechanism of all indoor air generated contaminants. Lower outdoor air exchange rates cause indoor generated air contaminants to accumulate to higher indoor air concentrations. Many homeowners rarely open their windows or doors for ventilation as a result of their concerns for security/safety, noise, dust, and odor concerns (Price, 2007). In the CNHS field study, 32% of the homes did not use their windows during the 24-hour Test Day, and 15% of the homes did not use their windows during the entire preceding week. Most of the homes with no window usage were homes in the winter field session. Thus, a substantial percentage of homeowners never open their windows, especially in the winter season. The median 24-hour measurement was 0.26 air changes per hour (ach), with a range of 0.09 ach to 5.3 ach. A total of 67% of the homes had outdoor air exchange rates below the minimum California Building Code (2001) requirement of 0.35 ach. Thus, the relatively tight envelope construction, combined with the fact that many people never open their windows for ventilation, results in homes with low outdoor air exchange rates and higher indoor air contaminant concentrations.

O1-21 cont'd

This Project is close to roads with moderate to high traffic (e.g., East Washington Boulevard, Rosemead Boulevard, Crossway Drive etc.). The Project Initial Study (Placeworks, 2022) contains no assessment of the existing or future ambient noise levels (dBA CNEL), only the projected Project noise level increases are reported in Table 17. Because of Project's proximity to roads with moderate to high traffic, an acoustic study needs to conducted to determine the sound transmission class rating of the building exterior elements required to achieve acceptable indoor noise levels.

As a result of the high outdoor noise levels, the current project will require a mechanical supply of outdoor air ventilation to allow for a habitable interior environment with closed windows and doors. Such a ventilation system would allow windows and doors to be kept closed at the occupant's discretion to control exterior noise within building interiors.

$PM_{2.5}$ Outdoor Concentrations Impact. An additional impact of the nearby motor vehicle traffic associated with this project, are the outdoor concentrations of $PM_{2.5}$. This Project is located in the South Coast Air Basin, which is a State and Federal non-attainment area for $PM_{2.5}$.

O1-21 cont'd

An air quality analyses should to be conducted to determine the concentrations of $PM_{2.5}$ in the outdoor and indoor air that people inhale each day. This air quality analyses needs to consider the cumulative impacts of the project related emissions, existing and projected future emissions from local $PM_{2.5}$ sources (e.g. stationary sources, motor vehicles, and airport traffic) upon the outdoor air concentrations at the Project site. If the outdoor concentrations are determined to exceed the California and National annual average $PM_{2.5}$ exceedence concentration of 12 $\mu g/m^3$, or the National 24-hour average exceedence concentration of 35 $\mu g/m^3$, then the buildings need to have a mechanical supply of outdoor air that has air filtration with sufficient removal efficiency, such that the indoor concentrations of outdoor $PM_{2.5}$ particles is less than the California and National $PM_{2.5}$ annual and 24-hour standards.

It is my experience that based on the projected high traffic noise levels, the annual average concentration of $PM_{2.5}$ will exceed the California and National $PM_{2.5}$ annual and 24-hour

standards and warrant installation of high efficiency air filters (i.e. MERV 13 or higher) in all mechanically supplied outdoor air ventilation systems.

Indoor Air Quality Impact Mitigation Measures

The following are recommended mitigation measures to minimize the impacts upon indoor quality:

Indoor Formaldehyde Concentrations Mitigation. Use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins (CARB, 2009). CARB Phase 2 certified composite wood products, or ultra-low emitting formaldehyde (ULEF) resins, do not insure indoor formaldehyde concentrations that are below the CEQA cancer risk of 10 per million. Only composite wood products manufactured with CARB approved no-added formaldehyde (NAF) resins, such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

O1-21 cont'd

Alternatively, conduct the previously described Pre-Construction Building Material/Furnishing Chemical Emissions Assessment, to determine that the combination of formaldehyde emissions from building materials and furnishings do not create indoor formaldehyde concentrations that exceed the CEQA cancer and non-cancer health risks.

It is important to note that we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017), and use the procedure described above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Mitigation. Provide each habitable room with a continuous mechanical supply of outdoor air that meets or exceeds the California 2016 Building Energy Efficiency Standards (California Energy Commission, 2015) requirements of the greater of 15 cfm/occupant or 0.15 cfm/ft^2 of floor area. Following installation of the system conduct testing and balancing to insure that required amount of outdoor air is entering each habitable room and provide a written report documenting the outdoor airflow rates. Do not use exhaust only mechanical outdoor air systems, use only balanced outdoor air supply and exhaust systems or outdoor air supply only systems. Provide a manual for the occupants or maintenance personnel, that describes the purpose of the mechanical outdoor air system and the operation and maintenance requirements of the system.

O1-21 cont'd

$PM_{2.5}$ Outdoor Air Concentration Mitigation. Install air filtration with sufficient $PM_{2.5}$ removal efficiency (e.g. MERV 13 or higher) to filter the outdoor air entering the mechanical outdoor air supply systems, such that the indoor concentrations of outdoor $PM_{2.5}$ particles are less than the California and National $PM_{2.5}$ annual and 24-hour standards. Install the air filters in the system such that they are accessible for replacement by the occupants or maintenance personnel. Include in the mechanical outdoor air ventilation system manual instructions on how to replace the air filters and the estimated frequency of replacement.

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APPENDIX A

INDOOR FORMALDEHYDE CONCENTRATIONS
AND THE
CARB FORMALDEHYDE ATCM

With respect to formaldehyde emissions from composite wood products, the CARB ATCM regulations of formaldehyde emissions from composite wood products, do not assure healthful indoor air quality. The following is the stated purpose of the CARB ATCM regulation - *The purpose of this airborne toxic control measure is to "reduce formaldehyde emissions from composite wood products, and finished goods that contain composite wood products, that are sold, offered for sale, supplied, used, or manufactured for sale in California"*. In other words, the CARB ATCM regulations do not "assure healthful indoor air quality", but rather "reduce formaldehyde emissions from composite wood products".

Just how much protection do the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products? Definitely some, but certainly the regulations do not "*assure healthful indoor air quality"* when CARB Phase 2 products are utilized. As shown in the Chan 2019 study of new California homes, the median indoor formaldehyde concentration was of 22.4 $\mu g/m^3$ (18.2 ppb), which corresponds to a cancer risk of 112 per million for occupants with continuous exposure, which is more than 11 times the CEQA cancer risk of 10 per million.

Another way of looking at how much protection the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products is to calculate the maximum number of square feet of composite wood product that can be in a residence without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy.

For this calculation I utilized the floor area (2,272 ft^2), the ceiling height (8.5 ft), and the number of bedrooms (4) as defined in Appendix B (New Single-Family Residence Scenario) of the Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers, Version 1.1, 2017, California

Department of Public Health, Richmond, CA. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

For the outdoor air ventilation rate I used the 2019 Title 24 code required mechanical ventilation rate (ASHRAE 62.2) of 106 cfm (180 m^3/h) calculated for this model residence. For the composite wood formaldehyde emission rates I used the CARB ATCM Phase 2 rates.

The calculated maximum number of square feet of composite wood product that can be in a residence, without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 15 ft^2 (0.7% of the floor area), or
Particle Board – 30 ft^2 (1.3% of the floor area), or
Hardwood Plywood – 54 ft^2 (2.4% of the floor area), or
Thin MDF – 46 ft^2 (2.0 % of the floor area).

For offices and hotels the calculated maximum amount of composite wood product (% of floor area) that can be used without exceeding the CEQA cancer risk of 10 per million for occupants, assuming 8 hours/day occupancy, and the California Mechanical Code minimum outdoor air ventilation rates are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 3.6 % (offices) and 4.6% (hotel rooms), or
Particle Board – 7.2 % (offices) and 9.4% (hotel rooms), or
Hardwood Plywood – 13 % (offices) and 17% (hotel rooms), or
Thin MDF – 11 % (offices) and 14 % (hotel rooms)

Clearly the CARB ATCM does not regulate the formaldehyde emissions from composite wood products such that the potentially large areas of these products, such as for flooring, baseboards, interior doors, window and door trims, and kitchen and bathroom cabinetry,

could be used without causing indoor formaldehyde concentrations that result in CEQA cancer risks that substantially exceed 10 per million for occupants with continuous occupancy.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

If CARB Phase 2 compliant or ULEF composite wood products are utilized in construction, then the resulting indoor formaldehyde concentrations should be determined in the design phase using the specific amounts of each type of composite wood product, the specific formaldehyde emission rates, and the volume and outdoor air ventilation rates of the indoor spaces, and all feasible mitigation measures employed to reduce this impact (e.g. use less formaldehyde containing composite wood products and/or incorporate mechanical systems capable of higher outdoor air ventilation rates). See the procedure described earlier (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Alternatively, and perhaps a simpler approach, is to use only composite wood products (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins.

O1. Response to Comments from Victoria Yundt, Lozeau | Drury LLP, on behalf of Supporters Alliance for Environmental Responsibility (SAFER), dated August 5, 2022.

O1-1 This comment introduces the comment letter. Reponses to comments from Lozeau | Drury LLP, on behalf of SAFER are provided in response to Comments O1-2 through O1-21.

O1-2 This comment provides an overview of the proposed project and requests that the City prepare an EIR. Reponses to comments from Lozeau | Drury LLP, on behalf of SAFER are provided in response to Comments O1-4 through O1-21. No further response is needed.

O1-3 The comment provides legal background and does not provide any specific comment on the adequacy of the IS/MND or noncompliance with CEQA. A specific response is not required.

O1-4 The commenter notes that formaldehyde, a substance commonly found in building materials and furnishings, may result in future resident and worker cancer risk. The IS/MND evaluates the potential of the proposed project to result in physical impacts to the environment. Although health effects of a project may be included in the IS/MND, evidence of health impacts that do not contribute to or are not caused by physical impacts on the environment are beyond the scope of CEQA.

The commenter speculates about the types of indoor building materials that would be used during construction. There is no evidence that the proposed project will involve use of materials that contain formaldehyde in levels that pose a risk to human health. As described on page 54 of the IS/MND, the proposed project would comply with CALGreen, which requires that all composite wood products used on the interior of a building "shall meet the requirements for formaldehyde as specified in California Air Resources Board Air Toxics Control Measure for Composite Wood (17 California Code of Regulations Section 93120 et seq.)." CALGreen established planning and design standards for reducing internal air contaminants. Mitigation to reduce the formaldehyde content of building materials used during construction is not warranted.

In summary, without evidence that building materials that will be used in project construction will emit formaldehyde gas in levels that will exceed the State's emission limits, the commenter's assertion that future project employees or guests could be at risk for carcinogens constitutes speculation and does not constitute a fair argument. The commenter speculates that the proposed project could have an effect on the future residents of the project, which is not considered to be an impact under CEQA and need not be analyzed in the IS/MND.

O1-5 The commenter speculates that employees of the proposed project's commercial spaces would experience significant work-day exposures to formaldehyde. As stated in Response to Comment O1-4, there is no evidence that the proposed project will involve use of materials that contain formaldehyde in levels that pose a risk to human health, including commercial employees. As described on page 54 of the IS/MND, the proposed project would comply with CALGreen, which requires that all composite wood products used on the interior of a building "shall meet the requirements for formaldehyde as specified in California Air Resources Board Air Toxics Control Measure for Composite Wood (17 California Code of Regulations Section 93120 et seq.)." CALGreen established planning

and design standards for reducing internal air contaminants. Impacts of the environment on the proposed project are not CEQA impacts and need not be analyzed in the IS/MND.

O1-6 The commenter states that the high cancer risk from indoor air emissions would be exacerbated by the additional cancer risk from the proposed project's location near roadways and the PM2.5 levels present in the ambient air. With regard to outdoor PM2.5 concentrations, the California Building Code (Title 24), Part 6 (California Building and Energy Efficiency Standards) as well as Part 11 (California Green Building Standards Code [CALGreen]) has standards for enhanced filtration for multi-family residential buildings to improve indoor air quality. Under Title 24, Part 6, Section 120.1(b)(1)(C) and Part 11 (Section 5.504.5.3), multifamily residential buildings that are four stories or higher are required to use MERV-13 filters, which filter 80 to 90 percent of particulates between 1.0 to 3.0 microns and over 90 percent of particulates between 3 to 10 microns. As a result, high efficiency air filters are already required. Additionally, as stated above in Response to Comment O1-4, impacts of the environment on the project are not impacts under CEQA and need not be analyzed in the IS/MND.

O1-7 The commenter concludes that the environmental impacts should be analyzed in an EIR and that mitigation measures should be implemented to reduce risk of formaldehyde exposure. In addition, the commenter suggests mitigation measures available to reduce these health risks. As stated in Response to Comment O1-4, the proposed project would be required to comply with the CALGreen building code that all interior wood products meet CARB's existing formaldehyde standards. Mitigation to reduce the formaldehyde content of building materials used during construction is not warranted.

O1-8 The commenter notes that the City must investigate issues related to the proposed project's environmental impacts. The commenter also notes the investigatory path should include an EIR to evaluate the proposed project's formaldehyde emissions and to establish mitigation measures to reduce cancer risk below the South Coast AQMD threshold. As the proposed project would be required to comply with CARB's existing standards and its emissions are below the South Coast AQMD thresholds, developing an EIR to evaluate formaldehyde emissions is not warranted.

O1-9 The commenter notes that formaldehyde emissions are not an existing environmental condition and that an EIR must be prepared to disclose and mitigate the impacts on the future residents and commercial employees There is no evidence that the proposed project will involve use of materials that contain formaldehyde in levels that pose a risk to human health. In addition, the proposed project would be required to comply with all applicable existing standards and thresholds. There are no unusual circumstances that would trigger mitigation or preparation of an EIR to reduce the effects of formaldehyde on future residents and commercial employees. The proposed project was adequately analyzed in the IS/MND, and an EIR is not warranted.

O1-10 The commenter notes that several values used for the air quality and greenhouse gas analyses were inconsistent with the IS/MND or otherwise unsubstantiated. These changes were based on project-specific information provided by the applicant and noted under Section 1.3, *User Entered Comments & Non-Default*, of the CalEEMod outputs for construction, mitigated construction, and operational models (see Appendix A, Air Quality and Greenhouse Gas Analyses, Assumption Worksheets). Each of these changes are addressed below:

- Architectural coating emissions factor: In compliance with South Coast AQMD Rule 1113, Architectural Coatings, flat and non-flat coats have a current limit of 50 grams per liter. Interior and Exterior VOC content has been changed to 50 grams per liter.

- Material Export volumes: Materials export volumes and distance to the export site are based on project-specific information provided by the applicant.

- Number of gas fireplaces: The proposed project would not include fireplaces in any of the units. However, the project would include up to 3 barbecue grills, which are assumed to be used over the weekends.

- Fleet Mix: Fleet mix was adjusted to 97 percent light duty, 2 percent medium duty, and 1 percent heavy duty vehicles to better reflect the proposed uses, which results in a higher proportion of passenger vehicles than the regional fleet mix.

- Solid waste tonnage: CalEEMod default values were used for solid waste tonnage. As seen in CalEEMod Appendix A, Calculation Details for CalEEMod, default values for solid waste is based on annual waste disposal rates from the California Department of Resources Recycling and Recovery (CalRecycle) data for individual land uses.

- Indoor and outdoor water use. CalEEMod default values were used for indoor and outdoor water use. As seen in CalEEMod Appendix A, Calculation Details for CalEEMod, default values for indoor and outdoor water use are based on the Pacific Institute "Waste Not Want Not" report for all of California in the year 2000.[4] For land uses not included in this report such as the library, place of worship, movie theater, arena, and civic center uses, the American Water Works Association Research Foundation's Commercial and Institutional End Uses of Water report was used in its place.[5]

- Wastewater treatment percentage: The percentages in the model are based on statewide data of the primary treatment methods. For example, in the state of California, 10.33 percent of wastewater is treated using septic tanks. As discussed on page 69, the project would not involve use of septic tanks; therefore, septic tanks were zeroed out in the model. Similarly, while there may be some anaerobic bacteria digest sludge during the wastewater treatment process, the Los Angeles County Sanitation District (LACSD) does not primarily treat wastewater in open-air facultative lagoons. LACSD's anerobic processes are enclosed in an anerobic digestion tank.[6] Methane gas generated in the anaerobic digestion process is used to produce power and digester heating

[4] Gleick, P.H.; Haasz, D.; Henges-Jeck, C.; Srinivasan, V.; Cushing, K.K.; Mann, A. 2003, November. Waste Not, Want Not: The Potential for Urban Water Conservation in California. https://pacinst.org/wp-content/uploads/2013/02/waste_not_want_not_full_report3.pdf

[5] Dziegielewski; B.; Kiefer, J.C.; Optiz, E.M.; Porter, G.A.; Lantz, G.L.; DeOreo, W.B.; Mayer, P.W.; Nelson, J.O. 2000, January. Commercial and Institutional End Uses of Water.

[6] Los Angeles County Sanitation Districts (LACSD). 2022, October 13 (accessed). Wastewater Treatment Process at JWPCP. https://www.lacsd.org/services/wastewater-sewage/facilities/joint-water-pollution-control-plant/wastewater-treatment-process-at-jwpcp.

steam in a Total Energy Facility that utilizes gas turbines and waste-heat recovery steam generators, and the electricity generated is used to offset the plant's energy use. As a result, modeling in CalEEMod is conservative for LACSD's facilities and correctly adjusts the wastewater percentages to reflect the treatment processes of LACSD's facilities.

- Application of Construction Mitigation Measures: Prior to mitigation, the proposed project would exceed the VOC threshold for South Coast AQMD. The measure needed to mitigate this impact would be to require use of low-VOC paints, which reduce the impact to less-than-significant.

In addition, as documented in the IS/MND, modeling presents a conservative estimate of the emissions associated with the proposed project. Therefore, the assumptions used for input into the modeling are well supported, and no revisions to the IS/MND are warranted.

O1-11 The commenter asserts that the IS/MND did not adequately evaluate diesel particulate matter or toxic air contaminants during construction and operation because it does not include a health risk analysis. Consistent with CARB and South Coast AQMD guidance, including CARB's *Air Quality and Land Use Handbook* and South Coast AQMD's "Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning," the project—which proposes residential and commercial uses—is not considered a substantial source of DPM. Moreover, typical sources of other hazardous TACs include manufacturing processes, automotive repair, dry cleaning facilities, and other facilities that process toxic materials. The proposed project does not propose these types of uses, and the commenter has not presented any evidence that TACs or DPM would be generated by operation of the proposed project in any meaningful amount such that significant impacts may result. Therefore, as stated in the IS/MND, no operational HRA is needed for the proposed project.

For the project construction activities that would generate TACs and DPM, the air quality analysis includes a localized significance threshold (LST) analysis for project construction and concludes no significant impact with regard to the LSTs. The use of the LSTs for the air quality analysis to assess potential construction emissions risks was appropriate and consistent with South Coast AQMD Methodology. First, as discussed in Section 3.3, *Air Quality,* on page 55 of the IS/MND, LSTs are tied to ambient air quality standards and calibrated to assess localized air quality impacts. As stated in the South Coast AQMD *Final Localized Significance Threshold Methodology*, LSTs represent the maximum emissions from a project in the South Coast Air Basin that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and are developed based on the ambient concentrations of that pollutant for each source receptor area. If the calculated emissions for the proposed construction or operational activities are below the LST emission levels found on the LST mass rate look-up tables and no potentially significant impacts are found to be associated with other environmental issues, then the proposed construction or operation activity would not have a significant impact on air quality. The results of the construction LST analysis is provided on page 56 of the IS/MND and concludes that localized construction emissions would not significantly impact nearby sensitive receptors. In addition, based on the Draft 2022 South Coast AQMD Air Quality Management Plan, as seen in the Black Box Measure Policy Brief, Tier 4 equipment is readily available and makes up approximately 50 percent

of the available off-road equipment population in California between the Tier 4 Interim and Tier 4 final equipment.[7]

In addition to project construction, the commenter asserts that the IS/MND's LST analysis fails to account for DPM and TAC emissions from project operation. As discussed above, the proposed uses of the project are not anticipated to generate substantial amounts of DPM or TACs because they do not include trucking, manufacturing, industrial processes, or other uses that are linked to TAC and DPM emissions. It should also be noted that South Coast AQMD rules impose specific emissions reduction measures that target TACs and DPM, such as Rule 2305, Warehouse Indirect Source Review.

Neither a construction HRA nor an operational HRA are required. The IS/MND adequately analyzes air quality impacts of the construction and operational phases of the proposed project and no further analysis is warranted.

O1-12 The commenter notes that the proposed project is inconsistent with the CEQA requirement to correlate the increase in emissions to the impacts on human health and inconsistent with the latest guidance from OEHHA. South Coast AQMD currently does not require health risk assessments to be conducted for short-term emissions from construction equipment. Rather, their current recommendation is to utilize the LST screening tools to determine if a construction HRA is warranted. As stated in response to Comment O1-11, use of the LSTs for the air quality analysis to assess potential construction emissions risks was appropriate and consistent with South Coast AQMD Methodology, as they represent the maximum emissions from a project in the South Coast Air Basin that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. Localized health risks are discussed on pages 55 and 56 of the IS/MND, which conclude localized construction emissions would not significantly impact nearby sensitive receptors during the 23-month construction period. In addition, operationally, the proposed project is not anticipated to generate significant DPM or TACs as it is not considered a substantial source of DPM and would not include typical sources of other hazardous TACs, such as manufacturing processes, automotive repair, dry cleaning facilities, and other facilities that process toxic materials. Neither a construction HRA nor an operational HRA is required. The IS/MND adequately analyzes air quality impacts of the proposed project and no further analysis is warranted.

O1-13 The commenter notes that the proposed project does not compare the excess health risk impact of the proposed project to the South Coast AQMD's specific numeric threshold of 10 in one million. As stated in responses to Comment O1-11 and Comment O1-12, South Coast AQMD does not require a health risk assessment for short-term emissions from construction activities, and use of the LSTs for the air quality analysis to assess potential construction emissions risks was appropriate and consistent with South Coast AQMD Methodology, as they represent the maximum emissions from a project in the South Coast Air Basin that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. In addition, operationally, the

[7] South Coast Air Quality Management District (South Coast AQMD). 2008, July. Final Localized Significance Threshold Methodology.

[7] South Coast Air Quality Management District (South Coast AQMD). 2022. Policy Brief Black Box Measures. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/combined-bb-measures.pdf?sfvrsn=8

proposed project is not anticipated to generate significant DPM or TACs as it is not considered a substantial source of DPM and would not include typical sources of other hazardous TACs, such as manufacturing processes, automotive repair, dry cleaning facilities, and other facilities that process toxic materials. Neither a construction HRA nor an operational HRA is required. The IS/MND adequately analyzes the air quality impacts of the proposed project and no further analysis is warranted.

O1-14 The commenter states that the GHG analysis is inadequate for three specific reasons, which are addressed in Responses to Comments O1-15, O1-16, and O1-17. Overall, the proposed project would be consistent with the California Air Resources Board's (CARB) 2017 Scoping Plan and the Southern California Association of Governments' (SCAG) 2020 RTP/SCS, as seen on page 72 and 73 of the IS/MND. In addition, the commenter does not provide any evidence of additional feasible mitigation measures for the City to consider. However, the proposed project has no control over state and regional solutions to reduce mobile emissions, and the use of mass transit, alternative modes of transportation, and electric vehicles cannot be estimated with certainty. See response to Comment O1-10; as documented in the IS/MND, modeling presents a conservative estimate of the emissions associated with the proposed project. Therefore, the proposed project does not require mitigation measures and an EIR would not be required.

O1-15 See response to Comment O1-10. The commenter notes that the IS/MND analysis relies on a flawed air model. The data used for modeling were based on project-specific information provided by the applicant. Any changes to the default data are noted under Section 1.3, *User Entered Comments & Non-Default*, of the CalEEMod outputs for construction, mitigated construction, and operational models. It is standard practice to update inputs in CalEEMod when more accurate project-specific information is available, to better capture the proposed project.

O1-16 The commenter notes that the IS/MND utilizes an outdated GHG threshold. This statement is incorrect as the South Coast AQMD Working Group GHG threshold remains unchanged and is 3,000 $MTCO_2e$/year for all land use types. As documented in Appendix A, this threshold is based on an emissions capture approach that identifies projects that generate a *de minimus* amount of emissions. South Coast AQMD did not provide comments on continued use of the 3,000 $MTCO_2e$ threshold. The threshold is not directly tied to the State's GHG reduction targets because it is based on an emissions capture approach. As a result, the threshold is not outdated. Additionally, the commenter has not provided evidence on use of an alternative GHG metric. Also see response to Comment O1-10 regarding emissions modeling. As noted in this response, emissions modeling conducted for the proposed project provides a conservative estimate of GHG emissions associated with the proposed project.

O1-17 The comment asserts that the IS/MND was required to use a performance-based standard to demonstrate consistency with the Scoping Plan.

See CEQA Guidelines, Section 15064.7(a) (significance threshold can be qualitative or quantitative). It has been determined that a quantitative threshold cannot be derived from the Scoping Plan that would be relevant to CEQA review because the Scoping Plan does not specifically identify separate targets for existing versus new sources of emissions, targets for individual regions within the state, or targets for individual project types. Until CARB provides additional data on quantitative analysis for emissions forecast, consistency with CARB's Scoping Plan can only be based on the policies and measures for

the individual sectors identified in the Scoping Plan. A qualitative GHG emissions analysis has been identified by the courts as adequate under CEQA (*City of Long Beach, et al., Xavier Becerra (Attorney General, as Intervener) v. City of Los Angeles, (BNSF Railway Company, Real Party in Interest)* (2018) 19 Cal.App.5th 465). The IS/MND documents the proposed project's consistency with the Scoping Plan and that the proposed project would not conflict with the Statewide GHG reduction goals.

For the reasons outlined, no such quantitative analysis with the CARB Scoping Plan was required. CEQA gives lead agencies the discretion to determine, in the context of a particular project, how to assess potential GHG impacts. (See CEQA Guidelines Section 15064.4.) Pursuant to *League to Save Lake Tahoe Mountain Area Preservation v. County of Placer* (2022), a numerical threshold from an air pollution control district is a permissible option that complies with CEQA and was used to evaluate whether or not the proposed project would generate a substantial increase in magnitude of GHG emissions. Likewise, the CEQA Guidelines identify qualitative analyses as appropriate methods. Here, the IS/MND uses two methods to assess whether the project's GHG emissions should be considered significant: (1) against the South Coast AQMD's numerical threshold (under threshold [a]) and (2) a qualitative analysis of the project's consistency with the Scoping Plan (under threshold [b]). Overall, the proposed project would not exceed the applicable South Coast AQMD standard and would not have a significant impact with respect to Scoping Plan consistency. The GHG analysis is consistent with the CEQA Guidelines and adequately evaluates GHG impacts as required by CEQA.

O1-18 Unlike vibratory rollers which use a combination of weight and vibration, a static roller uses weight only. Therefore, the impact for vibration levels for both annoyance (VdB) and damage would be adequately mitigated.

The use of off-road equipment that is limited to 100 horsepower or less would fall under what is considered a small bulldozer. As shown in IS/MND Table 19, Vibration Levels for Typical Construction Equipment, levels would not exceed the 0.20 threshold and adequately mitigate vibration impacts.

O1-19 The IS/MND has shown that the potentially significant impacts would be adequately mitigated. Please refer to responses on comments 01-18 and O2-22.

O1-20 See response to Comments O1-4 through O1-19, which substantiate the adequacy of the IS/MND.

O1-21 Please refer to Responses O1-4 through O1-9, regarding the commenter's indoor air quality concerns. The IS/MND evaluates the potential of the project to result in physical impacts to the environment. Although social effects of a project may be included in the IS/MND, evidence of social impacts that do not contribute to or are not caused by physical impacts on the environment are beyond the scope of CEQA. There are no unusual circumstances that would trigger an exception to this precedent.

The commenter speculates about the types of indoor building materials that would be used during construction. As stated in Responses O1-4 and O1-5, there is no evidence that the project will involve use of materials that contain formaldehyde in levels that pose a risk to human health. As described on page 54 of the IS/MND, the proposed project would comply with CALGreen, which requires that all composite wood products used on the interior of a building "shall meet the requirements for formaldehyde as

specified in California Air Resources Board Air Toxics Control Measure for Composite Wood (17 California Code of Regulations § 93120 et seq.)." CALGreen established planning and design standards for reducing internal air contaminants.

In summary, without evidence that the building materials that will be used in project construction will emit formaldehyde gas in levels that will exceed the State's emission limits, the commenter's assertion that future project employees or guests could be at risk for carcinogens constitutes speculation.

The commenter speculates that the proposed project could have an effect on the future residents, employers, and visitors, which is not considered an impact under CEQA and need not be analyzed in the IS/MND.

As stated in Response O1-6 with regard to outdoor $PM_{2.5}$ concentrations, the California Building Code (Title 24), Part 6 (California Building and Energy Efficiency Standards) and Part 11 (California Green Building Standards Code [CALGreen]) have standards for enhanced filtration for multifamily residential buildings to improve indoor air quality. Under Title 24, Part 6, § 120.1(b)(1)(C) and Part 11 Section 5.504.5.3, multifamily residential buildings that are four stories or higher are required to use MERV-13 filters, which filter 80 to 90 percent of particulates between 1.0 and 3.0 microns and over 90 percent of particulates between 3 and 10 microns. As a result, high efficiency air filters are already required. Further, as stated above, impacts of the environment on the proposed project are not impacts under CEQA.

As stated in Responses O1-4 through O1-9, the proposed project would be required to comply with CARB's existing standards, and mitigation to reduce the formaldehyde content of building materials used during construction is not warranted.

Letter O2 – Southwest Regional Council of Carpenters (23 pages)

O2

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August 5, 2022

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RE: Southwest Regional Council of Carpenters' Comments on the City of Pico Rivera's Initial Study/Mitigated Negative Declaration for the Mercury Project

Dear Ms. Gonzalez:

On behalf of the Southwest Regional Council of Carpenters ("**SWRCC**" or "**Southwest Carpenters**"), my Office is submitting these comments for the City of Pico Rivera's ("**City**") Initial Study/Mitigated Negative Declaration (**IS/MND**) for the Mercury Project ("**Project**").

The SWRCC is a labor union representing over 57,000 union carpenters in six states, including California, and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects. O2-1

Individual members of the SWRCC live, work, and recreate in the City of Pico Rivera and surrounding communities and would be directly affected by the Project's environmental impacts.

The SWRCC expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearings and proceedings related to this Project. Cal. Gov. Code § 65009(b); Cal. Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

The SWRCC incorporates by reference all comments that raise issues regarding the IS/MND. See *Citizens for Clean Energy v. City of Woodland* (2014) 225 Cal. App. 4th 173, 191 (finding that any party who has objected to the Project's environmental documentation may assert any issue timely raised by other parties).

Moreover, the SWRCC requests that the City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**), Cal. Public Resources Code (**PRC**) § 21000 *et seq.*, and the California Planning and Zoning Law ("**Planning and Zoning Law**"), Cal. Gov't Code §§ 65000–65010. California Public Resources Code §§ 21092.2 and 21167(f) and Government Code § 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body. O2-1 cont'd

I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL SKILLED AND TRAINED WORKFORCE

The City should require the use of a local skilled and trained workforce to benefit the community's economic development and environment. The City should require the use of workers who have graduated from a Joint Labor Management apprenticeship training program approved by the State of California, or have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a state-approved apprenticeship training program or who are registered apprentices in an apprenticeship training program approved by the State of California. O2-2

Community benefits such as local hire and skilled and trained workforce requirements can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project Site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note: O2-3

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021, SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling. O2-3 cont'd

Skilled and trained workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the UC Berkeley Center for Labor Research and Education concluded:

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1] O2-4

Local skilled and trained workforce requirements and policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and their associated greenhouse gas emissions. Recently, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program or a skilled and trained workforce with a local hire component" can result in air pollutant reductions.[2] O2-5

Cities are increasingly adopting local skilled and trained workforce policies and requirements into general plans and municipal codes. For example, the City of Hayward's 2040 General Plan requires the city to "promote local hiring . . . to help achieve a more positive jobs-housing balance, and reduce regional commuting, gas consumption, and greenhouse gas emissions."[3] O2-6

[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/ Putting-California-on-the- High-Road.pdf.

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/ 2021-May7-027.pdf?sfvrsn=10

[3] City of Hayward (2014) Hayward 2040 General Plan Policy Document at p. 3-99, *available at* https://hayward-ca. gov/sites/default/files/documents/General_Plan_FINAL.pdf.

In fact, the City of Hayward has gone as far as to adopt a Skilled Labor Force policy into its Downtown Specific Plan and municipal code, requiring developments in its Downtown area to require that the City "[c]ontribute to the stabilization of regional construction markets by spurring applicants of housing and nonresidential developments to require contractors to utilize apprentices from state-approved, joint labor-management training programs[.]"[4] Additionally, the City of Hayward requires all projects that are 30,000 square feet or larger to "utilize apprentices from state-approved, joint labor-management training programs."[5] O2-6 cont'd

Locating jobs closer to residential areas can have significant environmental benefits as well. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[6] O2-7

Furthermore, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must be matched to those held by local residents.[7] Some municipalities have even tied local hire and skilled and trained workforce policies to local development permits to address transportation issues. As Cervero and Duncan note: O2-8

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents,

[4] City of Hayward (2019) Hayward Downtown Specific Plan at p. 5-24, *available at* https://hayward-ca.gov/sites/default/files/Hayward%20Downtown%20Specific%20Plan.pdf.
[5] City of Hayward Municipal Code, Chapter 10, § 28.5.3.020(C).
[6] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable. org/static/media/uploads/publications/cpr-jobs-housing.pdf.
[7] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

> especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 Berkeley residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

O2-8 cont'd

The City should consider utilizing skilled and trained workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, air quality, and transportation impacts.

II. THE CITY SHOULD PREPARE AN ENVIRONMENTAL IMPACT REPORT FOR THE PROJECT

CEQA is a California statute designed to inform decision-makers and the public about the potential significant environmental effects of a project. 14 California Code of Regulations ("**CEQA Guidelines**"), § 15002, subd. (a)(1).[8] At its core, "[i]ts purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made." *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

O2-9

To achieve this purpose, CEQA mandates preparation of an Environmental Impact Report ("**EIR**") for projects so that the foreseeable impacts of pursuing the project can be understood and weighed. *Communities for a Better Environment v. Richmond* (2010) 184 Cal.App.4th 70, 80. The EIR requirement "is the heart of CEQA." CEQA Guidelines, § 15003, subd. (a).

