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Douglas Fenn, Planning Consultant
City of Perris Planning Division
135 North "D" Street
Perris, California 92570

VIA EMAIL TO:
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SUBJECT: COMMENTS ON OLC3 EIR (SCH NO. 2023040385)

Dear Mr. Fenn,

Thank you for the opportunity to comment on the Environmental Impact Report (EIR) for the proposed OLC3 Project. Please accept and consider these comments on behalf of Golden State Environmental Justice Alliance. Also, Golden State Environmental Justice Alliance formally requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

1.0 Summary

The project proposes the construction and operation of a mixed commercial and industrial development project on an approximately 45.1 acre site. The proposed project includes three primary components. The industrial portion of the site proposes one 774,419 square foot (sf) warehouse building proposing 20,000 sf of office space and 754,419 sf of warehousing area. The building is designed as a cross-dock fulfillment center warehouse with 72 dock doors on the north side of the building and 72 dock doors on the south side of the building for a total of 144 truck/trailer loading dock doors. The building provides 325 passenger car parking spaces and 177 truck/trailer parking spaces. The proposed commercial portion of the project is divided into two separate areas: a 4.7-acre commercial portion to the south of the warehouse building proposed for retail and restaurant uses; and a 4.8-acre commercial portion to the west of the warehouse building proposed for future retail and restaurant uses. The future commercial developments would include approximately 45,000 square feet of retail and restaurant uses comprised of 21,825 square feet of strip retail plaza use, a 5,000-square-foot high turnover (sit-down) restaurant, 14,775 square feet

of fast-food restaurant without drive-through window use in line with retail use, and a 3,400-square-foot fast-food restaurant with drive-thru window use).

Although not currently included in the Project's Development Plan Review request, future commercial development within the western commercial site would include approximately 25,000 square feet of retail and restaurant uses (comprised of 18,000 square feet of strip retail/restaurant use and two fast food restaurants with drive-through window totaling 4,000 square feet and 3,000 square feet, respectively).

3.0 Project Description

The EIR does not include a detailed floor plan, detailed site plan, detailed building elevations, or a conceptual grading plan. The basic components of a Planning Application include a detailed site plan, floor plan, conceptual grading plan, written narrative, and detailed elevations. Additionally, the site plans provided in Figure 3-4, Figure 3-6, and Figure 3-7 have been edited to remove pertinent information from public view. For example, they does not provide any detailed information such as earthwork quantity notes, parking requirements, or floor area ratio. There is no key for the notes/details on each Figure. The same is true for Figure 3-5 Floor Plan. The warehouse building elevations in Figure 4.1-3 do not call out the building height or list the building materials. There are no elevations provided at all for the proposed commercial areas. The EIR has excluded the required application items in their true and whole forms from public review, which does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). Incorporation by reference (CEQA § 15150 (f)) is not appropriate as the required application items in their true and whole forms contribute directly to analysis of the problem at hand. The EIR must be revised to include all application items for review, analysis, and comment by the public and decision makers in their whole and true form in order to provide an adequate and accurate environmental analysis.

The Project Description states that "Earthwork activities would result in approximately 38,606 cubic yards (CY) of cut and 38,606 CY of fill. The industrial/commercial site off Perry Street and North Perris Boulevard would require approximately 40,000 CY of import. The commercial site off Ramona Expressway would require approximately 20,000 CY of import." The conceptual grading plans provided for public review (Figures 3-8 and 3-9) have been edited for public review to exclude pertinent information, including the earthwork quantity notes. The quantity of materials imported/exported from the project site contributes to the quantity of truck trips during the grading phase of construction and will increase project emissions. The EIR must be revised to include a wholly accurate and unedited grading plan for the public and decision makers to verify these quantities of earthwork.

3.1 Project Piecemealing

The EIR does not accurately or adequately describe the project, meaning "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 § 15378). The proposed project is a piecemealed portion of a larger overall project to be developed within the larger Optimus Logistics Center in the City.

The EIR misleads the public and decision makers by circumventing adequate and accurate environmental analysis for the whole of the action - construction and operation of all Optimus Logistics Center buildings, Optimus Building Corporation buildings, and Rockefeller Group buildings as a whole. At minimum, piecemealed projects include the Optimus Logistics Center[1] (1,463,887 sf of warehouse buildings). Notably, Rockefeller Group and Optimus Building Corporation formed a joint venture to "change a city's vision of building a regional mall to developing a mega-sized industrial distribution center instead.[2]"

The EIR further piecemeal the proposed project into two distinct phases - an industrial phase and a commercial phase. The Project Description states that "Although not currently included in the Project's Development Plan Review request, future commercial development within the western commercial site would include approximately 25,000 square feet of retail and restaurant uses (comprised of 18,000 square feet of strip retail/restaurant use and two fastfood restaurants with drive-through window totaling 4,000 square feet and 3,000 square feet, respectively)." Piecemealing the proposed project into two distinct phases serves to skew emissions downward and avoid public disclosure regarding the severity of the significant and unavoidable impacts of the whole of the action.

A project EIR must be prepared that accurately represents the whole of the action without piecemealing the project into separate, smaller development projects to present unduly low environmental impacts. CEQA Section 15161 describes project EIRs as examining "the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction, and operation." The specific development project is the construction and operation of all Optimus Logistics Center buildings,

[1] Optimus Logistics Center https://ceqanet.opr.ca.gov/2012111003/2
[2] Case Study- Optimus Logistics Center Speaking Engagement https://www.allenmatkins.com/real-ideas/naiop-icon-west.html

Optimus Building Corporation buildings, and Rockefeller Group buildings, including proposed commercial developments.

Additionally, CEQA Section 15146 requires that the degree of specificity in an EIR "will correspond to the degree of specificity involved in the underlying activity which is described in the EIR. (a) An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy." Because there are multiple proposed buildings as part of a single project, the project EIR must be more detailed in the specific effects of the project. A project EIR must be prepared which accurately represents the whole of the action without piecemealing the project into separate, smaller development projects or development areas to present unduly low environmental impacts.

4.2 Air Quality, 4.5 Energy, and 4.7 Greenhouse Gas Emissions

Please refer to the attachment from SWAPE for a full technical analysis.

The EIR does not include for analysis relevant environmental justice issues in reviewing potential impacts, including cumulative impacts from the proposed project. According to CalEnviroScreen 4.0[3], CalEPA's screening tool that ranks each census tract in the state for pollution and socioeconomic vulnerability, the proposed project's census tract (6065042620) is highly burdened by pollution. The surrounding community, including the mobile home park approximately 300 feet south of the project and the RV park approximately 150 feet to the southeast, bears the impact of multiple sources of pollution and is more polluted than average on several pollution indicator measured by CalEnviroScreen. For example, the project census tract ranks in the 98th percentile for ozone burden, the 53rd percentile for particulate matter (PM) 2.5 burden, and 82nd percentile for traffic burden. All of these environmental factors are attributed to heavy truck activity in the area. Ozone can cause lung irritation, inflammation, and worsening of existing chronic health conditions, even at low levels of exposure[4]. Exhaust fumes contain toxic chemicals that can damage DNA, cause cancer, make breathing difficult, and cause low weight and premature births[5].

[3] Calenviroscreen 4.0 https://experience.arcgis.com/experience/11d2f52282a54ceebcac7428e6184203/page/CalEnviroScreen-4_0/
[4] OEHHA Ozone https://oehha.ca.gov/calenviroscreen/indicator/air-quality-ozone
[5] OEHHA Traffic https://oehha.ca.gov/calenviroscreen/indicator/traffic-density

The census tract also bears more impacts from cleanup sites than 69% of the state. Chemicals in the buildings, soil, or water at cleanup sites can move into nearby communities through the air or movement of water[6].

Further, the project's census tract is a diverse community including 69% Hispanic, 13% African-American, and 7% Asian-American residents, whom are especially vulnerable to the impacts of pollution. The community has a high rate of low educational attainment, meaning 75% of the census tract over age 25 has not attained a high school diploma, which is an indication that they may lack health insurance or access to medical care. The community also has a high rate of poverty, meaning 65% of the households in the census tract have a total income before taxes that is less than the poverty level. Income can affect health when people cannot afford healthy living and working conditions, nutritious food and necessary medical care[7]. Poor communities are often located in areas with high levels of pollution[8]. Poverty can cause stress that weakens the immune system and causes people to become ill from pollution[9]. Living in poverty is also an indication that residents may lack health insurance or access to medical care. Medical care is vital for this census tract as it ranks in the 91st percentile for incidence of cardiovascular disease and 66th percentile for incidence of asthma. The community also has a high rate of linguistic isolation, meaning 53% of the census tract speaks little to no English and faces further inequities as a result.

Additionally, the project census tract (6065042620) and the census tracts adjacent to the project site (6065046700 (north), 6065048800 (north), and (6065042010) west) are identified as SB 535 Disadvantaged Communities[10]. This indicates that cumulative negative impacts of development and environmental impacts in the area are disproportionately impacting these communities. The EIR has not considered the project's environmental impacts, including the significant and unavoidable cumulatively considerable Air Quality and Greenhouse Gas Emissions impacts, in relation to the SB 535 status of the project census tract and surrounding area. The negative environmental, health, and quality of life impacts of the warehousing and logistics industry in the area have become distinctly inequitable. The severity of environmental impacts particularly on these Disadvantaged Communities must be included for analysis as part of a revised EIR.