A strong presumption in favor of requiring preparation of an EIR is built into CEQA. This presumption is reflected in what is known as the "air argument" standard under which an agency must prepare an EIR whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the

[8] The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 *et seq*, are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. (Cal. Pub. Res. Code § 21083.) The CEQA Guidelines are given "great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous." *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 62 Cal. 4th 204, 217.

environment. *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602; *Friends of "B" St.* v. *City of Hayward* (1980) 106 Cal.3d 988, 1002.

The fair argument test stems from the statutory mandate that an EIR be prepared for any project that "may have a significant effect on the environment." PRC, § 21151; *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.App.3d 68, 75; *Jensen v. City of Santa Rosa* (2018) 23 Cal.App.5th 877, 884. Under this test, if a proposed project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. PRC, §§ 21100, subd. (a), 21151; CEQA Guidelines, § 15064, subds. (a)(1), (f)(1). An EIR may be dispensed with only if the lead agency finds no substantial evidence in the initial study or elsewhere in the record that the project may have a significant effect on the environment. *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 785. In such a situation, the agency must adopt a negative declaration. PRC, § 21080, subd. (c)(1); CEQA Guidelines, §§ 15063, subd. (b)(2), 15064, subd. (f)(3). O2-9 cont'd

"Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment." PRC, § 21068; CEQA Guidelines, § 15382. A project "may" have a significant effect on the environment if there is a "reasonable probability" that it will result in a significant impact. *No Oil, Inc.*, 13 Cal.3d at 83 fn. 16; *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 309. If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. CEQA Guidelines, § 15063, subd. (b)(1); see *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1580.

This standard sets a "low threshold" for preparation of an EIR. *Consolidated Irrig. Dist. v. City of Selma* (2012) 204 Cal.App.4th 187, 207; *Nelson v. County of Kern* (2010) 190 Cal.App.4th 252; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928; *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 580; *Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754; *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 310. If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR even if other substantial evidence before it indicates the project will have no significant effect. See *Jensen,* 23 Cal.App.5th at p. 886; *Clews Land & Livestock v. City of San Diego* (2017) 19 Cal.App.5th 161, 183; *Stanislaus Audubon Socy.*,

Inc. v. County of Stanislaus (1995) 33 Cal.App.4th 144, 150; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491; *Friends of "B" St.*, 106 Cal.App.3d 988; CEQA Guidelines, § 15064, subd. (f)(1).

As explained below, the IS/MND fails to make certain essential findings. Further, for a number of findings which the IS/MND does make, it fails to support the findings with sufficient analysis and substantial evidence or it fails to incorporate adequate mitigation measures. Therefore, there is a fair argument that the Project will have a significant effect on the environment, triggering the "low threshold" standard for preparation of an EIR. O2-9 cont'd

III. THE CITY MUST, AT THE VERY LEAST, REVISE AND RECIRCULATE THE IS/MND

A. The IS/MND Requires Substantial Revisions

Section 15073.5 of the CEQA Guidelines provides that a negative declaration must be recirculated whenever the document must be substantially revised. A substantial revision includes the identification of new, avoidable significant effects requiring mitigation measures or project revisions to be added to reduce the effect to less than significant levels or upon the agency determining that a proposed mitigation measure or project change would not reduce a potential impact to insignificance. *Jensen*, 23 Cal.App.5th at p. 886. O2-10

Additionally, when new information is brought to light showing that an impact previously discussed in an IS/MND and found to be insignificant with or without mitigation in the IS/MND's analysis has the potential for a significant environmental impact supported by substantial evidence, the IS/MND must consider and resolve the conflict in the evidence. See *Visalia Retail, L.P. v. City of Visalia* (2018) 20 Cal.App.5th 1, 13, 17; see also *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1109.

Considering this IS/MND's failure to substantiate all of its findings, provide adequate mitigation measures, and fully assess all relevant factors, the Project here requires significant revisions and resolutions of conflicts in evidence. Therefore, at a minimum, the City must revise and recirculate the IS/MND if it does not prepare an EIR for the Project.

1. *Due to the COVID-19 Crisis, the City Must Adopt a Mandatory Finding of Significance that the Project May Cause a Substantial Adverse Effect on Human Beings and Mitigate COVID-19 Impacts*

CEQA requires that an agency make a finding of significance when a Project may cause a significant adverse effect on human beings. PRC, § 21083, subd. (b)(3); CEQA Guidelines, § 15065, subd. (a)(4). O2-11

Public health risks related to construction work requires a mandatory finding of significance under CEQA. Construction work has been defined as a lower- to high-risk activity for COVID-19 spread by the Occupations Safety and Health Administration. Recently, several construction sites have been identified as sources of community-wide spreads of COVID-19.

The SWRCC recommends that the City adopt additional CEQA mitigation measures to mitigate public health risks from the Project's construction activities. The SWRCC also requests that the City require safe on-site construction work practices as well as training and certification for any construction workers on the Project site.

In particular, and based upon its experience with safe construction site work practices, the SWRCC recommends that the City require that while construction activities are being conducted at the Project Site:

Construction Site Design:

- The Project Site be limited to two controlled entry points. O2-12
- Entry points have temperature screening technicians taking temperature readings when the entry point is open.
- The Temperature Screening Site Plan shows details regarding access to the Project Site and Project Site logistics for conducting temperature screening.
- A 48-hour advance notice be provided to all trades prior to the first day of temperature screening.
- The perimeter fence directly adjacent to the entry points be clearly marked indicating the appropriate 6-foot social distancing position for when you approach the screening area. Please reference the Apex temperature screening site map for additional details.

- There be clear signage posted at the project site directing you through temperature screening.
- Provide hand washing stations throughout the construction site.

Testing Procedures:

- The temperature screenings used are non-contact devices.
- Temperature readings not to be recorded.
- Personnel be screened upon entering the testing center and should only take 1-2 seconds per individual.
- Hard hats, head coverings, sweat, dirt, sunscreen or any other cosmetics must be removed on the forehead before temperature screening.
- Anyone who refuses to submit to a temperature screening or does not answer the health screening questions be refused access to the Project Site.
- Screenings be performed at both entrances from 5:30 am to 7:30 am.; main gate and personnel gate.
- After 7:30 am only the main gate entrance continue to be used for temperature testing for anybody gaining entry to the project site such as returning personnel, deliveries, and visitors.
- If the digital thermometer displays a temperature reading above 100.0 degrees Fahrenheit, a second reading will be taken to verify an accurate reading.
- If the second reading confirms an elevated temperature, DHS will instruct the individual that he/she will not be allowed to enter the Project Site. DHS will also instruct the individual to promptly notify his/her supervisor and his/her human resources (HR) representative and provide them with a copy of Annex A.

Planning:

- Require the development of an Infectious Disease Preparedness and Response Plan that will include basic infection prevention measures (requiring the use of personal protection equipment),

O2-12 con't'd

> policies and procedures for prompt identification and isolation of sick individuals, social distancing (prohibiting gatherings of no more than 10 people including all-hands meetings and all-hands lunches) communication and training and workplace controls that meet standards that may be promulgated by the Center for Disease Control, Occupational Safety and Health Administration, Cal/OSHA, California Department of Public Health or applicable local public health agencies.

The United Brotherhood of Carpenters and Carpenters International Training Fund has developed COVID-19 Training and Certification to ensure that Carpenter union members and apprentices conduct safe work practices. The Lead Agency should require that all construction workers undergo COVID-19 Training and Certification before being allowed to conduct construction activities at the Project Site. O2-12 con'td

The SWRCC has also developed a rigorous Infection Control Risk Assessment (**ICRA**) training program to ensure it delivers a workforce that understands how to identify and control infection risks by implementing protocols to protect themselves and all others during renovation and construction projects in healthcare environments.

The ICRA protocols are intended to contain pathogens, control airflow, and protect patients during the construction, maintenance and renovation of healthcare facilities. These protocols prevent cross-contamination, minimizing the risk of secondary infections in patients at hospital facilities.

The City should require the Project to be built using a workforce trained in ICRA protocols.

2. *The IS/MND Fails to Support its Findings on Air Quality Impacts with Substantial Analysis*

CEQA requires that an environmental document identify and discuss the significant effects of a Project, alternatives, and how those significant effects can be mitigated or avoided. CEQA Guidelines, § 15126.2; PRC, §§ 21100, subd. (b)(1), 21002.1, subd. (a). An environmental document's discussion of potentially significant effects must "provide an adequate analysis to inform the public how its bare numbers translate to create potential adverse impacts or it must adequately explain what the agency does know and why, given existing scientific constraints, it cannot translate potential health O2-13

impacts further." *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 521; see also *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 405; see also PRC, §§ 21002.1, subd. (e), 21003, subd. (b).

Although a Project-specific analysis of air quality impacts was conducted, the IS/MND relies heavily on regulatory measures and regional thresholds of significance for criteria pollutant emissions and precursors identified by the South Coast Air Quality Management District ("**South Coast AQMD**") to justify its less than significant finding. The IS/MND states that because the Project's emissions would be less than the South Coast AQMD emissions threshold under construction and operational phases, the Project would not be considered to be a substantial source of air pollutant emissions. IS/MND at 51-52. However, determinations that regulatory compliance will be sufficient to prevent significant adverse impacts must be based on a project-specific analysis of potential impacts and the effect of regulatory compliance. See *Californians for Alternatives to Toxics v. Dept. of Food & Agric.* (2005) 136 Cal.App.4th 1; *Ebbetts Pass Forest Watch v. Dept. of Forestry & Fire Protection* (2008) 43 Cal.App.4th 936, 956. O2-13 cont'd

Further, the IS/MND's conclusions regarding air quality impacts stemming from "asphalt demolition and debris haul, site preparation, rough and fine grading and grading soil haul, utilities trenching, paving, building construction, and architectural coating" are unsupported by substantial analysis, as is required. IS/MND at 53. Specifically, the IS/MND relies on estimates of the California Emissions Estimator Model ("**CalEEMod**"), Version 2020.4, in determining its quantity of pollutants produced. Fatally, it only considers the Project's estimated preliminary construction duration and equipment mix provided by the applicant. Should the Project run beyond the estimated preliminary construction duration or utilize more equipment than anticipated, the possibility that the Project will have a significant impact on air quality increases. Without this crucial information and analysis, the IS/MND's determination that there will be less than significant impacts on air quality is somewhat speculatory. O2-14

Additionally, in addressing the long-term operation-related air quality impacts of the Project, the IS/MND states that the buildings "would, at minimum, be designed and built to meet the 2019 Building Energy Efficiency Standards (CCR, Title 24, Part 6) and the 2019 California Green Building Standards Code (CCR, Title 24, Part 11)." IS/MND at 54. Similarly, in addressing construction health risk and the exposure of O2-15

adjacent sensitive receptors to construction emissions, the IS/MND states that the Project construction would comply with required health and safety standards and construction best practices. IS/MND at 56. It also concludes that because the South Coast AQMD screening-level localized significance thresholds (LSTs) would exceed the estimated quantity of exhaust emissions, onsite and offsite receptors are free of any health risk.

The IS/MND fails to provide any further details on the designs, measures, safety standards, or best practices that will be implemented in order for the Project to comply with the California Code of Regulations or to limit air quality impacts on nearby sensitive receptors to the point where they are reduced to less than significant. Without more information, such designs, measures, standards, and practices cannot be constituted as mitigation for purposes of CEQA analysis. The IS/MND must be recirculated to include additional detailed information addressing these concerns. O2-15 cont'd

3. The IS/MND Fails to Adequately Mitigate the Project's Biological Resource Impacts

When imposing mitigation, lead agencies must ensure that there is a "nexus" and "rough proportionality" between the measure and the significant impacts of the project. CEQA Guidelines, § 15126.4, subd. (a)(4)(A); see *Nollan v. Cal. Coastal Commission* (1987) 483 U.S. 825; *Dolan v. City of Tigard* (1994) 512 U.S. 374. All mitigation must be feasible and fully enforceable, and all feasible mitigation must be imposed by lead agencies. CEQA Guidelines, § 15041. Formulation of mitigation measures shall not be deferred until some future time. CEQA Guidelines, § 15126.4, subd. (a)(B). O2-16

From the very onset of the IS/MND's discussion of the Project's impacts on wildlife species, it is apparent that its "preconstruction avian survey" mitigation measure is insufficient as it is limited by the season, time of day, and weather conditions in which it will occur. IS/MND at 59. Given that the Project construction will last roughly 23 months and its operation will span all seasons, times of day, and weather conditions, the biological resources analysis must be expanded to assess broader spans of time and conditions before the IS/MND can conclude that the Project's impact will be less than significant.

Notwithstanding the IS/MND's failure to assess all of the wildlife species potentially impacted by the Project, the IS/MND fails to adequately mitigate impacts to the nesting birds it identifies. Specifically, the IS/MND states that the palm trees which O2-17

will be removed "could be used for nesting birds." IS/MND at 59. However, as noted by the California Department of Fish and Wildlife (**CDFW**) in a 2021 letter to the City of Adelanto concerning a similar pre-construction nesting bird survey mitigation measure:

> CDFW is concern[ed] that [the mitigation measure] is conditioned to only require surveys during the peak bird nesting season considering that birds, such as hummingbirds may nest year-round. Furthermore, [the mitigation measure] defines bird nesting season as February 1 to August 31. Please note that nesting may commence before and/or after this timeframe. For example, some species of raptors (e.g. owls, hawks, etc.) may commence nesting activities in January, and passerines may nest later than August 31. Fish and Game Code section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant thereto.[9]

02-17

4. The IS/MND Fails to Support its Findings on Energy Impacts with Substantial Evidence

Pursuant to CEQA Guidelines § 15126.2, subsection (b), analysis into a project's energy impacts "should include the project's energy use for all project phases and components, including transportation-related energy, during construction, and operation." The Guidelines further provide that "other relevant considerations may include . . . the project's size, location, orientation, equipment use, and any renewable energy features that could be incorporated into the project." *Ibid.*

Failing to undertake "an investigation into renewable energy options that might be available or appropriate for a project" violates CEQA. *California Clean Energy Committee v. City of Woodland* (2014) 225 Cal.App.4th 173, 213. Energy conservation under CEQA is defined as the "wise and efficient use of energy." CEQA Guidelines, app. F, § I. The "wise and efficient use of energy" is achieved by "(1) decreasing overall per capita energy consumption, (2) decreasing reliance on fossil fuels such as coal, natural gas and oil, and (3) increasing reliance on renewable energy resources." *Ibid.*

[9] November 18, 2021 Letter from California Department of Fish and Wildlife to the City of Adelanto at 3, *available at* https://files.ceqanet.opr.ca.gov/273819-1/attachment/zo76RgD7dUdj5BLJTEhEMdf74g6f100RrKiWBQSquhFFe5l0X53rLsbLSGMPRXgXM4AaYnJSTfZB6JpY0.

Last, according to Appendix F of the CEQA Guidelines, an environmental document must consider and analyze:

1. The project's energy requirements and its energy use efficiencies;
2. The project's effects on local and regional energy supplies and on requirements for additional capacity;
3. The project's effects on peak-period and base-period energy demands;
4. The degree to which the project complies with existing energy standards;
5. The project's effects on energy resources; and,
6. The project's projected transportation energy use and its overall use of efficient transportation alternatives.

O2-18 cont'd

CEQA Guidelines Appdx. F.

Basing a Project's energy impacts on its compliance with the California Building Energy Efficiency Standards (Cal. Code Regs., tit. 24, part 6) does not constitute an adequate analysis of energy use. *Ukiah Citizens for Safety First v. City of Ukiah* (2016) 248 Cal.App.4th 256, 264-65. Similarly, the court in *City of Woodland* held unlawful an energy analysis that relied on compliance with Title 24 that failed to assess transportation energy impacts, and that failed to address renewable energy impacts. *City of Woodland, supra,* 225 Cal.App.4th at pp. 209-13.

First, the IS/MND briefly mentions certain practices and equipment which the Project will engage to reduce energy consumption, though details are vague and uncertain. For example, the IS/MND "anticipates" that construction contractors will comply with CCR, Title 13, Article 4.8, Chapter 9 in minimizing nonessential idling of construction equipment during construction. IS/MND at 63.

Second, in addressing long-term energy impacts during operation, the IS/MND admits that the project would "generate new demand for electricity, natural gas, and transportation energy[.]" IS/MND at 64. It fails though, to consider renewable energy uses and feasible conservation efforts.

O2-19

Third, the IS/MND concludes that, with respect to operation-related fuel usage, energy impacts would be less than significant. It bases this conclusion on a cursory

O2-20

analysis of VMT and the contention that "operation-related fuel usage associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than similar development projects." IS/MND at 65. The energy expenditures of "similar development projects" are no measure of whether this Project will result in significant energy impacts or waste and inefficiency. This line of analysis is neither reasonable nor focused on energy use caused by the Project.

O2-20 cont'd

Without assessing the Project's use of energy activities in accordance with the CEQA Guidelines, the IS/MND concludes that the Project will not result in wasteful, inefficient, or unnecessary energy use. Consequently, it must be recirculated after broadening its scope and incorporating further details and analysis. It must also explore renewable energy options.

5. The IS/MND Fails to Support its Water Quality Impact Findings with Substantial Evidence

The IS/MND's analysis of water quality impacts is wholly lacking as it entirely fails to assess or quantify the Project's anticipated water consumption and its wastewater quantity and composition. IS/MND at 76-80.

Rather than conducting any Project specific analysis, the IS/MND relies solely on regulatory measures such as the National Pollutant Discharge Elimination System and City runoff control requirements to justify its less than significant finding. IS/MND at 65. However, as mentioned previously, determinations that regulatory compliance will be sufficient to prevent significant adverse impacts must be based on a project-specific analysis of potential impacts and the effect of regulatory compliance. Therefore, the IS/MND's reliance on regulatory compliance cannot rectify its failure to conduct Project-specific analysis as to its anticipated water and wastewater and the IS/MND must be revised to do so.

O2-21

6. The IS/MND Fails to Adequately Mitigate the Project's Noise Impacts

The Project site is directly adjacent to residences to the north and west. Though the IS/MND acknowledges that construction will produce noise in excess of the maximum decibel level that may be imposed upon a residence according to the Pico Rivera Noise Element Policy 11.1-1, Land Use Compatibility, it fails to offer adequate mitigation measures to reduce the impact. According to the City's policy, the exterior environmental noise level at the property line of low-density, multifamily, and mixed-use residential areas may not exceed 65 dBA. IS/MND at 87. Additionally, ground-

O2-22

borne vibration impact criteria for vibration annoyance may not rise above 80 VdB for infrequent events, 75 VdB for occasional events, and 72 VdB for frequent events. *Ibid.* According to the IS/MND, demolition associated with the Project may produce noise up to 81 dBA, building construction up to 82 dBA, and paving up to 82 dBA. IS/MND at 89. Some of the heavy equipment use at the Project site is anticipated to emit noise up to 85 dBA. IS/MND at 88. It is worth noting that these estimates were taken at the area around the center of construction activities despite the fact that construction is anticipated to occur across the entire construction area.

O2-22 comt'd

The Project is anticipated to engage several measures in mitigating noise impacts. Of the nine measures listed—including offering residences advanced notice of the noise or including noise-control techniques—the IS/MND fails to offer detailed information on how such measures will reduce noise impact of the Project to less than significant. IS/MND at 90. Further analysis must be conducted in the immediate vicinity of the residences abutting the Project site in order to better determine the magnitude of the anticipated noise impacts.

B. The IS/MND Fails to Include an Adequate Project Description

The IS/MND must be recirculated because it also lacks an adequate Project description. "[A]n accurate, stable and finite project description is the sine qua non of an informative and legally sufficient" environmental document. *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 200. "A curtailed or distorted project description may stultify the objectives of the reporting process" as an accurate, stable and finite project description is necessary to allow "affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance. *Ibid.*

O2-23

CEQA Guidelines § 15124 requires a project describe in enough detail to allow for evaluation of its potential environmental impacts: (a) the project's precise location and boundaries; (b) a clearly written statement of objectives sought by the proposed project; (c) a description of the project's technical, economic, and environmental characteristics; and (d) a statement describing a list of agencies, permits, and approval which the project expects to use.

The IS/MND's Project description does not satisfy this project description requirement by failing to clearly include a statement of objectives. ISMND at 11.

Rather, the Project description merely provides that the "proposed project would include a three to six-story mixed-use building with subterranean parking, ground-floor retail and residential uses, and residential uses in floors two through six." *Ibid.* Furthermore, the IS/MND provides no description of the Project's economic characteristics. For these reasons too, the IS/MND must be revised and recirculated. O2-23 cont'd

IV. CONCLUSION

The SWRCC requests that the City require a local and skilled workforce for the Project. The SWRCC also requests that the City prepare an EIR for the Project or that, at a minimum, the City revise and recirculate the IS/MND to address the aforementioned concerns. Should the City have any questions or concerns, feel free to contact my Office. O2-24

Sincerely,

Reza Bonachea Mohamadzadeh
Attorney for Southwest Regional
Council of Carpenters

Attached:

March 8, 2021, SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B); and

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C).

EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

O2-25

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

O2-25 cont'd

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

O2-26

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

O2-26 cont'd

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location. O2-26 cont'd

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

O2-27

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

O2-28

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

Due the large number of pages, the balance of Comment Letter O2, Southwest Regional Council of Carpenters, is provided as Appendix A of this response to comments memo. It has no comments requiring response.

O2. Response to Comments from Reza Bonachea Mohamadzadeh, Mitchel M. Tsai, Attorney at Law, on behalf of Southwest Regional Council of Carpenters (SWRCC), dated August 5, 2022.

O2-1 This comment introduces the comment letter and provides an overview of SWRCC. The City will add the commenter to the project's distribution list.

O2-2 The commenter states that the City should require the use of local skilled and trained workforce. The comment has no bearing on the environmental impacts assessed in the IS/MND. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

O2-3 The commenter asserts that local hire and skilled and trained workforce would reduce environmental impacts and improve the positive economic impact of the proposed project. The commenter asserts that local hire provisions can reduce vendor trips, reduce greenhouse gas emissions and provide localized economic benefits. This comment does not identify a deficiency in the IS/MND's analysis. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

O2-4 The commenter states that a skilled and trained workforce requirement promotes the development of skilled trades that yield sustainable economic development. Economic impacts of a project that do not result in a physical change to the environmental are outside the scope of CEQA. This comment does not identify a deficiency in the IS/MND's analysis. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is warranted.

O2-5 The commenter states that local skilled and trained workforce requirements and policies improve the jobs-housing balance, decreasing length of job commutes and their associated greenhouse gas emissions. This comment does not identify a deficiency in the IS/MND's analysis. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is warranted.

O2-6 The commenter generally notes that cities are adopting local skilled and trained workforce policies and requirements in general plans and municipal codes. This comment is a general comment about the City's General Plan and municipal code, and it does not directly apply to the proposed project. This comment does not identify a deficiency in the IS/MND's analysis. No further response is warranted.

O2-7 The commenter states that jobs closer to residential areas have significant environmental benefits, such as the use of alternative modes of transportation instead of driving. This comment does not identify a deficiency in the IS/MND's analysis. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is warranted.

O2-8 The commenter asserts that local hire mandates and skill-training reduce vehicle miles traveled. This comment does not identify a deficiency in the IS/MND's analysis. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is warranted.

O2-9 The commenter asserts that an EIR should be prepared for the proposed project and that the IS/MND is inadequate. Please refer to Responses to Comments O2-11 through O2-28,

which provide responses to each comment in the letter. As discussed in these responses, the proposed project is adequately analyzed in the IS/MND, and an EIR is not warranted.

O2-10 The commenter asserts that the IS/MND should be revised and recirculated. Please refer to Responses to Comments O2-11 through O2-28, which provide responses to each comment in the letter. As discussed in these responses, the proposed project is adequately analyzed in the IS/MND, and the IS/MND does not need to be revised and recirculated.

O2-11 The commenter asserts that the City must adopt findings of significance due to the potential health impacts on construction workers from COVID-19. Construction contractors are expected to comply with the City and County's COVID-19 mandates and directives set forth public health guidelines. While it is important to take precautions and provide a safe work environment, the impact of the environment on activities associated with the proposed project is outside of the scope of CEQA.

O2-12 The commenter recommends that additional CEQA mitigation measures be adopted to mitigate health risks from construction activities to the workers. Pursuant to the decision in *California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD)* (Case No. S213478), CEQA evaluates a project's impact on the environment, not the environment's impact on a project. No further response is warranted.

O2-13 The commenter notes the requirements of an environmental document based on the CEQA guidelines for an EIR. Under the CEQA Guidelines, the requirement to evaluate alternatives is only necessary if the proposed project would generate a significant and unavoidable impact and would warrant preparation of an EIR.

The IS/MND utilizes the South Coast AQMD thresholds to substantiate the less than significant findings for construction and operational phase air quality impacts. There is no evidence provided by the commenter on use of alternative threshold metrics. Furthermore, the South Coast AQMD significance thresholds are supported by substantial evidence that is recommended for use by the agency that is tasked with ensuring air quality achieves the State and National ambient air quality standards. As a result, use of the South Coast AQMD thresholds to substantiate less than significant air quality impacts is used for the vast majority of all projects in the South Coast AQMD region. The proposed project has been analyzed based on the most current information provided by the applicant, and construction and operational emissions would be less than the applicable South Coast AQMD thresholds.

O2-14 The commenter notes that using the preliminary information from the applicant and estimates CalEEMod, Version 2020.4, would not be sufficient to determine the quantity of pollutants, if the construction duration is longer than anticipated or more equipment is used than anticipated. While lead agencies must use their best efforts to disclose all that they reasonably can about a project's potentially significant environmental impacts, they are not required to foresee the unforeseeable (CEQA Guidelines Section 15144). The proposed project has been analyzed based on the most current project-specific information provided by the applicant, which is documented in Appendix A to the IS/MND, and as demonstrated, construction and operational emissions would be less than the applicable South Coast AQMD thresholds.

O2-15 South Coast AQMD does not require health risk assessments to be conducted for short-term emissions from construction equipment. Rather, South Coast AQMD's current recommendation is to utilize the LST screening tools to determine if a construction health risk assessment is warranted. As stated in Response to Comment O1-11, use of the LSTs for the air quality analysis to assess potential construction emissions risks was appropriate and consistent with South Coast AQMD Methodology, as they represent the maximum emissions from a project in the South Coast Air Basin that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. As shown on pages 54 through 56 of the IS/MND, the proposed project would not exceed the South Coast AQMD thresholds for construction, operations, or project level LSTs for construction. For these reasons, impacts would be less than significant and the IS/MND would not warrant recirculation.

O2-16 The commenter provides a summary of the requirements for mitigation measures. No further response regarding this summary is needed.

The commenter states that the Mitigation Measure BIO-1 is insufficient because it is limited by season, time of day, and weather conditions. Mitigation Measure BIO-1 is an industry-accepted mitigation measure and reflects the regulatory requirements set forth by the Migratory Bird Treaty Act (MBTA). Biological resources are evaluated in Section 3.5, *Biological Resources*, of the IS/MND. As described in that discussion, the project site is entirely paved and disturbed in an urbanized area. The project site contains only limited ornamental landscaping. It does not contain habitat. While the construction period could span multiple seasons, different times of the day, and weather conditions, the ornamental landscaping and trees would be removed only once. Once the ornamental landscaping and trees are removed from the project site and the project site is an active construction zone, it will not be suitable for nesting birds. Therefore, the mitigation measure is adequate. No further analysis is warranted.

O2-17 The commenter states that the MND fails to assess all wildlife species potentially impacted by the proposed project. Biological resources are evaluated in Section 3.5, *Biological Resources*, of the IS/MND. Analysis is provided for each threshold under Section 3.5, *Biological Resources*. The project site is entirely developed and disturbed in an urbanized area. The project site contains only limited ornamental landscaping. It does not contain habitat nor does the commenter indicate differently. The commenter merely states that the analysis is inadequate and does not provide any evidence to support that claim. Further, CDFW had the opportunity to comment during the public review period and did not provide any comments on the proposed project. No further response on this point is necessary.

The commenter states that the IS/MND fails to adequately mitigate impacts to nesting birds and provides an excerpt to California Department of Fish and Wildlife letter for the "Boutique Purple Development" project in the City of Adelanto. As discussed in Response to Comment O2-16, above, the IS/MND provides an analysis for each biological resources threshold and adequately discloses and identifies that birds could use the trees on-site for nests. As discussed on page 59 of the IS/MND, the proposed project would be required to comply with all applicable CDFW and federal regulations protecting nesting birds. The MND further requires that the proposed project implement Mitigation Measure BIO-1, which requires a preconstruction survey for nesting birds. The Boutique Purple Development project that the commenter references is an undeveloped project

site that is surrounded on three sides by undeveloped land—not comparable to the conditions on or surrounding the subject project site. CDFW is a Trustee Agency and Responsible Agency for the Boutique Purple Development project, meaning that CDFW is responsible for protecting resources on-site and discretionary approval over the Boutique Purple Development project. Unlike the Boutique Purple Development project, the proposed project is in a completely urbanized area and the project site is paved and disturbed and does not contain habitat. The proposed project would be required to comply all applicable California and federal laws governing nesting birds.

O2-18 Section 3.6, *Energy*, of the IS/MND identified sources of energy use from residential and commercial uses in terms of electricity and natural gas as well as fuel use during construction and operation of the project. The IS/MND is also consistent with each of the following considerations from Appendix F of the CEQA Guidelines.

- Project energy requirements and energy use efficiency: Project energy requirements may be seen on pages 63 through 65 of the IS/MND. Overall, the project will consume 2,176,599 kWh/year and 4,052,705 kBTU/year and would consume gasoline, diesel, compressed natural gas, and electricity during the construction and operational phases. The proposed project would be required to comply with CALGreen and the Building Energy Efficiency Standards. In addition, as seen in Section 3.11*, Land Use and Planning*, there will be 44 electric vehicle charging stations for residents and 3 additional stations for retail uses. In accordance with the Specific Plan and the Building Energy Efficiency Standards, development of the proposed project would also include a photovoltaic system.

- Project effects on local and regional energy supplies and requirements for additional capacity: Pico Rivera Innovative Municipal Energy (through SCE infrastructure) and SoCalGas provide the electricity and natural gas. As stated on page 118 of the IS/MND, the proposed project would not require new or expanded electric power or natural gas facilities.

- Project effects on peak period and base period energy demands: The most current data from Pico Rivera Innovative Municipal Energy shows a peak load of 59 megawatts and total energy usage of 212 gigawatts in 2019.[8] As the proposed project would have an energy demand of 2,176,599 kWh/year, or approximately 5,963 kWh/day, the overall impact on peak period and base period energy demands would be negligible.

- Project compliance with existing energy standards: As stated on page 64 of the IS/MND, the proposed project would be required to comply with CALGreen and the Building Energy Efficiency Standards. In addition, as stated on page 118, development of the proposed project would comply with regulations and standards pertaining to natural gas and would not require new or expanded electric power facilities other than connections to the existing electricity grid.

- Project effects on energy resources: As previously stated, the proposed project would consume 2,176,599 kWh/year and 4,052,705 kBTU/year and would consume gasoline, diesel, compressed natural gas, and electricity during the

[8] Pico Rivera Innovative Municipal Energy (PRIME). 2020, August. 2020 Integrated Resource Plan. https://californiachoiceenergyauthority.com/wp-content/uploads/2020/09/prime_v1-PUBLIC.pdf

construction and operational phases. In addition, as mentioned in the Specific Plan, the proposed project would include a photovoltaic system, which would offset some of the energy usage from the project. Furthermore, as stated in Section 3.19, *Utilities and Service Systems*, the proposed project would not require new or expanded electric power facilities other than connections to the existing electricity grid. In addition, the proposed project would comply with regulations and standards pertaining to natural gas and would connect to the existing natural gas infrastructure.

- Project transportation energy use and use of efficient transportation alternatives: As seen on pages 63 and 65 of the IS/MND, the proposed project would consume gasoline, diesel, compressed natural gas, and electricity during the construction and operational phases, with an estimated VMT of 5,680,513 miles annually. Because the proposed project involves development of new residential housing opportunities, it would provide more opportunities for potential new residents to reside in an urbanized area with nearby amenities and public transit options. These features of the proposed project would contribute to minimizing VMT and transportation-related fuel usage. As seen in Section 3.17, *Transportation,* the residential VMT per capita would be below the City significance threshold of 12.23 VMT per capita, at 12.08. Furthermore, as seen on page 108, project would accommodate pedestrian and bicycle access and encourage use of active transportation modes by providing bicycle lanes and bicycle parking near the project site.

In addition, the modeling assumes that multifamily residential buildings would include use of photovoltaic systems based on the 2019 Building Energy Efficiency Standards. The Specific Plan also states that the proposed project would incorporate PV systems in accordance with state law. Therefore, the IS/MND adequately considers renewable energy systems and conservation efforts that are known to be a part of the project. Furthermore, construction activities would be conducted in compliance with California Code of Regulations (CCR) Section 2499, which would require nonessential idling of construction equipment to be restricted to five minutes or less.

O2-19 The commenter suggests that renewable energy utilized by the proposed project would generate new demand for electricity, natural gas, and/or transportation energy. This is not correct. Use of renewable energy would not result in an increase in energy demand above and beyond the electricity demand for a project. Rather, renewable energy would offset energy demand associated with a project and would reduce the demand on nonrenewable fuel use associated with electricity production. As previously stated, the modeling assumes that multifamily residential buildings would include use of photovoltaic systems based on the 2019 Building Energy Efficiency Standards, as is assumed in the Specific Plan. Therefore, the IS/MND adequately considers renewable energy systems and conservation efforts that are known to be a part of the project.

O2-20 The project operational VMT would be substantially less than the baseline VMT thresholds, which is consistent with the goal of reducing VMT through mixed-use, local development and, as a result, reducing energy consumption. As a result, the fuel use associated with the proposed project would not be wasteful or inefficient. The energy impact analysis has been analyzed in accordance with the CEQA guidelines. See Section 3.6, *Energy.*

O2-21 The commenter asserts that the IS/MND fails to assess or quantify the proposed project's anticipated water consumption and wastewater quantity and composition and references pages associated with the Section 3.10, *Hydrology and Water Quality*. The IS/MND appropriately quantifies the proposed project's water consumption and wastewater generation in Section 3.19, *Utilities and Service Systems* (see pages 117 and page 119 for water consumption analyses and pages 118 and 120 for wastewater generation analyses). The proposed project would generate wastewater that is typical of a mixed-use development with residential and commercial uses. The commenter is confusing the analyses for utilities (e.g., water consumption and wastewater generation) with project site hydrology (e.g., surface runoff). The analysis for water and wastewater are adequately and appropriately discussed in Section 3.19, *Utilities and Service Systems.* No further response is necessary.

The commenter asserts that the IS/MND relies solely on regulatory compliance measures to justify a less than significant finding and not project-specific analysis. Section 3.10, *Hydrology and Water Quality*, provides a project-specific analysis for each hydrology and water quality threshold. The comment states that the analysis is insufficient but does not refer to specific threshold or provide evidence to the contrary. Page 65 (referenced in the comment) is associated with Section 3.6, *Energy*, and does not relate to hydrology. No further response is necessary.

O2-22 The commenter asserts that the IS/MND noise analysis does not show that the proposed mitigation measure (MM N-1) would adequately mitigate noise. All mitigation measures under Mitigation Measure N-1 would reduce construction-related noise levels as demonstrated through quantitative modeling. Specifically, the last bullet point under Mitigation Measure N-1 provides details for the construction of a temporary noise barrier to break the line-of-sight and to have a density of 1.5 lb/sqft with no gaps. These details are the requirements needed to reduce levels as stated, "to maintain noise levels at or below the performance standard of 80 dBA Leq at the property line." Therefore, Mitigation Measure N-1 would adequately mitigate noise levels. No further noise analysis is warranted.

O2-23 The commenter asserts that the IS/MND fails to provide an adequate project description because it does not include a statement of objectives nor economic characteristics. The CEQA Guidelines section that this comment refers to (CEQA Section 15124) is related to the requirements for an environmental impact report, which is not the type of environmental analysis prepared for the proposed project.

A statement of objectives is required for environmental impact reports, but not mitigated negative declarations, which is the environmental document prepared for the proposed project. Section 1.3, *Project Description* (see pages 11 through 33), provides a thorough discussion of the proposed project components and adequately describes the proposed project. The commenter is referring to an introductory summary that is further expanded on pages 11 through 33.

The comment further states that the IS/MND does not provide a description of the proposed project's economic characteristics. As defined by CEQA Guideline section 15378, "project" for the purposes of CEQA "means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." Economic characteristics of a project only need to be considered if they result in a direct or

reasonably foreseeable indirect physical change to the environment. Economic characteristics that do not result in a physical impact are beyond the scope of CEQA. No further response is needed.

The CEQA section this comment refers to (CEQA Guidelines Section 15124) is the requirements for an environmental impact report. A mitigated negative declaration was appropriately prepared for the proposed project, not an environmental impact report. The project description adequately describes the proposed project and meetings the requirements of CEQA. Recirculation is not warranted.

O2-24 This comment serves as a conclusion to the letter. See response to Comments O2-2 through O2-23.

O2-25 The commenter notes that number, length, and vehicle class of worker trips are utilized by CalEEMod to determine construction VMT and emissions. The commenter also suggests that construction VMT and emissions may be reduced by decreasing the average overall trip length through a local hire requirement. This comment does not identify a deficiency in the IS/MND's analysis. No further comment is warranted.

O2-26 The commenter notes how construction-related worker trips are calculated by CalEEMod in rural and urban settings and suggests that a local hire requirement's efficacy depends on project location and urbanization. This comment does not identify a deficiency in the IS/MND's analysis. No further comment is warranted.

O2-27 The commenter provides an example of how a local hire requirement can reduce GHG emissions associated with construction worker trips as compared to default CalEEMod trip length. The commenter, however, does not identify any analysis deficiencies or inaccuracies in the IS/MND. Moreover, the potential benefits of local, skilled labor requirements/policies have not been quantified, and are caveated in the commenter's references (e.g., the GHG reduction associated with a local hire requirement and anticipated decreased worker trip length would vary based on the location and urbanization level of the project site). The potential benefits of the recommended requirements, therefore, are speculative. The commenter does not specify how requiring local hire or the other recommendations would achieve further reductions in GHG emissions during construction, nor does the commenter explain whether it is feasible or identify evidence supporting any implied conclusion that reductions would be achieved. For instance, the commenter does not provide any evidence that construction worker trip distance would be reduced through implementation of such measures. Thus, the comment does not present any evidence or assertions that undermine the analysis or conclusions of the IS/MND.

O2-28 This comment is a disclaimer to the comment letter. No response is warranted.

Letter R1– Maria Susana Carcedo (1 page)

R1

PICO RIVERA

THE MERCURY PROJECT - 8825 WASHINGTON BLVD.
PUBLIC MEETING COMMENT CARD
THURSDAY, AUGUST 11, 2022

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CITY/CIUDAD: Pico Rivera, CA ZIP CODE/CÓDIGO POSTAL: 90660

If you have any questions please contact Julia Gonzalez at (562) 801-4447 or email at juliagonzalez@pico-rivera.org.
If you would like to leave your comments by email, please send to juliagonzalez@pico-rivera.org or mail to Planning Division, City of Pico Rivera 6615 Passons Boulevard, Pico Rivera, CA 90270.

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COMMENTS/COMENTARIOS DON't WANT ANY More people

- Pico Rivera is a familiar city, Not COMERCIAL,
- We Don't need more people, more traffic, R1-1
- the powerpoint it's different from the real people that walk in the Shopping Center
- who's going to fix the damage of our houses during construction
- fix the homeless, streets, Avenues,
- the sigh in Rosemead and ~~Washington~~ Gallatin it's the same 67,000 Population

R1. Response to Comments from Maria Susana Carcedo, dated August 11, 2022.

R1-1 The commenter opines that the City does not need more residents and traffic. The commenter expresses concern with a potential increase in traffic and damage to surrounding residential houses during construction. However, the commenter does not raise any specific comments regarding the IS/MND's evaluation of environmental issues. The proposed project has been analyzed extensively in the IS/MND, including construction impacts to off-site sensitive residential receptors.

Overall, the proposed project is consistent with the City's General Plan Circulation Element and is not found to conflict with adopted policies, plans, or programs. It would also implement transportation demand management (TDM) strategies per the 2021 California Air Quality Pollution Control Officers Association (CAPCOA) *Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* as project design features that would decrease vehicle miles travelled (VMT). Therefore, the proposed project would contribute to maximizing mobility and accessibility in the region. Please refer to Section 3.17, *Transportation,* and Appendix F, *Transportation Impact Analysis Report, The Mercury Project, City of Pico Rivera, California* for more information.

As discussed in Section 3.11, *Land Use and Planning,* implementation of the proposed project would be confined to the project site, which is entirely vacant. As discussed in Section 3.3, *Air Quality*, the proposed project would be required to implement fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers. As discussed in Section 3.13, *Noise*, the proposed project would implement mitigation measure N-2, which would ensure that vibration associated with grading and paving activities would not damage nearby residences. No homes are located on the project site, and the proposed project would not damage homes during construction.

The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

Letter R2– Leticia Santillan (1 page)

R2

THE MERCURY PROJECT - 8825 WASHINGTON BLVD.
PUBLIC MEETING COMMENT CARD
THURSDAY, AUGUST 11, 2022

NAME/NOMBRE: Leticia Santillan

EMAIL/CORREO ELECTRÓNICO:

CITY/CIUDAD: Pico Rivera ZIP CODE/CÓDIGO POSTAL: 90660

If you have any questions please contact Julia Gonzalez at (562) 801-4447 or email at juliagonzalez@pico-rivera.org.
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COMMENTS/COMENTARIOS

We just dont need this in our neighborhood we are fine the way we are. R2-1

R2. Response to Comments from Leticia Santillan, dated August 11, 2022.

R2-1 The commenter expresses general opposition to the proposed project. No specific comments regarding the IS/MND's evaluation of environmental issues have been provided by the commenter. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

Letter R3– Elvia Alvarado (1 page)

R3

PICO RIVERA

THE MERCURY PROJECT - 8825 WASHINGTON BLVD.
PUBLIC MEETING COMMENT CARD
THURSDAY, AUGUST 11, 2022

NAME/NOMBRE: Elvia Alvarado

EMAIL/CORREO ELECTRÓNICO: No email

CITY/CIUDAD: Pico Rivera ZIP CODE/CÓDIGO POSTAL: 90660

If you have any questions please contact Julia Gonzalez at (562) 801-4447 or email at juliagonzalez@pico-rivera.org.
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Si desea dejar sus comentarios por correo electrónico, envíelos a juliagonzalez@pico-rivera.org o envíelos por correo a la División de Planificación, Ciudad de Pico Rivera 6615 Passons Boulevard, Pico Rivera, CA 90270.

COMMENTS/COMENTARIOS

I have lived in my home 8744 Goodlee St Pico Rivera 90660 since 1975, I don't want this Mercury Project next door to me it would take away my view and privacy to our family. My taxes would go higher. I can not have this many family live next door to us or me. To many people, Cars, noise ~~and~~ It would take away the family homes privacy. R3-1

R3. Response to Comments from Elvia Alvarado, dated August 11, 2022.

R3-1 The commenter expresses general opposition to the proposed project. However, the commenter does not raise any specific comments regarding the IS/MND's evaluation of environmental issues. The proposed project has been analyzed extensively in the MND, including related to views (refer to Section 3.1, *Aesthetics)*, population (refer to Section 3.14, *Population and* Housing), transportation (refer to Section 3.17, *Transportation,* and Appendix F, *Transportation Impact Analysis Report, The Mercury Project, City of Pico Rivera, California*) and noise (refer to Section 3.13, *Noise*). No further response is needed.

Letter R4– Miguel Santillan (1 page)

R4

PICO RIVERA

THE MERCURY PROJECT - 8825 WASHINGTON BLVD.
PUBLIC MEETING COMMENT CARD
THURSDAY, AUGUST 11, 2022

NAME/NOMBRE: Miguel Santillan

EMAIL/CORREO ELECTRÓNICO:

CITY/CIUDAD: Pico Rivera ZIP CODE/CÓDIGO POSTAL: 90660

If you have any questions please contact Julia Gonzalez at (562) 801-4447 or email at juliagonzalez@pico-rivera.org.
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Si desea dejar sus comentarios por correo electrónico, envíelos a juliagonzalez@pico-rivera.org o envíelos por correo a la División de Planificación, Ciudad de Pico Rivera 6615 Passons Boulevard, Pico Rivera, CA 90270.

COMMENTS/COMENTARIOS

Dont Build in our City this will Bring the worst of traffic and vandalism with 255 apts R4-1

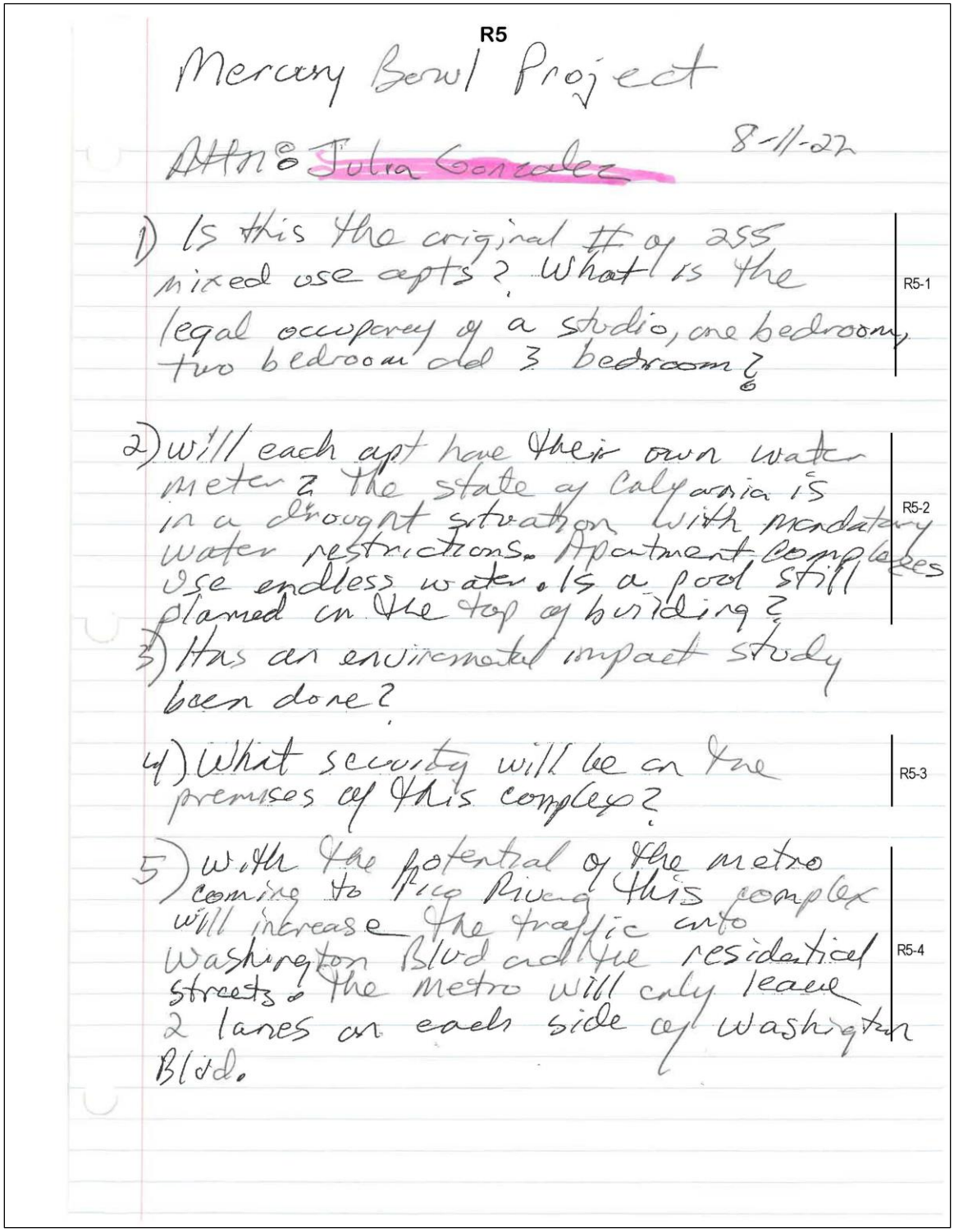
R4. Response to Comments from Miguel Santillan, dated August 11, 2022.

R4-1 The commenter expresses general opposition to the proposed project and asserts that the proposed project would worsen traffic and vandalism. The comment does not raise any specific comments regarding the IS/MND's evaluation of environmental issues.

With the passage of Senate Bill (SB) 743, the focus of transportation analysis for purposes of CEQA has shifted from vehicular delay or level of service (LOS) to vehicle miles traveled (VMT). The proposed project's impact on transportation has been analyzed in Section 3.17, *Transportation* of the IS/MND and Appendix F, *Transportation Impact Analysis Report, The Mercury Project, City of Pico Rivera, California*. The IS/MND shows that the proposed project would result in a less than significant impact to transportation.

Regarding vandalism, as discussed in the Section 1.3, *Project Description*, and under threshold (b) of Section 3.15, *Public Services*, the proposed project would also include design elements that would deter criminal activity, such as security gates, and residents-only key cards for the residential areas, as well as security lighting for the residential and commercial areas. The proposed project would result in a less than significant impact to police services.

Letter R5– [no name given] (1 page)



R5

Mercury Bowl Project

Attn: Julia Gonzalez 8-11-22

1) Is this the original # of 255 mixed use apts? What is the legal occupancy of a studio, one bedroom, two bedroom and 3 bedroom? R5-1

2) will each apt have their own water meter? The state of Calyarnia is in a drought situation with mandatory water restrictions. Apartment complexes use endless water. Is a pool still planned on the top of building? R5-2

3) Has an environmental impact study been done?

4) What security will be on the premises of this complex? R5-3

5) With the potential of the metro coming to Pico Rivera this complex will increase the traffic onto Washington Blvd and the residential streets. The metro will only leave 2 lanes on each side of Washington Blvd. R5-4

R5. Response to Comments from [no name given], dated August 11, 2022.

R5-1 The commenter asks whether the number of apartments in the proposed project is the original proposed number of apartments. The commenter accurately notes that the proposed project would have 255 dwelling units (see Section 1.3, *Project Description,* of the IS/MND). The commenter also asks about the legal occupancy of each dwelling unit type. As discussed on page 12, the project applicant will limit the number of tenants per unit to two persons per bedroom and one person per living room. Please refer to Section 1.3.1.1, *Project Description, Residential,* of the MND for more information.

R5-2 The commenter asks whether each apartment will have their own water meter and raises concerns over the potentially large water consumption of the apartments and pool amidst a drought in California. The proposed project would install a new water meter and backflow. Final project design and review would be evaluated by the City.

The proposed project's water demand for indoor and outdoor use is well within the Pico Water District's groundwater pumping capacity. The proposed project is consistent with the City's anticipated growth projection and therefore is not anticipated to adversely affect the Pico Water District's water supplies. Additionally, the proposed project would have a less than significant impact related to water supply during normal, dry, and multiple dry years. Please refer to Section 3.19, *Utilities and Service Systems,* for more information. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R5-3 The commenter asks what forms of security will be on the premises of the proposed project. Parking security staff will be on-site to ensure that tenants do not park in the adjacent shopping center overnight. The proposed project includes safety and security lighting in residential and commercial areas, primarily along walkways, outdoor parking areas, and steps for pedestrian safety at the ground level. It would also include design elements that would deter criminal activity, such as security gates and residents-only key cards for the residential areas. Please refer to Section 1.3.3, *Project Description,* and Section 3.15(b), *Public Services, Police Protection,* for more information.

R5-4 The commenter asserts that with the addition of the new Metro station near the project site the proposed project would increase traffic on Washington Blvd. and surrounding residential streets by decreasing travel lanes to two lanes on each side. Refer to Response to Comment A1-3, which discusses the proposed Metro project. In addition, with the passage of Senate Bill (SB) 743, the focus of transportation analysis for purposes of CEQA has shifted from vehicular delay or level of service (LOS) to vehicle miles traveled (VMT). The proposed project is consistent with the City's General Plan Circulation Element and would implement design features that would contribute to supporting multiple modes of transportation. Please refer to Section 3.17, *Transportation,* of the MND for more information. The comment does not identify a deficiency in the IS/MND's analysis. No further response is necessary.

Letter R6– Maricela Lizarraga (1 page)

PICO RIVERA

THE MERCURY PROJECT - 8825 WASHINGTON BLVD.
PUBLIC MEETING COMMENT CARD
THURSDAY, AUGUST 11, 2022

NAME/NOMBRE: Maricela Lizarraga

EMAIL/CORREO ELECTRÓNICO: mcasillas022@gmail.com

CITY/CIUDAD: Pico Rivera ZIP CODE/CÓDIGO POSTAL: 90660

If you have any questions please contact Julia Gonzalez at (562) 801-4447 or email at juliagonzalez@pico-rivera.org.
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COMMENTS/COMENTARIOS

Project does not make sence. R6-1
Not enough parking
traffic is already bad, I currently experience it. R6-2
We voted city cancil in and none are here
very disrespectful they should here ar concerns R6-3

R6. Response to Comments from Maricela Lizarraga, dated August 11, 2022.

R6-1 The commenter asserts that the proposed project does not make sense and does not provide any specific comments on the project. The MND provides an extensive description of the proposed project (refer to Section 1, *Introduction*) and analysis of potential environmental impacts (refer to Section 3, *Environmental Analysis*). The City will consider all comments and recommendations as part of its decision-making for this project. No further response is required.

R6-2 The commenter states that the proposed project does not have enough parking and states that traffic is already bad. The proposed project's parking numbers are provided in Table 4, *Summary of Parking Spaces*, which shows that the proposed project would provide 464 parking spaces. Proposed project parking ratios are similar to other mixed-use developments of its type, size, and urban context. The proposed project's Transportation Study (contained in Appendix F) determined that the proposed project's parking requirements are consistent with the empirical parking demand ratios and the ITE published residential parking demand ratio. The proposed project would adequately accommodate parking needs on-site. As discussed in Section 1.3.2.2, *Project Parking*, the operation of the proposed project would require that residents register their vehicles with the building and adhere to the parking policies in lease/rental agreements. Security staff would monitoring parking at the adjacent shopping center on a 24-hour basis. Further, the project applicant would identify a Community Liaison/Parking Ombudsman in order to keep nearby residential communities informed on various matters and provide an open line of communication. The Community Liaison/Parking Ombudsman would efficiently manage parking and enforce changes that the project management team would make to prevent local neighborhood parking intrusion. Refer to pages 19 and 18 of the IS/MND. Parking is no longer a CEQA issue. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

The proposed project is consistent with the Pico Rivera Municipal Code and the General Plan's Circulation Element. Therefore, the proposed project would support mobility in the region. With the passage of Senate Bill (SB) 743, the focus of transportation analysis for purposes of CEQA shifted from vehicular delay or level of service (LOS) to vehicle miles traveled (VMT). Therefore, traffic is no longer a CEQA issue. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R6-3 The commenter expresses concern regarding the absence of city council members at the public meeting and does not provide any specific comments on the project. No further response is necessary.

Letter R7– Rafael Gonzales (1 page)

R7

The Mercury Project

Public Informational Meeting – 8/11

Verbal Comments

Resident #7: Rafael Gonzales

- What is the impact of adding 255 units in terms of schools, parks, etc? | R7-1

R7. Response to Comments from Rafael Gonzales, dated August 11, 2022.

R7-1 The commenter asks about the impacts of the proposed project's addition of 255 residential units on schools and parks. The IS/MND provides an analysis on the proposed project's impact on schools and parks as well as other types of public and recreational facilities in Sections 3.15, *Public Services,* and 3.16, *Recreation*, in the MND. The MND concludes that the proposed project would have a less than significant impact on public services and recreational facilities.

Letter R8– Veronica Malvido (1 page)

R8

The Mercury Project

Public Informational Meeting – 8/11

Verbal Comments

Resident #8: Veronica [No last name given]

- Will the project have HVAC units? | R8-1
- There is not enough parking | R8-2

R8. Response to Comments from Veronica Malvido, dated August 11, 2022.

R8-1 The commenter asks whether the proposed project will have HVAC units. The proposed project will include HVAC units for residential and commercial uses. No further response is necessary.

R8-2 The commenter states that there is not enough parking. Refer to Response to Comment R6-2 above, which discusses project parking.

Letter R9– [no name given] (1 page)

R9

The Mercury Project

Public Informational Meeting – 8/11

Verbal Comments

Resident #9: No name given.

- New apartments will lead to an increase in children. Are schools equipped to handle the student enrollment? R9-1
- What about police services? R9-2

R9. Response to Comments from [no name given], dated August 11, 2022.

R9-1 The commenter asks if schools are equipped to handle the proposed project's students. The proposed project's impact on schools is discussed in Section 3.15, *Public Service.* The analysis takes a conservative approach to determining student generation because it assumes that all units would generate an equal number of high school, middle school, and elementary school students; however, this would not be the case because 194 dwelling units of the 255 dwelling units (approximately 77.6 percent of the dwelling units) would be studio and one-bedrooms. Even with this conservative approach, the IS/MND determined development of the proposed project would not result in the need for construction associated with an expansion of existing or development of new schools such that environmental impacts would result. In addition, as stated on page 99 of the IS/MND, the proposed project would be required to pay school fees pursuant to Senate Bill 50. Therefore, project-related impacts to school facilities would be less than significant. Please refer to Section 3.15(c), *Public Services, Schools,* for more information.

R9-2 The commenter asks about the proposed project's impact on police services The IS/MND evaluates the proposed project impact to polices services in Section 3.15(b), *Public Services, Police Protection.* A service letter and questionnaire were sent to the Los Angeles County Sheriff's Department (LASD) requesting input from the LASD on the proposed project. The Pico Rivera Sheriff Station has no deficiencies in police protection services. While the proposed project may lead to an increase in demand for police protection services compared to existing conditions, such as increase in service calls and traffic enforcement, by adding new residents to the area, such an increase is within the projected growth for the city, and LASD has indicated that there are no existing deficiencies. The proposed project would include design features that would deter criminal activity, such as security lights and gates. The proposed project would contribute applicable impact fees and applicable taxes that would fund the police station. As discussed in Section 3.15(b), the proposed project would result in a less than significant impact to police protection.

Letter R10– [two residents, no names given] (1 page)

R10

The Mercury Project

Public Informational Meeting – 8/11

Resident(s) #10: came together: No names given.

- Concerned about the economic impact of the multifamily residential component in the short and long term. Rents will be too high for one or two persons, which would lead to overcrowding. Over the long term, the commenter is concerned about the building falling into disrepair. | R10-1
- The commenter is concerned about overcrowding at schools. | R10-2
- The commenter is concerned about illegal dumping and inaction to address current illegal dumping. Commenter suggests fining the property owner for illegal dumping if it is not handled right away. | R10-3
- Commenter would like to see condos instead of apartments. Believes that homeowners will take better care of the building and property. | R10-4
- Concern about traffic and cars speeding. States that there is too much traffic and cars already speed. | R10-5
- Not enough parking and concerned about parking overflow into their neighborhood. | R10-6

R10. Response to Comments from [two residents, no names given], dated August 11, 2022.

R10-1 The commenter raises concern regarding the economic impact of multifamily residential units in the short and long term. Although economic effects of the project may be included in the IS/MND, evidence of economic impacts that do not contribute to or are not caused by physical impacts on the environment are beyond the scope of CEQA. (CEQA Guidelines 15131, PRC 21082.2(2)).

The commenter also raises concern regarding potential overcrowding and consequent damage to the building. As discussed in Section 1.3, *Project Description*, the lease agreement for the proposed project would limit the number of tenants per unit to two persons per bedroom and one person per living room (see page 12). As described in Section 3.14, *Population and Housing,* of the IS/MND, the proposed project's anticipated population and household generation is within the anticipated growth for the City. The proposed project would not generate unplanned nor indirect population growth. Therefore, the operation of the proposed project would result in a less than significant impact on population or building infrastructure.

R10-2 The commenter expresses concern regarding overcrowding at schools. The addition of students generated by the proposed project to area schools would not substantially increase enrollment. Therefore, project-related impacts to school enrollment would be less than significant. Please refer to Response to Comment R9-1. Please refer to Section 3.15(c), *Public Services, Schools,* for more information.

R10-3 The commenter expresses concern regarding potential illegal dumping and current inaction to address current illegal dumping in other areas. The commenter suggests fining the property owner for illegal dumping if it is not handled immediately. However, no specific comments regarding the IS/MND's evaluation of environmental issues have been provided by the commenter. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R10-4 The commenter recommends that the proposed project include condominiums instead of apartments because the commenter believes that homeowners will take better care of the property. However, no specific comments regarding the IS/MND's evaluation of environmental issues have been provided by the commenter. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R10-5 The commenter expresses concern regarding the potential increase in traffic and speeding cars. With the passage of Senate Bill (SB) 743, the focus of transportation analysis for purposes of CEQA has shifted from vehicular delay or level of service (LOS) to vehicle miles traveled (VMT). The proposed project is consistent with the City's General Plan Circulation Element and would not conflict with adopted policies, plans, or programs. It would also implement transportation demand management (TDM) strategies per the 2021 California Air Quality Pollution Control Officers Association (CAPCOA) *Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* as project design features that would decrease vehicle miles travelled (VMT). Therefore, the proposed project would contribute to maximizing mobility and accessibility in the region. Please refer to Section 3.17, *Transportation,* and Appendix F, *Transportation Impact Analysis Report, The*

Mercury Project, City of Pico Rivera, California for more information. No specific comments regarding the IS/MND's evaluation of environmental issues have been provided by the commenter.

R10-6 The commenter expresses concern about the proposed project's limited parking and potential parking overflow. Refer to Response to Comment R6-2.

Letter R11– Emmanuel Sandoval (2 pages)

R11

From: emmanuel sandoval
Sent: Friday, August 12, 2022 2:06 PM
To: Julia Gonzalez
Subject: 8825 Washington Blvd - 255 unit Project

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: This email originated externally from the **City of Pico Rivera** email system. **DO NOT** click links or open attachments unless you recognize the sender and know the content is safe.

Hi Julia,

It was a pleasure meeting you yesterday at the community meeting for the proposed 255 unit project. As discussed, myself and others would like to express our concerns for this project.

Density

-The current municipal code for M-U zones allow for 30 Dwelling Units per Acre by right, additionally note #14 states ..."shall not be developed with more than one dwelling unit for each one thousand four hundred fifty square feet of lot area. R11-1
-This project is asking for a zone code / specific plan amendment to allow **91 DU per Acre**, this equates to almost a **300% increase** in the allowable density per the zoning code.

My question is, Under what pretense is the city considering allowing such an extreme increase in allowable density? Especially given the fact that this project is only proposing 5% of the 255 units to be designated as affordable.

-There is currently no state or assembly bill that allows this extreme increase in density for projects that are not 100% affordable. I would ask that the city council provide the city of Pico Rivera residents with a justification as to why this is even being considered knowing fully that this is not a 100% affordable project. R11-2

-Please review AB 2345 in its entirety and outline how this proposed 255 unit market rate project complies with government land regulations.

Traffic

-This project will provide 464 parking stalls for the residents and the only entrance off Washington blvd to the parking structure is near the McDonalds. Please justify how traffic will not be impacted especially when traveling east on Washington Blvd to the proposed site.
-**There is only one left turn lane between Rosemead and Crossway Dr that is not on a signal.** This will gravely impact traffic along Washington Blvd especially during rush hours. R11-3
-Additionally when the Metro Gold Line Eastside extension is built, it will eliminate all non-signal left turn lanes as you head east on Washington Blvd. This development in addition to the 255 unit development will gravely impact our community, the city needs to conduct an independent traffic analysis of this area that is not paid for by the developer in order to understand fully and unbiasedly the traffic impacts.

Town Hall

-We the residents deserve a town hall on this matter in the same light as Metro conducted the town hall on the eastside extension of the Gold Line before any vote is cast. R11-4
-What benefits are the residents of this community receiving from this development?

1

-We much rather see town homes being constructed rather than apartment units, the former brings far greater value to our community as a whole.
-If this project is approved it will provide the framework for future developers to build far greater density in our community that no state or assembly bill can back up.
-We strongly discourage such an egregious diversion from the allowable limits set forth in the zoning code and recommend that this developer either provides a 100% affordable project or builds within the 30 DU per Acre framework.

R11-4 cont'd

--
Emmanuel Sandoval

R11. Response to Comments from Emmanuel Sandoval, dated August 12, 2022.

R11-1 The commenter expresses concern about the proposed project's density and asks why the city would allow such a high increase in density. The proposed project includes discretionary approvals, such as Specific Plan approval and zone reclassification, zone code amendment, and General Plan amendment, which change the current zoning and land use designations on-site to Specific Plan (SP). The Specific Plan would allow for the proposed density. No specific comments regarding the IS/MND's evaluation of environmental issues have been provided by the commenter.

R11-2 The commenter states that there is no state or assembly bill that allows for the increase in density associated with the proposed project that is not 100% affordable. The proposed project is not seeking a density bonus pursuant to California Density Bonus law. Nevertheless, the proposed project would include 13 affordable housing units. Refer to Response to Comment R11-1.

R11-3 The commenter expresses concern about local circulation issues resulting from project traffic and site access. Please refer to Section 3.17, *Transportation*, and the proposed project's transportation study contained in Appendix F for a discussion of the proposed project's transportation impacts. With the passage of Senate Bill (SB) 743, the focus of transportation analysis for purposes of CEQA has shifted from vehicular delay or level of service (LOS) to vehicle miles traveled (VMT). Vehicle delay, i.e., traffic, is no longer a CEQA issue. As described in the Section 3.17, *Transportation*, of the IS/MND and Appendix F of the IS/MND (Transportation Impact Analysis Report), vehicular access to the project site will be accommodated via two driveways: one existing driveway on Washington Boulevard and one existing driveway on Rosemead Boulevard. Other existing access points along Washington Boulevard and Rosemead Boulevard are currently provided for the Pico Rivera Marketplace and will not change due to the proposed project. The existing Washington Boulevard driveway closest to the proposed project parking structure access point and located west of the existing McDonald's fast-food restaurant, would remain and be improved in order to provide handicap accessibility. The commenter is correct that this location is not signalized and is the only eastbound left-turn lane/pocket between Rosemead Boulevard and Crossway Drive. The existing eastbound left-turn movement into the site from Washington Boulevard will continue to be facilitated by the existing eastbound left-turn lane/pocket and median break at this location. Please refer to Appendix F of the IS/MND for a full discussion of forecast project-related vehicle trips at this location. In addition to the vehicle-miles-traveled (VMT) analysis, an access and circulation review was conducted as part of the "Non-CEQA" operational analysis for the proposed project. Based on the review, it is concluded the proposed project weekday AM and PM peak hour traffic volumes will not cause or substantially extend vehicle queuing at the site driveways, including at this referenced eastbound left-turn traffic movement/location.

Please refer to Response to Comment A1-3, which discusses the separate proposed Metro project.

Finally, the transportation impact analysis for the proposed Project was prepared in consultation with City of Pico Rivera staff and the City's Contract Traffic Consultants and in compliance with City of Pico Rivera's latest guidelines. The report was reviewed and approved by the City's Contract Traffic Engineer.

R11-4 The commenter suggests that the City should hold a town hall for the residents regarding the proposed project before any vote is cast. The commenter asks for information on the benefits that community residents will receive from the proposed project. The commenter also recommends that the proposed project construct townhomes instead of apartment units and believes that townhomes would bring greater value to the community. The commenter asserts that the approval of the proposed project would allow for more projects with a much higher housing density. The commenter opposes the housing density of the proposed project and lack of affordable housing.

The Applicant would develop a currently vacant lot with a residential and commercial mixed-use project. The City and Applicant undertook a public review process that exceeds the requirements of CEQA for an MND. The City held a public meeting for the proposed project on August 11, 2022 which was open to the public. Comments were received verbally and in writing and responded to herein. In addition, the applicant held two public outreach meetings on June 3, 2021 and November 18, 2021.

Please see Response to Comment R11-1 for a discussion of density and affordable housing. The City will consider all comments and recommendations as part of its decision-making for this project.

Letter R12– Veronica Malvido (2 pages)

R12

From: Julia Gonzalez
Sent: Wednesday, August 17, 2022 6:33 AM
To: Mariana Zimmermann
Cc: Dalton Treadway (Dalton@optimuspropertiesllc.com)
Subject: FW: OPPOSED TO MERCURY PROJECT

Follow Up Flag: Follow up
Flag Status: Flagged

FYI. Here is another comment that came in.

From: malvidov
Sent: Tuesday, August 16, 2022 6:44 PM
To: Julia Gonzalez <juliagonzalez@pico-rivera.org>
Subject: OPPOSED TO MERCURY PROJECT

CAUTION: This email originated externally from the City of Pico Rivera email system. DO NOT click links or open attachments unless you recognize the sender and know the content is safe.

Hi Julia

I'm opposed for the following reasons and concerns.