[6] OEHHA Cleanup Sites https://oehha.ca.gov/calenviroscreen/indicator/cleanup-sites
[7] OEHHA Poverty https://oehha.ca.gov/calenviroscreen/indicator/poverty
[8] Ibid.
[9] Ibid.
[10] OEHHA SB 535 Census Tracts https://oehha.ca.gov/calenviroscreen/sb535

California's Building Energy Code Compliance Software (CBECC) is the State's only approved energy compliance modeling software for non-residential buildings in compliance with Title 24[11]. CalEEMod is not listed as an approved software. The CalEEMod modeling does not comply with the 2022 Building Energy Efficiency Standards and under-reports the project's significant Energy impacts and fuel consumption to the public and decision makers. Since the EIR did not accurately or adequately model the energy impacts in compliance with Title 24, a finding of significance must be made. A revised EIR with modeling using the approved software (CBECC) must be circulated for public review in order to adequately analyze the project's significant environmental impacts. This is vital as the EIR utilizes CalEEMod as a source in its methodology and analysis, which is clearly not the approved software.

4.8 Hazards and Hazardous Materials

The Project site is located within the MARB/IPA Airport Influence Area Boundary and the City's Airport Overlay Zone. The Project site is located almost entirely within Airport Compatibility Zone D (Flight Corridor Buffer) with a portion in the southwest area of the site located within Zone C1 (Primary Approach/Departure Zone)

The EIR states that "On May 12, 2022, the ALUC unanimously found that the Project was consistent with the MARB/IPA ALUCP." However, the consistency letter is not attached for public review, which does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). Incorporation by reference (CEQA § 15150 (f)) is not appropriate as the ALUC consistency letter contributes directly to analysis of the problem at hand. A revised EIR must be prepared to include the ALUC consistency letter as an attachment for public review.

Notably, the May 12, 2022 RCALUC meeting agenda[12] indicates the project reviewed by the RCALUC included only a 878,750 square foot industrial building. The project proposed in the EIR includes a mixed commercial and industrial development project, including a 774,419 square foot fulfillment center warehouse building, commercial development on the south side of the project site totaling 45,000 square feet of retail and restaurant uses comprised of 21,825 square feet of strip retail plaza use, a 5,000-square-foot high turnover (sit-down) restaurant, 14,775 square feet of fast-food restaurant without drive-through window use in line with retail use, and a 3,400-

[11] California Energy Commission 2022 Energy Code Compliance Software https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-1
[12] https://rcaluc.org/sites/g/files/aldnop421/files/migrated/Portals-13-aluc-agenda-05-12-22.pdf

square-foot fast-food restaurant with drive-thru window use), and commercial development on the west side of the project sit totaling 25,000 square feet of retail and restaurant uses (comprised of 18,000 square feet of strip retail/restaurant use and two fastfood restaurants with drive-through window totaling 4,000 square feet and 3,000 square feet, respectively). The project must be resubmitted to the RCALUC for review as the total proposed quantity of development exceeds the size reviewed by the RCALUC. The EIR cannot conclude that the project will have less than significant impacts until and unless the RCALUC determines that the proposed project as described in the EIR is consistent with the ALUCP.

Further, Condition No. 6 of the RCALUC Staff Report for the proposed project states the following:

"The project has been evaluated to construct an 878,750 square foot industrial building, which includes 858,750 square feet of industrial area, 10,000 square feet of first floor office area, and 10,000 square feet of second floor office mezzanine area. Any increase in building area, change in use to any higher intensity use, change in building location, or modification of the tentative parcel map lot lines and areas **will require an amended review** to evaluate consistency with the ALUCP compatibility criteria."

The EIR's Project Description states the following regarding the Tentative Parcel Map:

"It should be noted that the ultimate number and location of parcels within the property may be adjusted later."

The overall scope of the project has changed since RCALUC review, including modification of the tentative parcel map lot lines and areas due to revising the project site to include multiple commercial areas. The EIR states that the ultimate number and location of parcels may be further adjusted, presumably after CEQA review. The proposed project must be resubmitted to the RCALUC for review as the major revisions to the site plan compared to the version reviewed by the RCALUC resulted in modification of the tentative parcel map lot lines and areas, which requires an amended review as stated in Condition No. 6 of the RCALUC Staff Report. Additionally, the EIR anticipates further changes to the ultimate number and location of parcels within the property, meaning that the CEQA process must be extended to ensure these changes are part of the CEQA review. The EIR cannot conclude that the project will have less than significant impacts until and unless the RCALUC determines that the proposed project as described in the EIR is consistent with the ALUCP, and when the parcel map is changed the EIR must again be revised and recirculated to include the updated RCALUC determination for public review.

4.10 Land Use and Planning

A revised EIR must be prepared to provide a quantified analysis of the project's growth within the PVCCSP and General Plan to determine if it exceeds the buildout scenario for its Planning Area within PVCC SP and the PVCC SP as a whole, in accordance with Table LU-28: Building General Plan Employment Projections of the City's General Plan Land Use Element, including all cumulative development and projects "in the pipeline.

Table 4.10-1 SCAG Policy Consistency Analysis provides a misleading and erroneous consistency analysis with SCAG's 2020-2045 Connect SoCal RTP/SCS. Due to errors in modeling, modeling without supporting evidence (as noted throughout this comment letter and attachments), project piecemealing, and the EIR's determination that the project will have significant and unavoidable cumulatively considerable impacts to Air Quality and Greenhouse Gas Emissions, the proposed project is directly inconsistent with Goal 5 to reduce greenhouse gas emissions and improve air quality, Goal 6 to support healthy and equitable communities, and Goal 7 to adapt to a changing climate. The EIR must be revised to include a finding of significance due to these direct inconsistencies with SCAG's 2020-2045 Connect SoCal RTP/SCS.

Further, the EIR does not provide a consistency analysis with all land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. The project has significant potential to conflict with many of these items, including but not limited to the following from the General Plan:

1. Policy HC 1.5 On an ongoing basis, identify and address health inequities in Perris (i.e. unjust barriers that result in differences in environmental conditions and health outcomes) and strive to provide a high quality of life for all residents, regardless of income, age or ethnicity.

2. Policy HC 1.6 Encourage the attraction and retention of high quality grocery stores and other healthy food purveyors as an economic development strategy for the City. Healthy food outlets include full-service grocery stores, regularly-held farmer's markets, fruit and vegetable markets, and convenience stores or corner stores that sell a significant proportion of healthy food.

3. Goal HC-5: Healthy Economy – Encourage businesses to provide meaningful employment opportunities to residents.

4. Policy HC 5.1 Develop programs to attract and retain industries that can provide a living wage, provide health insurance benefits, and meet existing levels of workforce education.

5. Land Use Element Implementation Measure V.C.I. Circulate all development plans within the Clear Zone and Accident Potential Zones of the March Air Reserve Base/Inland Port Plan to Department of the Air Force, MARCH Air Reserve Base to provide recommendations and guidance on land use compatibility in accordance with the policies of the most recent Air Force Instruction (AFI) 32-7063.

6. Safety Element Implementation Measure I.D.2 Continue to notify March Air Reserve Base of new development project applications and consider their input prior to making land use decisions.
7. Environmental Justice Goal 3.1 A community that reduces the negative impacts of land use changes, environmental hazards and climate change on disadvantaged communities.

8. Environmental Justice Goal 3.2: A community that actively works to reduce the impacts of poor air quality.

9. Environmental Justice Goal 4.1: Universal access to healthy food for food insecure populations.

10. Environmental Justice Goal 6.2 Policy 2: Discourage development in proximity to sensitive land uses (e.g., schools, hospitals, homes, and long-term care facilities) near source point pollution sources that impact health, including freeways and hazardous waste sites.

11. Circulation Element Goal 2: A well planned, designed, constructed and maintained street and highway system that facilitates the movement of vehicles and provides safe and convenient access to surrounding developments.

12. Circulation Element Policy 2.A: Maintain the following target Levels of Service: LOS "D" along all City maintained roads (including intersections) and LOS "D" along I-215 and SR 74 (including intersections with local streets and roads). An exception to the local road standard is LOS "E", at intersections of any Arterials and Expressways with SR 74, the Ramona-Cajalco Expressway or at I-215 freeway ramps.

A revised EIR must be prepared to include an analysis of the project's potential inconsistency with these goals and policies. This is notable as the project site is identified as a Disadvantaged Community in Figure 1 of the Environmental Justice Element of the General Plan.

Further, the EIR provides erroneous and misleading analysis to conclude that the proposed project does not conflict with General Plan items related to improving air quality and reducing GHG emissions, such as Healthy Communities Policy 2.6: Encourage land use and urban design to

promote physical activity, provide access to nutritious foods, and reduce air pollution. The EIR states that the project does not conflict with the policy because "all feasible and applicable mitigation measures were considered to reduce air quality and greenhouse gas emissions to the maximum feasible extent." However, the project ultimately results in significant and unavoidable cumulatively considerable impacts to Air Quality and GHG emissions because the project will generate approximately 24,617.67 metric tons of CO2e annually, which is eight times the significance threshold of 3,000 metric tons of CO2e annually. A finding of significance must be made due to this inconsistency.

Additionally, the project's significant and unavoidable cumulatively considerable impacts to Air Quality and GHG emissions directly impedes the State's ability to achieve GHG reduction targets in SB 32 and CARB's 2017 Scoping Plan. The proposed project will generate eight times the CO2e than the significance threshold. The EIR must be revised to include this information for analysis and a finding of significance must be made due to this inconsistency.

4.12 Transportation

Table 1-3: Summary of Improvements by Analysis Scenario within Appendix S concludes the following intersections outside of the City limits require improvements to address the peak hour deficiencies based on the net change in delay per the City's thresholds:

1. #1 – I-215 SB Ramps & Ramona Exwy.
2. #2 – I-215 NB Ramps & Ramona Exwy.

Appendix S provides a list of fee payments and improvements to mitigate significant and unavoidable impacts to the intersection to less than significant levels. It must be noted that the impacts to intersections #1 and #2 are under jurisdiction of Caltrans and the County of Riverside. Any improvements planned/constructed or in-lieu fees/fair share fees paid for Caltrans or County of Riverside facilities are beyond the control/scope of the lead agency. An assessment of fees is appropriate when linked to a specific mitigation program. (*Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, *Save our Peninsula Comm. v. Monterey County Bd. Of Supers.* (2001) 87 Cal.App.4th 99, 141.) Payment of fees is not sufficient where there is no evidence mitigation will actually result. (*Gray v. County of Madera* (2008) 167 Cal.App.4th 1099,1122.) The assessment of fees here is not adequate as there is no evidence mitigation will actually result. Not all of the improvements required are not part of an existing DIF/TUMF program and therefore are not planned to occur at all or by any certain date, whether by the City, Caltrans, or County of Riverside. Any improvements recommended or fees paid to mitigate impacts for Caltrans or County of Riverside facilities are beyond the control of the lead agency

and evidence that these improvements will be completed or approved by Caltrans has not been provided. A revised EIR must be prepared to include the LOS analysis as cumulatively considerable significant impact as the project conflicts with Transportation Impact Threshold A and Land Use and Planning Impact Threshold B because it is not consistent with the following General Plan items:

1. Circulation Element Goal 2: A well planned, designed, constructed and maintained street and highway system that facilitates the movement of vehicles and provides safe and convenient access to surrounding developments.

2. Circulation Element Policy 2.A: Maintain the following target Levels of Service: LOS "D" along all City maintained roads (including intersections) and LOS "D" along I-215 and SR 74 (including intersections with local streets and roads). An exception to the local road standard is LOS "E", at intersections of any Arterials and Expressways with SR 74, the Ramona-Cajalco Expressway or at I-215 freeway ramps.

The EIR has not adequately analyzed the project's potential to substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses; or the project's potential to result in inadequate emergency access. Appendix S includes Exhibit 1-5: Truck Access with separate exhibits for inbound and outbound trucks at each of the two truck access points on Perry Street. The exhibits are provided separately in order to avoid providing an exhibit that depicts two trucks simultaneously entering and exiting the site. The separate diagrams appear to show that the truck turning radii will overlap, meaning that two trucks cannot enter and exit the site simultaneously and there is not sufficient space available to accommodate heavy truck maneuvering. A revised EIR must be prepared to include a finding of significance due to these significant and unavoidable impacts.

There are no exhibits adequately depicting the onsite turning radius available for trucks maneuvering throughout the site. Notably, the truck/trailer parking stalls are adjacent to both truck courts on the north and south sides of the building. These parking stalls may be in use at any time and further restrict truck/trailer movement. A revised EIR must be prepared to include a finding of significance due to these significant and unavoidable impacts.

Appendix S concludes that the project will have less than significant impacts to VMT because "As shown in Appendix 1.1, based on the criteria set forth in the City of Perris guidelines, the Project screens out of additional VMT analysis. As such, no additional VMT modeling has been conducted for the proposed Project." The EIR states that the project is "screened out" from VMT analysis

because it is within 1/2 mile of qualifying transit and the project site is located in a low VMT area. The City's VMT Guidelines state[13] the following regarding the screening threshold:

"For purposes of the Perris TIA Guidelines, qualifying transit means a major transit stop or high-quality transit corridor, defined as follows:

- Major transit stop means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. (Pub. Resources Code, § 21064.3)
- High-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours. (Pub. Resources Code, § 21155)

When determining the proximity of a project site to nearby transit, measurements should generally be taken from the transit stop location to the population/activity center of a site and take into account any substantial physical barrier, such as a freeway, that would impede pedestrian access.

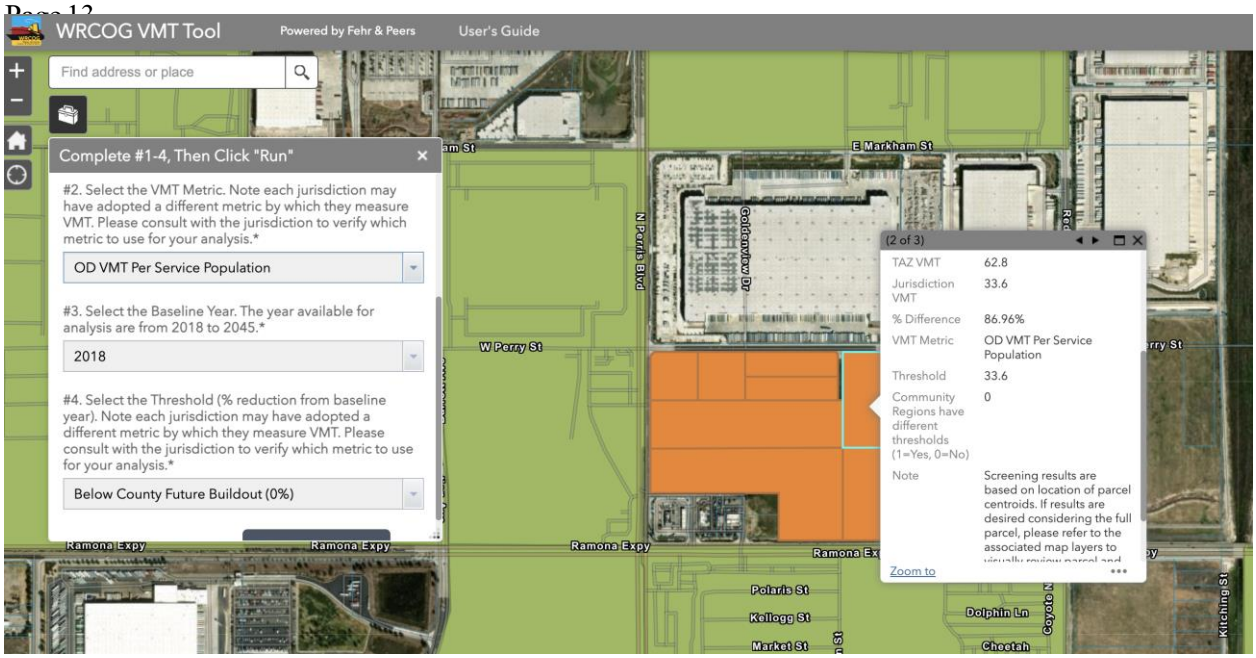
Not all projects located near qualifying transit are presumed to have a less than significant impact. The presumption of less than significant does not apply if the project:

- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate or high-income residential units."

First, the EIR nor the appendix have provided meaningful evidence that the proposed project is within 1/2 mile of qualifying transit. The EIR must be revised to provide documentation that the project is located within 1/2 mile of qualifying transit in order to comply with CEQA's requirements for adequate informational documents.

Further, the City's TIA Guidelines are explicit in stating that the qualifying transit threshold is not applicable or available for all projects. The proposed project includes more parking for use by customers and/or employees of the project than required by the City. For example, the proposed warehouse building provides 325 passenger car parking spaces, which is nearly double the City's requirement for parking.

[13] Perris TIA Guidelines
https://www.cityofperris.org/home/showpublisheddocument/13245/637844258437000000



1st 20k @ 1/1000 = 20 parking spaces
2nd 20k @ 1/2000 = 10 parking spaces
Above 40k @ 1/5000 = 147 parking spaces
Total: 177 parking spaces required by City Code

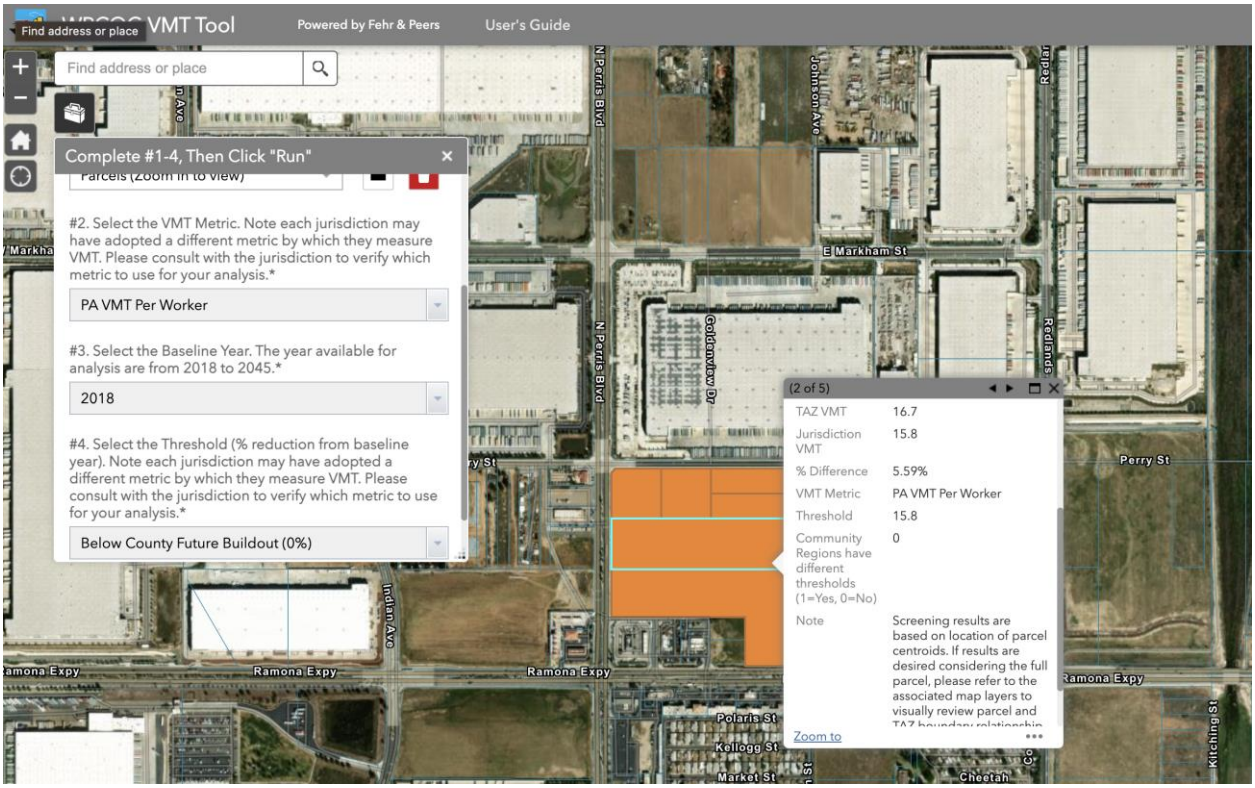
Additionally, the proposed project is inconsistent with the applicable Sustainable Communities Strategy, known as SCAG's RTP/SCS (Connect SoCal). Due to errors in modeling, modeling without supporting evidence (as noted throughout this comment letter and attachments), project piecemealing, and the EIR's determination that the project will have significant and unavoidable cumulatively considerable impacts to Air Quality and Greenhouse Gas Emissions, the proposed project is directly inconsistent with Goal 5 to reduce greenhouse gas emissions and improve air quality, Goal 6 to support healthy and equitable communities, and Goal 7 to adapt to a changing climate. Due to these facts, the project is not eligible for the qualifying transit screening threshold. A revised EIR must be prepared to include project specific VMT modeling.