1. By the way the sofa was still there as of this afternoon today 8/17/2022. 6740 Keltonview. This is just a taste of what's to come. the city doesn't do anything about the people living like pack rats in front of their homes with out someone filing a complaint. That's BS the city should patrol and take action! If the city can't check a homeowner what can we expect them to do about a renter no one sees? R12-1
2. Washington Blvd is an artery in our city we already deal with the disruption of inner city traffic with all the school traffic we are already over crowed as it is. R12-2
3. Our city is labeled as low income because that is what it draws in. We have the same vendors on all four corners but. New business struggle because rent is so expensive and leave. What do you think will happen in time with a renter?
4. If the property owner fails to rent all the units they will be forced to section apartment's off and in time will become the like the building on Rosemead and CoffmanPico and others not to mention.
4. Property value in Pico Rivera is extremely high for a city that is considered low income. the average household income will have to be in the 80-90k to realistically live in comfort. R12-3
5. Will water be a separate utility bill? I ask because most renters don't care how much water they need to use. R12-4
6. There maybe enough parking for the single renter but realistically parking needs to be multiplied by 3. In a city that is considered low income renters live in packs. R12-5
6. If the city needs to make money there should be a house hold cap on cars per dwelling.
7. Build something that brings in revenue while being a resource to the community so that its a win win both side. R12-6

The developer can careless the engineers and analysts they don't know what it's really like to live in our world here in Pico Rivera. Immediately you can tell they are all from mars lol. Take the 6th Street bridge for example did all the high level educated developers and scientists, planners with their master degrees plan ahead and foresee the idiots climbing R12-7

1

the bridge and bring risk to the city? NO because they had no clue about the real world we live in. They can measure and analyze all they want unless they live in it they won't get it.

R12-7 cont'd

Anywho it was great talking with you the other night thanks for your support.

3

Veronica Malvido

R12. Response to Comments from Veronica Malvido, dated August 16, 2022.

R12-1 The commenter states that a sofa that was improperly discarded is still present on the curb and asserts that the proposed project would bring similar issues. No specific comments regarding the IS/MND's evaluation of environmental issues have been provided by the commenter. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R12-2 The commenter raises concern regarding potential increase in traffic on Washington Boulevard caused by the proposed project. Refer to Response to Comment R10-5.

R12-3 The commenter raises concern with the proposed project's impact on rent. The commenter is concerned that the property owner will fail to rent all the residential units and be forced to section them off. Although economic effects of the project may be included in the IS/MND, evidence of economic impacts that do not contribute to or are not caused by physical impacts on the environment are beyond the scope of CEQA (CEQA Guidelines 15131, PRC 21082.2(2)). The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R12-4 The commenter asks whether water will be a separate utility bill. Water will be provided to the proposed project in one master meter and each residential unit will have an individual submeter tracking water usage. The proposed project's water demand is calculated and evaluated in Section 3.19, *Utilities and Service Systems,* which determined that the proposed project would be adequately served by existing water infrastructure and services. Pico Water District's 2015 UWMP concludes there is an adequate and reliable supply of water to provide for existing demand and estimated growth through year 2040. No specific comments regarding the IS/MND's evaluation of environmental issues have been provided by the commenter. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R12-5 The commenter suggests tripling the number of parking spaces to accommodate potential population growth. The commenter also recommends enforcing a cap on cars per dwelling. Refer to Response to Comment R6-2 for a discussion of project parking.

All resident policies will be outlined in the lease/rental agreement. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R12-6 The commenter opines that the City should build a project that brings in revenue while also being a community resource. No specific comments regarding the IS/MND's evaluation of environmental issues have been provided by the commenter. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R12-7 The commenter expresses general opposition to the proposed project. No specific comments regarding the MND's evaluation of environmental issues have been provided by the commenter. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

Letter R13– Brad Morgan (1 page)

R13

From: Brad Morgan
Sent: Friday, August 19, 2022 3:15 PM
To: Julia Gonzalez
Subject: 8828 Washington Blvd, 255 unit project

CAUTION: This email originated externally from the **City of Pico Rivera** email system. **DO NOT** click links or open attachments unless you recognize the sender and know the content is safe.

Hi Julia,

This 255 unit project was recently brought to my attention and I strongly oppose it. If this developer gets a special permission i fear it will open the floodgates to developers wanting special zoning. This will bring more apartments that people can't afford and fewer resources for people that actually live in this area, eventually pushing some out as has happens in DTLA. R13-1

Thanks for hearing me out.
Brad Morgan

1

R13. Response to Comments from Brad Morgan, dated August 19, 2022.

R13-1 The commenter expresses general opposition to the proposed project, including concern that the applicant is receiving special permission for the proposed project, which would cause other developers to apply for special zoning. The commenter states that the special zoning of the proposed project will increase unaffordable housing and displace people.

The proposed project seeks to change the current zoning designation of General Commercial (GC) to Specific Plan (SP) and add SP for the project site area to the Zoning Map. Additionally, the proposed project would change the current general plan land use designations of Mixed-Use/Housing Element Site Opportunity Area 8 (the Rosemead Boulevard and Washington Boulevard Opportunity Area) to SP. As detailed in Section 3.11, *Land Use and Planning,* the intent of the SP land use designation is to be used in combination with the underlying General Plan land use designations to allow for the creation of flexible standards. While the proposed project includes a zone change, zoning code amendment, and a General Plan amendment to redesignate the site as "Specific Plan," the proposed project supports the intent of the current general plan land use designation on-site.

The City's General Plan Housing Element identifies 13 areas within the city that have the potential to rezone to accommodate its housing needs under the City's Regional Housing Needs Assessment (RHNA). The project site is within the Housing Element's Area 11, which proposes a mixed-use zone and minimum density of 30 dwelling units per acre. The proposed project includes a mixed-use building with ground-floor retail and five levels of residential units at a density of approximately 89.5 dwelling units per acre. The proposed project would add diversity to the City's housing stock by providing studio, junior one-bedroom, one-bedroom, two-bedroom, and three-bedroom units that would serve a range of income levels. The proposed project would also reserve 13 dwelling units as affordable housing. The proposed project is consistent with Goal 2, which encourages access to opportunities for affordable housing, which is consistent with the City's General Plan Housing Element.

It would be speculative to assume that the proposed project would lead to other projects that would push current residents out. Although social effects of a project may be included in the IS/MND, evidence of social impacts that do not contribute to or are not caused by physical impacts on the environment are beyond the scope of CEQA.

The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

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RESPONSE TO COMMENTS MEMORANDUM

DATE	November 3, 2022
TO	City of Pico Rivera Community and Economic Development Department
ADDRESS	6615 Passons Blvd Pico Rivera, CA 90660
CONTACT	Julia Gonzalez, Deputy Director
FROM	Addie Farrell, Principal in Charge Mariana Zimmermann, Project Manager
SUBJECT	Response to Comments Received on The Mercury MND
PROJECT NUMBER	OPL-01

The Mercury Mitigated Negative Declaration (MND) went out for public review between July 8, 2022, and August 6, 2022, and a community meeting was held on August 11, 2022. A total of 16 public comments from agencies, organizations, and residents and interested parties were received; an overview of commenting agencies or persons is listed in Table 1. While responses to comments are not required for an MND, this memo provides responses to each comment received.

Table 1 Comments Received

Number Reference	Commenting Agency/Person	Date
Agencies		
A1	California Department of Transportation District 7 (Caltrans)	August 2, 2022
Organizations		
O1	Lozeau | Drury LLP, on behalf of Supporters Alliance for Environmental Responsibility (SAFER)	August 5, 2022
O2	Mitchell M. Tsai, Attorney at Law, on behalf of Southwest Regional Council of Carpenters (SWCC)	August 5, 2022
Residents and Interested Parties		
R1	Maria Susana Corcedo	August 11, 2022
R2	Leticia Santillan	August 11, 2022
R3	Elvia Alvarado	August 11, 2022

Table 1 Comments Received

Number Reference	Commenting Agency/Person	Date
R4	Miguel Santillan	August 11, 2022
R5	[no name given]	August 11, 2022
R6	Maricela Lizarraga	August 11, 2022
R7	Rafael Gonzales	August 11, 2022
R8	Veronica Malvido	August 11, 2022
R9	[no name given]	August 11, 2022
R10	[two residents, no names given]	August 11, 2022
R11	Emmanuel Sandoval	August 12, 2022
R12	Veronica Malvido	August 16, 2022
R13	Brad Morgan	August 19, 2022

Response to Comments

This section contains the responses to comments on the MND. The comment letter is first displayed, then the responses. Each comment letter is bracketed and labeled, and responses are provided for each bracketed comment.

Letter A1 – California Department of Transportation (4 pages)

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 269-1124
FAX (213) 897-1337
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life

A1

August 2, 2022

Julia Gonzalez, Deputy Director
City of Pico Rivera
6615 Passons Boulevard
Pico Rivera

RE: The Mercury Project
SCH # 2022070126
Vic. LA-605/PM R12.06, LA-05/PM 8.32
GTS # LA-2022-03998-MND

Dear Julia Gonzalez:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced environmental document. The proposed project involves development of a three to six-story mixed-use building with a 6.5-level parking structure in the core, 1 level of subterranean parking, ground-floor retail and residential uses, and residential uses in floors two through six on a 2.85-acre site. The building is a wrap-style with parking levels extending all floors interior to the building. The proposed project would develop 255 dwelling units consisting of a mix of studios, junior studios, one-bedrooms, two-bedrooms, and three-bedrooms, with 13 units set aside as affordable housing units. Up to 5,730 square feet of retail space, up to 1,750 square feet of ground-floor lobby/leasing space, up to 17,010 square feet of rooftop pool/community recreation, and up to 190,000 square feet of parking are included as part of the proposed project. A1-1

The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. Senate Bill 743 (2013) has codified into CEQA law and mandated that CEQA review of transportation impacts of proposed development be modified by using Vehicle Miles Traveled (VMT) as the primary metric in identifying transportation impacts for all future development projects. You may reference the Governor's Office of Planning and Research (OPR) for more information:

http://opr.ca.gov/ceqa/updates/guidelines/

"Provide a safe and reliable transportation network that serves all people and respects the environment"

As a reminder, VMT is the standard transportation analysis metric in CEQA for land use projects after July 1, 2020, which is the statewide implementation date.

Caltrans is aware of challenges that the region faces in identifying viable solutions to alleviating congestion on State and Local facilities. With limited room to expand vehicular capacity, all future developments should incorporate multi-modal and complete streets transportation elements that will actively promote alternatives to car use and better manage existing parking assets. Prioritizing and allocating space to efficient modes of travel such as bicycling and public transit can allow streets to transport more people in a fixed amount of right-of-way.

Caltrans supports the implementation of complete streets and pedestrian safety measures such as road diets and other traffic calming measures. Please note the Federal Highway Administration (FHWA) recognizes the road diet treatment as a proven safety countermeasure, and the cost of a road diet can be significantly reduced if implemented in tandem with routine street resurfacing. Overall, the environmental report should ensure all modes are served well by planning and development activities. This includes reducing single occupancy vehicle trips, ensuring safety, reducing vehicle miles traveled, supporting accessibility, and reducing greenhouse gas emissions. A1-1 cont'd

For this project, we encourage the Lead Agency to evaluate the potential of Transportation Demand Management (TDM) strategies and Intelligent Transportation System (ITS) applications in order to better manage the transportation network, as well as transit service and bicycle or pedestrian connectivity improvements. For additional TDM options, please refer to the Federal Highway Administration's *Integrating Demand Management into the Transportation Planning Process: A Desk Reference* (Chapter 8). This reference is available online at:

http://www.ops.fhwa.dot.gov/publications/fhwahop12035/fhwahop12035.pdf

Pedestrians and Bicycles

Public sidewalks and pedestrian facilities are provided on all streets within the project vicinity. The proposed project is designed to encourage pedestrian activity and walking as a transportation mode with a Walkability score for the project site of approximately 81 (Very Walkable) out of 100. Proposed project features would include landscaped pedestrian walkways connecting facilities within the site, as well as connections with the adjacent public sidewalks on the Washington Boulevard project frontage for access to nearby pedestrian and transit facilities. As part of the Specific Plan, street trees and streetscape plantings will be provided along the public frontages in accordance with the City's standards. In addition, project signage will include wayfinding pedestrian signage around the perimeter of the project site, building identification signs, and other sign types. A1-2

Wayfinding signs would be located at access points to the on-site amenities and facilities and parking areas.

Bicycle access to the project site will be facilitated by the County's bicycle roadway network. Walk Score calculates a bike score based on the topography, number and proximity of bike lanes, etc., and generates a bike score for the project site of approximately 58 (Bikeable) out of 100. Proposed bicycle facilities (e.g., Class I Bicycle Path, Class II Bicycle Lanes, Class III Bicycle Routes, Proposed Bicycle Routes, Bicycle Boulevards, etc.) identified in the City's Circulation Element12 will be located within an approximate one-mile radius from the project site. A Class II Bicycle Lane is proposed for Rosemead Boulevard between Gallatin Road and I-5 Freeway. In addition, a Class III Bicycle Route is proposed for Washington Boulevard between Telegraph Road and the San Gabriel River. A1-2 cont'd

Transit

Public transit service in the vicinity of the project is currently provided by the Los Angeles County Metropolitan Transportation Authority (Metro), Montebello Transit and Norwalk Transit. Metro is evaluating an extension of the Metro L (Gold) Line further east from its current terminus in East Los Angeles potentially through the cities of Commerce, Montebello, Pico Rivera, Santa Fe Springs and Whittier. The proposed light rail line would travel south along Atlantic Boulevard underground from the current Metro L (Gold) Line terminus at Pomona Boulevard and Atlantic Boulevard to the Citadel Outlets in the City of Commerce. The route would then proceed east along Washington Boulevard via aerial and/or at-grade (street level) configurations with an above grade station at Rosemead Boulevard and ending at Lambert Road in the City of Whittier. A1-3

VMT

The estimated residential VMT per capita for the proposed project is estimated at 14.13 residential VMT per capita which is higher than the residential significance threshold at 12.23 VMT per capita (15% below the existing baseline residential 14.39 VMT per capita). The following TDM strategies have been determined to be applicable as project design features:

- T-1. Increase Residential Density (9.79%)
- T-4: Integrate Affordable and Below Market Rate Housing (1.43%)
- T-15: Limit Residential Parking Supply (3.84%)

A1-4

The combination of the TDM measures discussed above results in a 14.49 percent (14.49%) reduction in VMT. The residential VMT per capita for the proposed project would subsequently be reduced to 12.08 residential VMT per capita, which is below the calculated City significance threshold of 12.23 residential VMT per capita. Therefore, the TDM measures which have been incorporated into the project design are expected to reduce the project's VMT to a less than significant level. It is concluded that development

of the project is not expected to result in a significant residential (household) VMT impact based on the City's significance thresholds contained herein.

We understand that VMT calculation is based on a VMT model in which the outcome is speculative without validation. However, a post-development VMT analysis with all mitigation measures should be prepared for monitoring purpose and for future project thresholds in the area. A post-development VMT analysis should include actual VMT survey and interview with real drivers. This VMT analysis would produce more accurate outcome in the area for the Lead Agency. Additional mitigation measure should be implemented when the post-development VMT analysis discloses any traffic significant impact. A1-4 cont'd

Other

As a reminder, any transportation of heavy construction equipment and/or materials which requires use of oversized-transport vehicles on State highways will need a Caltrans transportation permit. We recommend large size truck trips be limited to off-peak commute periods. A1-5

If you have any questions, please feel free to contact Mr. Alan Lin the project coordinator at (213) 269-1124 and refer to GTS # LA-2022-03998-MND.

Sincerely,

Miya Edmonson

MIYA EDMONSON
LDR/CEQA Branch Chief

email: State Clearinghouse

"Provide a safe and reliable transportation network that serves all people and respects the environment"

A1. Response to Comments from Miya Edmonson from California Department of Transportation (Caltrans), dated August 2, 2022.

A1-1 This comment expresses a statement of appreciation to the City of Pico Rivera for including Caltrans in the environmental review process and describes the proposed development project and current regulatory framework. These comments are introductory in nature and do not express a concern regarding the adequacy of the IS/MND analysis nor the transportation impact analysis report. The commenter also expresses acknowledgement and support for development projects that prioritize alternative modes of travel.

As outlined in the Section 3.17, Transportation, and Appendix F of the IS/MND (Transportation Impact Analysis Report), a vehicle miles traveled (VMT) analysis consistent with the California Office of Planning and Research's Technical Advisory was prepared for the proposed Project. Project-specific regional travel demand modeling was conducted using the SCAG Regional Travel Demand Model (RTDM). As discussed on pages 109 through 111, the VMT reducing strategies, referred to as transportation demand management (TDM) strategies contained in the California Air Pollution Control Officers Association's (CAPCOA*) Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*[1] ("2021 Handbook"), were evaluated to determine the applicability to the proposed project. The proposed project incorporates the following TDM measures: "Increase Residential Density," "Integrated Affordable and Below Market Rate Housing," and "limited Residential Parking Supply" (see pages 110 and 111).

The proposed project would support pedestrian and bicycling and alternative modes as transit. As discussed in Transportation threshold (a), the proposed project would support the City's Circulation Element, including goals and policies pertaining to complete streets, transit and public transportation, bicycle routes and pedestrian facilities, safety, and others. As discussed under Transportation threshold (c), the proposed project would not introduce hazards due to geometric design features nor incompatible uses. The proposed project would support vehicle and pedestrian safety. The comment does not express a concern regarding the adequacy of the MND, and the comments will be forwarded to the decision-makers for their required review and consideration prior to a final decision on the proposed project.

A1-2 This comment describes the existing pedestrian facilities in the vicinity of the project site and acknowledges the proposed project features to encourage and enhance pedestrian access and circulation to and from the project site as outlined in Section 3.17, *Transportation*, and Appendix F of the IS/MND (Transportation Impact Analysis Report). This comment also acknowledges the proposed bicycle facilities in the vicinity of the

[1] *Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity Final Draft*, California Air Pollution Control Officers Association, December 2021, adopted December 15, 2021.

proposed project as part of the County's bicycle roadway network, as summarized in Appendix F of the MND.

As noted by the commenter, the proposed project would include landscaped pedestrian walkways connecting facilities within the site as well to the adjacent public facilities along the Washington Boulevard project frontage to access nearby pedestrian and transit facilities. In addition, the proposed project is planned to provide bicycle parking and storage, with a minimum of 12 long-term bicycle spaces and a minimum of four short-term bicycle spaces. Thus, the proposed project would provide residents and visitors convenient access to public transit and opportunities for walking and biking, which would facilitate a reduction in regional VMT and related vehicular-related greenhouse gas emissions (GHG). The comment does not express a concern regarding the adequacy of the pedestrian and bicycle discussion in the IS/MND or within Appendix F of the MND. The comment is noted and will be forwarded to the decision-makers for their required review and consideration prior to a final decision on the proposed project.

A1-3 This comment acknowledges the public transit services that are provided in the vicinity of the proposed project as described in the IS/MND and Appendix F of the IS/MND (Transportation Impact Analysis Report). The commenter also acknowledges the current evaluation of the extension of the Metro L (Gold) Line further east, which is planned to extend along portions of Washington Boulevard within the project vicinity via aerial and/or at-grade (street level) configurations with a potential above-grade station at Rosemead Boulevard. The proposed project has purposely been sited to be in close proximity to these services so as to encourage future residents' use of other modes of transportation. It is important to note that the Draft Environmental Impact Report (Draft EIR) for the Eastside Transit Corridor Phase 2 Project is currently circulating for public review (as of the writing of these responses), and this Metro L Line (former Gold Line) extension is currently forecast to open and become operational in Year 2035, which is well beyond the opening date of the proposed project. This comment does not identify a deficiency in the analysis. The comment is noted and will be forwarded to the decision-makers for their required review and consideration prior to a final decision on the Project.

A1-4 This comment acknowledges and describes the results of the VMT analysis/assessment and conclusions as outlined in the IS/MND and within Appendix F of the IS/MND (Transportation Impact Analysis Report). The commenter acknowledges that the TDM measures, which have been incorporated into the project design, are expected to reduce the proposed project's VMT to a less than significant level. As such, the commenter acknowledges that development of the proposed project would not result in a significant residential (household) VMT impact based on the City's significance thresholds and mitigation measures are not warranted. The commenter provides the opinion that the VMT calculation is based on a VMT model in which the outcome is speculative and without validation.

The adopted CEQA Guidelines 15064.3 explains that a lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled and may use models to estimate a project's vehicle miles traveled. As outlined in the MND Transportation Section and Appendix F of the MND (Transportation Impact Analysis Report), a VMT analysis consistent with the California Office of Planning and Research's Technical Advisory was prepared for the proposed Project. Project-specific regional travel demand modeling was conducted using the Southern California Association of Governments (SCAG) Regional Travel Demand Model (RTDM). According to the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report,[2] the SCAG RTDM is the best available tool to estimate VMT in Los Angeles County. The VMT model used in the project-level VMT impact analysis is the same model utilized to develop the relevant thresholds of significance, and therefore rely on the same travel demand database.

The commenter further expresses the opinion that post-development surveys/interviews should be conducted to determine the actual VMT for monitoring purposes and for future project thresholds in the area, and that additional mitigation measures should be implemented in the event the post-development VMT analysis discloses significant impacts. The VMT calculations and thresholds are based upon average trip making behaviors in the project area and the City of Pico Rivera, respectively (similar to the vehicle trip generation rates published by the Institute of Transportation Engineers, which represent an average of driveway count studies conducted at existing land uses). While monitoring of actual travel behavior may improve future transportation model calibration and validation efforts, it is noted that the actual VMT generated by a residential project will depend on the individual circumstances of the residents at any given time. Actual VMT may vary year to year over the life of the project, and even month to month assuming a static mix of residents. It is for this reason that average travel behaviors are utilized when establishing thresholds and preparing project-level VMT calculations. The VMT estimates provided in the MND likely overstates travel by project residents. For example, the COVID-19 pandemic has substantially and likely permanently changed telework, which was not considered in the SCAG RTDM prepared pre-pandemic. By example, the Orange County Transportation Authority (OCTA) determined, based on an employment travel survey,[3] that in February 2020 (pre-pandemic), an average of 0.76 days per five-day work week, or 15.1 percent of working days, were worked via teleworking. OCTA further found that teleworking increased to an average of 2.56 days per work week, or 52.8 percent of working days, in response to the COVID-19 pandemic. Further, surveyed employees expect to telework 1.55 days per work week on average, or 31.2 percent of working days, in post-pandemic conditions. It is therefore expected that the percent of employees teleworking will remain elevated in

[2] Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report, Fehr & Peers, June 2020.
[3] "Employment & Travel Survey: Summary Report of Pandemic Impacts," prepared for OCTA by True North Research, Inc., December 14, 2021.

the post-pandemic period, substantially reducing VMT, which is not considered in the SCAG RTDM and therefore not in the VMT analysis provided in the MND.

A1-5 The commenter provides a reminder regarding the need of a Caltrans transportation permit for use of any oversized transport vehicles on State highways during construction of the proposed project and expresses the preference that large-sized truck trips be limited to off-peak commute periods. A construction phasing analysis has been prepared for the proposed project and is provided in Chapter 6.0 of the Transportation Impact Analysis Report contained within Appendix F of the IS/MND. As discussed in the Transportation Impact Analysis Report, the Applicant is preparing a Construction Staging and Traffic Management Plan, and it is anticipated that most haul truck activity to and from the project site would occur outside of the morning and afternoon peak hours (see page 57 of Appendix F). The project developer will comply with regulations pertaining to oversized-transport vehicles on State highways. The comments will be forwarded to the decision-makers for their required review and consideration prior to any action being taken on the proposed project.

Letter O1 – Supporters Alliance for Environmental Responsibility (32 pages)

O1

LOZEAU DRURY LLP
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1939 Harrison Street, Ste. 150
Oakland, CA 94612
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victoria@lozeaudrury.com

August 5, 2022

Via E-mail

Julia Gonzalez, Deputy Director
Community & Economic Development Department, Planning Division
City of Pico Rivera
6615 Passons Boulevard
Pico Rivera, CA 90660
juliagonzalez@pico-rivera.org

Re: Comment on the Initial Study and Mitigated Negative Declaration for the Mercury Mixed-Use Development Project at 8825 Washington Boulevard

Dear Deputy Director Gonzalez:

I am writing on behalf of Supporters Alliance for Environmental Responsibility ("SAFER") regarding the Initial Study and Mitigated Negative Declaration ("IS/MND") prepared for the Mercury Mixed-Use Development project, including all actions related or referring to the proposed construction of a six-story mixed-use development building with 255 residential units, approximately 5,730 square feet of commercial space, and a "wrap" style internal parking structure with 464 parking spaces, located at 8825 Washington Boulevard in Pico Rivera, California ("Project").

After reviewing the IS/MND, we conclude that the IS/MND fails as an informational document, and that there is a fair argument that the Project may have adverse environmental impacts. Therefore, we request that the City of Pico Rivera ("City") prepare an environmental impact report ("EIR") for the Project pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code section 21000, et seq. O1-1

This comment has been prepared with the assistance of Certified Industrial Hygienist Francis Offerman, PE, CIH. Mr. Offermann's comment and curriculum vitae are attached as Exhibit A hereto and are incorporated herein by reference in their entirety.

I. PROJECT DESCRIPTION

The Project applicant, Mercury Bowl, LLC: Green Rivera, LLC, is seeking approval from the City of Pico Rivera for implementation of The Mercury Specific Plan (Specific Plan) that includes the development of a three to six-story mixed-use building with a 6.5-level parking structure in the core, including 1 level of subterranean parking, ground-floor retail and residential O1-2

uses, and residential uses in floors two through six (proposed project) on a 2.85-acre site in Pico Rivera. (IS/MND, pp. 1, 11.)

The proposed Project would develop 255 dwelling units (approximately 258,720 square feet) consisting of a mix of studios, one-bedrooms, two-bedrooms, and three bedrooms; up to 5,730 square feet of retail; up to 1,750 square feet of ground-floor lobby/leasing space; up to 17,010 square feet of rooftop pool/community recreation; and up to 190,000 square feet of parking. (See, IS/MND, pp. 11-12.) Thirteen residential units would be dedicated as affordable. The first floor of the proposed building is a mix of retail, residential, public seating areas, and a main lobby/leasing office. Floors two through six include residential units, parking, and related residential amenities. Parking levels would extend from all floors that are interior to the building and one level of subterranean parking. The roof deck of the parking structure would include a pool and recreation facilities such as a gym and clubhouse for use by residents only. According to the Project applicant, the building would have a wrap-style design, i.e., the commercial space and apartments "wrap" around the internal parking structure. (See, e.g., *id.*, p. 13 [Figure 4 - Site Plan].)

The Project is located at 8825 Washington Boulevard (APN: 6370-027-018) in the central part of Pico Rivera in Los Angeles County, California. The Project site is bounded by Washington Boulevard to the south and adjacent commercial uses to the north, east, and west. A single-family residential neighborhood borders the site to the northwest. (IS/MND, p. 1; see also, *id.*, p. 9 [Figure 3 - Aerial Photograph of Project site].) The General Plan designation is Mixed-Use/Housing Element Site Opportunity Area 8 (the Rosemead Boulevard and Washington Boulevard Opportunity Area). The zoning is General Commercial (C-G). O1-2

The 2.85 acres project site is currently vacant and fenced off with no public access. According to the IS/MND, the Project site was previously developed with a commercial building that operated as a nightclub until March 2015 and was subsequently demolished in 2020. (IS/MND, p. 1.) The site is currently paved and contains ornamental landscaping, including palm trees.

Implementation of the proposed Project would require a General Plan amendment, zone code amendment, zone reclassification, conditional use permit, and approval of a Specific Plan. The City prepared an IS/MND for the proposed Project. Based on the IS/MND's findings, the City concluded that the impacts of the proposed Project would be mitigated to less-than-significant levels with the implementation of mitigation measures for the following areas:

- Air Quality
- Biological Resources
- Cultural Resources
- Noise
- Tribal Cultural Resources

(IS/MND, p. 38.)

However, based on the information provided in the IS/MND and associated appendices, we recommend that the Planning Division of the Community & Economic Development Department refrain from approving the Project and MND until the City prepares an EIR to adequately analyze and mitigate the indoor and outdoor air quality, greenhouse gas, and noise impacts related to the proposed Project. O1-2 cont'd

II. LEGAL STANDARD

As the California Supreme Court has held, "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR." (*Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319–20 ["*CBE v. SCAQMD*"] [citing *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 88; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491, 504-505].) "Significant environmental effect" is defined very broadly as "a substantial or potentially substantial adverse change in the environment." (Pub. Res. Code ("PRC") § 21068; see also, 14 CCR § 15382.) An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." (*No Oil, Inc.*, 13 Cal.3d at 83.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Env't v. Cal. Res. Agency* (2002) 103 Cal.App.4th 98, 109 ["*CBE v. CRA*"].)

O1-3

The EIR is the very heart of CEQA. (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214 ["*Bakersfield Citizens*"]; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927.) The EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return." (*Bakersfield Citizens*, 124 Cal.App.4th at 1220.) The EIR also functions as a "document of accountability," intended to "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." (*Laurel Heights Improvements Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 392.) The EIR process "protects not only the environment but also informed self-government." (*Pocket Protectors*, 124 Cal.App.4th at 927.)

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment." (PRC § 21080(d); see also, *Pocket Protectors*, 124 Cal.App.4th at 927.) In very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact thus requiring no EIR (14 CCR § 15371), only if there is not even a "fair argument" that the project will have a significant environmental effect. (PRC §§ 21100, 21064.) Since "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process," by allowing the agency "to dispense with the duty [to prepare an EIR]," negative declarations are allowed only in cases

where "the proposed project will not affect the environment at all." (*Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440.)

Mitigation measures may not be construed as project design elements or features in an environmental document under CEQA. The MND must "separately identify and analyze the significance of the impacts … before proposing mitigation measures…." (*Lotus vs. Department of Transportation* (2014) 223 Cal.App.4th 645, 658.) A "mitigation measure" is a measure designed to minimize a project's significant environmental impacts, (PRC § 21002.1(a)), while a "project" is defined as including "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." (CEQA Guidelines § 15378(a).) Unlike mitigation measures, project elements are considered prior to making a significance determination. Measures are not technically "mitigation" under CEQA unless they are incorporated to avoid or minimize "significant" impacts. (PRC § 21100(b)(3).)

To ensure that the project's potential environmental impacts are fully analyzed and disclosed, and that the adequacy of proposed mitigation measures is considered in depth, mitigation measures that are not included in the project's design should not be treated as part of the project description. (*Lotus*, 223 Cal.App.4th at 654-55, 656 fn.8.) Mischaracterization of a mitigation measure as a project design element or feature is "significant," and therefore amounts to a material error, "when it precludes or obfuscates required disclosure of the project's environmental impacts and analysis of potential mitigation measures." (*Mission Bay Alliance v. Office of Community Investment & Infrastructure* (2016) 6 Cal.App.5th 160, 185.)

O1-3 cont'd

Where an initial study shows that the project may have a significant effect on the environment, a mitigated negative declaration may be appropriate. However, a mitigated negative declaration is proper *only* if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study "to a point where clearly no significant effect on the environment would occur, and…there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (PRC §§ 21064.5, 21080(c)(2); *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331.) In that context, "may" means a reasonable possibility of a significant effect on the environment. (PRC §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors*, 124 Cal.App.4th at 927; *League for Protection of Oakland's etc. Historic Res. v. City of Oakland* (1997) 52 Cal.App.4th 896, 904–05.)

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (14 CCR § 15064(f)(1); *Pocket Protectors,* 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-51; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602.) The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. (*Pocket Protectors*, 124 Cal.App.4th at 928.)

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

> This 'fair argument' standard is very different from the standard normally followed by public agencies in their decision making. Ordinarily, public agencies weigh the evidence in the record and reach a decision based on a preponderance of the evidence. [Citation]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact.

(Kostka & Zischke, *Practice Under the CEQA*, §6.37 (2d ed. Cal. CEB 2021).) The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with *a preference for resolving doubts in favor of environmental review*." (*Pocket Protectors*, 124 Cal.App.4th at 928 [emph. in original].)

CEQA requires that an environmental document include a description of the project's environmental setting or "baseline." (CEQA Guidelines § 15063(d)(2).) The CEQA "baseline" is the set of environmental conditions against which to compare a project's anticipated impacts. (*CBE v. SCAQMD*, 48 Cal.4th at 321.) CEQA Guidelines section 15125(a) states, in pertinent part, that a lead agency's environmental review under CEQA: O1-3 cont'd

> …must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time [environmental analysis] is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant.

(*See Save Our Peninsula Committee v. County of Monterey* (2001) 87 Cal.App.4th 99, 124-25 ("*Save Our Peninsula*").) As the court of appeal has explained, "the impacts of the project must be measured against the 'real conditions on the ground,'" and not against hypothetical permitted levels. (*Id.* at 121-23.)

III. DISCUSSION

There is a fair argument that the proposed Project may have unmitigated adverse environmental impacts. An EIR is therefore required to adequately analyze and mitigate the impacts of the Project. O1-4

A. There is Substantial Evidence of a Fair Argument that the Project Will Have a Significant Health Risk Impact from its Indoor Air Quality Impacts.

Certified Industrial Hygienist, Francis "Bud" Offermann, PE, CIH, has conducted a review of the proposed Project and relevant documents regarding the Project's indoor air

emissions. Indoor Environmental Engineering Comments (August 5, 2022) (Exhibit A). Mr. Offermann concludes that it is likely that the Project will expose residents and commercial employees of the Project to significant impacts related to indoor air quality, and in particular, emissions of the cancer-causing chemical formaldehyde. Mr. Offermann is a leading expert on indoor air quality and has published extensively on the topic. Mr. Offermann's expert comments and curriculum vitae are attached as Exhibit A.

Mr. Offermann explains that many composite wood products used in building materials and furnishings commonly found in offices, warehouses, residences, hotels, and commercial spaces contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. He states, "The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims." (Ex. A, pp. 2-3.) O1-4 cont'd

Formaldehyde is a known human carcinogen. Mr. Offermann states that there is a fair argument that future residents will be exposed to a cancer risk from formaldehyde of approximately 120 per million, assuming all materials are compliant with the California Air Resources Board's formaldehyde airborne toxics control measure. (*Id.*, pp. 3-4) This exceeds the South Coast Air Quality Management District's ("SCAQMD") CEQA significance threshold for airborne cancer risk of 10 per million. (*Id.*, p. 3.)

In addition, Mr. Offermann states that there is a fair argument that the employees of the Project's commercial spaces are expected to experience significant work-day exposures. (*Id.*, pp. 4-5.) This exposure of employees would result in "significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in offices, warehouses, residences and hotels." (*Id.*, p. 4.) Assuming they work eight hour days, five days per week, an employee would be exposed to a cancer risk of approximately 17.7 per million, assuming all materials are compliant with the California Air Resources Board's formaldehyde airborne toxics control measure. (*Id.*, pp. 4-5.) This is more than the SCAQMD CEQA significance threshold for airborne cancer risk of 10 per million. (Ex. A, p. 5.) O1-5

Mr. Offermann also notes that the high cancer risk that may be posed by the Project's indoor air emissions likely will be exacerbated by the additional cancer risk that exists as a result of the Project's location near roadways with moderate to high traffic (i.e. East Washington Boulevard, Rosemead Boulevard, Crossway Drive, etc.) and the high levels of PM2.5 already present in the ambient air. (*Id.*, pp. 10-12.) No analysis has been conducted of the significant cumulative health impacts that will result to future residents and employees of the Project. O1-6

Mr. Offermann concludes that these significant environmental impacts should be analyzed in an EIR and mitigation measures should be imposed to reduce the risk of formaldehyde exposure. (*Id.*, p. 5.) Mr. Offermann identifies mitigation measures that are available to reduce these significant health risks, including the installation of air filters and a O1-7

requirement that the applicant use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins or ultra-low emitting formaldehyde (ULEF) resins in the buildings' interiors. (*Id.*, pp. 12-13.)

O1-7 cont'd

The City has a duty to investigate issues relating to a project's potential environmental impacts, especially those issues raised by an expert's comments. (See, *Cty. Sanitation Dist. No. 2 v. Cty. of Kern*, (2005) 127 Cal.App.4th 1544, 1597–98 ["under CEQA, the lead agency bears a burden to investigate potential environmental impacts"].) In addition to assessing the Project's potential health impacts to residents and employees, Mr. Offermann identifies the investigatory path that the City should be following in developing an EIR to more precisely evaluate the Projects' future formaldehyde emissions and establishing mitigation measures that reduce the cancer risk below the SCAQMD level. (Ex. A, pp. 6-10.) Such an analysis would be similar in form to the air quality modeling and traffic modeling typically conducted as part of a CEQA review.

O1-8

The failure to address the Project's formaldehyde emissions is contrary to the California Supreme Court's decision in *California Building Industry Ass'n v. Bay Area Air Quality Mgmt. Dist.* (2015) 62 Cal.4th 369, 386 ("*CBIA*"). At issue in *CBIA* was whether the Air District could enact CEQA guidelines that advised lead agencies that they must analyze the impacts of adjacent environmental conditions on a project. The Supreme Court held that CEQA does not generally require lead agencies to consider the environment's effects on a project. (*CBIA*, 62 Cal.4th at 800-801.) However, to the extent a project may exacerbate existing adverse environmental conditions at or near a project site, those would still have to be considered pursuant to CEQA. (*Id.* at 801 ["CEQA calls upon an agency to evaluate existing conditions in order to assess whether a project could exacerbate hazards that are already present"].) In so holding, the Court expressly held that CEQA's statutory language required lead agencies to disclose and analyze "impacts on ***a project's users or residents*** that arise ***from the project's effects*** on the environment." (*Id.* at 800 [emph. added].)

O1-9

The carcinogenic formaldehyde emissions identified by Mr. Offermann are not an existing environmental condition. Those emissions to the air will be from the Project. Residents and commercial employees will be users of the Project. Currently, there is presumably little if any formaldehyde emissions at the site. Once the project is built, emissions will begin at levels that pose significant health risks. Rather than excusing the City from addressing the impacts of carcinogens emitted into the indoor air from the project, the Supreme Court in *CBIA* expressly finds that this type of effect by the project on the environment and a "project's users and residents" must be addressed in the CEQA process.

The Supreme Court's reasoning is well-grounded in CEQA's statutory language. CEQA expressly includes a project's effects on human beings as an effect on the environment that must be addressed in an environmental review. "Section 21083(b)(3)'s express language, for example, requires a finding of a 'significant effect on the environment' (§ 21083(b)) whenever the 'environmental effects of a project will cause substantial adverse effects *on human beings,* either

directly or indirectly.'" (*CBIA*, 62 Cal.4th at 800 [emph. in original].) Likewise, "the Legislature has made clear—in declarations accompanying CEQA's enactment—that public health and safety are of great importance in the statutory scheme." (*Id.*, citing e.g., §§ 21000, subds. (b), (c), (d), (g), 21001, subds. (b), (d).) It goes without saying that the future residents and commercial employees of the Project are human beings and the health and safety of those residents and workers is as important to CEQA's safeguards as nearby residents currently living near the project site. O1-9 cont'd

Because Mr. Offermann's expert review is substantial evidence of a fair argument of a significant environmental impact to future users of the Project, an EIR must be prepared to disclose and mitigate those impacts.

B. The IS/MND Failed to Adequately Analyze and Mitigate the Project's Air Quality and Greenhouse Gas Impacts.

1. <u>The IS/MND relied on unsubstantiated input parameters to estimate project emissions and thus the Project may result in significant air quality impacts.</u>

After reviewing the IS/MND and the Air Quality and Greenhouse Gas Analyses' CalEEMod output files, included as Appendix A to the IS/MND, several model inputs used to generate a project's construction and operation emissions were found to not be consistent with information disclosed in the IS/MND. As a result, the Project's construction and operational emissions are underestimated. An EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that Project construction and operation will have on local and regional air quality.

O1-10

Specifically, several values used in the IS/MND and the Air Quality and Greenhouse Gas Analyses were found to be either inconsistent with information provided in the IS/MND or otherwise unjustified, including:

1. Unsubstantiated Reduction to Architectural Coating Emission Factor;
2. Failure to Substantiate Amount of Material Export;
3. Unsubstantiated Reduction to Number of Gas Fireplaces;
4. Unsubstantiated Changes to Operational Vehicle Fleet Mix Percentages;
5. Failure to Model Proposed Amount of Solid Waste;
6. Unsubstantiated Reductions to Indoor and Outdoor Water Use Rates;
7. Unsubstantiated Reductions to Wastewater System Treatment Percentages; and
8. Incorrect Application of Construction-Related Mitigation Measures.

As a result of these errors in the IS/MND, the Project's construction and operational emissions were underestimated and cannot be relied upon to determine the significance of the Project's air quality impacts. Thus, an EIR is needed to adequately address the air quality impacts of the proposed Project, and to mitigate those impacts accordingly.

2. The IS/MND failed to adequately evaluate health risks from diesel particulate matter emissions and thus the Project may result in significant health impacts as a result of diesel particulate matter emissions.

An EIR should be prepared to evaluate the significant health impacts to individuals and workers from the Project's operational and construction-related diesel particulate matter ("DPM") emissions. The IS/MND incorrectly concluded that the Project would have a less-than-significant health risk impact without conducting a quantified construction or operational health risk analysis ("HRA"). (See, IS/MND, pp. 56-57.) However, the IS/MND fails to mention or evaluate the toxic air contaminant ("TAC") emissions associated with Project operation whatsoever. As such, the IS/MND's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect for two reasons. O1-11

First, by failing to prepare a quantified construction and operational HRA, the Project is inconsistent with CEQA's requirement to correlate the increase in emissions that the Project would generate to the adverse impacts on human health caused by those emissions. The IS/MND's conclusion is also inconsistent with the most recent guidance published by the Office of Health Hazard Assessment ("OEHHA"). (See, "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.) O1-12

Second, by failing to prepare a quantified construction and operational HRA for nearby, existing sensitive receptors, the IS/MND fails to compare the excess health risk impact of the Project to the SCAQMD's specific numeric threshold of 10 in one million. Without conducting a quantified construction and operational HRA, the IS/MND also fails to evaluate the cumulative lifetime cancer risk to nearby, existing receptors from the Project's construction and operation together. This is incorrect, and as a result, the IS/MND's evaluation cannot be relied upon to determine Project significance. OEHHA guidance requires that the excess cancer risk be calculated separately for all sensitive receptor age bins, then summed to evaluate the total cancer risk posed by all Project activities. Therefore, in accordance with the most relevant guidance, an assessment of the health risk posed to nearby, existing receptors from Project construction and operation should have been conducted and compared to the SCAQMD threshold of 10 in one million. O1-13

Thus, to more accurately determine the health risks associated with the Project's operational and construction-related DPM emissions, an EIR should be prepared that includes updated health risk calculations using correct guidance.

3. The IS/MND failed to adequately analyze greenhouse gas impacts and thus the Project may result in significant greenhouse gas emissions.

Review of the IS/MND and Air Quality and Greenhouse Gas Analyses (included at Appendix A), found that the City failed to adequately evaluate the Project's greenhouse gas ("GHG") impacts. The IS/MND estimates that the Project would generate net annual GHG O1-14

emissions of 2,958 metric tons of carbon dioxide equivalents per year ("MT CO2e/year"), which would not exceed the SCAQMD threshold of 3,000 MT CO2e/year. (IS/MND, p. 72, Table 13.) Furthermore, the IS/MND's analysis relies upon the Project's consistency with the CARB 2017 Scoping Plan and SCAG 2020-2045 RTP/SCS to conclude that the Project would result in a less-than-significant GHG impact. (*Id.*, pp. 72-73.) However, the IS/MND's analysis, as well as the subsequent less-than-significant impact conclusion, is incorrect for three reasons. O1-14 cont'd

First, the IS/MND's analysis relies upon a flawed air model, as discussed above. As a result, GHG emissions are underestimated and the IS/MND's quantitative GHG analysis should not be relied upon to determine Project significance. An EIR should be prepared and emissions remodeled and compared to the applicable thresholds. O1-15

Second, the IS/MND utilizes an outdated GHG threshold. When compared to the correct quantitative threshold, the Project's GHG emissions are demonstrably significant. O1-16

Third, the IS/MND fails to consider the performance-based standards underlying CARB's Scoping Plan. As a result, the IS/MND's GHG significance determination regarding the Project's consistency with applicable plans and policies should not be relied upon. Instead, an EIR should be prepared that includes a quantitative consistency evaluation utilizing the appropriate standards, as well as mitigation measures to reduce GHG emissions to less-than-significant levels. O1-17

C. There is Substantial Evidence of a Fair Argument that the Project Will Have Significant Noise Impacts.

Review of the proposed Project and the Noise and Vibration Analysis, which is included as Appendix D to the IS/MND, provides substantial evidence that the IS/MND improperly analyzed construction noise levels and failed to adequately mitigate significant construction noise impacts.

According to the IS/MND, "[t]he nearest sensitive receptors are single-family residences adjacent to the proposed project site, to the north and west." (IS/MND, p. 85.) Based on the noise levels presented in the IS/MND, "construction-related noise levels could, at times, exceed the 80 dBA $Leq_{(8hr)}$ threshold at the nearest sensitive receptors, and therefore this impact would be potentially significant," without adequate mitigation. (IS/MND, p. 89.) Moreover, the IS/MND found that Project construction could also result in vibration annoyance and vibration-induced architectural damage to nearby, sensitive receptors (i.e. single-family residences to the north and west) that would exceed threshold levels without adequate mitigation. Specifically, the IS/MND stated: O1-18

> A significant impact would occur if vibration levels would exceed 72 VdB at sensitive receptors. Vibration from the project would be generated from temporary construction activities.... The nearest acoustical center to single-family residences to the west would be approximately 95 feet away from the proposed project. The nearest acoustical center to single-family residences to the north

> would be approximately 210 feet away.... ***[V]ibration levels could potentially exceed the 72 VdB threshold at residences to the west during paving if a vibratory roller is used***. (IS/MND, p. 94 [emph. added].)
>
> A significant impact would occur if vibration levels would exceed 0.2 in/sec PPV at the façade of the surrounding structures. Construction activity could occur within 15 feet of sensitive receptors (single-family residences to the north and west). This would include grading and paving.... ***[V]ibration levels could exceed 0.20 in/sec PPV. Specifically, if a vibratory roller is used within 25 feet of a residential structure and if grading equipment such as a large dozer operates within approximately 15 feet of a nearby residential structure. Therefore, impacts would be potentially significant.*** (*Id.*, pp. 94-95 [emph. added].)

O1-18 cont'd

Although the IS/MND concludes that noise mitigation measures will place noise impacts under significant thresholds, the IS/MND and related appendix fail to provide substantial evidence that demonstrates that these mitigation measures would actually reduce significant noise impacts to less than significant levels. Instead, the IS/MND and appendix provide substantial evidence that the Project will result in significant construction and vibration noise impacts for which the IS/MND fails to adequately mitigate.

As the court in *Communities for a Better Environment v. California Resources Agency* stated, the application of an established regulatory standard cannot be applied in a way that would foreclose the consideration of any other substantial evidence showing there may be a significant effect. (*Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 114.) The court in *Keep Our Mountains Quiet v. County of Santa Clara* also held that an EIR is required if substantial evidence supports a fair argument that the project may have significant unmitigated noise impacts, even if other evidence shows that the project will not generate noise in excess of a noise ordinance. (See, *Keep Out Mountains Quiet v. County of Santa Clara* (2015) 236 Cal.App.4th 714, 732.) Thus, an EIR to analyze potentially unmitigated noise impacts is required.

O1-19

IV. CONCLUSION

For the foregoing reasons, the IS/MND is inadequate and an EIR is required to analyze and mitigate the Project's potentially significant environmental impacts. SAFER reserves the light to supplement these comments in advance of and during public hearings concerning the Project. (*Galante Vineyards v. Monterey Peninsula Water Management Dist*., 60 Cal. App. 4th 1109, 1121 (1997).) Thank you for your attention to these comments.

O1-20

Sincerely,

Victoria Yundt
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EXHIBIT A

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From: Francis J. Offermann PE CIH

Subject: Indoor Air Quality: The Mercury Project, Pico Rivera, CA
(IEE File Reference: P-4618)

Pages: 19

Indoor Air Quality Impacts

Indoor air quality (IAQ) directly impacts the comfort and health of building occupants, and the achievement of acceptable IAQ in newly constructed and renovated buildings is a well-recognized design objective. For example, IAQ is addressed by major high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014). Indoor air quality in homes is particularly important because occupants, on average, spend approximately ninety percent of their time indoors with the majority of this time spent at home (EPA, 2011). Some segments of the population that are most susceptible to the effects of poor IAQ, such as the very young and the elderly, occupy their homes almost continuously. Additionally, an increasing number of adults are working from home at least some of the time during the workweek. Indoor air quality also is a serious concern for workers in hotels, offices and other business establishments. O1-21

The concentrations of many air pollutants often are elevated in homes and other buildings relative to outdoor air because many of the materials and products used indoors contain

and release a variety of pollutants to air (Hodgson et al., 2002; Offermann and Hodgson, 2011). With respect to indoor air contaminants for which inhalation is the primary route of exposure, the critical design and construction parameters are the provision of adequate ventilation and the reduction of indoor sources of the contaminants.

Indoor Formaldehyde Concentrations Impact. In the California New Home Study (CNHS) of 108 new homes in California (Offermann, 2009), 25 air contaminants were measured, and formaldehyde was identified as the indoor air contaminant with the highest cancer risk as determined by the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), No Significant Risk Levels (NSRL) for carcinogens. The NSRL is the daily intake level calculated to result in one excess case of cancer in an exposed population of 100,000 (i.e., ten in one million cancer risk) and for formaldehyde is 40 µg/day. The NSRL concentration of formaldehyde that represents a daily dose of 40 µg is 2 µg/m^3, assuming a continuous 24-hour exposure, a total daily inhaled air volume of 20 m^3, and 100% absorption by the respiratory system. All of the CNHS homes exceeded this NSRL concentration of 2 µg/m^3. The median indoor formaldehyde concentration was 36 µg/m^3, and ranged from 4.8 to 136 µg/m^3, which corresponds to a median exceedance of the 2 µg/m^3 NSRL concentration of 18 and a range of 2.3 to 68.

O1-21 cont'd

Therefore, the cancer risk of a resident living in a California home with the median indoor formaldehyde concentration of 36 µg/m^3, is 180 per million as a result of formaldehyde alone. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the South Coast Air Quality Management District (SCAQMD, 2015).

Besides being a human carcinogen, formaldehyde is also a potent eye and respiratory irritant. In the CNHS, many homes exceeded the non-cancer reference exposure levels (RELs) prescribed by California Office of Environmental Health Hazard Assessment (OEHHA, 2017b). The percentage of homes exceeding the RELs ranged from 98% for the Chronic REL of 9 µg/m^3 to 28% for the Acute REL of 55 µg/m^3.

The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and

particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.

In January 2009, the California Air Resources Board (CARB) adopted an airborne toxics control measure (ATCM) to reduce formaldehyde emissions from composite wood products, including hardwood plywood, particleboard, medium density fiberboard, and also furniture and other finished products made with these wood products (California Air Resources Board 2009). While this formaldehyde ATCM has resulted in reduced emissions from composite wood products sold in California, they do not preclude that homes built with composite wood products meeting the CARB ATCM will have indoor formaldehyde concentrations below cancer and non-cancer exposure guidelines.

A follow up study to the California New Home Study (CNHS) was conducted in 2016-2018 (Singer et. al., 2019), and found that the median indoor formaldehyde in new homes built after 2009 with CARB Phase 2 Formaldehyde ATCM materials had lower indoor formaldehyde concentrations, with a median indoor concentrations of 22.4 $\mu g/m^3$ (18.2 ppb) as compared to a median of 36 $\mu g/m^3$ found in the 2007 CNHS. Unlike in the CNHS study where formaldehyde concentrations were measured with pumped DNPH samplers, the formaldehyde concentrations in the HENGH study were measured with passive samplers, which were estimated to under-measure the true indoor formaldehyde concentrations by approximately 7.5%. Applying this correction to the HENGH indoor formaldehyde concentrations results in a median indoor concentration of 24.1 $\mu g/m^3$, which is 33% lower than the 36 $\mu g/m^3$ found in the 2007 CNHS. O1-21 cont'd

Thus, while new homes built after the 2009 CARB formaldehyde ATCM have a 33% lower median indoor formaldehyde concentration and cancer risk, the median lifetime cancer risk is still 120 per million for homes built with CARB compliant composite wood products. This median lifetime cancer risk is more than 12 times the OEHHA 10 in a million cancer risk threshold (OEHHA, 2017a).

With respect to The Mercury Project, Pico Rivera, CA, the buildings consist of residential and commercial spaces.

The residential occupants will potentially have continuous exposure (e.g. 24 hours per day, 52 weeks per year). These exposures are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in residential construction.

Because these residences will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor residential formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 $\mu g/m^3$ (Singer et. al., 2020)

Assuming that the residential occupants inhale 20 m^3 of air per day, the average 70-year lifetime formaldehyde daily dose is 482 µg/day for continuous exposure in the residences. This exposure represents a cancer risk of 120 per million, which is more than 12 times the CEQA cancer risk of 10 per million. For occupants that do not have continuous exposure, the cancer risk will be proportionally less but still substantially over the CEQA cancer risk of 10 per million (e.g. for 12/hour/day occupancy, more than 6 times the CEQA cancer risk of 10 per million). O1-21 cont'd

The employees of the commercial building spaces are expected to experience significant indoor exposures (e.g., 40 hours per week, 50 weeks per year). These exposures for employees are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in offices, warehouses, residences and hotels.

Because these commercial building spaces will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 $\mu g/m^3$ (Singer et. al., 2020)

Assuming that the commercial building space employees work 8 hours per day and inhale

20 m^3 of air per day, the formaldehyde dose per work-day is 161 µg/day.

Assuming that these employees work 5 days per week and 50 weeks per year for 45 years (start at age 20 and retire at age 65) the average 70-year lifetime formaldehyde daily dose is 70.9 µg/day.

This is 1.77 times the NSRL (OEHHA, 2017a) of 40 µg/day and represents a cancer risk of 17.7 per million, which exceeds the CEQA cancer risk of 10 per million. This impact should be analyzed in an environmental impact report ("EIR"), and the agency should impose all feasible mitigation measures to reduce this impact. Several feasible mitigation measures are discussed below and these and other measures should be analyzed in an EIR.

Appendix A, Indoor Formaldehyde Concentrations and the CARB Formaldehyde ATCM, provides analyses that show utilization of CARB Phase 2 Formaldehyde ATCM materials will not ensure acceptable cancer risks with respect to formaldehyde emissions from composite wood products.

O1-21 continued

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

The following describes a method that should be used, prior to construction in the environmental review under CEQA, for determining whether the indoor concentrations resulting from the formaldehyde emissions of specific building materials/furnishings selected exceed cancer and non-cancer guidelines. Such a design analyses can be used to identify those materials/furnishings prior to the completion of the City's CEQA review

and project approval, that have formaldehyde emission rates that contribute to indoor concentrations that exceed cancer and non-cancer guidelines, so that alternative lower emitting materials/furnishings may be selected and/or higher minimum outdoor air ventilation rates can be increased to achieve acceptable indoor concentrations and incorporated as mitigation measures for this project.

Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment

This formaldehyde emissions assessment should be used in the environmental review under CEQA to assess the indoor formaldehyde concentrations from the proposed loading of building materials/furnishings, the area-specific formaldehyde emission rate data for building materials/furnishings, and the design minimum outdoor air ventilation rates. This assessment allows the applicant (and the City) to determine, before the conclusion of the environmental review process and the building materials/furnishings are specified, purchased, and installed, if the total chemical emissions will exceed cancer and non-cancer guidelines, and if so, allow for changes in the selection of specific material/furnishings and/or the design minimum outdoor air ventilations rates such that cancer and non-cancer guidelines are not exceeded.

O1-21 cont'd

1.) Define Indoor Air Quality Zones. Divide the building into separate indoor air quality zones, (IAQ Zones). IAQ Zones are defined as areas of well-mixed air. Thus, each ventilation system with recirculating air is considered a single zone, and each room or group of rooms where air is not recirculated (e.g. 100% outdoor air) is considered a separate zone. For IAQ Zones with the same construction material/furnishings and design minimum outdoor air ventilation rates. (e.g. hotel rooms, apartments, condominiums, etc.) the formaldehyde emission rates need only be assessed for a single IAQ Zone of that type.

2.) Calculate Material/Furnishing Loading. For each IAQ Zone, determine the building material and furnishing loadings (e.g., m^2 of material/m^2 floor area, units of furnishings/m^2 floor area) from an inventory of all potential indoor formaldehyde sources, including flooring, ceiling tiles, furnishings, finishes, insulation, sealants,

adhesives, and any products constructed with composite wood products containing urea-formaldehyde resins (e.g., plywood, medium density fiberboard, particleboard).

3.) Calculate the Formaldehyde Emission Rate. For each building material, calculate the formaldehyde emission rate (µg/h) from the product of the area-specific formaldehyde emission rate (µg/m^2-h) and the area (m^2) of material in the IAQ Zone, and from each furnishing (e.g. chairs, desks, etc.) from the unit-specific formaldehyde emission rate (µg/unit-h) and the number of units in the IAQ Zone.

NOTE: As a result of the high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014), most manufacturers of building materials furnishings sold in the United States conduct chemical emission rate tests using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), or other equivalent chemical emission rate testing methods. Most manufacturers of building furnishings sold in the United States conduct chemical emission rate tests using ANSI/BIFMA M7.1 Standard Test Method for Determining VOC Emissions (BIFMA, 2018), or other equivalent chemical emission rate testing methods. O1-21 cont'd

CDPH, BIFMA, and other chemical emission rate testing programs, typically certify that a material or furnishing does not create indoor chemical concentrations in excess of the maximum concentrations permitted by their certification. For instance, the CDPH emission rate testing requires that the measured emission rates when input into an office, school, or residential model do not exceed one-half of the OEHHA Chronic Exposure Guidelines (OEHHA, 2017b) for the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017). These certifications themselves do not provide the actual area-specific formaldehyde emission rate (i.e., µg/m^2-h) of the product, but rather provide data that the formaldehyde emission rates do not exceed the maximum rate allowed for the certification. Thus, for example, the data for a certification of a specific type of flooring may be used to calculate that the area-specific emission rate of formaldehyde is less than 31 µg/m^2-h, but not the actual measured specific emission rate, which may be 3, 18, or 30 µg/m^2-h. These area-specific emission rates determined

from the product certifications of CDPH, BIFA, and other certification programs can be used as an initial estimate of the formaldehyde emission rate.

If the actual area-specific emission rates of a building material or furnishing is needed (i.e. the initial emission rates estimates from the product certifications are higher than desired), then that data can be acquired by requesting from the manufacturer the complete chemical emission rate test report. For instance if the complete CDPH emission test report is requested for a CDHP certified product, that report will provide the actual area-specific emission rates for not only the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017), but also all of the cancer and reproductive/developmental chemicals listed in the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), all of the toxic air contaminants (TACs) in the California Air Resources Board Toxic Air Contamination List (CARB, 2011), and the 10 chemicals with the greatest emission rates.

O1-21 cont'd

Alternatively, a sample of the building material or furnishing can be submitted to a chemical emission rate testing laboratory, such as Berkeley Analytical Laboratory (https://berkeleyanalytical.com), to measure the formaldehyde emission rate.

4.) Calculate the Total Formaldehyde Emission Rate. For each IAQ Zone, calculate the total formaldehyde emission rate (i.e. µg/h) from the individual formaldehyde emission rates from each of the building material/furnishings as determined in Step 3.

5.) Calculate the Indoor Formaldehyde Concentration. For each IAQ Zone, calculate the indoor formaldehyde concentration (µg/m^3) from Equation 1 by dividing the total formaldehyde emission rates (i.e. µg/h) as determined in Step 4, by the design minimum outdoor air ventilation rate (m^3/h) for the IAQ Zone.

$$C_{in} = \frac{E_{total}}{Q_{oa}} \quad \text{(Equation 1)}$$

where:

C_{in} = indoor formaldehyde concentration (µg/m^3)

E_{total} = total formaldehyde emission rate (µg/h) into the IAQ Zone.

Q_{oa} = design minimum outdoor air ventilation rate to the IAQ Zone (m^3/h)

The above Equation 1 is based upon mass balance theory, and is referenced in Section 3.10.2 "Calculation of Estimated Building Concentrations" of the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017).

6.) Calculate the Indoor Exposure Cancer and Non-Cancer Health Risks. For each IAQ Zone, calculate the cancer and non-cancer health risks from the indoor formaldehyde concentrations determined in Step 5 and as described in the OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments (OEHHA, 2015).

7.) Mitigate Indoor Formaldehyde Exposures of exceeding the CEQA Cancer and/or Non-Cancer Health Risks. In each IAQ Zone, provide mitigation for any formaldehyde exposure risk as determined in Step 6, that exceeds the CEQA cancer risk of 10 per million or the CEQA non-cancer Hazard Quotient of 1.0.

O1-21 cont'd

Provide the source and/or ventilation mitigation required in all IAQ Zones to reduce the health risks of the chemical exposures below the CEQA cancer and non-cancer health risks.

Source mitigation for formaldehyde may include:

1.) reducing the amount materials and/or furnishings that emit formaldehyde
2.) substituting a different material with a lower area-specific emission rate of formaldehyde

Ventilation mitigation for formaldehyde emitted from building materials and/or furnishings may include:

1.) increasing the design minimum outdoor air ventilation rate to the IAQ Zone.

NOTE: Mitigating the formaldehyde emissions through use of less material/furnishings, or use of lower emitting materials/furnishings, is the preferred mitigation option, as

mitigation with increased outdoor air ventilation increases initial and operating costs associated with the heating/cooling systems.

Further, we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), and use the procedure described earlier above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Impact. Another important finding of the CNHS, was that the outdoor air ventilation rates in the homes were very low. Outdoor air ventilation is a very important factor influencing the indoor concentrations of air contaminants, as it is the primary removal mechanism of all indoor air generated contaminants. Lower outdoor air exchange rates cause indoor generated air contaminants to accumulate to higher indoor air concentrations. Many homeowners rarely open their windows or doors for ventilation as a result of their concerns for security/safety, noise, dust, and odor concerns (Price, 2007). In the CNHS field study, 32% of the homes did not use their windows during the 24-hour Test Day, and 15% of the homes did not use their windows during the entire preceding week. Most of the homes with no window usage were homes in the winter field session. Thus, a substantial percentage of homeowners never open their windows, especially in the winter season. The median 24-hour measurement was 0.26 air changes per hour (ach), with a range of 0.09 ach to 5.3 ach. A total of 67% of the homes had outdoor air exchange rates below the minimum California Building Code (2001) requirement of 0.35 ach. Thus, the relatively tight envelope construction, combined with the fact that many people never open their windows for ventilation, results in homes with low outdoor air exchange rates and higher indoor air contaminant concentrations.

O1-21 cont'd

This Project is close to roads with moderate to high traffic (e.g., East Washington Boulevard, Rosemead Boulevard, Crossway Drive etc.). The Project Initial Study (Placeworks, 2022) contains no assessment of the existing or future ambient noise levels (dBA CNEL), only the projected Project noise level increases are reported in Table 17. Because of Project's proximity to roads with moderate to high traffic, an acoustic study needs to conducted to determine the sound transmission class rating of the building exterior elements required to achieve acceptable indoor noise levels.

As a result of the high outdoor noise levels, the current project will require a mechanical supply of outdoor air ventilation to allow for a habitable interior environment with closed windows and doors. Such a ventilation system would allow windows and doors to be kept closed at the occupant's discretion to control exterior noise within building interiors.

$PM_{2.5}$ Outdoor Concentrations Impact. An additional impact of the nearby motor vehicle traffic associated with this project, are the outdoor concentrations of $PM_{2.5}$. This Project is located in the South Coast Air Basin, which is a State and Federal non-attainment area for $PM_{2.5}$.

O1-21 cont'd

An air quality analyses should to be conducted to determine the concentrations of $PM_{2.5}$ in the outdoor and indoor air that people inhale each day. This air quality analyses needs to consider the cumulative impacts of the project related emissions, existing and projected future emissions from local $PM_{2.5}$ sources (e.g. stationary sources, motor vehicles, and airport traffic) upon the outdoor air concentrations at the Project site. If the outdoor concentrations are determined to exceed the California and National annual average $PM_{2.5}$ exceedence concentration of 12 $\mu g/m^3$, or the National 24-hour average exceedence concentration of 35 $\mu g/m^3$, then the buildings need to have a mechanical supply of outdoor air that has air filtration with sufficient removal efficiency, such that the indoor concentrations of outdoor $PM_{2.5}$ particles is less than the California and National $PM_{2.5}$ annual and 24-hour standards.

It is my experience that based on the projected high traffic noise levels, the annual average concentration of $PM_{2.5}$ will exceed the California and National $PM_{2.5}$ annual and 24-hour

standards and warrant installation of high efficiency air filters (i.e. MERV 13 or higher) in all mechanically supplied outdoor air ventilation systems.

Indoor Air Quality Impact Mitigation Measures

The following are recommended mitigation measures to minimize the impacts upon indoor quality:

Indoor Formaldehyde Concentrations Mitigation. Use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins (CARB, 2009). CARB Phase 2 certified composite wood products, or ultra-low emitting formaldehyde (ULEF) resins, do not insure indoor formaldehyde concentrations that are below the CEQA cancer risk of 10 per million. Only composite wood products manufactured with CARB approved no-added formaldehyde (NAF) resins, such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

O1-21 cont'd

Alternatively, conduct the previously described Pre-Construction Building Material/Furnishing Chemical Emissions Assessment, to determine that the combination of formaldehyde emissions from building materials and furnishings do not create indoor formaldehyde concentrations that exceed the CEQA cancer and non-cancer health risks.

It is important to note that we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017), and use the procedure described above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Mitigation. Provide each habitable room with a continuous mechanical supply of outdoor air that meets or exceeds the California 2016 Building Energy Efficiency Standards (California Energy Commission, 2015) requirements of the greater of 15 cfm/occupant or 0.15 cfm/ft^2 of floor area. Following installation of the system conduct testing and balancing to insure that required amount of outdoor air is entering each habitable room and provide a written report documenting the outdoor airflow rates. Do not use exhaust only mechanical outdoor air systems, use only balanced outdoor air supply and exhaust systems or outdoor air supply only systems. Provide a manual for the occupants or maintenance personnel, that describes the purpose of the mechanical outdoor air system and the operation and maintenance requirements of the system.

O1-21 cont'd

$PM_{2.5}$ Outdoor Air Concentration Mitigation. Install air filtration with sufficient $PM_{2.5}$ removal efficiency (e.g. MERV 13 or higher) to filter the outdoor air entering the mechanical outdoor air supply systems, such that the indoor concentrations of outdoor $PM_{2.5}$ particles are less than the California and National $PM_{2.5}$ annual and 24-hour standards. Install the air filters in the system such that they are accessible for replacement by the occupants or maintenance personnel. Include in the mechanical outdoor air ventilation system manual instructions on how to replace the air filters and the estimated frequency of replacement.

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APPENDIX A

INDOOR FORMALDEHYDE CONCENTRATIONS
AND THE
CARB FORMALDEHYDE ATCM

With respect to formaldehyde emissions from composite wood products, the CARB ATCM regulations of formaldehyde emissions from composite wood products, do not assure healthful indoor air quality. The following is the stated purpose of the CARB ATCM regulation - *The purpose of this airborne toxic control measure is to "reduce formaldehyde emissions from composite wood products, and finished goods that contain composite wood products, that are sold, offered for sale, supplied, used, or manufactured for sale in California"*. In other words, the CARB ATCM regulations do not "assure healthful indoor air quality", but rather "reduce formaldehyde emissions from composite wood products".

Just how much protection do the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products? Definitely some, but certainly the regulations do not "*assure healthful indoor air quality"* when CARB Phase 2 products are utilized. As shown in the Chan 2019 study of new California homes, the median indoor formaldehyde concentration was of 22.4 $\mu g/m^3$ (18.2 ppb), which corresponds to a cancer risk of 112 per million for occupants with continuous exposure, which is more than 11 times the CEQA cancer risk of 10 per million.

Another way of looking at how much protection the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products is to calculate the maximum number of square feet of composite wood product that can be in a residence without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy.

For this calculation I utilized the floor area (2,272 ft^2), the ceiling height (8.5 ft), and the number of bedrooms (4) as defined in Appendix B (New Single-Family Residence Scenario) of the Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers, Version 1.1, 2017, California

Department of Public Health, Richmond, CA. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

For the outdoor air ventilation rate I used the 2019 Title 24 code required mechanical ventilation rate (ASHRAE 62.2) of 106 cfm (180 m^3/h) calculated for this model residence. For the composite wood formaldehyde emission rates I used the CARB ATCM Phase 2 rates.

The calculated maximum number of square feet of composite wood product that can be in a residence, without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 15 ft^2 (0.7% of the floor area), or
Particle Board – 30 ft^2 (1.3% of the floor area), or
Hardwood Plywood – 54 ft^2 (2.4% of the floor area), or
Thin MDF – 46 ft^2 (2.0 % of the floor area).