Further, Table 4.12-3 Low VMT Area Screening shows that project TAZ is 0.36 VMT less than the Citywide VMT per employee. However, the EIR excludes any input/output sheets utilized when analyzing the project TAZ VMT and Citywide average VMT. The input parameters utilized for analysis and subsequent outputs generated by the WRCOG VMT Tool contribute directly to analysis of the problem at hand and must be included in a revised EIR in order to comply with CEQA's requirements for meaningful disclosure and incorporation (CEQA § 15150 (f)).

Notably, our run of the proposed project indicates that the Project TAZ VMT is 87% higher than the Citywide average VMT for OD VMT per service population and 5.6% higher than the Citywide average VMT for PA VMT per worker. A revised EIR must be prepared to include project specific VMT modeling. The project will generate 24,617.67 metric tons of CO2e annually, and 90% of those GHG emissions are due to mobile source (trucks, cars, vehicle) emissions, as shown in Table 4.7-2 Project GHG Emissions, directly in conflict with the legislative intent of SB 743 to reduce VMT and GHG emissions. The quantity of vehicular traffic must be analyzed by project specific VMT modeling

5.0 Alternatives

The EIR is required to evaluate a reasonable range of alternatives to the proposed project which will avoid or substantially lessen any of the significant effects of the project (CEQA § 15126.6.) The alternatives chosen for analysis include the CEQA required "No Project" alternative and only three others - No Project–All Commercial, Reduced Industrial, and Reduced Commercial. The



EIR does not evaluate a reasonable range of alternatives as only three alternative beyond the required No Project alternative is analyzed. The EIR does not include an alternative that meets the project objectives and also eliminates all of the project's significant and unavoidable impacts. The

EIR must be revised to include analysis of a reasonable range of alternatives and foster informed decision making (CEQA § 15126.6). This must include alternatives such as development of the site with a project that reduces all of the proposed project's significant and unavoidable impacts to less than significant levels, and a mixed-use project that provides affordable housing and local-serving commercial uses that will reduce VMT, GHG emissions, and improve Air Quality.

6.1.3 Effects Determined Not to be Significant: Population and Housing

The EIR utilizes uncertain language and does not provide any meaningful analysis or supporting evidence to substantiate the conclusion that there will be no significant impacts to population and housing. For example, the EIR concludes that impacts to population and housing will not be significant because the construction jobs are "short-term" and the operational jobs "would be filled by workers who would already reside in the *region*," without providing any quantified analysis or meaningful evidence to support this claim.

This uncertain language is not supported by any information such as the current unemployment rates in the City or evidence that the unemployed population is qualified for or interested in work in the industrial sector. There is also no analysis of projects approved, proposed, or "in the pipeline" of the PVCCSP or the City to demonstrate that the combined workforce of all projects does not exceed the growth estimates analyzed by the PVCCSP EIR. Relying on the entire labor force within an undefined distance, notably the greater SCAG region, to fill the project's construction and operational jobs will increase VMT and emissions during all phases of construction and operations and a revised EIR must be prepared to account for longer worker trip distances. The EIR does not provide any demographic and geographic information on the location of qualified workers to fill these positions. A construction worker employment analysis must also be included in a revised EIR to adequately and accurately analyze all potentially significant environmental impacts.

The EIR states that "The PVCCSP EIR estimates that implementation of the land uses allowed under the PVCCSP would result in the generation of approximately 56,087 jobs/employees in the area (see Table 4.8-E under Section 4.8, Land Use and Planning, and the discussion of "Growth Inducing Impacts" in Section 5 of the PVCCSP EIR). Therefore, the employment generation estimated for the Project (892 employees) represents approximately 1.6 percent of the total employment generation anticipated in the Specific Plan area. Further, this represents approximately 3.4 percent of the City's projected employment base by 2045 as presented in the Southern California Association of Governments (SCAG) Connect SoCal (26,400 employees). However, there is no analysis of projects approved, proposed, or "in the pipeline" of the PVCCSP

to demonstrate that the combined workforce of all projects does not exceed the growth estimates analyzed by the PVCCSP EIR, the City's General Plan, and/or SCAG.

SCAG's Connect SoCal Demographics and Growth Forecast[14] notes that the City will add 10,300 jobs between 2016 - 2045. Utilizing the EIR's calculation of 892 employees, the project represents 8.9% of the City's employment growth from 2016 - 2045. A single project accounting for this amount of the projected employment growth over 29 years represents a significant amount of growth. A revised EIR must be prepared to include this analysis, and also provide a cumulative analysis discussion of projects approved since 2016 and projects "in the pipeline" to determine if the project will exceed SCAG's employment growth forecast for the City. For example, other recent industrial projects such as Patterson Commerce Center (256 employees), First Industrial at Wilson DPR 22-017 (194 employees), Duke Warehouse Patterson and Nance (1,333 employees) Harley Knox Commerce Center (152 employees), PVCCSP Amendment No. 13 (603 employees), Core 5 Rider Warehouse (432 employees), First Industrial Warehouse at Rider (562 employees), Perris and Morgan 3 Industrial Buildings (494 employees), First Industrial at Wilson 1 (526 employees), First Industrial at Wilson 2 (276 employees), IDI Rider Warehouses 2 and 4 (1,313 employees), Ramona-Indian Warehouse (440 employees), Redlands East Warehouse (442 employees), Redlands West Warehouse (592 employees), Ramona-Brennan Warehouse (287 employees), Ramona Gateway (997 employees), and First March Logistics (538 employees) combined with the proposed project will cumulatively generate 11,346 employees, which is 113.46% of the City's SCAG employment growth forecast over 29 years and 20.2% of the PVCC SP EIR employment forecast (56,087 employees). These totals increase exponentially when commercial development activity is added to the brief list of recent industrial activity above. A revised EIR must be prepared to include this information for analysis, and also provide a cumulative analysis discussion of projects approved since 2016 and projects "in the pipeline" to determine if the proposed project will exceed the employment/population growth forecasts by SCAG, the City's General Plan, and/or the PVCC SP EIR.

This is especially vital given the 14 amendments that have been approved in the PVCCSP, including seven amendments to increase the amount of light industrial uses than originally planned for in the PVCCSP and its EIR:

1. Amendment No. 3 (approved February 9, 2016) to rezone 68.99 acres from commercial and business professional to light industrial.

[14] SCAG Connect SoCal Demographics and Growth Forecast adopted September 3, 2020 https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579

2. Amendment No. 4 (approved February 9, 2016) to rezone 16 acres from general industrial to light industrial.

3. Amendment No. 6 (approved February 14, 2017) to rezone 23.66 acres from commercial to light industrial.

4. Amendment No. 7 (approved June 13, 2017) to rezone 7.48 acres from commercial to light industrial.

5. Amendment No. 8 (approved April 10, 2018) to rezone 16.22 acres from business professional office to light industrial.

6. Amendment No. 9 (approved August 28, 2018) to rezone 35 acres from business professional office to light industrial.

7. Amendment No. 11 (approved October 26, 2021) to rezone 9.54 acres from business professional office to light industrial.

Overall, the PVCCSP has been amended seven times in the past seven years to increase the amount of light industrial uses. This has increased the amount of light industrial acreage, uses, and employees within the PVCCSP by a cumulative 176.9 acres. This has increased the light industrial area within the 3,500 acre PVCCSP planning area by approximately 5%. Table 2.0-1, Land Use Comparison within the PVCCSP[15] states that the original 2012 PVCCSP document planned for 1,866 acres of light industrial and it has increased to 2,040 acres through approval of the PVCCSP amendments. A revised EIR must be prepared with analysis of projects approved, proposed, or "in the pipeline" of the PVCCSP to demonstrate that the combined workforce of all projects does not exceed the growth estimates analyzed by the PVCCSP EIR.