For offices and hotels the calculated maximum amount of composite wood product (% of floor area) that can be used without exceeding the CEQA cancer risk of 10 per million for occupants, assuming 8 hours/day occupancy, and the California Mechanical Code minimum outdoor air ventilation rates are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 3.6 % (offices) and 4.6% (hotel rooms), or
Particle Board – 7.2 % (offices) and 9.4% (hotel rooms), or
Hardwood Plywood – 13 % (offices) and 17% (hotel rooms), or
Thin MDF – 11 % (offices) and 14 % (hotel rooms)

Clearly the CARB ATCM does not regulate the formaldehyde emissions from composite wood products such that the potentially large areas of these products, such as for flooring, baseboards, interior doors, window and door trims, and kitchen and bathroom cabinetry,

could be used without causing indoor formaldehyde concentrations that result in CEQA cancer risks that substantially exceed 10 per million for occupants with continuous occupancy.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

If CARB Phase 2 compliant or ULEF composite wood products are utilized in construction, then the resulting indoor formaldehyde concentrations should be determined in the design phase using the specific amounts of each type of composite wood product, the specific formaldehyde emission rates, and the volume and outdoor air ventilation rates of the indoor spaces, and all feasible mitigation measures employed to reduce this impact (e.g. use less formaldehyde containing composite wood products and/or incorporate mechanical systems capable of higher outdoor air ventilation rates). See the procedure described earlier (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Alternatively, and perhaps a simpler approach, is to use only composite wood products (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins.

O1. Response to Comments from Victoria Yundt, Lozeau | Drury LLP, on behalf of Supporters Alliance for Environmental Responsibility (SAFER), dated August 5, 2022.

O1-1 This comment introduces the comment letter. Reponses to comments from Lozeau | Drury LLP, on behalf of SAFER are provided in response to Comments O1-2 through O1-21.

O1-2 This comment provides an overview of the proposed project and requests that the City prepare an EIR. Reponses to comments from Lozeau | Drury LLP, on behalf of SAFER are provided in response to Comments O1-4 through O1-21. No further response is needed.

O1-3 The comment provides legal background and does not provide any specific comment on the adequacy of the IS/MND or noncompliance with CEQA. A specific response is not required.

O1-4 The commenter notes that formaldehyde, a substance commonly found in building materials and furnishings, may result in future resident and worker cancer risk. The IS/MND evaluates the potential of the proposed project to result in physical impacts to the environment. Although health effects of a project may be included in the IS/MND, evidence of health impacts that do not contribute to or are not caused by physical impacts on the environment are beyond the scope of CEQA.

The commenter speculates about the types of indoor building materials that would be used during construction. There is no evidence that the proposed project will involve use of materials that contain formaldehyde in levels that pose a risk to human health. As described on page 54 of the IS/MND, the proposed project would comply with CALGreen, which requires that all composite wood products used on the interior of a building "shall meet the requirements for formaldehyde as specified in California Air Resources Board Air Toxics Control Measure for Composite Wood (17 California Code of Regulations Section 93120 et seq.)." CALGreen established planning and design standards for reducing internal air contaminants. Mitigation to reduce the formaldehyde content of building materials used during construction is not warranted.

In summary, without evidence that building materials that will be used in project construction will emit formaldehyde gas in levels that will exceed the State's emission limits, the commenter's assertion that future project employees or guests could be at risk for carcinogens constitutes speculation and does not constitute a fair argument. The commenter speculates that the proposed project could have an effect on the future residents of the project, which is not considered to be an impact under CEQA and need not be analyzed in the IS/MND.

O1-5 The commenter speculates that employees of the proposed project's commercial spaces would experience significant work-day exposures to formaldehyde. As stated in Response to Comment O1-4, there is no evidence that the proposed project will involve use of materials that contain formaldehyde in levels that pose a risk to human health, including commercial employees. As described on page 54 of the IS/MND, the proposed project would comply with CALGreen, which requires that all composite wood products used on the interior of a building "shall meet the requirements for formaldehyde as specified in California Air Resources Board Air Toxics Control Measure for Composite Wood (17 California Code of Regulations Section 93120 et seq.)." CALGreen established planning

and design standards for reducing internal air contaminants. Impacts of the environment on the proposed project are not CEQA impacts and need not be analyzed in the IS/MND.

O1-6 The commenter states that the high cancer risk from indoor air emissions would be exacerbated by the additional cancer risk from the proposed project's location near roadways and the PM2.5 levels present in the ambient air. With regard to outdoor PM2.5 concentrations, the California Building Code (Title 24), Part 6 (California Building and Energy Efficiency Standards) as well as Part 11 (California Green Building Standards Code [CALGreen]) has standards for enhanced filtration for multi-family residential buildings to improve indoor air quality. Under Title 24, Part 6, Section 120.1(b)(1)(C) and Part 11 (Section 5.504.5.3), multifamily residential buildings that are four stories or higher are required to use MERV-13 filters, which filter 80 to 90 percent of particulates between 1.0 to 3.0 microns and over 90 percent of particulates between 3 to 10 microns. As a result, high efficiency air filters are already required. Additionally, as stated above in Response to Comment O1-4, impacts of the environment on the project are not impacts under CEQA and need not be analyzed in the IS/MND.

O1-7 The commenter concludes that the environmental impacts should be analyzed in an EIR and that mitigation measures should be implemented to reduce risk of formaldehyde exposure. In addition, the commenter suggests mitigation measures available to reduce these health risks. As stated in Response to Comment O1-4, the proposed project would be required to comply with the CALGreen building code that all interior wood products meet CARB's existing formaldehyde standards. Mitigation to reduce the formaldehyde content of building materials used during construction is not warranted.

O1-8 The commenter notes that the City must investigate issues related to the proposed project's environmental impacts. The commenter also notes the investigatory path should include an EIR to evaluate the proposed project's formaldehyde emissions and to establish mitigation measures to reduce cancer risk below the South Coast AQMD threshold. As the proposed project would be required to comply with CARB's existing standards and its emissions are below the South Coast AQMD thresholds, developing an EIR to evaluate formaldehyde emissions is not warranted.

O1-9 The commenter notes that formaldehyde emissions are not an existing environmental condition and that an EIR must be prepared to disclose and mitigate the impacts on the future residents and commercial employees There is no evidence that the proposed project will involve use of materials that contain formaldehyde in levels that pose a risk to human health. In addition, the proposed project would be required to comply with all applicable existing standards and thresholds. There are no unusual circumstances that would trigger mitigation or preparation of an EIR to reduce the effects of formaldehyde on future residents and commercial employees. The proposed project was adequately analyzed in the IS/MND, and an EIR is not warranted.

O1-10 The commenter notes that several values used for the air quality and greenhouse gas analyses were inconsistent with the IS/MND or otherwise unsubstantiated. These changes were based on project-specific information provided by the applicant and noted under Section 1.3, *User Entered Comments & Non-Default*, of the CalEEMod outputs for construction, mitigated construction, and operational models (see Appendix A, Air Quality and Greenhouse Gas Analyses, Assumption Worksheets). Each of these changes are addressed below:

- Architectural coating emissions factor: In compliance with South Coast AQMD Rule 1113, Architectural Coatings, flat and non-flat coats have a current limit of 50 grams per liter. Interior and Exterior VOC content has been changed to 50 grams per liter.

- Material Export volumes: Materials export volumes and distance to the export site are based on project-specific information provided by the applicant.

- Number of gas fireplaces: The proposed project would not include fireplaces in any of the units. However, the project would include up to 3 barbecue grills, which are assumed to be used over the weekends.

- Fleet Mix: Fleet mix was adjusted to 97 percent light duty, 2 percent medium duty, and 1 percent heavy duty vehicles to better reflect the proposed uses, which results in a higher proportion of passenger vehicles than the regional fleet mix.

- Solid waste tonnage: CalEEMod default values were used for solid waste tonnage. As seen in CalEEMod Appendix A, Calculation Details for CalEEMod, default values for solid waste is based on annual waste disposal rates from the California Department of Resources Recycling and Recovery (CalRecycle) data for individual land uses.

- Indoor and outdoor water use. CalEEMod default values were used for indoor and outdoor water use. As seen in CalEEMod Appendix A, Calculation Details for CalEEMod, default values for indoor and outdoor water use are based on the Pacific Institute "Waste Not Want Not" report for all of California in the year 2000.[4] For land uses not included in this report such as the library, place of worship, movie theater, arena, and civic center uses, the American Water Works Association Research Foundation's Commercial and Institutional End Uses of Water report was used in its place.[5]

- Wastewater treatment percentage: The percentages in the model are based on statewide data of the primary treatment methods. For example, in the state of California, 10.33 percent of wastewater is treated using septic tanks. As discussed on page 69, the project would not involve use of septic tanks; therefore, septic tanks were zeroed out in the model. Similarly, while there may be some anaerobic bacteria digest sludge during the wastewater treatment process, the Los Angeles County Sanitation District (LACSD) does not primarily treat wastewater in open-air facultative lagoons. LACSD's anerobic processes are enclosed in an anerobic digestion tank.[6] Methane gas generated in the anaerobic digestion process is used to produce power and digester heating

[4] Gleick, P.H.; Haasz, D.; Henges-Jeck, C.; Srinivasan, V.; Cushing, K.K.; Mann, A. 2003, November. Waste Not, Want Not: The Potential for Urban Water Conservation in California. https://pacinst.org/wp-content/uploads/2013/02/waste_not_want_not_full_report3.pdf

[5] Dziegielewski; B.; Kiefer, J.C.; Optiz, E.M.; Porter, G.A.; Lantz, G.L.; DeOreo, W.B.; Mayer, P.W.; Nelson, J.O. 2000, January. Commercial and Institutional End Uses of Water.

[6] Los Angeles County Sanitation Districts (LACSD). 2022, October 13 (accessed). Wastewater Treatment Process at JWPCP. https://www.lacsd.org/services/wastewater-sewage/facilities/joint-water-pollution-control-plant/wastewater-treatment-process-at-jwpcp.

steam in a Total Energy Facility that utilizes gas turbines and waste-heat recovery steam generators, and the electricity generated is used to offset the plant's energy use. As a result, modeling in CalEEMod is conservative for LACSD's facilities and correctly adjusts the wastewater percentages to reflect the treatment processes of LACSD's facilities.

- Application of Construction Mitigation Measures: Prior to mitigation, the proposed project would exceed the VOC threshold for South Coast AQMD. The measure needed to mitigate this impact would be to require use of low-VOC paints, which reduce the impact to less-than-significant.

In addition, as documented in the IS/MND, modeling presents a conservative estimate of the emissions associated with the proposed project. Therefore, the assumptions used for input into the modeling are well supported, and no revisions to the IS/MND are warranted.

O1-11 The commenter asserts that the IS/MND did not adequately evaluate diesel particulate matter or toxic air contaminants during construction and operation because it does not include a health risk analysis. Consistent with CARB and South Coast AQMD guidance, including CARB's *Air Quality and Land Use Handbook* and South Coast AQMD's "Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning," the project—which proposes residential and commercial uses—is not considered a substantial source of DPM. Moreover, typical sources of other hazardous TACs include manufacturing processes, automotive repair, dry cleaning facilities, and other facilities that process toxic materials. The proposed project does not propose these types of uses, and the commenter has not presented any evidence that TACs or DPM would be generated by operation of the proposed project in any meaningful amount such that significant impacts may result. Therefore, as stated in the IS/MND, no operational HRA is needed for the proposed project.

For the project construction activities that would generate TACs and DPM, the air quality analysis includes a localized significance threshold (LST) analysis for project construction and concludes no significant impact with regard to the LSTs. The use of the LSTs for the air quality analysis to assess potential construction emissions risks was appropriate and consistent with South Coast AQMD Methodology. First, as discussed in Section 3.3, *Air Quality,* on page 55 of the IS/MND, LSTs are tied to ambient air quality standards and calibrated to assess localized air quality impacts. As stated in the South Coast AQMD *Final Localized Significance Threshold Methodology*, LSTs represent the maximum emissions from a project in the South Coast Air Basin that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and are developed based on the ambient concentrations of that pollutant for each source receptor area. If the calculated emissions for the proposed construction or operational activities are below the LST emission levels found on the LST mass rate look-up tables and no potentially significant impacts are found to be associated with other environmental issues, then the proposed construction or operation activity would not have a significant impact on air quality. The results of the construction LST analysis is provided on page 56 of the IS/MND and concludes that localized construction emissions would not significantly impact nearby sensitive receptors. In addition, based on the Draft 2022 South Coast AQMD Air Quality Management Plan, as seen in the Black Box Measure Policy Brief, Tier 4 equipment is readily available and makes up approximately 50 percent

of the available off-road equipment population in California between the Tier 4 Interim and Tier 4 final equipment.[7]

In addition to project construction, the commenter asserts that the IS/MND's LST analysis fails to account for DPM and TAC emissions from project operation. As discussed above, the proposed uses of the project are not anticipated to generate substantial amounts of DPM or TACs because they do not include trucking, manufacturing, industrial processes, or other uses that are linked to TAC and DPM emissions. It should also be noted that South Coast AQMD rules impose specific emissions reduction measures that target TACs and DPM, such as Rule 2305, Warehouse Indirect Source Review.

Neither a construction HRA nor an operational HRA are required. The IS/MND adequately analyzes air quality impacts of the construction and operational phases of the proposed project and no further analysis is warranted.

O1-12 The commenter notes that the proposed project is inconsistent with the CEQA requirement to correlate the increase in emissions to the impacts on human health and inconsistent with the latest guidance from OEHHA. South Coast AQMD currently does not require health risk assessments to be conducted for short-term emissions from construction equipment. Rather, their current recommendation is to utilize the LST screening tools to determine if a construction HRA is warranted. As stated in response to Comment O1-11, use of the LSTs for the air quality analysis to assess potential construction emissions risks was appropriate and consistent with South Coast AQMD Methodology, as they represent the maximum emissions from a project in the South Coast Air Basin that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. Localized health risks are discussed on pages 55 and 56 of the IS/MND, which conclude localized construction emissions would not significantly impact nearby sensitive receptors during the 23-month construction period. In addition, operationally, the proposed project is not anticipated to generate significant DPM or TACs as it is not considered a substantial source of DPM and would not include typical sources of other hazardous TACs, such as manufacturing processes, automotive repair, dry cleaning facilities, and other facilities that process toxic materials. Neither a construction HRA nor an operational HRA is required. The IS/MND adequately analyzes air quality impacts of the proposed project and no further analysis is warranted.

O1-13 The commenter notes that the proposed project does not compare the excess health risk impact of the proposed project to the South Coast AQMD's specific numeric threshold of 10 in one million. As stated in responses to Comment O1-11 and Comment O1-12, South Coast AQMD does not require a health risk assessment for short-term emissions from construction activities, and use of the LSTs for the air quality analysis to assess potential construction emissions risks was appropriate and consistent with South Coast AQMD Methodology, as they represent the maximum emissions from a project in the South Coast Air Basin that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. In addition, operationally, the

[7] South Coast Air Quality Management District (South Coast AQMD). 2008, July. Final Localized Significance Threshold Methodology.

[7] South Coast Air Quality Management District (South Coast AQMD). 2022. Policy Brief Black Box Measures. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/combined-bb-measures.pdf?sfvrsn=8

proposed project is not anticipated to generate significant DPM or TACs as it is not considered a substantial source of DPM and would not include typical sources of other hazardous TACs, such as manufacturing processes, automotive repair, dry cleaning facilities, and other facilities that process toxic materials. Neither a construction HRA nor an operational HRA is required. The IS/MND adequately analyzes the air quality impacts of the proposed project and no further analysis is warranted.

O1-14 The commenter states that the GHG analysis is inadequate for three specific reasons, which are addressed in Responses to Comments O1-15, O1-16, and O1-17. Overall, the proposed project would be consistent with the California Air Resources Board's (CARB) 2017 Scoping Plan and the Southern California Association of Governments' (SCAG) 2020 RTP/SCS, as seen on page 72 and 73 of the IS/MND. In addition, the commenter does not provide any evidence of additional feasible mitigation measures for the City to consider. However, the proposed project has no control over state and regional solutions to reduce mobile emissions, and the use of mass transit, alternative modes of transportation, and electric vehicles cannot be estimated with certainty. See response to Comment O1-10; as documented in the IS/MND, modeling presents a conservative estimate of the emissions associated with the proposed project. Therefore, the proposed project does not require mitigation measures and an EIR would not be required.

O1-15 See response to Comment O1-10. The commenter notes that the IS/MND analysis relies on a flawed air model. The data used for modeling were based on project-specific information provided by the applicant. Any changes to the default data are noted under Section 1.3, *User Entered Comments & Non-Default*, of the CalEEMod outputs for construction, mitigated construction, and operational models. It is standard practice to update inputs in CalEEMod when more accurate project-specific information is available, to better capture the proposed project.

O1-16 The commenter notes that the IS/MND utilizes an outdated GHG threshold. This statement is incorrect as the South Coast AQMD Working Group GHG threshold remains unchanged and is 3,000 $MTCO_2e$/year for all land use types. As documented in Appendix A, this threshold is based on an emissions capture approach that identifies projects that generate a *de minimus* amount of emissions. South Coast AQMD did not provide comments on continued use of the 3,000 $MTCO_2e$ threshold. The threshold is not directly tied to the State's GHG reduction targets because it is based on an emissions capture approach. As a result, the threshold is not outdated. Additionally, the commenter has not provided evidence on use of an alternative GHG metric. Also see response to Comment O1-10 regarding emissions modeling. As noted in this response, emissions modeling conducted for the proposed project provides a conservative estimate of GHG emissions associated with the proposed project.

O1-17 The comment asserts that the IS/MND was required to use a performance-based standard to demonstrate consistency with the Scoping Plan.

See CEQA Guidelines, Section 15064.7(a) (significance threshold can be qualitative or quantitative). It has been determined that a quantitative threshold cannot be derived from the Scoping Plan that would be relevant to CEQA review because the Scoping Plan does not specifically identify separate targets for existing versus new sources of emissions, targets for individual regions within the state, or targets for individual project types. Until CARB provides additional data on quantitative analysis for emissions forecast, consistency with CARB's Scoping Plan can only be based on the policies and measures for

the individual sectors identified in the Scoping Plan. A qualitative GHG emissions analysis has been identified by the courts as adequate under CEQA (*City of Long Beach, et al., Xavier Becerra (Attorney General, as Intervener) v. City of Los Angeles, (BNSF Railway Company, Real Party in Interest)* (2018) 19 Cal.App.5th 465). The IS/MND documents the proposed project's consistency with the Scoping Plan and that the proposed project would not conflict with the Statewide GHG reduction goals.

For the reasons outlined, no such quantitative analysis with the CARB Scoping Plan was required. CEQA gives lead agencies the discretion to determine, in the context of a particular project, how to assess potential GHG impacts. (See CEQA Guidelines Section 15064.4.) Pursuant to *League to Save Lake Tahoe Mountain Area Preservation v. County of Placer* (2022), a numerical threshold from an air pollution control district is a permissible option that complies with CEQA and was used to evaluate whether or not the proposed project would generate a substantial increase in magnitude of GHG emissions. Likewise, the CEQA Guidelines identify qualitative analyses as appropriate methods. Here, the IS/MND uses two methods to assess whether the project's GHG emissions should be considered significant: (1) against the South Coast AQMD's numerical threshold (under threshold [a]) and (2) a qualitative analysis of the project's consistency with the Scoping Plan (under threshold [b]). Overall, the proposed project would not exceed the applicable South Coast AQMD standard and would not have a significant impact with respect to Scoping Plan consistency. The GHG analysis is consistent with the CEQA Guidelines and adequately evaluates GHG impacts as required by CEQA.

O1-18 Unlike vibratory rollers which use a combination of weight and vibration, a static roller uses weight only. Therefore, the impact for vibration levels for both annoyance (VdB) and damage would be adequately mitigated.

The use of off-road equipment that is limited to 100 horsepower or less would fall under what is considered a small bulldozer. As shown in IS/MND Table 19, Vibration Levels for Typical Construction Equipment, levels would not exceed the 0.20 threshold and adequately mitigate vibration impacts.

O1-19 The IS/MND has shown that the potentially significant impacts would be adequately mitigated. Please refer to responses on comments 01-18 and O2-22.

O1-20 See response to Comments O1-4 through O1-19, which substantiate the adequacy of the IS/MND.

O1-21 Please refer to Responses O1-4 through O1-9, regarding the commenter's indoor air quality concerns. The IS/MND evaluates the potential of the project to result in physical impacts to the environment. Although social effects of a project may be included in the IS/MND, evidence of social impacts that do not contribute to or are not caused by physical impacts on the environment are beyond the scope of CEQA. There are no unusual circumstances that would trigger an exception to this precedent.

The commenter speculates about the types of indoor building materials that would be used during construction. As stated in Responses O1-4 and O1-5, there is no evidence that the project will involve use of materials that contain formaldehyde in levels that pose a risk to human health. As described on page 54 of the IS/MND, the proposed project would comply with CALGreen, which requires that all composite wood products used on the interior of a building "shall meet the requirements for formaldehyde as

specified in California Air Resources Board Air Toxics Control Measure for Composite Wood (17 California Code of Regulations § 93120 et seq.)." CALGreen established planning and design standards for reducing internal air contaminants.

In summary, without evidence that the building materials that will be used in project construction will emit formaldehyde gas in levels that will exceed the State's emission limits, the commenter's assertion that future project employees or guests could be at risk for carcinogens constitutes speculation.

The commenter speculates that the proposed project could have an effect on the future residents, employers, and visitors, which is not considered an impact under CEQA and need not be analyzed in the IS/MND.

As stated in Response O1-6 with regard to outdoor $PM_{2.5}$ concentrations, the California Building Code (Title 24), Part 6 (California Building and Energy Efficiency Standards) and Part 11 (California Green Building Standards Code [CALGreen]) have standards for enhanced filtration for multifamily residential buildings to improve indoor air quality. Under Title 24, Part 6, § 120.1(b)(1)(C) and Part 11 Section 5.504.5.3, multifamily residential buildings that are four stories or higher are required to use MERV-13 filters, which filter 80 to 90 percent of particulates between 1.0 and 3.0 microns and over 90 percent of particulates between 3 and 10 microns. As a result, high efficiency air filters are already required. Further, as stated above, impacts of the environment on the proposed project are not impacts under CEQA.

As stated in Responses O1-4 through O1-9, the proposed project would be required to comply with CARB's existing standards, and mitigation to reduce the formaldehyde content of building materials used during construction is not warranted.

Letter O2 – Southwest Regional Council of Carpenters (23 pages)

O2

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RE: Southwest Regional Council of Carpenters' Comments on the City of Pico Rivera's Initial Study/Mitigated Negative Declaration for the Mercury Project

Dear Ms. Gonzalez:

On behalf of the Southwest Regional Council of Carpenters ("**SWRCC**" or "**Southwest Carpenters**"), my Office is submitting these comments for the City of Pico Rivera's ("**City**") Initial Study/Mitigated Negative Declaration (**IS/MND**) for the Mercury Project ("**Project**").

The SWRCC is a labor union representing over 57,000 union carpenters in six states, including California, and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects. O2-1

Individual members of the SWRCC live, work, and recreate in the City of Pico Rivera and surrounding communities and would be directly affected by the Project's environmental impacts.

The SWRCC expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearings and proceedings related to this Project. Cal. Gov. Code § 65009(b); Cal. Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

The SWRCC incorporates by reference all comments that raise issues regarding the IS/MND. See *Citizens for Clean Energy v. City of Woodland* (2014) 225 Cal. App. 4th 173, 191 (finding that any party who has objected to the Project's environmental documentation may assert any issue timely raised by other parties).

Moreover, the SWRCC requests that the City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**), Cal. Public Resources Code (**PRC**) § 21000 *et seq.*, and the California Planning and Zoning Law ("**Planning and Zoning Law**"), Cal. Gov't Code §§ 65000–65010. California Public Resources Code §§ 21092.2 and 21167(f) and Government Code § 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body. O2-1 cont'd

I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL SKILLED AND TRAINED WORKFORCE

The City should require the use of a local skilled and trained workforce to benefit the community's economic development and environment. The City should require the use of workers who have graduated from a Joint Labor Management apprenticeship training program approved by the State of California, or have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a state-approved apprenticeship training program or who are registered apprentices in an apprenticeship training program approved by the State of California. O2-2

Community benefits such as local hire and skilled and trained workforce requirements can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project Site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note: O2-3

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021, SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling. O2-3 cont'd

Skilled and trained workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the UC Berkeley Center for Labor Research and Education concluded:

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1] O2-4

Local skilled and trained workforce requirements and policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and their associated greenhouse gas emissions. Recently, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program or a skilled and trained workforce with a local hire component" can result in air pollutant reductions.[2] O2-5

Cities are increasingly adopting local skilled and trained workforce policies and requirements into general plans and municipal codes. For example, the City of Hayward's 2040 General Plan requires the city to "promote local hiring . . . to help achieve a more positive jobs-housing balance, and reduce regional commuting, gas consumption, and greenhouse gas emissions."[3] O2-6

[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/ Putting-California-on-the- High-Road.pdf.

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/ 2021-May7-027.pdf?sfvrsn=10

[3] City of Hayward (2014) Hayward 2040 General Plan Policy Document at p. 3-99, *available at* https://hayward-ca. gov/sites/default/files/documents/General_Plan_FINAL.pdf.

In fact, the City of Hayward has gone as far as to adopt a Skilled Labor Force policy into its Downtown Specific Plan and municipal code, requiring developments in its Downtown area to require that the City "[c]ontribute to the stabilization of regional construction markets by spurring applicants of housing and nonresidential developments to require contractors to utilize apprentices from state-approved, joint labor-management training programs[.]"[4] Additionally, the City of Hayward requires all projects that are 30,000 square feet or larger to "utilize apprentices from state-approved, joint labor-management training programs."[5] O2-6 cont'd

Locating jobs closer to residential areas can have significant environmental benefits as well. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[6] O2-7

Furthermore, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must be matched to those held by local residents.[7] Some municipalities have even tied local hire and skilled and trained workforce policies to local development permits to address transportation issues. As Cervero and Duncan note: O2-8

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents,

[4] City of Hayward (2019) Hayward Downtown Specific Plan at p. 5-24, *available at* https://hayward-ca.gov/sites/default/files/Hayward%20Downtown%20Specific%20Plan.pdf.
[5] City of Hayward Municipal Code, Chapter 10, § 28.5.3.020(C).
[6] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable. org/static/media/uploads/publications/cpr-jobs-housing.pdf.
[7] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

> especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 Berkeley residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

O2-8 cont'd

The City should consider utilizing skilled and trained workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, air quality, and transportation impacts.

II. THE CITY SHOULD PREPARE AN ENVIRONMENTAL IMPACT REPORT FOR THE PROJECT

CEQA is a California statute designed to inform decision-makers and the public about the potential significant environmental effects of a project. 14 California Code of Regulations ("**CEQA Guidelines**"), § 15002, subd. (a)(1).[8] At its core, "[i]ts purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made." *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

O2-9

To achieve this purpose, CEQA mandates preparation of an Environmental Impact Report ("**EIR**") for projects so that the foreseeable impacts of pursuing the project can be understood and weighed. *Communities for a Better Environment v. Richmond* (2010) 184 Cal.App.4th 70, 80. The EIR requirement "is the heart of CEQA." CEQA Guidelines, § 15003, subd. (a).

A strong presumption in favor of requiring preparation of an EIR is built into CEQA. This presumption is reflected in what is known as the "air argument" standard under which an agency must prepare an EIR whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the

[8] The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 *et seq*, are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. (Cal. Pub. Res. Code § 21083.) The CEQA Guidelines are given "great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous." *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 62 Cal. 4th 204, 217.

environment. *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602; *Friends of "B" St.* v. *City of Hayward* (1980) 106 Cal.3d 988, 1002.

The fair argument test stems from the statutory mandate that an EIR be prepared for any project that "may have a significant effect on the environment." PRC, § 21151; *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.App.3d 68, 75; *Jensen v. City of Santa Rosa* (2018) 23 Cal.App.5th 877, 884. Under this test, if a proposed project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. PRC, §§ 21100, subd. (a), 21151; CEQA Guidelines, § 15064, subds. (a)(1), (f)(1). An EIR may be dispensed with only if the lead agency finds no substantial evidence in the initial study or elsewhere in the record that the project may have a significant effect on the environment. *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 785. In such a situation, the agency must adopt a negative declaration. PRC, § 21080, subd. (c)(1); CEQA Guidelines, §§ 15063, subd. (b)(2), 15064, subd. (f)(3). O2-9 cont'd

"Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment." PRC, § 21068; CEQA Guidelines, § 15382. A project "may" have a significant effect on the environment if there is a "reasonable probability" that it will result in a significant impact. *No Oil, Inc.*, 13 Cal.3d at 83 fn. 16; *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 309. If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. CEQA Guidelines, § 15063, subd. (b)(1); see *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1580.

This standard sets a "low threshold" for preparation of an EIR. *Consolidated Irrig. Dist. v. City of Selma* (2012) 204 Cal.App.4th 187, 207; *Nelson v. County of Kern* (2010) 190 Cal.App.4th 252; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928; *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 580; *Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754; *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 310. If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR even if other substantial evidence before it indicates the project will have no significant effect. See *Jensen,* 23 Cal.App.5th at p. 886; *Clews Land & Livestock v. City of San Diego* (2017) 19 Cal.App.5th 161, 183; *Stanislaus Audubon Socy.*,

Inc. v. County of Stanislaus (1995) 33 Cal.App.4th 144, 150; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491; *Friends of "B" St.*, 106 Cal.App.3d 988; CEQA Guidelines, § 15064, subd. (f)(1).

As explained below, the IS/MND fails to make certain essential findings. Further, for a number of findings which the IS/MND does make, it fails to support the findings with sufficient analysis and substantial evidence or it fails to incorporate adequate mitigation measures. Therefore, there is a fair argument that the Project will have a significant effect on the environment, triggering the "low threshold" standard for preparation of an EIR. O2-9 cont'd

III. THE CITY MUST, AT THE VERY LEAST, REVISE AND RECIRCULATE THE IS/MND

A. The IS/MND Requires Substantial Revisions

Section 15073.5 of the CEQA Guidelines provides that a negative declaration must be recirculated whenever the document must be substantially revised. A substantial revision includes the identification of new, avoidable significant effects requiring mitigation measures or project revisions to be added to reduce the effect to less than significant levels or upon the agency determining that a proposed mitigation measure or project change would not reduce a potential impact to insignificance. *Jensen*, 23 Cal.App.5th at p. 886. O2-10

Additionally, when new information is brought to light showing that an impact previously discussed in an IS/MND and found to be insignificant with or without mitigation in the IS/MND's analysis has the potential for a significant environmental impact supported by substantial evidence, the IS/MND must consider and resolve the conflict in the evidence. See *Visalia Retail, L.P. v. City of Visalia* (2018) 20 Cal.App.5th 1, 13, 17; see also *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1109.

Considering this IS/MND's failure to substantiate all of its findings, provide adequate mitigation measures, and fully assess all relevant factors, the Project here requires significant revisions and resolutions of conflicts in evidence. Therefore, at a minimum, the City must revise and recirculate the IS/MND if it does not prepare an EIR for the Project.

1. *Due to the COVID-19 Crisis, the City Must Adopt a Mandatory Finding of Significance that the Project May Cause a Substantial Adverse Effect on Human Beings and Mitigate COVID-19 Impacts*

CEQA requires that an agency make a finding of significance when a Project may cause a significant adverse effect on human beings. PRC, § 21083, subd. (b)(3); CEQA Guidelines, § 15065, subd. (a)(4). O2-11

Public health risks related to construction work requires a mandatory finding of significance under CEQA. Construction work has been defined as a lower- to high-risk activity for COVID-19 spread by the Occupations Safety and Health Administration. Recently, several construction sites have been identified as sources of community-wide spreads of COVID-19.

The SWRCC recommends that the City adopt additional CEQA mitigation measures to mitigate public health risks from the Project's construction activities. The SWRCC also requests that the City require safe on-site construction work practices as well as training and certification for any construction workers on the Project site.

In particular, and based upon its experience with safe construction site work practices, the SWRCC recommends that the City require that while construction activities are being conducted at the Project Site:

Construction Site Design:

- The Project Site be limited to two controlled entry points. O2-12
- Entry points have temperature screening technicians taking temperature readings when the entry point is open.
- The Temperature Screening Site Plan shows details regarding access to the Project Site and Project Site logistics for conducting temperature screening.
- A 48-hour advance notice be provided to all trades prior to the first day of temperature screening.
- The perimeter fence directly adjacent to the entry points be clearly marked indicating the appropriate 6-foot social distancing position for when you approach the screening area. Please reference the Apex temperature screening site map for additional details.

- There be clear signage posted at the project site directing you through temperature screening.
- Provide hand washing stations throughout the construction site.

Testing Procedures:

- The temperature screenings used are non-contact devices.
- Temperature readings not to be recorded.
- Personnel be screened upon entering the testing center and should only take 1-2 seconds per individual.
- Hard hats, head coverings, sweat, dirt, sunscreen or any other cosmetics must be removed on the forehead before temperature screening.
- Anyone who refuses to submit to a temperature screening or does not answer the health screening questions be refused access to the Project Site.
- Screenings be performed at both entrances from 5:30 am to 7:30 am.; main gate and personnel gate.
- After 7:30 am only the main gate entrance continue to be used for temperature testing for anybody gaining entry to the project site such as returning personnel, deliveries, and visitors.
- If the digital thermometer displays a temperature reading above 100.0 degrees Fahrenheit, a second reading will be taken to verify an accurate reading.
- If the second reading confirms an elevated temperature, DHS will instruct the individual that he/she will not be allowed to enter the Project Site. DHS will also instruct the individual to promptly notify his/her supervisor and his/her human resources (HR) representative and provide them with a copy of Annex A.

Planning:

- Require the development of an Infectious Disease Preparedness and Response Plan that will include basic infection prevention measures (requiring the use of personal protection equipment),

O2-12 con't'd

> policies and procedures for prompt identification and isolation of sick individuals, social distancing (prohibiting gatherings of no more than 10 people including all-hands meetings and all-hands lunches) communication and training and workplace controls that meet standards that may be promulgated by the Center for Disease Control, Occupational Safety and Health Administration, Cal/OSHA, California Department of Public Health or applicable local public health agencies.

The United Brotherhood of Carpenters and Carpenters International Training Fund has developed COVID-19 Training and Certification to ensure that Carpenter union members and apprentices conduct safe work practices. The Lead Agency should require that all construction workers undergo COVID-19 Training and Certification before being allowed to conduct construction activities at the Project Site. O2-12 con'td

The SWRCC has also developed a rigorous Infection Control Risk Assessment (**ICRA**) training program to ensure it delivers a workforce that understands how to identify and control infection risks by implementing protocols to protect themselves and all others during renovation and construction projects in healthcare environments.