6.3 Significant Irreversible Environmental Effects and 6.5 Growth Inducing Impacts

The EIR must include a cumulative analysis discussion here to demonstrate the impact of the proposed project in a cumulative setting. For example, other recent industrial projects such as Patterson Commerce Center (256 employees), First Industrial at Wilson DPR 22-017 (194 employees), Duke Warehouse Patterson and Nance (1,333 employees) Harley Knox Commerce Center (152 employees), PVCCSP Amendment No. 13 (603 employees), Core 5 Rider Warehouse (432 employees), First Industrial Warehouse at Rider (562 employees), Perris and Morgan 3 Industrial Buildings (494 employees), First Industrial at Wilson 1 (526 employees), First Industrial at Wilson 2 (276 employees), IDI Rider Warehouses 2 and 4 (1,313 employees), Ramona-Indian Warehouse (440 employees), Redlands East Warehouse (442 employees), Redlands West Warehouse (592 employees), Ramona-Brennan Warehouse (287 employees), Ramona Gateway

[15] Perris Valley Commerce Center Specific Plan
https://www.cityofperris.org/home/showpublisheddocument/2647/637799977032200000

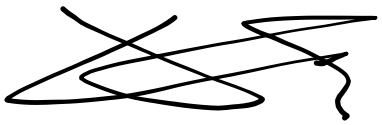
(997 employees), and First March Logistics (538 employees) combined with the proposed project will cumulatively generate 11,346 employees, which is 113.46% of the City's SCAG employment growth forecast over 29 years and 20.2% of the PVCC SP EIR employment forecast (56,087 employees). These totals increase exponentially when commercial development activity is added to the brief list of recent industrial activity above. A revised EIR must be prepared to include this information for analysis, and also provide a cumulative analysis discussion of projects approved since 2016 and projects "in the pipeline" to determine if the proposed project will exceed the employment/population growth forecasts by SCAG, the City's General Plan, and/or the PVCC SP EIR.

Further, the EIR must be revised to discuss and analyze that implementation of the project will result in significant and unavoidable cumulatively considerable environmental impacts to Air Quality and Greenhouse Gas Emissions with the project census tract and adjacent census tracts (all of which are designated as SB 535 Disadvantaged Communities) receiving the most significant impacts. Additionally, the project is directly inconsistent with the goals of SCAG's Connect SoCal RTP/SCS and the City's General Plan due to its significant and unavoidable cumulatively considerable environmental impacts to Air Quality Greenhouse Gas Emissions. These significant and irreversible environmental changes caused by the project necessitate a finding of significance in these sections.

Conclusion

For the foregoing reasons, GSEJA believes the EIR is flawed and a revised EIR must be prepared for the proposed project and circulated for public review. Golden State Environmental Justice Alliance requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

Sincerely,



Gary Ho
Blum, Collins & Ho LLP

Attachment: SWAPE Analysis

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

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October 20, 2023

Gary Ho
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Los Angeles, CA 90017

Subject: Comments on the OLC3 Commercial Warehouse Project (SCH No. 2023040385)

Dear Mr. Ho,

We have reviewed the September 2023 Draft Environmental Impact Report ("DEIR") for the OLC3 Commercial Warehouse Project ("Project") located in the City of Perris ("City"). The Project proposes to construct 774,419-square-feet ("SF") of warehouse space and 20,000-SF of office space on the 45.1-acre site.

Our review concludes that the DEIR 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 may be underestimated and inadequately addressed. A revised 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

Failure to Implement All Feasible Mitigation to Reduce Emissions

The DEIR concludes that the Project's operational air quality emissions would be significant-and-unavoidable. Specifically, the DEIR estimates that the Project's operational VOC, NO_x, and CO emissions would exceed the applicable South Coast Air Quality Management District ("SCAQMD") thresholds (see excerpts below) (p. 4.2-23, Table 4.2-8).

Table 4.2-8
SUMMARY OF PEAK OPERATIONAL EMISSIONS

Source	Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer (Smog Season)						
Mobile Source	60.50	110.00	655.00	1.92	58.50	12.10
Area Source	26.30	0.31	36.70	< 0.005	0.05	0.07
Energy Source	0.07	1.25	1.05	0.01	0.09	0.09
On-Site Equipment	0.35	1.13	49.33	0.00	0.09	0.08
Total Maximum Daily Emissions	**87.22**	**112.69**	**742.08**	**1.93**	**58.73**	**12.34**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**
Winter						
Mobile Source	56.50	117.00	541.00	1.82	58.50	12.10
Area Source	20.30	0.00	0.00	0.00	0.00	0.00
Energy Source	0.07	1.25	1.05	0.01	0.09	0.09
On-Site Equipment	0.35	1.13	49.33	0.00	0.09	0.08
Total Maximum Daily Emissions	**77.22**	**119.38**	**591.38**	**1.83**	**58.68**	**12.27**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**

Source: Urban Crossroads 2022a

As such, the DEIR concludes that the Project's operational air quality impacts would be significant-and-unavoidable. Specially, the DEIR states:

> "The Project-specific mitigation measures (MM AQ-1 through MM AQ-13) are designed to reduce Project operational-source VOC and NOX emissions. However, it should be noted that there is no way to quantify these reductions. Furthermore, as the City of Perris or the Project Applicant do not have regulatory authority to control tailpipe emissions, no feasible mitigation beyond the measures identified exist that would reduce VOC and NOX emissions to levels that are less than significant; thus, Project operational emissions would result in significant and unavoidable air quality impacts" (p. 4.2-26).

However, while we agree that the Project would result in significant air quality impacts, the DEIR's assertion that this impact is significant-and-unavoidable is unreliable. According to CEQA Guidelines § 15096(g)(2):

> "When an updated EIR has been prepared for a project, the Responsible Agency shall not approve the project as proposed if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment."[1]

[1] "Cal. Code Regs. tit. 14 § 15096." California Legislature, *available at:* https://casetext.com/regulation/california-code-of-regulations/title-14-natural-resources/division-6-resources-agency/chapter-3-guidelines-for-implementation-of-the-california-environmental-quality-act/article-7-eir-process/section-15096-process-for-a-responsible-agency.

The DEIR is required under CEQA to implement all feasible mitigation to reduce impacts to a less-than-significant level. While the DEIR implements Mitigation Measure ("MM") AQ-1 through MM-AQ-13, the DEIR fails to implement *all* feasible mitigation (p. 4.2-23 – 4.2-26). Therefore, the DEIR's conclusion that Project's air quality emissions would be significant-and-unavoidable is unsubstantiated. To reduce the Project's air quality impacts to the maximum extent possible, additional feasible mitigation measures should be incorporated, such as those suggested in the section of this letter titled "Feasible Mitigation Measures Available to Reduce Emissions." The Project should not be approved until a revised EIR is prepared, incorporating all feasible mitigation to reduce emissions to less-than-significant levels.

Disproportionate Health Risk Impacts of Warehouses on Surrounding Communities

Upon review of the DEIR and associated documents, we have determined that the development of the proposed Project would contribute to disproportionate health risk impacts on community members living, working, and going to school within the immediate area of the Project site. According to SCAQMD:

> "Those living within a half mile of warehouses are more likely to include communities of color, have health impacts such as higher rates of asthma and heart attacks, and a greater environmental burden."[2]

In particular, the SCAQMD found that more than 2.4 million people live within a half mile radius of at least one warehouse, and that those areas not only experience increased rates of asthma and heart attacks, but are also disproportionately Black and Latino communities below the poverty line.[3] Another study similarly indicates that "neighborhoods with lower household income levels and higher percentages of minorities are expected to have higher probabilities of containing warehousing facilities."[4] Additionally, a report authored by the Inland Empire-based People's Collective for Environmental Justice and University of Redlands states:

> "As the warehouse and logistics industry continues to grow and net exponential profits at record rates, more warehouse projects are being approved and constructed in low-income communities of color and serving as a massive source of pollution by attracting thousands of polluting truck trips daily. Diesel trucks emit dangerous levels of nitrogen oxide and particulate matter that cause devastating health impacts including asthma, chronic obstructive pulmonary

[2] "South Coast AQMD Governing Board Adopts Warehouse Indirect Source Rule." SCAQMD, May 2021, *available at:* http://www.aqmd.gov/docs/default-source/news-archive/2021/board-adopts-waisr-may7-2021.pdf?sfvrsn=9.
[3] "Southern California warehouse boom a huge source of pollution. Regulators are fighting back." Los Angeles Times, May 2021, *available at:* https://www.latimes.com/california/story/2021-05-05/air-quality-officials-target-warehouses-bid-to-curb-health-damaging-truck-pollution.
[4] "Location of warehouses and environmental justice: Evidence from four metros in California." Metro Freight Center of Excellence, January 2018, *available at:* https://www.metrans.org/assets/research/MF%201.1g_Location%20of%20warehouses%20and%20environmental%20justice_Final%20Report_021618.pdf, p. 21.

> disease (COPD), cancer, and premature death. As a result, physicians consider these pollution-burdened areas 'diesel death zones.'"[5]

It is evident that the continued development of industrial warehouses within these communities poses a significant environmental justice challenge. However, the acceleration of warehouse development is only increasing despite the consequences for public health.

In April 2022, the American Lung Association ranked Riverside County as the second worst for ozone pollution in the nation.[6] This year, the County continues to face significant ozone pollution, as it has seen the second highest recorded Air Quality Index ("AQI") values for ground-level ozone in California.[7] The U.S. Environmental Protection Agency ("U.S. EPA") indicates that ozone, the main ingredient in "smog," can cause several health problems, which includes aggravating lung diseases and increasing the frequency of asthma attacks. The U.S. EPA states:

> "Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure. Children are also more likely than adults to have asthma."[8]

Furthermore, regarding the increased sensitivity of early-life exposures to inhaled pollutants, the California Air Resources Board ("CARB") states:

> "Children are often at greater risk from inhaled pollutants, due to the following reasons:
>
> - Children have unique activity patterns and behavior. For example, they crawl and play on the ground, amidst dirt and dust that may carry a wide variety of toxicants. They often put their hands, toys, and other items into their mouths, ingesting harmful substances. Compared to adults, children typically spend more time outdoors and are more physically active. Time outdoors coupled with faster breathing during exercise increases children's relative exposure to air pollution.
>
> - Children are physiologically unique. Relative to body size, children eat, breathe, and drink more than adults, and their natural biological defenses are less developed. The protective barrier surrounding the brain is not fully developed, and children's nasal

[5] "Warehouses, Pollution, and Social Disparities: An analytical view of the logistics industry's impacts on environmental justice communities across Southern California." People's Collective for Environmental Justice, April 2021, *available at:* https://earthjustice.org/sites/default/files/files/warehouse_research_report_4.15.2021.pdf, p. 4.
[6] "State of the Air 2022." American Lung Association, April 2022, *available at:* https://www.lung.org/research/sota/key-findings/most-polluted-places.
[7] "High Ozone Days." American Lung Association, 2022, *available at:* https://www.lung.org/research/sota/city-rankings/states/california.
[8] "Health Effects of Ozone Pollution." U.S. EPA, May 2021, *available at:* https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution.

passages aren't as effective at filtering out pollutants. Developing lungs, immune, and metabolic systems are also at risk.