The ICRA protocols are intended to contain pathogens, control airflow, and protect patients during the construction, maintenance and renovation of healthcare facilities. These protocols prevent cross-contamination, minimizing the risk of secondary infections in patients at hospital facilities.

The City should require the Project to be built using a workforce trained in ICRA protocols.

2. *The IS/MND Fails to Support its Findings on Air Quality Impacts with Substantial Analysis*

CEQA requires that an environmental document identify and discuss the significant effects of a Project, alternatives, and how those significant effects can be mitigated or avoided. CEQA Guidelines, § 15126.2; PRC, §§ 21100, subd. (b)(1), 21002.1, subd. (a). An environmental document's discussion of potentially significant effects must "provide an adequate analysis to inform the public how its bare numbers translate to create potential adverse impacts or it must adequately explain what the agency does know and why, given existing scientific constraints, it cannot translate potential health O2-13

impacts further." *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 521; see also *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 405; see also PRC, §§ 21002.1, subd. (e), 21003, subd. (b).

Although a Project-specific analysis of air quality impacts was conducted, the IS/MND relies heavily on regulatory measures and regional thresholds of significance for criteria pollutant emissions and precursors identified by the South Coast Air Quality Management District ("**South Coast AQMD**") to justify its less than significant finding. The IS/MND states that because the Project's emissions would be less than the South Coast AQMD emissions threshold under construction and operational phases, the Project would not be considered to be a substantial source of air pollutant emissions. IS/MND at 51-52. However, determinations that regulatory compliance will be sufficient to prevent significant adverse impacts must be based on a project-specific analysis of potential impacts and the effect of regulatory compliance. See *Californians for Alternatives to Toxics v. Dept. of Food & Agric.* (2005) 136 Cal.App.4th 1; *Ebbetts Pass Forest Watch v. Dept. of Forestry & Fire Protection* (2008) 43 Cal.App.4th 936, 956. O2-13 cont'd

Further, the IS/MND's conclusions regarding air quality impacts stemming from "asphalt demolition and debris haul, site preparation, rough and fine grading and grading soil haul, utilities trenching, paving, building construction, and architectural coating" are unsupported by substantial analysis, as is required. IS/MND at 53. Specifically, the IS/MND relies on estimates of the California Emissions Estimator Model ("**CalEEMod**"), Version 2020.4, in determining its quantity of pollutants produced. Fatally, it only considers the Project's estimated preliminary construction duration and equipment mix provided by the applicant. Should the Project run beyond the estimated preliminary construction duration or utilize more equipment than anticipated, the possibility that the Project will have a significant impact on air quality increases. Without this crucial information and analysis, the IS/MND's determination that there will be less than significant impacts on air quality is somewhat speculatory. O2-14

Additionally, in addressing the long-term operation-related air quality impacts of the Project, the IS/MND states that the buildings "would, at minimum, be designed and built to meet the 2019 Building Energy Efficiency Standards (CCR, Title 24, Part 6) and the 2019 California Green Building Standards Code (CCR, Title 24, Part 11)." IS/MND at 54. Similarly, in addressing construction health risk and the exposure of O2-15

adjacent sensitive receptors to construction emissions, the IS/MND states that the Project construction would comply with required health and safety standards and construction best practices. IS/MND at 56. It also concludes that because the South Coast AQMD screening-level localized significance thresholds (LSTs) would exceed the estimated quantity of exhaust emissions, onsite and offsite receptors are free of any health risk.

The IS/MND fails to provide any further details on the designs, measures, safety standards, or best practices that will be implemented in order for the Project to comply with the California Code of Regulations or to limit air quality impacts on nearby sensitive receptors to the point where they are reduced to less than significant. Without more information, such designs, measures, standards, and practices cannot be constituted as mitigation for purposes of CEQA analysis. The IS/MND must be recirculated to include additional detailed information addressing these concerns. O2-15 cont'd

3. The IS/MND Fails to Adequately Mitigate the Project's Biological Resource Impacts

When imposing mitigation, lead agencies must ensure that there is a "nexus" and "rough proportionality" between the measure and the significant impacts of the project. CEQA Guidelines, § 15126.4, subd. (a)(4)(A); see *Nollan v. Cal. Coastal Commission* (1987) 483 U.S. 825; *Dolan v. City of Tigard* (1994) 512 U.S. 374. All mitigation must be feasible and fully enforceable, and all feasible mitigation must be imposed by lead agencies. CEQA Guidelines, § 15041. Formulation of mitigation measures shall not be deferred until some future time. CEQA Guidelines, § 15126.4, subd. (a)(B). O2-16

From the very onset of the IS/MND's discussion of the Project's impacts on wildlife species, it is apparent that its "preconstruction avian survey" mitigation measure is insufficient as it is limited by the season, time of day, and weather conditions in which it will occur. IS/MND at 59. Given that the Project construction will last roughly 23 months and its operation will span all seasons, times of day, and weather conditions, the biological resources analysis must be expanded to assess broader spans of time and conditions before the IS/MND can conclude that the Project's impact will be less than significant.

Notwithstanding the IS/MND's failure to assess all of the wildlife species potentially impacted by the Project, the IS/MND fails to adequately mitigate impacts to the nesting birds it identifies. Specifically, the IS/MND states that the palm trees which O2-17

will be removed "could be used for nesting birds." IS/MND at 59. However, as noted by the California Department of Fish and Wildlife (**CDFW**) in a 2021 letter to the City of Adelanto concerning a similar pre-construction nesting bird survey mitigation measure:

> CDFW is concern[ed] that [the mitigation measure] is conditioned to only require surveys during the peak bird nesting season considering that birds, such as hummingbirds may nest year-round. Furthermore, [the mitigation measure] defines bird nesting season as February 1 to August 31. Please note that nesting may commence before and/or after this timeframe. For example, some species of raptors (e.g. owls, hawks, etc.) may commence nesting activities in January, and passerines may nest later than August 31. Fish and Game Code section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant thereto.[9]

02-17

4. The IS/MND Fails to Support its Findings on Energy Impacts with Substantial Evidence

Pursuant to CEQA Guidelines § 15126.2, subsection (b), analysis into a project's energy impacts "should include the project's energy use for all project phases and components, including transportation-related energy, during construction, and operation." The Guidelines further provide that "other relevant considerations may include . . . the project's size, location, orientation, equipment use, and any renewable energy features that could be incorporated into the project." *Ibid.*

Failing to undertake "an investigation into renewable energy options that might be available or appropriate for a project" violates CEQA. *California Clean Energy Committee v. City of Woodland* (2014) 225 Cal.App.4th 173, 213. Energy conservation under CEQA is defined as the "wise and efficient use of energy." CEQA Guidelines, app. F, § I. The "wise and efficient use of energy" is achieved by "(1) decreasing overall per capita energy consumption, (2) decreasing reliance on fossil fuels such as coal, natural gas and oil, and (3) increasing reliance on renewable energy resources." *Ibid.*

[9] November 18, 2021 Letter from California Department of Fish and Wildlife to the City of Adelanto at 3, *available at* https://files.ceqanet.opr.ca.gov/273819-1/attachment/zo76RgD7dUdj5BLJTEhEMdf74g6f100RrKiWBQSquhFFe5l0X53rLsbLSGMPRXgXM4AaYnJSTfZB6JpY0.

Last, according to Appendix F of the CEQA Guidelines, an environmental document must consider and analyze:

1. The project's energy requirements and its energy use efficiencies;
2. The project's effects on local and regional energy supplies and on requirements for additional capacity;
3. The project's effects on peak-period and base-period energy demands;
4. The degree to which the project complies with existing energy standards;
5. The project's effects on energy resources; and,
6. The project's projected transportation energy use and its overall use of efficient transportation alternatives.

O2-18 cont'd

CEQA Guidelines Appdx. F.

Basing a Project's energy impacts on its compliance with the California Building Energy Efficiency Standards (Cal. Code Regs., tit. 24, part 6) does not constitute an adequate analysis of energy use. *Ukiah Citizens for Safety First v. City of Ukiah* (2016) 248 Cal.App.4th 256, 264-65. Similarly, the court in *City of Woodland* held unlawful an energy analysis that relied on compliance with Title 24 that failed to assess transportation energy impacts, and that failed to address renewable energy impacts. *City of Woodland, supra,* 225 Cal.App.4th at pp. 209-13.

First, the IS/MND briefly mentions certain practices and equipment which the Project will engage to reduce energy consumption, though details are vague and uncertain. For example, the IS/MND "anticipates" that construction contractors will comply with CCR, Title 13, Article 4.8, Chapter 9 in minimizing nonessential idling of construction equipment during construction. IS/MND at 63.

Second, in addressing long-term energy impacts during operation, the IS/MND admits that the project would "generate new demand for electricity, natural gas, and transportation energy[.]" IS/MND at 64. It fails though, to consider renewable energy uses and feasible conservation efforts.

O2-19

Third, the IS/MND concludes that, with respect to operation-related fuel usage, energy impacts would be less than significant. It bases this conclusion on a cursory

O2-20

analysis of VMT and the contention that "operation-related fuel usage associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than similar development projects." IS/MND at 65. The energy expenditures of "similar development projects" are no measure of whether this Project will result in significant energy impacts or waste and inefficiency. This line of analysis is neither reasonable nor focused on energy use caused by the Project.

O2-20 cont'd

Without assessing the Project's use of energy activities in accordance with the CEQA Guidelines, the IS/MND concludes that the Project will not result in wasteful, inefficient, or unnecessary energy use. Consequently, it must be recirculated after broadening its scope and incorporating further details and analysis. It must also explore renewable energy options.

5. The IS/MND Fails to Support its Water Quality Impact Findings with Substantial Evidence

The IS/MND's analysis of water quality impacts is wholly lacking as it entirely fails to assess or quantify the Project's anticipated water consumption and its wastewater quantity and composition. IS/MND at 76-80.

Rather than conducting any Project specific analysis, the IS/MND relies solely on regulatory measures such as the National Pollutant Discharge Elimination System and City runoff control requirements to justify its less than significant finding. IS/MND at 65. However, as mentioned previously, determinations that regulatory compliance will be sufficient to prevent significant adverse impacts must be based on a project-specific analysis of potential impacts and the effect of regulatory compliance. Therefore, the IS/MND's reliance on regulatory compliance cannot rectify its failure to conduct Project-specific analysis as to its anticipated water and wastewater and the IS/MND must be revised to do so.

O2-21

6. The IS/MND Fails to Adequately Mitigate the Project's Noise Impacts

The Project site is directly adjacent to residences to the north and west. Though the IS/MND acknowledges that construction will produce noise in excess of the maximum decibel level that may be imposed upon a residence according to the Pico Rivera Noise Element Policy 11.1-1, Land Use Compatibility, it fails to offer adequate mitigation measures to reduce the impact. According to the City's policy, the exterior environmental noise level at the property line of low-density, multifamily, and mixed-use residential areas may not exceed 65 dBA. IS/MND at 87. Additionally, ground-

O2-22

borne vibration impact criteria for vibration annoyance may not rise above 80 VdB for infrequent events, 75 VdB for occasional events, and 72 VdB for frequent events. *Ibid.* According to the IS/MND, demolition associated with the Project may produce noise up to 81 dBA, building construction up to 82 dBA, and paving up to 82 dBA. IS/MND at 89. Some of the heavy equipment use at the Project site is anticipated to emit noise up to 85 dBA. IS/MND at 88. It is worth noting that these estimates were taken at the area around the center of construction activities despite the fact that construction is anticipated to occur across the entire construction area.

O2-22 comt'd

The Project is anticipated to engage several measures in mitigating noise impacts. Of the nine measures listed—including offering residences advanced notice of the noise or including noise-control techniques—the IS/MND fails to offer detailed information on how such measures will reduce noise impact of the Project to less than significant. IS/MND at 90. Further analysis must be conducted in the immediate vicinity of the residences abutting the Project site in order to better determine the magnitude of the anticipated noise impacts.

B. The IS/MND Fails to Include an Adequate Project Description

The IS/MND must be recirculated because it also lacks an adequate Project description. "[A]n accurate, stable and finite project description is the sine qua non of an informative and legally sufficient" environmental document. *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 200. "A curtailed or distorted project description may stultify the objectives of the reporting process" as an accurate, stable and finite project description is necessary to allow "affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance. *Ibid.*

O2-23

CEQA Guidelines § 15124 requires a project describe in enough detail to allow for evaluation of its potential environmental impacts: (a) the project's precise location and boundaries; (b) a clearly written statement of objectives sought by the proposed project; (c) a description of the project's technical, economic, and environmental characteristics; and (d) a statement describing a list of agencies, permits, and approval which the project expects to use.

The IS/MND's Project description does not satisfy this project description requirement by failing to clearly include a statement of objectives. ISMND at 11.

Rather, the Project description merely provides that the "proposed project would include a three to six-story mixed-use building with subterranean parking, ground-floor retail and residential uses, and residential uses in floors two through six." *Ibid.* Furthermore, the IS/MND provides no description of the Project's economic characteristics. For these reasons too, the IS/MND must be revised and recirculated. O2-23 cont'd

IV. CONCLUSION

The SWRCC requests that the City require a local and skilled workforce for the Project. The SWRCC also requests that the City prepare an EIR for the Project or that, at a minimum, the City revise and recirculate the IS/MND to address the aforementioned concerns. Should the City have any questions or concerns, feel free to contact my Office. O2-24

Sincerely,

Reza Bonachea Mohamadzadeh
Attorney for Southwest Regional
Council of Carpenters

Attached:

March 8, 2021, SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B); and

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C).

EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

O2-25

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

O2-25 cont'd

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

O2-26

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

O2-26 cont'd

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location. O2-26 cont'd

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

O2-27

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

O2-28

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

Due the large number of pages, the balance of Comment Letter O2, Southwest Regional Council of Carpenters, is provided as Appendix A of this response to comments memo. It has no comments requiring response.

O2. Response to Comments from Reza Bonachea Mohamadzadeh, Mitchel M. Tsai, Attorney at Law, on behalf of Southwest Regional Council of Carpenters (SWRCC), dated August 5, 2022.

O2-1 This comment introduces the comment letter and provides an overview of SWRCC. The City will add the commenter to the project's distribution list.

O2-2 The commenter states that the City should require the use of local skilled and trained workforce. The comment has no bearing on the environmental impacts assessed in the IS/MND. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

O2-3 The commenter asserts that local hire and skilled and trained workforce would reduce environmental impacts and improve the positive economic impact of the proposed project. The commenter asserts that local hire provisions can reduce vendor trips, reduce greenhouse gas emissions and provide localized economic benefits. This comment does not identify a deficiency in the IS/MND's analysis. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

O2-4 The commenter states that a skilled and trained workforce requirement promotes the development of skilled trades that yield sustainable economic development. Economic impacts of a project that do not result in a physical change to the environmental are outside the scope of CEQA. This comment does not identify a deficiency in the IS/MND's analysis. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is warranted.

O2-5 The commenter states that local skilled and trained workforce requirements and policies improve the jobs-housing balance, decreasing length of job commutes and their associated greenhouse gas emissions. This comment does not identify a deficiency in the IS/MND's analysis. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is warranted.

O2-6 The commenter generally notes that cities are adopting local skilled and trained workforce policies and requirements in general plans and municipal codes. This comment is a general comment about the City's General Plan and municipal code, and it does not directly apply to the proposed project. This comment does not identify a deficiency in the IS/MND's analysis. No further response is warranted.

O2-7 The commenter states that jobs closer to residential areas have significant environmental benefits, such as the use of alternative modes of transportation instead of driving. This comment does not identify a deficiency in the IS/MND's analysis. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is warranted.

O2-8 The commenter asserts that local hire mandates and skill-training reduce vehicle miles traveled. This comment does not identify a deficiency in the IS/MND's analysis. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is warranted.

O2-9 The commenter asserts that an EIR should be prepared for the proposed project and that the IS/MND is inadequate. Please refer to Responses to Comments O2-11 through O2-28,

which provide responses to each comment in the letter. As discussed in these responses, the proposed project is adequately analyzed in the IS/MND, and an EIR is not warranted.

O2-10 The commenter asserts that the IS/MND should be revised and recirculated. Please refer to Responses to Comments O2-11 through O2-28, which provide responses to each comment in the letter. As discussed in these responses, the proposed project is adequately analyzed in the IS/MND, and the IS/MND does not need to be revised and recirculated.

O2-11 The commenter asserts that the City must adopt findings of significance due to the potential health impacts on construction workers from COVID-19. Construction contractors are expected to comply with the City and County's COVID-19 mandates and directives set forth public health guidelines. While it is important to take precautions and provide a safe work environment, the impact of the environment on activities associated with the proposed project is outside of the scope of CEQA.

O2-12 The commenter recommends that additional CEQA mitigation measures be adopted to mitigate health risks from construction activities to the workers. Pursuant to the decision in *California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD)* (Case No. S213478), CEQA evaluates a project's impact on the environment, not the environment's impact on a project. No further response is warranted.

O2-13 The commenter notes the requirements of an environmental document based on the CEQA guidelines for an EIR. Under the CEQA Guidelines, the requirement to evaluate alternatives is only necessary if the proposed project would generate a significant and unavoidable impact and would warrant preparation of an EIR.

The IS/MND utilizes the South Coast AQMD thresholds to substantiate the less than significant findings for construction and operational phase air quality impacts. There is no evidence provided by the commenter on use of alternative threshold metrics. Furthermore, the South Coast AQMD significance thresholds are supported by substantial evidence that is recommended for use by the agency that is tasked with ensuring air quality achieves the State and National ambient air quality standards. As a result, use of the South Coast AQMD thresholds to substantiate less than significant air quality impacts is used for the vast majority of all projects in the South Coast AQMD region. The proposed project has been analyzed based on the most current information provided by the applicant, and construction and operational emissions would be less than the applicable South Coast AQMD thresholds.

O2-14 The commenter notes that using the preliminary information from the applicant and estimates CalEEMod, Version 2020.4, would not be sufficient to determine the quantity of pollutants, if the construction duration is longer than anticipated or more equipment is used than anticipated. While lead agencies must use their best efforts to disclose all that they reasonably can about a project's potentially significant environmental impacts, they are not required to foresee the unforeseeable (CEQA Guidelines Section 15144). The proposed project has been analyzed based on the most current project-specific information provided by the applicant, which is documented in Appendix A to the IS/MND, and as demonstrated, construction and operational emissions would be less than the applicable South Coast AQMD thresholds.

O2-15 South Coast AQMD does not require health risk assessments to be conducted for short-term emissions from construction equipment. Rather, South Coast AQMD's current recommendation is to utilize the LST screening tools to determine if a construction health risk assessment is warranted. As stated in Response to Comment O1-11, use of the LSTs for the air quality analysis to assess potential construction emissions risks was appropriate and consistent with South Coast AQMD Methodology, as they represent the maximum emissions from a project in the South Coast Air Basin that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. As shown on pages 54 through 56 of the IS/MND, the proposed project would not exceed the South Coast AQMD thresholds for construction, operations, or project level LSTs for construction. For these reasons, impacts would be less than significant and the IS/MND would not warrant recirculation.

O2-16 The commenter provides a summary of the requirements for mitigation measures. No further response regarding this summary is needed.

The commenter states that the Mitigation Measure BIO-1 is insufficient because it is limited by season, time of day, and weather conditions. Mitigation Measure BIO-1 is an industry-accepted mitigation measure and reflects the regulatory requirements set forth by the Migratory Bird Treaty Act (MBTA). Biological resources are evaluated in Section 3.5, *Biological Resources*, of the IS/MND. As described in that discussion, the project site is entirely paved and disturbed in an urbanized area. The project site contains only limited ornamental landscaping. It does not contain habitat. While the construction period could span multiple seasons, different times of the day, and weather conditions, the ornamental landscaping and trees would be removed only once. Once the ornamental landscaping and trees are removed from the project site and the project site is an active construction zone, it will not be suitable for nesting birds. Therefore, the mitigation measure is adequate. No further analysis is warranted.

O2-17 The commenter states that the MND fails to assess all wildlife species potentially impacted by the proposed project. Biological resources are evaluated in Section 3.5, *Biological Resources*, of the IS/MND. Analysis is provided for each threshold under Section 3.5, *Biological Resources*. The project site is entirely developed and disturbed in an urbanized area. The project site contains only limited ornamental landscaping. It does not contain habitat nor does the commenter indicate differently. The commenter merely states that the analysis is inadequate and does not provide any evidence to support that claim. Further, CDFW had the opportunity to comment during the public review period and did not provide any comments on the proposed project. No further response on this point is necessary.

The commenter states that the IS/MND fails to adequately mitigate impacts to nesting birds and provides an excerpt to California Department of Fish and Wildlife letter for the "Boutique Purple Development" project in the City of Adelanto. As discussed in Response to Comment O2-16, above, the IS/MND provides an analysis for each biological resources threshold and adequately discloses and identifies that birds could use the trees on-site for nests. As discussed on page 59 of the IS/MND, the proposed project would be required to comply with all applicable CDFW and federal regulations protecting nesting birds. The MND further requires that the proposed project implement Mitigation Measure BIO-1, which requires a preconstruction survey for nesting birds. The Boutique Purple Development project that the commenter references is an undeveloped project

site that is surrounded on three sides by undeveloped land—not comparable to the conditions on or surrounding the subject project site. CDFW is a Trustee Agency and Responsible Agency for the Boutique Purple Development project, meaning that CDFW is responsible for protecting resources on-site and discretionary approval over the Boutique Purple Development project. Unlike the Boutique Purple Development project, the proposed project is in a completely urbanized area and the project site is paved and disturbed and does not contain habitat. The proposed project would be required to comply all applicable California and federal laws governing nesting birds.

O2-18 Section 3.6, *Energy*, of the IS/MND identified sources of energy use from residential and commercial uses in terms of electricity and natural gas as well as fuel use during construction and operation of the project. The IS/MND is also consistent with each of the following considerations from Appendix F of the CEQA Guidelines.

- Project energy requirements and energy use efficiency: Project energy requirements may be seen on pages 63 through 65 of the IS/MND. Overall, the project will consume 2,176,599 kWh/year and 4,052,705 kBTU/year and would consume gasoline, diesel, compressed natural gas, and electricity during the construction and operational phases. The proposed project would be required to comply with CALGreen and the Building Energy Efficiency Standards. In addition, as seen in Section 3.11*, Land Use and Planning*, there will be 44 electric vehicle charging stations for residents and 3 additional stations for retail uses. In accordance with the Specific Plan and the Building Energy Efficiency Standards, development of the proposed project would also include a photovoltaic system.

- Project effects on local and regional energy supplies and requirements for additional capacity: Pico Rivera Innovative Municipal Energy (through SCE infrastructure) and SoCalGas provide the electricity and natural gas. As stated on page 118 of the IS/MND, the proposed project would not require new or expanded electric power or natural gas facilities.

- Project effects on peak period and base period energy demands: The most current data from Pico Rivera Innovative Municipal Energy shows a peak load of 59 megawatts and total energy usage of 212 gigawatts in 2019.[8] As the proposed project would have an energy demand of 2,176,599 kWh/year, or approximately 5,963 kWh/day, the overall impact on peak period and base period energy demands would be negligible.

- Project compliance with existing energy standards: As stated on page 64 of the IS/MND, the proposed project would be required to comply with CALGreen and the Building Energy Efficiency Standards. In addition, as stated on page 118, development of the proposed project would comply with regulations and standards pertaining to natural gas and would not require new or expanded electric power facilities other than connections to the existing electricity grid.

- Project effects on energy resources: As previously stated, the proposed project would consume 2,176,599 kWh/year and 4,052,705 kBTU/year and would consume gasoline, diesel, compressed natural gas, and electricity during the

[8] Pico Rivera Innovative Municipal Energy (PRIME). 2020, August. 2020 Integrated Resource Plan. https://californiachoiceenergyauthority.com/wp-content/uploads/2020/09/prime_v1-PUBLIC.pdf

construction and operational phases. In addition, as mentioned in the Specific Plan, the proposed project would include a photovoltaic system, which would offset some of the energy usage from the project. Furthermore, as stated in Section 3.19, *Utilities and Service Systems*, the proposed project would not require new or expanded electric power facilities other than connections to the existing electricity grid. In addition, the proposed project would comply with regulations and standards pertaining to natural gas and would connect to the existing natural gas infrastructure.

- Project transportation energy use and use of efficient transportation alternatives: As seen on pages 63 and 65 of the IS/MND, the proposed project would consume gasoline, diesel, compressed natural gas, and electricity during the construction and operational phases, with an estimated VMT of 5,680,513 miles annually. Because the proposed project involves development of new residential housing opportunities, it would provide more opportunities for potential new residents to reside in an urbanized area with nearby amenities and public transit options. These features of the proposed project would contribute to minimizing VMT and transportation-related fuel usage. As seen in Section 3.17, *Transportation,* the residential VMT per capita would be below the City significance threshold of 12.23 VMT per capita, at 12.08. Furthermore, as seen on page 108, project would accommodate pedestrian and bicycle access and encourage use of active transportation modes by providing bicycle lanes and bicycle parking near the project site.

In addition, the modeling assumes that multifamily residential buildings would include use of photovoltaic systems based on the 2019 Building Energy Efficiency Standards. The Specific Plan also states that the proposed project would incorporate PV systems in accordance with state law. Therefore, the IS/MND adequately considers renewable energy systems and conservation efforts that are known to be a part of the project. Furthermore, construction activities would be conducted in compliance with California Code of Regulations (CCR) Section 2499, which would require nonessential idling of construction equipment to be restricted to five minutes or less.

O2-19 The commenter suggests that renewable energy utilized by the proposed project would generate new demand for electricity, natural gas, and/or transportation energy. This is not correct. Use of renewable energy would not result in an increase in energy demand above and beyond the electricity demand for a project. Rather, renewable energy would offset energy demand associated with a project and would reduce the demand on nonrenewable fuel use associated with electricity production. As previously stated, the modeling assumes that multifamily residential buildings would include use of photovoltaic systems based on the 2019 Building Energy Efficiency Standards, as is assumed in the Specific Plan. Therefore, the IS/MND adequately considers renewable energy systems and conservation efforts that are known to be a part of the project.

O2-20 The project operational VMT would be substantially less than the baseline VMT thresholds, which is consistent with the goal of reducing VMT through mixed-use, local development and, as a result, reducing energy consumption. As a result, the fuel use associated with the proposed project would not be wasteful or inefficient. The energy impact analysis has been analyzed in accordance with the CEQA guidelines. See Section 3.6, *Energy.*

O2-21 The commenter asserts that the IS/MND fails to assess or quantify the proposed project's anticipated water consumption and wastewater quantity and composition and references pages associated with the Section 3.10, *Hydrology and Water Quality*. The IS/MND appropriately quantifies the proposed project's water consumption and wastewater generation in Section 3.19, *Utilities and Service Systems* (see pages 117 and page 119 for water consumption analyses and pages 118 and 120 for wastewater generation analyses). The proposed project would generate wastewater that is typical of a mixed-use development with residential and commercial uses. The commenter is confusing the analyses for utilities (e.g., water consumption and wastewater generation) with project site hydrology (e.g., surface runoff). The analysis for water and wastewater are adequately and appropriately discussed in Section 3.19, *Utilities and Service Systems.* No further response is necessary.

The commenter asserts that the IS/MND relies solely on regulatory compliance measures to justify a less than significant finding and not project-specific analysis. Section 3.10, *Hydrology and Water Quality*, provides a project-specific analysis for each hydrology and water quality threshold. The comment states that the analysis is insufficient but does not refer to specific threshold or provide evidence to the contrary. Page 65 (referenced in the comment) is associated with Section 3.6, *Energy*, and does not relate to hydrology. No further response is necessary.

O2-22 The commenter asserts that the IS/MND noise analysis does not show that the proposed mitigation measure (MM N-1) would adequately mitigate noise. All mitigation measures under Mitigation Measure N-1 would reduce construction-related noise levels as demonstrated through quantitative modeling. Specifically, the last bullet point under Mitigation Measure N-1 provides details for the construction of a temporary noise barrier to break the line-of-sight and to have a density of 1.5 lb/sqft with no gaps. These details are the requirements needed to reduce levels as stated, "to maintain noise levels at or below the performance standard of 80 dBA Leq at the property line." Therefore, Mitigation Measure N-1 would adequately mitigate noise levels. No further noise analysis is warranted.

O2-23 The commenter asserts that the IS/MND fails to provide an adequate project description because it does not include a statement of objectives nor economic characteristics. The CEQA Guidelines section that this comment refers to (CEQA Section 15124) is related to the requirements for an environmental impact report, which is not the type of environmental analysis prepared for the proposed project.

A statement of objectives is required for environmental impact reports, but not mitigated negative declarations, which is the environmental document prepared for the proposed project. Section 1.3, *Project Description* (see pages 11 through 33), provides a thorough discussion of the proposed project components and adequately describes the proposed project. The commenter is referring to an introductory summary that is further expanded on pages 11 through 33.

The comment further states that the IS/MND does not provide a description of the proposed project's economic characteristics. As defined by CEQA Guideline section 15378, "project" for the purposes of CEQA "means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." Economic characteristics of a project only need to be considered if they result in a direct or

reasonably foreseeable indirect physical change to the environment. Economic characteristics that do not result in a physical impact are beyond the scope of CEQA. No further response is needed.

The CEQA section this comment refers to (CEQA Guidelines Section 15124) is the requirements for an environmental impact report. A mitigated negative declaration was appropriately prepared for the proposed project, not an environmental impact report. The project description adequately describes the proposed project and meetings the requirements of CEQA. Recirculation is not warranted.

O2-24 This comment serves as a conclusion to the letter. See response to Comments O2-2 through O2-23.

O2-25 The commenter notes that number, length, and vehicle class of worker trips are utilized by CalEEMod to determine construction VMT and emissions. The commenter also suggests that construction VMT and emissions may be reduced by decreasing the average overall trip length through a local hire requirement. This comment does not identify a deficiency in the IS/MND's analysis. No further comment is warranted.

O2-26 The commenter notes how construction-related worker trips are calculated by CalEEMod in rural and urban settings and suggests that a local hire requirement's efficacy depends on project location and urbanization. This comment does not identify a deficiency in the IS/MND's analysis. No further comment is warranted.

O2-27 The commenter provides an example of how a local hire requirement can reduce GHG emissions associated with construction worker trips as compared to default CalEEMod trip length. The commenter, however, does not identify any analysis deficiencies or inaccuracies in the IS/MND. Moreover, the potential benefits of local, skilled labor requirements/policies have not been quantified, and are caveated in the commenter's references (e.g., the GHG reduction associated with a local hire requirement and anticipated decreased worker trip length would vary based on the location and urbanization level of the project site). The potential benefits of the recommended requirements, therefore, are speculative. The commenter does not specify how requiring local hire or the other recommendations would achieve further reductions in GHG emissions during construction, nor does the commenter explain whether it is feasible or identify evidence supporting any implied conclusion that reductions would be achieved. For instance, the commenter does not provide any evidence that construction worker trip distance would be reduced through implementation of such measures. Thus, the comment does not present any evidence or assertions that undermine the analysis or conclusions of the IS/MND.

O2-28 This comment is a disclaimer to the comment letter. No response is warranted.

Letter R1– Maria Susana Carcedo (1 page)

R1

PICO RIVERA

THE MERCURY PROJECT - 8825 WASHINGTON BLVD.
PUBLIC MEETING COMMENT CARD
THURSDAY, AUGUST 11, 2022

NAME/NOMBRE: Maria Susana Carcedo

EMAIL/CORREO ELECTRÓNICO:

CITY/CIUDAD: Pico Rivera, CA ZIP CODE/CÓDIGO POSTAL: 90660

If you have any questions please contact Julia Gonzalez at (562) 801-4447 or email at juliagonzalez@pico-rivera.org.
If you would like to leave your comments by email, please send to juliagonzalez@pico-rivera.org or mail to Planning Division, City of Pico Rivera 6615 Passons Boulevard, Pico Rivera, CA 90270.

Si tiene alguna pregunta, comuníquese con Julia González al (562) 801-4447 o envíe un correo electrónico a juliagonzalez@pico-rivera.org.
Si desea dejar sus comentarios por correo electrónico, envíelos a juliagonzalez@pico-rivera.org o envíelos por correo a la División de Planificación, Ciudad de Pico Rivera 6615 Passons Boulevard, Pico Rivera, CA 90270.

COMMENTS/COMENTARIOS DON't WANT ANY More people

- Pico Rivera is a familiar city, Not COMERCIAL,
- We Don't need more people, more traffic, R1-1
- the powerpoint it's different from the real people that walk in the Shopping Center
- who's going to fix the damage of our houses during construction
- fix the homeless, streets, Avenues,
- the sigh in Rosemead and ~~Washington~~ Gallatin it's the same 67,000 Population

R1. Response to Comments from Maria Susana Carcedo, dated August 11, 2022.

R1-1 The commenter opines that the City does not need more residents and traffic. The commenter expresses concern with a potential increase in traffic and damage to surrounding residential houses during construction. However, the commenter does not raise any specific comments regarding the IS/MND's evaluation of environmental issues. The proposed project has been analyzed extensively in the IS/MND, including construction impacts to off-site sensitive residential receptors.

Overall, the proposed project is consistent with the City's General Plan Circulation Element and is not found to conflict with adopted policies, plans, or programs. It would also implement transportation demand management (TDM) strategies per the 2021 California Air Quality Pollution Control Officers Association (CAPCOA) *Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* as project design features that would decrease vehicle miles travelled (VMT). Therefore, the proposed project would contribute to maximizing mobility and accessibility in the region. Please refer to Section 3.17, *Transportation,* and Appendix F, *Transportation Impact Analysis Report, The Mercury Project, City of Pico Rivera, California* for more information.

As discussed in Section 3.11, *Land Use and Planning,* implementation of the proposed project would be confined to the project site, which is entirely vacant. As discussed in Section 3.3, *Air Quality*, the proposed project would be required to implement fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers. As discussed in Section 3.13, *Noise*, the proposed project would implement mitigation measure N-2, which would ensure that vibration associated with grading and paving activities would not damage nearby residences. No homes are located on the project site, and the proposed project would not damage homes during construction.

The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

Letter R2– Leticia Santillan (1 page)

R2

THE MERCURY PROJECT - 8825 WASHINGTON BLVD.
PUBLIC MEETING COMMENT CARD
THURSDAY, AUGUST 11, 2022

NAME/NOMBRE: Leticia Santillan

EMAIL/CORREO ELECTRÓNICO:

CITY/CIUDAD: Pico Rivera ZIP CODE/CÓDIGO POSTAL: 90660

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COMMENTS/COMENTARIOS

We just dont need this in our neighborhood we are fine the way we are. R2-1

R2. Response to Comments from Leticia Santillan, dated August 11, 2022.

R2-1 The commenter expresses general opposition to the proposed project. No specific comments regarding the IS/MND's evaluation of environmental issues have been provided by the commenter. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

Letter R3– Elvia Alvarado (1 page)

R3

PICO RIVERA

THE MERCURY PROJECT - 8825 WASHINGTON BLVD.
PUBLIC MEETING COMMENT CARD
THURSDAY, AUGUST 11, 2022

NAME/NOMBRE: Elvia Alvarado

EMAIL/CORREO ELECTRÓNICO: No email

CITY/CIUDAD: Pico Rivera ZIP CODE/CÓDIGO POSTAL: 90660

If you have any questions please contact Julia Gonzalez at (562) 801-4447 or email at juliagonzalez@pico-rivera.org.
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Si desea dejar sus comentarios por correo electrónico, envíelos a juliagonzalez@pico-rivera.org o envíelos por correo a la División de Planificación, Ciudad de Pico Rivera 6615 Passons Boulevard, Pico Rivera, CA 90270.

COMMENTS/COMENTARIOS

I have lived in my home 8744 Goodlee St Pico Rivera 90660 since 1975, I don't want this Mercury Project next door to me it would take away my view and privacy to our family. My taxes would go higher. I can not have this many family live next door to us or me. To many people, Cars, noise ~~and~~ It would take away the family homes privacy. R3-1

R3. Response to Comments from Elvia Alvarado, dated August 11, 2022.

R3-1 The commenter expresses general opposition to the proposed project. However, the commenter does not raise any specific comments regarding the IS/MND's evaluation of environmental issues. The proposed project has been analyzed extensively in the MND, including related to views (refer to Section 3.1, *Aesthetics)*, population (refer to Section 3.14, *Population and* Housing), transportation (refer to Section 3.17, *Transportation,* and Appendix F, *Transportation Impact Analysis Report, The Mercury Project, City of Pico Rivera, California*) and noise (refer to Section 3.13, *Noise*). No further response is needed.

Letter R4– Miguel Santillan (1 page)

R4

PICO RIVERA

THE MERCURY PROJECT - 8825 WASHINGTON BLVD.
PUBLIC MEETING COMMENT CARD
THURSDAY, AUGUST 11, 2022

NAME/NOMBRE: Miguel Santillan

EMAIL/CORREO ELECTRÓNICO:

CITY/CIUDAD: Pico Rivera ZIP CODE/CÓDIGO POSTAL: 90660

If you have any questions please contact Julia Gonzalez at (562) 801-4447 or email at juliagonzalez@pico-rivera.org.
If you would like to leave your comments by email, please send to juliagonzalez@pico-rivera.org or mail to Planning Division, City of Pico Rivera 6615 Passons Boulevard, Pico Rivera, CA 90270.

Si tiene alguna pregunta, comuníquese con Julia González al (562) 801-4447 o envíe un correo electrónico a juliagonzalez@pico-rivera.org.
Si desea dejar sus comentarios por correo electrónico, envíelos a juliagonzalez@pico-rivera.org o envíelos por correo a la División de Planificación, Ciudad de Pico Rivera 6615 Passons Boulevard, Pico Rivera, CA 90270.

COMMENTS/COMENTARIOS

Dont Build in our City this will Bring the worst of traffic and vandalism with 255 apts R4-1

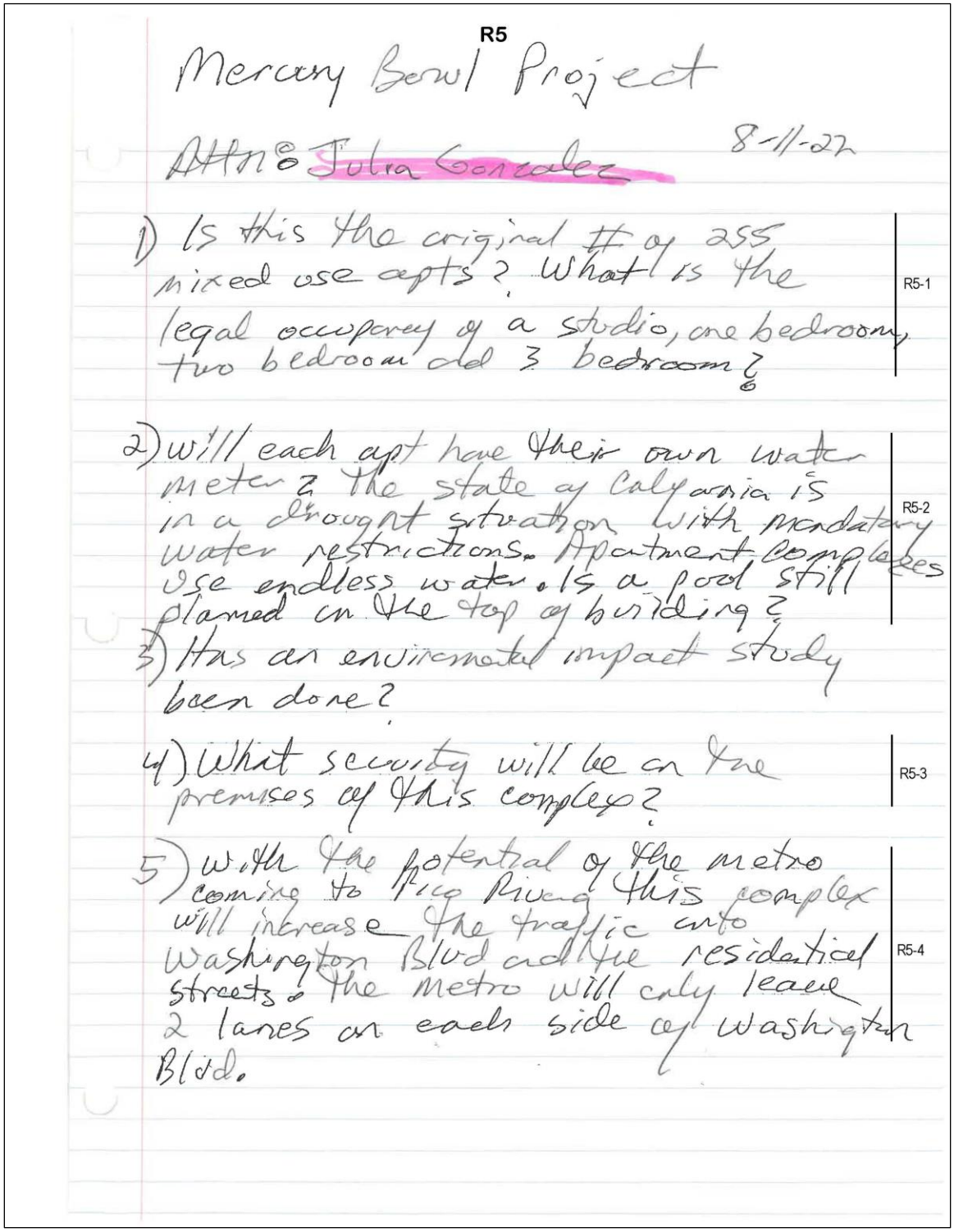
R4. Response to Comments from Miguel Santillan, dated August 11, 2022.

R4-1 The commenter expresses general opposition to the proposed project and asserts that the proposed project would worsen traffic and vandalism. The comment does not raise any specific comments regarding the IS/MND's evaluation of environmental issues.

With the passage of Senate Bill (SB) 743, the focus of transportation analysis for purposes of CEQA has shifted from vehicular delay or level of service (LOS) to vehicle miles traveled (VMT). The proposed project's impact on transportation has been analyzed in Section 3.17, *Transportation* of the IS/MND and Appendix F, *Transportation Impact Analysis Report, The Mercury Project, City of Pico Rivera, California*. The IS/MND shows that the proposed project would result in a less than significant impact to transportation.

Regarding vandalism, as discussed in the Section 1.3, *Project Description*, and under threshold (b) of Section 3.15, *Public Services*, the proposed project would also include design elements that would deter criminal activity, such as security gates, and residents-only key cards for the residential areas, as well as security lighting for the residential and commercial areas. The proposed project would result in a less than significant impact to police services.

Letter R5– [no name given] (1 page)



R5

Mercury Bowl Project

Attn: Julia Gonzalez 8-11-22

1) Is this the original # of 255 mixed use apts? What is the legal occupancy of a studio, one bedroom, two bedroom and 3 bedroom? R5-1

2) will each apt have their own water meter? The state of Calyarnia is in a drought situation with mandatory water restrictions. Apartment complexes use endless water. Is a pool still planned on the top of building? R5-2

3) Has an environmental impact study been done?

4) What security will be on the premises of this complex? R5-3

5) With the potential of the metro coming to Pico Rivera this complex will increase the traffic onto Washington Blvd and the residential streets. The metro will only leave 2 lanes on each side of Washington Blvd. R5-4

R5. Response to Comments from [no name given], dated August 11, 2022.

R5-1 The commenter asks whether the number of apartments in the proposed project is the original proposed number of apartments. The commenter accurately notes that the proposed project would have 255 dwelling units (see Section 1.3, *Project Description,* of the IS/MND). The commenter also asks about the legal occupancy of each dwelling unit type. As discussed on page 12, the project applicant will limit the number of tenants per unit to two persons per bedroom and one person per living room. Please refer to Section 1.3.1.1, *Project Description, Residential,* of the MND for more information.

R5-2 The commenter asks whether each apartment will have their own water meter and raises concerns over the potentially large water consumption of the apartments and pool amidst a drought in California. The proposed project would install a new water meter and backflow. Final project design and review would be evaluated by the City.

The proposed project's water demand for indoor and outdoor use is well within the Pico Water District's groundwater pumping capacity. The proposed project is consistent with the City's anticipated growth projection and therefore is not anticipated to adversely affect the Pico Water District's water supplies. Additionally, the proposed project would have a less than significant impact related to water supply during normal, dry, and multiple dry years. Please refer to Section 3.19, *Utilities and Service Systems,* for more information. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R5-3 The commenter asks what forms of security will be on the premises of the proposed project. Parking security staff will be on-site to ensure that tenants do not park in the adjacent shopping center overnight. The proposed project includes safety and security lighting in residential and commercial areas, primarily along walkways, outdoor parking areas, and steps for pedestrian safety at the ground level. It would also include design elements that would deter criminal activity, such as security gates and residents-only key cards for the residential areas. Please refer to Section 1.3.3, *Project Description,* and Section 3.15(b), *Public Services, Police Protection,* for more information.

R5-4 The commenter asserts that with the addition of the new Metro station near the project site the proposed project would increase traffic on Washington Blvd. and surrounding residential streets by decreasing travel lanes to two lanes on each side. Refer to Response to Comment A1-3, which discusses the proposed Metro project. In addition, with the passage of Senate Bill (SB) 743, the focus of transportation analysis for purposes of CEQA has shifted from vehicular delay or level of service (LOS) to vehicle miles traveled (VMT). The proposed project is consistent with the City's General Plan Circulation Element and would implement design features that would contribute to supporting multiple modes of transportation. Please refer to Section 3.17, *Transportation,* of the MND for more information. The comment does not identify a deficiency in the IS/MND's analysis. No further response is necessary.

Letter R6– Maricela Lizarraga (1 page)

PICO RIVERA

THE MERCURY PROJECT - 8825 WASHINGTON BLVD.
PUBLIC MEETING COMMENT CARD
THURSDAY, AUGUST 11, 2022

NAME/NOMBRE: Maricela Lizarraga

EMAIL/CORREO ELECTRÓNICO: mcasillas022@gmail.com

CITY/CIUDAD: Pico Rivera ZIP CODE/CÓDIGO POSTAL: 90660

If you have any questions please contact Julia Gonzalez at (562) 801-4447 or email at juliagonzalez@pico-rivera.org.
If you would like to leave your comments by email, please send to juliagonzalez@pico-rivera.org or mail to Planning Division, City of Pico Rivera 6615 Passons Boulevard, Pico Rivera, CA 90270.

Si tiene alguna pregunta, comuníquese con Julia González al (562) 801-4447 o envíe un correo electrónico a juliagonzalez@pico-rivera.org.
Si desea dejar sus comentarios por correo electrónico, envíelos a juliagonzalez@pico-rivera.org o envíelos por correo a la División de Planificación, Ciudad de Pico Rivera 6615 Passons Boulevard, Pico Rivera, CA 90270.

COMMENTS/COMENTARIOS

Project does not make sence. R6-1
Not enough parking
traffic is already bad, I currently experience it. R6-2
We voted city cancil in and none are here
very disrespectful they should here ar concerns R6-3

R6. Response to Comments from Maricela Lizarraga, dated August 11, 2022.

R6-1 The commenter asserts that the proposed project does not make sense and does not provide any specific comments on the project. The MND provides an extensive description of the proposed project (refer to Section 1, *Introduction*) and analysis of potential environmental impacts (refer to Section 3, *Environmental Analysis*). The City will consider all comments and recommendations as part of its decision-making for this project. No further response is required.

R6-2 The commenter states that the proposed project does not have enough parking and states that traffic is already bad. The proposed project's parking numbers are provided in Table 4, *Summary of Parking Spaces*, which shows that the proposed project would provide 464 parking spaces. Proposed project parking ratios are similar to other mixed-use developments of its type, size, and urban context. The proposed project's Transportation Study (contained in Appendix F) determined that the proposed project's parking requirements are consistent with the empirical parking demand ratios and the ITE published residential parking demand ratio. The proposed project would adequately accommodate parking needs on-site. As discussed in Section 1.3.2.2, *Project Parking*, the operation of the proposed project would require that residents register their vehicles with the building and adhere to the parking policies in lease/rental agreements. Security staff would monitoring parking at the adjacent shopping center on a 24-hour basis. Further, the project applicant would identify a Community Liaison/Parking Ombudsman in order to keep nearby residential communities informed on various matters and provide an open line of communication. The Community Liaison/Parking Ombudsman would efficiently manage parking and enforce changes that the project management team would make to prevent local neighborhood parking intrusion. Refer to pages 19 and 18 of the IS/MND. Parking is no longer a CEQA issue. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

The proposed project is consistent with the Pico Rivera Municipal Code and the General Plan's Circulation Element. Therefore, the proposed project would support mobility in the region. With the passage of Senate Bill (SB) 743, the focus of transportation analysis for purposes of CEQA shifted from vehicular delay or level of service (LOS) to vehicle miles traveled (VMT). Therefore, traffic is no longer a CEQA issue. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R6-3 The commenter expresses concern regarding the absence of city council members at the public meeting and does not provide any specific comments on the project. No further response is necessary.

Letter R7– Rafael Gonzales (1 page)

R7

The Mercury Project

Public Informational Meeting – 8/11

Verbal Comments

Resident #7: Rafael Gonzales

- What is the impact of adding 255 units in terms of schools, parks, etc? | R7-1

R7. Response to Comments from Rafael Gonzales, dated August 11, 2022.

R7-1 The commenter asks about the impacts of the proposed project's addition of 255 residential units on schools and parks. The IS/MND provides an analysis on the proposed project's impact on schools and parks as well as other types of public and recreational facilities in Sections 3.15, *Public Services,* and 3.16, *Recreation*, in the MND. The MND concludes that the proposed project would have a less than significant impact on public services and recreational facilities.

Letter R8– Veronica Malvido (1 page)

R8

The Mercury Project

Public Informational Meeting – 8/11

Verbal Comments

Resident #8: Veronica [No last name given]

- Will the project have HVAC units? | R8-1
- There is not enough parking | R8-2

R8. Response to Comments from Veronica Malvido, dated August 11, 2022.

R8-1 The commenter asks whether the proposed project will have HVAC units. The proposed project will include HVAC units for residential and commercial uses. No further response is necessary.

R8-2 The commenter states that there is not enough parking. Refer to Response to Comment R6-2 above, which discusses project parking.

Letter R9– [no name given] (1 page)

R9

The Mercury Project

Public Informational Meeting – 8/11

Verbal Comments

Resident #9: No name given.

- New apartments will lead to an increase in children. Are schools equipped to handle the student enrollment? R9-1
- What about police services? R9-2

R9. Response to Comments from [no name given], dated August 11, 2022.

R9-1 The commenter asks if schools are equipped to handle the proposed project's students. The proposed project's impact on schools is discussed in Section 3.15, *Public Service.* The analysis takes a conservative approach to determining student generation because it assumes that all units would generate an equal number of high school, middle school, and elementary school students; however, this would not be the case because 194 dwelling units of the 255 dwelling units (approximately 77.6 percent of the dwelling units) would be studio and one-bedrooms. Even with this conservative approach, the IS/MND determined development of the proposed project would not result in the need for construction associated with an expansion of existing or development of new schools such that environmental impacts would result. In addition, as stated on page 99 of the IS/MND, the proposed project would be required to pay school fees pursuant to Senate Bill 50. Therefore, project-related impacts to school facilities would be less than significant. Please refer to Section 3.15(c), *Public Services, Schools,* for more information.

R9-2 The commenter asks about the proposed project's impact on police services The IS/MND evaluates the proposed project impact to polices services in Section 3.15(b), *Public Services, Police Protection.* A service letter and questionnaire were sent to the Los Angeles County Sheriff's Department (LASD) requesting input from the LASD on the proposed project. The Pico Rivera Sheriff Station has no deficiencies in police protection services. While the proposed project may lead to an increase in demand for police protection services compared to existing conditions, such as increase in service calls and traffic enforcement, by adding new residents to the area, such an increase is within the projected growth for the city, and LASD has indicated that there are no existing deficiencies. The proposed project would include design features that would deter criminal activity, such as security lights and gates. The proposed project would contribute applicable impact fees and applicable taxes that would fund the police station. As discussed in Section 3.15(b), the proposed project would result in a less than significant impact to police protection.

Letter R10– [two residents, no names given] (1 page)

R10

The Mercury Project

Public Informational Meeting – 8/11

Resident(s) #10: came together: No names given.

- Concerned about the economic impact of the multifamily residential component in the short and long term. Rents will be too high for one or two persons, which would lead to overcrowding. Over the long term, the commenter is concerned about the building falling into disrepair. | R10-1
- The commenter is concerned about overcrowding at schools. | R10-2
- The commenter is concerned about illegal dumping and inaction to address current illegal dumping. Commenter suggests fining the property owner for illegal dumping if it is not handled right away. | R10-3
- Commenter would like to see condos instead of apartments. Believes that homeowners will take better care of the building and property. | R10-4
- Concern about traffic and cars speeding. States that there is too much traffic and cars already speed. | R10-5
- Not enough parking and concerned about parking overflow into their neighborhood. | R10-6

R10. Response to Comments from [two residents, no names given], dated August 11, 2022.

R10-1 The commenter raises concern regarding the economic impact of multifamily residential units in the short and long term. Although economic effects of the project may be included in the IS/MND, evidence of economic impacts that do not contribute to or are not caused by physical impacts on the environment are beyond the scope of CEQA. (CEQA Guidelines 15131, PRC 21082.2(2)).

The commenter also raises concern regarding potential overcrowding and consequent damage to the building. As discussed in Section 1.3, *Project Description*, the lease agreement for the proposed project would limit the number of tenants per unit to two persons per bedroom and one person per living room (see page 12). As described in Section 3.14, *Population and Housing,* of the IS/MND, the proposed project's anticipated population and household generation is within the anticipated growth for the City. The proposed project would not generate unplanned nor indirect population growth. Therefore, the operation of the proposed project would result in a less than significant impact on population or building infrastructure.

R10-2 The commenter expresses concern regarding overcrowding at schools. The addition of students generated by the proposed project to area schools would not substantially increase enrollment. Therefore, project-related impacts to school enrollment would be less than significant. Please refer to Response to Comment R9-1. Please refer to Section 3.15(c), *Public Services, Schools,* for more information.

R10-3 The commenter expresses concern regarding potential illegal dumping and current inaction to address current illegal dumping in other areas. The commenter suggests fining the property owner for illegal dumping if it is not handled immediately. However, no specific comments regarding the IS/MND's evaluation of environmental issues have been provided by the commenter. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R10-4 The commenter recommends that the proposed project include condominiums instead of apartments because the commenter believes that homeowners will take better care of the property. However, no specific comments regarding the IS/MND's evaluation of environmental issues have been provided by the commenter. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R10-5 The commenter expresses concern regarding the potential increase in traffic and speeding cars. With the passage of Senate Bill (SB) 743, the focus of transportation analysis for purposes of CEQA has shifted from vehicular delay or level of service (LOS) to vehicle miles traveled (VMT). The proposed project is consistent with the City's General Plan Circulation Element and would not conflict with adopted policies, plans, or programs. It would also implement transportation demand management (TDM) strategies per the 2021 California Air Quality Pollution Control Officers Association (CAPCOA) *Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* as project design features that would decrease vehicle miles travelled (VMT). Therefore, the proposed project would contribute to maximizing mobility and accessibility in the region. Please refer to Section 3.17, *Transportation,* and Appendix F, *Transportation Impact Analysis Report, The*

Mercury Project, City of Pico Rivera, California for more information. No specific comments regarding the IS/MND's evaluation of environmental issues have been provided by the commenter.

R10-6 The commenter expresses concern about the proposed project's limited parking and potential parking overflow. Refer to Response to Comment R6-2.

Letter R11– Emmanuel Sandoval (2 pages)

R11

From: emmanuel sandoval
Sent: Friday, August 12, 2022 2:06 PM
To: Julia Gonzalez
Subject: 8825 Washington Blvd - 255 unit Project

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: This email originated externally from the **City of Pico Rivera** email system. **DO NOT** click links or open attachments unless you recognize the sender and know the content is safe.

Hi Julia,

It was a pleasure meeting you yesterday at the community meeting for the proposed 255 unit project. As discussed, myself and others would like to express our concerns for this project.

Density

-The current municipal code for M-U zones allow for 30 Dwelling Units per Acre by right, additionally note #14 states ..."shall not be developed with more than one dwelling unit for each one thousand four hundred fifty square feet of lot area. R11-1
-This project is asking for a zone code / specific plan amendment to allow **91 DU per Acre**, this equates to almost a **300% increase** in the allowable density per the zoning code.

My question is, Under what pretense is the city considering allowing such an extreme increase in allowable density? Especially given the fact that this project is only proposing 5% of the 255 units to be designated as affordable.

-There is currently no state or assembly bill that allows this extreme increase in density for projects that are not 100% affordable. I would ask that the city council provide the city of Pico Rivera residents with a justification as to why this is even being considered knowing fully that this is not a 100% affordable project. R11-2

-Please review AB 2345 in its entirety and outline how this proposed 255 unit market rate project complies with government land regulations.

Traffic

-This project will provide 464 parking stalls for the residents and the only entrance off Washington blvd to the parking structure is near the McDonalds. Please justify how traffic will not be impacted especially when traveling east on Washington Blvd to the proposed site.
-**There is only one left turn lane between Rosemead and Crossway Dr that is not on a signal.** This will gravely impact traffic along Washington Blvd especially during rush hours. R11-3
-Additionally when the Metro Gold Line Eastside extension is built, it will eliminate all non-signal left turn lanes as you head east on Washington Blvd. This development in addition to the 255 unit development will gravely impact our community, the city needs to conduct an independent traffic analysis of this area that is not paid for by the developer in order to understand fully and unbiasedly the traffic impacts.

Town Hall

-We the residents deserve a town hall on this matter in the same light as Metro conducted the town hall on the eastside extension of the Gold Line before any vote is cast. R11-4
-What benefits are the residents of this community receiving from this development?

1

-We much rather see town homes being constructed rather than apartment units, the former brings far greater value to our community as a whole.
-If this project is approved it will provide the framework for future developers to build far greater density in our community that no state or assembly bill can back up.
-We strongly discourage such an egregious diversion from the allowable limits set forth in the zoning code and recommend that this developer either provides a 100% affordable project or builds within the 30 DU per Acre framework.

R11-4 cont'd

--
Emmanuel Sandoval

R11. Response to Comments from Emmanuel Sandoval, dated August 12, 2022.

R11-1 The commenter expresses concern about the proposed project's density and asks why the city would allow such a high increase in density. The proposed project includes discretionary approvals, such as Specific Plan approval and zone reclassification, zone code amendment, and General Plan amendment, which change the current zoning and land use designations on-site to Specific Plan (SP). The Specific Plan would allow for the proposed density. No specific comments regarding the IS/MND's evaluation of environmental issues have been provided by the commenter.

R11-2 The commenter states that there is no state or assembly bill that allows for the increase in density associated with the proposed project that is not 100% affordable. The proposed project is not seeking a density bonus pursuant to California Density Bonus law. Nevertheless, the proposed project would include 13 affordable housing units. Refer to Response to Comment R11-1.

R11-3 The commenter expresses concern about local circulation issues resulting from project traffic and site access. Please refer to Section 3.17, *Transportation*, and the proposed project's transportation study contained in Appendix F for a discussion of the proposed project's transportation impacts. With the passage of Senate Bill (SB) 743, the focus of transportation analysis for purposes of CEQA has shifted from vehicular delay or level of service (LOS) to vehicle miles traveled (VMT). Vehicle delay, i.e., traffic, is no longer a CEQA issue. As described in the Section 3.17, *Transportation*, of the IS/MND and Appendix F of the IS/MND (Transportation Impact Analysis Report), vehicular access to the project site will be accommodated via two driveways: one existing driveway on Washington Boulevard and one existing driveway on Rosemead Boulevard. Other existing access points along Washington Boulevard and Rosemead Boulevard are currently provided for the Pico Rivera Marketplace and will not change due to the proposed project. The existing Washington Boulevard driveway closest to the proposed project parking structure access point and located west of the existing McDonald's fast-food restaurant, would remain and be improved in order to provide handicap accessibility. The commenter is correct that this location is not signalized and is the only eastbound left-turn lane/pocket between Rosemead Boulevard and Crossway Drive. The existing eastbound left-turn movement into the site from Washington Boulevard will continue to be facilitated by the existing eastbound left-turn lane/pocket and median break at this location. Please refer to Appendix F of the IS/MND for a full discussion of forecast project-related vehicle trips at this location. In addition to the vehicle-miles-traveled (VMT) analysis, an access and circulation review was conducted as part of the "Non-CEQA" operational analysis for the proposed project. Based on the review, it is concluded the proposed project weekday AM and PM peak hour traffic volumes will not cause or substantially extend vehicle queuing at the site driveways, including at this referenced eastbound left-turn traffic movement/location.

Please refer to Response to Comment A1-3, which discusses the separate proposed Metro project.

Finally, the transportation impact analysis for the proposed Project was prepared in consultation with City of Pico Rivera staff and the City's Contract Traffic Consultants and in compliance with City of Pico Rivera's latest guidelines. The report was reviewed and approved by the City's Contract Traffic Engineer.

R11-4 The commenter suggests that the City should hold a town hall for the residents regarding the proposed project before any vote is cast. The commenter asks for information on the benefits that community residents will receive from the proposed project. The commenter also recommends that the proposed project construct townhomes instead of apartment units and believes that townhomes would bring greater value to the community. The commenter asserts that the approval of the proposed project would allow for more projects with a much higher housing density. The commenter opposes the housing density of the proposed project and lack of affordable housing.

The Applicant would develop a currently vacant lot with a residential and commercial mixed-use project. The City and Applicant undertook a public review process that exceeds the requirements of CEQA for an MND. The City held a public meeting for the proposed project on August 11, 2022 which was open to the public. Comments were received verbally and in writing and responded to herein. In addition, the applicant held two public outreach meetings on June 3, 2021 and November 18, 2021.

Please see Response to Comment R11-1 for a discussion of density and affordable housing. The City will consider all comments and recommendations as part of its decision-making for this project.

Letter R12– Veronica Malvido (2 pages)

R12

From: Julia Gonzalez
Sent: Wednesday, August 17, 2022 6:33 AM
To: Mariana Zimmermann
Cc: Dalton Treadway (Dalton@optimuspropertiesllc.com)
Subject: FW: OPPOSED TO MERCURY PROJECT

Follow Up Flag: Follow up
Flag Status: Flagged

FYI. Here is another comment that came in.

From: malvidov
Sent: Tuesday, August 16, 2022 6:44 PM
To: Julia Gonzalez <juliagonzalez@pico-rivera.org>
Subject: OPPOSED TO MERCURY PROJECT

CAUTION: This email originated externally from the City of Pico Rivera email system. DO NOT click links or open attachments unless you recognize the sender and know the content is safe.

Hi Julia

I'm opposed for the following reasons and concerns.

1. By the way the sofa was still there as of this afternoon today 8/17/2022. 6740 Keltonview. This is just a taste of what's to come. the city doesn't do anything about the people living like pack rats in front of their homes with out someone filing a complaint. That's BS the city should patrol and take action! If the city can't check a homeowner what can we expect them to do about a renter no one sees? R12-1
2. Washington Blvd is an artery in our city we already deal with the disruption of inner city traffic with all the school traffic we are already over crowed as it is. R12-2
3. Our city is labeled as low income because that is what it draws in. We have the same vendors on all four corners but. New business struggle because rent is so expensive and leave. What do you think will happen in time with a renter?
4. If the property owner fails to rent all the units they will be forced to section apartment's off and in time will become the like the building on Rosemead and CoffmanPico and others not to mention.
4. Property value in Pico Rivera is extremely high for a city that is considered low income. the average household income will have to be in the 80-90k to realistically live in comfort. R12-3
5. Will water be a separate utility bill? I ask because most renters don't care how much water they need to use. R12-4
6. There maybe enough parking for the single renter but realistically parking needs to be multiplied by 3. In a city that is considered low income renters live in packs. R12-5
6. If the city needs to make money there should be a house hold cap on cars per dwelling.
7. Build something that brings in revenue while being a resource to the community so that its a win win both side. R12-6

The developer can careless the engineers and analysts they don't know what it's really like to live in our world here in Pico Rivera. Immediately you can tell they are all from mars lol. Take the 6th Street bridge for example did all the high level educated developers and scientists, planners with their master degrees plan ahead and foresee the idiots climbing R12-7

1

the bridge and bring risk to the city? NO because they had no clue about the real world we live in. They can measure and analyze all they want unless they live in it they won't get it.

R12-7 cont'd

Anywho it was great talking with you the other night thanks for your support.

3

Veronica Malvido

R12. Response to Comments from Veronica Malvido, dated August 16, 2022.

R12-1 The commenter states that a sofa that was improperly discarded is still present on the curb and asserts that the proposed project would bring similar issues. No specific comments regarding the IS/MND's evaluation of environmental issues have been provided by the commenter. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R12-2 The commenter raises concern regarding potential increase in traffic on Washington Boulevard caused by the proposed project. Refer to Response to Comment R10-5.

R12-3 The commenter raises concern with the proposed project's impact on rent. The commenter is concerned that the property owner will fail to rent all the residential units and be forced to section them off. Although economic effects of the project may be included in the IS/MND, evidence of economic impacts that do not contribute to or are not caused by physical impacts on the environment are beyond the scope of CEQA (CEQA Guidelines 15131, PRC 21082.2(2)). The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R12-4 The commenter asks whether water will be a separate utility bill. Water will be provided to the proposed project in one master meter and each residential unit will have an individual submeter tracking water usage. The proposed project's water demand is calculated and evaluated in Section 3.19, *Utilities and Service Systems,* which determined that the proposed project would be adequately served by existing water infrastructure and services. Pico Water District's 2015 UWMP concludes there is an adequate and reliable supply of water to provide for existing demand and estimated growth through year 2040. No specific comments regarding the IS/MND's evaluation of environmental issues have been provided by the commenter. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R12-5 The commenter suggests tripling the number of parking spaces to accommodate potential population growth. The commenter also recommends enforcing a cap on cars per dwelling. Refer to Response to Comment R6-2 for a discussion of project parking.

All resident policies will be outlined in the lease/rental agreement. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R12-6 The commenter opines that the City should build a project that brings in revenue while also being a community resource. No specific comments regarding the IS/MND's evaluation of environmental issues have been provided by the commenter. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

R12-7 The commenter expresses general opposition to the proposed project. No specific comments regarding the MND's evaluation of environmental issues have been provided by the commenter. The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

Letter R13– Brad Morgan (1 page)

R13

From: Brad Morgan
Sent: Friday, August 19, 2022 3:15 PM
To: Julia Gonzalez
Subject: 8828 Washington Blvd, 255 unit project

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Hi Julia,

This 255 unit project was recently brought to my attention and I strongly oppose it. If this developer gets a special permission i fear it will open the floodgates to developers wanting special zoning. This will bring more apartments that people can't afford and fewer resources for people that actually live in this area, eventually pushing some out as has happens in DTLA. R13-1

Thanks for hearing me out.
Brad Morgan

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R13. Response to Comments from Brad Morgan, dated August 19, 2022.

R13-1 The commenter expresses general opposition to the proposed project, including concern that the applicant is receiving special permission for the proposed project, which would cause other developers to apply for special zoning. The commenter states that the special zoning of the proposed project will increase unaffordable housing and displace people.

The proposed project seeks to change the current zoning designation of General Commercial (GC) to Specific Plan (SP) and add SP for the project site area to the Zoning Map. Additionally, the proposed project would change the current general plan land use designations of Mixed-Use/Housing Element Site Opportunity Area 8 (the Rosemead Boulevard and Washington Boulevard Opportunity Area) to SP. As detailed in Section 3.11, *Land Use and Planning,* the intent of the SP land use designation is to be used in combination with the underlying General Plan land use designations to allow for the creation of flexible standards. While the proposed project includes a zone change, zoning code amendment, and a General Plan amendment to redesignate the site as "Specific Plan," the proposed project supports the intent of the current general plan land use designation on-site.

The City's General Plan Housing Element identifies 13 areas within the city that have the potential to rezone to accommodate its housing needs under the City's Regional Housing Needs Assessment (RHNA). The project site is within the Housing Element's Area 11, which proposes a mixed-use zone and minimum density of 30 dwelling units per acre. The proposed project includes a mixed-use building with ground-floor retail and five levels of residential units at a density of approximately 89.5 dwelling units per acre. The proposed project would add diversity to the City's housing stock by providing studio, junior one-bedroom, one-bedroom, two-bedroom, and three-bedroom units that would serve a range of income levels. The proposed project would also reserve 13 dwelling units as affordable housing. The proposed project is consistent with Goal 2, which encourages access to opportunities for affordable housing, which is consistent with the City's General Plan Housing Element.

It would be speculative to assume that the proposed project would lead to other projects that would push current residents out. Although social effects of a project may be included in the IS/MND, evidence of social impacts that do not contribute to or are not caused by physical impacts on the environment are beyond the scope of CEQA.

The City will consider all comments and recommendations as part of its decision-making for this project. No further response is necessary.

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