- Children are particularly susceptible during development. Environmental exposures during fetal development, the first few years of life, and puberty have the greatest potential to influence later growth and development."[9]

A Stanford-led study also reveals that children exposed to high levels of air pollution are more susceptible to respiratory and cardiovascular diseases in adulthood.[10] Given children's higher propensity to succumb to the negative health impacts of air pollutants, and as warehouses release more smog-forming pollution than any other sector, it is necessary to evaluate the specific health risk that warehouses pose to children in the nearby community.

According to the above-mentioned study by the People's Collective for Environmental Justice and University of Redlands, there are 640 schools in the South Coast Air Basin that are located within half a mile of a large warehouse, most of them in socio-economically disadvantaged areas.[11] The DEIR states:

> "The nearest school is May Ranch Elementary School, which is located approximately 4,500 feet southeast of the Project site" (p. 4.2-31).

As demonstrated above, May Ranch Elementary School is located approximately 4,500 feet, or 0.85 miles, away from the Project site. This poses a significant threat because, as outlined above, children are a vulnerable population that are more susceptible to the damaging side effects of air pollution. As such, the Project would have detrimental short-term and long-term health impacts on local children if approved. A revised EIR should be prepared to evaluate the disproportionate impacts that the proposed warehouse will contribute to the community adjacent to the Project, including an analysis of the impact on children and people of color who live and attend school in the surrounding area.

Diesel Particulate Matter Emissions Inadequately Evaluated

The DEIR concludes that the proposed Project would result in a less-than-significant health risk impact based on a quantified construction and operational health risk assessment ("HRA"), as detailed in the Mobile Source Health Risk Assessment ("HRA Report"), provided as Appendix C to the DEIR. Specifically, the HRA Report estimates that the maximum cancer risk posed to nearby, existing residential sensitive receptors associated with construction and operation would be 1.62 in one million, which would not exceed the SCAQMD significance threshold of 10 in one million (see excerpt below) (p. 4, Table ES-3).

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[9] "Children and Air Pollution." California Air Resources Board (CARB), *available at:* https://ww2.arb.ca.gov/resources/documents/children-and-air-pollution.

[10] "Air pollution puts children at higher risk of disease in adulthood, according to Stanford researchers and others." Stanford, February 2021, *available at:* https://news.stanford.edu/2021/02/22/air-pollution-impacts-childrens-health/.

[11] "Warehouses, Pollution, and Social Disparities: An analytical view of the logistics industry's impacts on environmental justice communities across Southern California." People's Collective for Environmental Justice, April 2021, *available at:* https://earthjustice.org/sites/default/files/files/warehouse_research_report_4.15.2021.pdf, p. 4.

TABLE ES-3: SUMMARY OF CONSTRUCTION AND OPERATIONAL CANCER AND NON-CANCER RISKS

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
30 Year Exposure	Maximum Exposed Sensitive Receptor	1.62	10	NO
Time Period	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
Annual Average	Maximum Exposed Sensitive Receptor	≤0.01	1.0	NO

However, the DEIR'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, the DEIR's operational HRA underestimates the Fraction of Time At Home ("FAH") values for the third trimester, infant, and child receptors. Specifically, the HRA Report utilizes an FAH value of 0.85 for the third trimester (age -0.25 to 0) and infant (age 0 to 2) receptors, and an FAH value of 0.72 for the child receptors (age 2 to 16) (see excerpt below) (Appendix C, Table 2-7, p. 20).

TABLE 2-7: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (30 YEAR RESIDENTIAL)

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (days/year)	Exposure Time (hours/day)
-0.25 to 0	361	10	0.25	0.85	350	24
0 to 2	1,090	10	2	0.85	350	24
2 to 16	572	3	14	0.72	350	24
16 to 30	261	1	14	0.73	350	24

However, the FAH values used for the third trimester, infant, and childhood receptors are incorrect, as SCAQMD guidance clearly states:

> "For Tiers 1, 2, and 3 screening purposes, the FAH is assumed to be 1 for ages third trimester to 16. As a default, children are assumed to attend a daycare or school in close proximity to their home and no discount should be taken for time spent outside of the area affected by the facility's emissions. People older than age 16 are assumed to spend only 73 percent of their time at home."[12]

[12] "Risk Assessment Procedures." SCAQMD, August 2017, available at: http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures_2017_080717.pdf, p. 7.

Per SCAQMD guidance, the HRA Report should have used an FAH of 1 for the third trimester, infant, and child receptors. By relying on incorrect FAH values, the DEIR underestimates the cancer risk posed to nearby, existing sensitive receptors as a result of Project operation.

Second, further review of the HRA Report demonstrates that the HRAs may fail to include Age Sensitivity Factors ("ASFs"). Regarding ASFs, OEHHA guidance states:

> "Studies have shown that young animals are more sensitive than adult animals to exposure to many carcinogens (OEHHA, 2009). Therefore, OEHHA developed age sensitivity factors (ASFs) to take into account the increased sensitivity to carcinogens during early-in-life exposure (Table 8.3). These factors were developed and described in detail in OEHHA (2009). In the absence of chemical-specific data, OEHHA recommends a default ASF of 10 for the third trimester to age 2 years, and an ASF of 3 for ages 2 through 15 years to account for potential increased sensitivity to carcinogens during childhood."

However, while the HRA Report includes ASFs in their exposure assumption tables, the equation to produce carcinogenic risk estimates, as shown below, is incorrect and underestimated (p. 21).

$DOSE_{air} = (C_{air} \times [BR/BW] \times A \times EF) \times (1 \times 10^{-6})$

Where:

$DOSE_{air}$	=	chronic daily intake (mg/kg/day)
Cair	=	concentration of contaminant in air (ug/m^3)
[BR/BW]	=	daily breathing rate normalized to body weight (L/kg BW-day)
A	=	inhalation absorption factor
EF	=	exposure frequency (days/365 days)
BW	=	body weight (kg)
1×10^{-6}	=	conversion factors (µg to mg, L to m^3)

$RISK_{air} = DOSE_{air} \times CPF \times ED/AT$

Where:

$DOSE_{air}$	=	chronic daily intake (mg/kg/day)
CPF	=	cancer potency factor
ED	=	number of years within particular age group
AT	=	averaging time

Instead, the HRA Report should have used the following equation that includes ASFs:

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

By potentially failing to include ASF values in the carcinogenic risk estimate equation, the DEIR's HRA underestimates the cancer risk posed to nearby, existing sensitive receptors as a result of Project construction and operation. As such, a revised EIR should be prepared to include an updated analysis correctly accounting for ASF values.

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The DEIR estimates that the Project would result in net annual greenhouse gas ("GHG") emissions of 24,617.67 metric tons of carbon dioxide equivalents per year ("MT CO_2e/year") (see excerpt below) (p. 4-7-30, Table 4.7-2).

Table 4.7-2
PROJECT GHG EMISSIONS

Emission Source	Emissions (MT/year)				
	CO_2	CH_4	N_2O	R	Total CO_2e
Annual construction-related emissions amortized over 30 years	64.40	0.00	0.01	0.07	66.00
Mobile	21,821.00	0.78	1.59	36.10	22,349.00
Area	17.10	< 0.005	< 0.005	0	17.60
Energy	1,169.00	0.11	0.01	0	1,175.00
Water	273.00	6.31	0.15	0	475.00
Waste	108.00	10.80	0	0	379.00
Refrigerants	0	0	0	10.20	10.20
Emergency Fire Pumps	3.76	< 0.005	< 0.005	0	3.77
On-Site Equipment	0	0	0	0	142.1
Total CO_2e (All Sources)			**24,617.67**		

The DEIR states:

> "As such, the Project would exceed the 3,000 MT CO_2e/yr threshold of significance used for this analysis. Thus, the Project would result in a significant impact with respect to GHG emissions" (p. 4.7-30).

As demonstrated above, the DEIR concludes that the Project would result in a significant-and-unavoidable GHG impact. However, while we agree that there would be a significant GHG impact, the DEIR's assertion that this impact is unavoidable is incorrect. According to CEQA guidelines, an impact can only be labeled as significant and unavoidable after all available, feasible mitigation is considered. Here, the DEIR fails to implement any mitigation measures whatsoever. We will propose feasible mitigation measures that the Project can identify and incorporate into a revised EIR.

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

Our 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, the Project should

consider the implementation of the following mitigation measures found in the California Department of Justice Warehouse Project Best Practices document.[13]

- Prohibiting off-road diesel-powered equipment from being in the "on" position for more than 10 hours per day.
- Using electric-powered hand tools, forklifts, and pressure washers, and providing electrical hook ups to the power grid rather than use of diesel-fueled generators to supply their power.
- Limiting the amount of daily grading disturbance area.
- Prohibiting grading on days with an Air Quality Index forecast of greater than 100 for particulates or ozone for the project area.
- Forbidding idling of heavy equipment for more than three minutes.
- Keeping onsite and furnishing to the lead agency or other regulators upon request, all equipment maintenance records and data sheets, including design specifications and emission control tier classifications.
- Conducting an on-site inspection to verify compliance with construction mitigation and to identify other opportunities to further reduce construction impacts.
- Using paints, architectural coatings, and industrial maintenance coatings that have volatile organic compound levels of less than 10 g/L.
- Requiring all heavy-duty vehicles engaged in drayage to or from the project site to be zero-emission beginning in 2030.
- Requiring tenants to use zero-emission light- and medium-duty vehicles as part of business operations.
- Forbidding trucks from idling for more than three minutes and requiring operators to turn off engines when not in use.
- Installing solar photovoltaic systems on the project site of a specified electrical generation capacity that is equal to or greater than the building's projected energy needs, including all electrical chargers.
- Designing all project building roofs to accommodate the maximum future coverage of solar panels and installing the maximum solar power generation capacity feasible.
- Constructing zero-emission truck charging/fueling stations proportional to the number of dock doors at the project.
- Running conduit to designated locations for future electric truck charging stations.
- Oversizing electrical rooms by 25 percent or providing a secondary electrical room to accommodate future expansion of electric vehicle charging capability.
- Constructing and maintaining electric light-duty vehicle charging stations proportional to the number of employee parking spaces (for example, requiring at least 10% of all employee parking spaces to be equipped with electric vehicle charging stations of at least Level 2 charging performance)

[13] "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." State of California Department of Justice, September 2022, *available at*: https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf, p. 8 – 10.

- Running conduit to an additional proportion of employee parking spaces for a future increase in the number of electric light-duty charging stations.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, air filtration systems at sensitive receptors within a certain radius of facility for the life of the project.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, an air monitoring station proximate to sensitive receptors and the facility for the life of the project, and making the resulting data publicly available in real time. While air monitoring does not mitigate the air quality or greenhouse gas impacts of a facility, it nonetheless benefits the affected community by providing information that can be used to improve air quality or avoid exposure to unhealthy air.
- Requiring facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks.
- Meeting CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean air vehicles, electric vehicle charging, and bicycle parking.
- Designing to LEED green building certification standards.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations.
- Improving and maintaining vegetation and tree canopy for residents in and around the project area.
- Requiring that every tenant train its staff in charge of keeping vehicle records in diesel technologies and compliance with CARB regulations, by attending CARB-approved courses. Also require facility operators to maintain records on-site demonstrating compliance and make records available for inspection by the local jurisdiction, air district, and state upon request.

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.

As it is policy of the State that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045, we emphasize the applicability of incorporating solar power system into the Project design. Until the feasibility of incorporating on-site renewable energy production is considered, the Project should not be approved.

A revised EIR should be prepared to include all feasible mitigation measures, as well as include updated air quality, health risk, and GHG analyses to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The revised 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: Matt Hagemann CV
Attachment B: Paul Rosenfeld CV

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. Focus on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years of 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:

Rosenfeld P. E., Spaeth K., Hallman R., Bressler R., Smith, G., (2022) Cancer Risk and Diesel Exhaust Exposure Among Railroad Workers. *Water Air Soil Pollution.* **233,** 171.

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 Superior Court of the State of California, County of San Bernardino
Billy Wildrick, Plaintiff vs. BNSF Railway Company
Case No. CIVDS1711810
Rosenfeld Deposition 10-17-2022

In the State Court of Bibb County, State of Georgia
Richard Hutcherson, Plaintiff vs Norfolk Southern Railway Company
Case No. 10-SCCV-092007
Rosenfeld Deposition 10-6-2022

In the Civil District Court of the Parish of Orleans, State of Louisiana
Millard Clark, Plaintiff vs. Dixie Carriers, Inc. et al.
Case No. 2020-03891
Rosenfeld Deposition 9-15-2022

In The Circuit Court of Livingston County, State of Missouri, Circuit Civil Division
Shirley Ralls, Plaintiff vs. Canadian Pacific Railway and Soo Line Railroad
Case No. 18-LV-CC0020
Rosenfeld Deposition 9-7-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division
Jonny C. Daniels, Plaintiff vs. CSX Transportation Inc.
Case No. 20-CA-5502
Rosenfeld Deposition 9-1-2022

In The Circuit Court of St. Louis County, State of Missouri
Kieth Luke et. al. Plaintiff vs. Monsanto Company et. al.
Case No. 19SL-CC03191
Rosenfeld Deposition 8-25-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division
Jeffery S. Lamotte, Plaintiff vs. CSX Transportation Inc.
Case No. NO. 20-CA-0049
Rosenfeld Deposition 8-22-2022

In State of Minnesota District Court, County of St. Louis Sixth Judicial District
Greg Bean, Plaintiff vs. Soo Line Railroad Company
Case No. 69-DU-CV-21-760
Rosenfeld Deposition 8-17-2022

In United States District Court Western District of Washington at Tacoma, Washington
John D. Fitzgerald Plaintiff vs. BNSF
Case No. 3:21-cv-05288-RJB
Rosenfeld Deposition 8-11-2022

In Circuit Court of the Sixth Judicial Circuit, Macon Illinois
Rocky Bennyhoff Plaintiff vs. Norfolk Southern
Case No. 20-L-56
Rosenfeld Deposition 8-3-2022

In Court of Common Pleas, Hamilton County Ohio
Joe Briggins Plaintiff vs. CSX
Case No. A2004464
Rosenfeld Deposition 6-17-2022

In the Superior Court of the State of California, County of Kern
George LaFazia vs. BNSF Railway Company.
Case No. BCV-19-103087
Rosenfeld Deposition 5-17-2022

In the Circuit Court of Cook County Illinois
Bobby Earles vs. Penn Central et. al.
Case No. 2020-L-000550
Rosenfeld Deposition 4-16-2022

In United States District Court Easter District of Florida
Albert Hartman Plaintiff vs. Illinois Central
Case No. 2:20-cv-1633
Rosenfeld Deposition 4-4-2022

In the Circuit Court of the 4th Judicial Circuit, in and For Duval County, Florida
Barbara Steele vs. CSX Transportation
Case No.16-219-Ca-008796
Rosenfeld Deposition 3-15-2022

In United States District Court Easter District of New York
Romano et al. vs. Northrup Grumman Corporation
Case No. 16-cv-5760
Rosenfeld Deposition 3-10-2022

In the Circuit Court of Cook County Illinois
Linda Benjamin vs. Illinois Central
Case No. No. 2019 L 007599
Rosenfeld Deposition 1-26-2022

In the Circuit Court of Cook County Illinois
Donald Smith vs. Illinois Central
Case No. No. 2019 L 003426
Rosenfeld Deposition 1-24-2022

In the Circuit Court of Cook County Illinois
Jan Holeman vs. BNSF
Case No. 2019 L 000675
Rosenfeld Deposition 1-18-2022

In the State Court of Bibb County State of Georgia
Dwayne B. Garrett vs. Norfolk Southern
Case No. 20-SCCV-091232
Rosenfeld Deposition 11-10-2021

In the Circuit Court of Cook County Illinois
Joseph Ruepke vs. BNSF
Case No. 2019 L 007730
Rosenfeld Deposition 11-5-2021

In the United States District Court For the District of Nebraska
Steven Gillett vs. BNSF
Case No. 4:20-cv-03120
Rosenfeld Deposition 10-28-2021

In the Montana Thirteenth District Court of Yellowstone County
James Eadus vs. Soo Line Railroad and BNSF
Case No. DV 19-1056
Rosenfeld Deposition 10-21-2021

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al.cvs. Cerro Flow Products, Inc.
Case No. 0i9-L-2295
Rosenfeld Deposition 5-14-2021
Trial October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,
Case No. 18-L-6845
Rosenfeld Deposition 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail
Case 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. vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case No. 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 vs. CNA Insurance Company et al.
Case No. 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 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. 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. BC646857
Rosenfeld Deposition 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiffs 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., Plaintifs 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 No. 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. 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 No. 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 No. 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 No. 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 No. 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 No. 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 No. 2:07CV1052
Rosenfeld Deposition July 2009

Golden State Environmental Justice Alliance
Green Jobs & Clean Communities
P.O. Box 79222
Corona, CA 92877

November 9
_____, 2023

Matt Evans
Principal Planner
City of Perris
mevans@cityofperris.org

Re: OLC3 Commercial Warehouse Project, SCH Number 2023040385

Dear Mr. Evans:

On behalf of the Golden State Environmental Justice Alliance ("GSEJA"), I am writing to you regarding the OLC3 Commercial Warehouse Project, SCH Number 2023040385 ("Project").

GSEJA is withdrawing its comment letter on and opposition to the Project. The Project's developer has addressed GSEJA's concerns about the Project's Environmental Impact Report and environmental mitigation. GSEJA does not require any responses to its comments be prepared in connection with the Project's Final Environmental Impact Report.

DocuSigned by:
Joe Bourgeois
6E633F6192A4437...

Joseph Bourgeois
Executive Director
Golden State Environmental Justice Alliance

October 23, 2023

Mr. Douglas Fenn, Contract Planner
City of Perris
Development Services Department
135 North "D" Street
Perris, CA 92570

Subject: **EMWD Comments for the OLC3 Ramona Expressway and Perris Boulevard Commercial Warehouse Project Notice of Availability of a Draft Environmental Impact Report**

Location: Near Ramona Expressway and North Perris Boulevard in the City of Perris, Riverside County, California.

Dear Mr. Fenn:

Eastern Municipal Water District (EMWD) thanks you for the opportunity to comment on the Notice of Availability of a Draft Environmental Impact Report for the OLC3 Ramona Expressway and Perris Boulevard Commercial Warehouse Project (project). The proposed project involves the construction and operation of a non-refrigerated warehouse building with ancillary office uses on approximately 36-acres. The future development of commercial retail/restaurant uses within two portions of the project site, including an approximately 4.7-acre piece to the south of the warehouse building and a 4.8-acre bit to the west. The proposed warehouse building would be in the central portion of the project site. It would include 774,419 total square feet of high-cube fulfillment center warehouse building with up to 20,000 square feet of planned ancillary office area. The future commercial developments would include approximately 45,000 square feet of retail and restaurant uses.

EMWD offers the following comments:

To define the impact(s) on the environment and on existing EMWD facilities, and as development within this area occurs over time, the proponents of implementing development projects shall consult EMWD's Development Services Department to compare proposed and existing water demands and sewer flows,

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and prepare a Design Conditions report (DC), formally known as the Plan of Service (POS), to detail all pertinent facilities necessary to serve such implementing development projects, resulting in an approved DC, prior to final design and plan check of such facilities.

To help define EMWD's Design Conditions, EMWD requires beginning dialogue with project proponents at an early stage in the site design and development, via a one-hour complementary Due Diligence meeting. To set up this meeting the project proponent should complete a Project Questionnaire (form NBD-058) and submit to EMWD. To download this form or for additional information, please visit our web page www.emwd.org, then select the "Developer" link, then select the "New Development Process Forms" link. This meeting will offer the following benefits:

1. Describe EMWD's development process.
2. Identify project scope and parameters.
3. Provide a preliminary review of the project within the context of existing infrastructure.
4. Discuss potential candidacy for recycled water service.
5. Identify project submittal requirements to start the Design Conditions review.

Following the Due Diligence meeting, and to proceed with a project, the Design Conditions will need to be developed by the developer's engineer and reviewed/approved by EMWD prior to submitting improvement plans for Plan Check. The DC process and approval will provide the following:

1. Technical evaluation of the project's demands and existing system capacities.
2. Identification of impacts to existing facilities.
3. Identification of additional on-site and off-site facilities, necessary to serve the project.
4. Identification of easement requirements, if necessary.
5. Identification of potential EMWD's cost participation in facility oversizing, if applicable.

If you have questions or concerns, please do not hesitate to contact Maroun El-Hage at (951) 928-3777, extension 4468 or by e-mail at El-hagem@emwd.org.

Sincerely,

Alfred Javier
Director of Environmental and Regulatory Compliance
ARJ: hs

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL: October 20, 2023

mevans@cityofperris.org
Matthew Evans, Project Planner
City of Perris Planning Division
135 North "D" Street
Perris, CA 92570

Draft Environmental Impact Report (EIR) for OLC3 Ramona Expressway and Perris Boulevard Commercial Warehouse Project (Proposed Project) (SCH No. 2023040385)

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to review the above-mentioned document. The City of Perris is the California Environmental Quality Act (CEQA) Lead Agency for the Proposed Project. To provide context, South Coast AQMD staff has provided the following brief summary of project information and prepared the following comments which are organized by topic of concern.

South Coast AQMD Staff's Summary of Project Information in the Draft EIR

Based on the Draft EIR, the Proposed Project consists of construction and operation of warehouse and commercial buildings on an approximately 46-acre site.[1] Specifically the Proposed Project would include:

- One non-refrigerated 774,419 square foot (sq ft) high-cube fulfillment center warehouse building on approximately 36 acres[2] with 144 loading dock doors[3] which is expected to attract 294 one-way truck trips per day[4]
- 70,000 sq ft of retail and restaurant uses on approximately 9.5[5] acres comprised of
    - 30,825 sq ft of Strip Retail Plaza
    - 5,000 sq ft of High Turnover Restaurant (sit-down)
    - 23,775 sq ft of Fast-Food Restaurant without Drive-Through Window use
    - 10,400 sq ft of Fast-Food Restaurant with Drive-Through Window use.[6]

Based on a review of aerial photographs, South Coast AQMD staff found that the nearest sensitive receptor (Recreational Vehicle park) is located approximately 175 feet southeast of the Proposed Project site. Construction of the Proposed Project is anticipated to occur in a single phase, commence in January 2023, and be completed by April 2024.[7] The Proposed Project is

[1] Draft EIR. 1.0 Executive Summary. Page 1-1 through 1-3.
[2] *Ibid*. 3.0 Project Description. Page 3-7.
[3] *Ibid*. 3.0 Project Description. Page 3-9 through 3-10.
[4] *Ibid*. 4.2 Air Quality. Page 4.2-34.
[5] *Ibid*. 1.0 Executive Summary. South Coast AQMD Staff calculated 9.5 acres. 4.7 acres (commercial portion to the south of proposed warehouse building) + 4.8 acres (commercial portion to the west of proposed warehouse building) = 9.5 acres. Page 1-3.
[6] *Ibid*. Appendix B, Air Quality Impact Analysis. Page 14.
[7] *Ibid*. Appendix B, Air Quality Impact Analysis, Table 3-3: Construction Duration. Page 50.

located on the southeast corner of North Perris Boulevard and Perry Street in the City of Perris, Riverside County.[8]

South Coast AQMD Staff's Comments

Potential Underestimation of Emissions Due to Inaccurate On-site Distance for Trucks During Project Operation

The Draft EIR notes that CalEEMod Version 2022.1 lacks the capacity to distinguish between on-site and off-site mobile source emissions during operation.[9] The Draft EIR then states that the longest on-site distance a truck or passenger car can traverse the Proposed Project site during operation is approximately .50 miles[10] and that the Draft EIR relies on this distance for the Localized Significance Threshold (LST) analysis. Staff, however, reviewed two different site maps (Figure 4.2-2 in the Draft EIR[11] and Exhibit 2-B in Appendix C of the Draft EIR[12]) that show on-site truck movement routes for the Proposed Project and concluded that the longest possible on-site distance for the truck routes is between, roughly, .55 to 1 mile and thus exceeds the 0.5-mile assumption upon which the Draft EIR LST emission estimates are based. Therefore, the on-site emissions appear to have been underestimated. For this reason, staff recommends the Lead Agency either revise the calculations to reflect an on-site truck route distance of somewhere between .55 to 1 mile or provide a comprehensive explanation and justification of the methodology employed in relying on the 0.5-mile on-site assumption parameter. If during this stage in the planning process the exact on-site truck route is unknown (two different on-site truck routes for the Proposed Project are presented in the Draft EIR and its accompanying appendices), South Coast AQMD staff recommend the Lead Agency use the most conservative hypothetical on-site truck route length for the air quality impact analysis.

Use of South Coast AQMD's Mass Rate Localized Significance Threshold (LST) Look-Up Table to Analyze the Proposed Project's Localized Air Quality Impact is not Consistent with Guidance for the LST Methodology

The Proposed Project covers approximately 46 acres.[13] The Draft EIR states that during construction up to 20 acres/day can be actively disturbed.[14] The Lead Agency uses South Coast AQMD's Mass Rate LST Look-up Table[15] for five acres as a screening tool to determine if the Proposed Project's construction and operational daily emissions of NOx, CO, PM10 and PM2.5 could result in a significant impact to local air quality.[16] South Coast AQMD staff, however, developed the LST methodology for proposed projects that are less than or equal to five acres.[17]

[8] Draft EIR. Appendix B. Air Quality Impact Analysis, Exhibit 1-A: Location Map. Page 15.
[9] *Ibid*. Appendix B. Air Quality Impact Analysis. Page 61.
[10] *Ibid*. Appendix B. Air Quality Impact Analysis. Page 61.
[11] *Ibid*. Air Quality, Figure 4.2-3: Modeled On-Site Emission Sources. Page 4.2-32.
[12] *Ibid*. Appendix C. Health Risk Assessment, Exhibit 2-B: Modeled On-Site Emission Sources. Page 15.
[13] *Ibid.* 1.0 Executive Summary. Page 1-1 through 1-3.
[14] *Ibid*. Appendix B. Air Quality Impact Analysis. Page 56 through 57.
[15] South Coast AQMD Appendix C – Mass Rate LST Look-up Table. Access here: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf
[16] *Ibid*. Appendix B. Air Quality Impact Analysis. Page 55 through 62.
[17] Final LST Methodology, July 2008. Page 1-1, 3-3, & 3-4. Access here: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf

For projects that are greater than five acres in size, South Coast AQMD recommends lead agencies perform project-specific dispersion modeling to determine operational localized air quality impacts.[18] For construction, if project sites are greater than five acres in size and disturb more than five acres/day during the construction phase, staff also recommends lead agencies perform project-specific dispersion modeling to determine construction localized air quality impacts. Staff therefore recommends the Lead Agency to: 1) perform project-specific air dispersion modeling for the Proposed Project's construction and operational phase emissions to determine localized air quality impacts; and 2) include the results in the Final EIR.

Potential Underestimation of Emissions Due to Imprecise Assumptions for Truck Trip Lengths and Trip Rates in Emissions Analysis

Appendix B of the Draft EIR explains that the air quality impact analysis is based on the assumption that the average truck trip length is 34.51 miles for the High-Cube Fulfillment Center Warehouse land use.[19] Appendix B discusses the assumptions used to arrive at the 34.51-mile modeling parameter and states that, "the analysis incorporated the SCAQMD recommended truck trip length of 14.2 miles for 2-axle and 3-axle (LHDT1, LHDT2, and MHDT) trucks and 40 miles for 4+-axle (HHDT) trucks and weighting the average trip lengths using traffic trip percentages taken from the *OLC3 Traffic Analysis*. The trip length function for the proposed industrial building use has been revised to 34.51 miles..."[20] The referenced 14.2 miles and 40 miles of truck trip lengths were originally derived from the Southern California Association of Government's (SCAG) estimation of average truck trip length in its 2016 Regional Transportation Plan.[21]

The Draft EIR's Transportation section also states that the Proposed Project's truck distribution patterns are based partially on the Project Applicant's input on percentage of traffic oriented to the Port of Long Beach or other destination.[22] Yet the project site is located approximately 80 miles from the Ports of Long Beach and Los Angeles, which means that the air quality analysis underestimated the emissions from trucks traveling from the Ports to the project site. For this reason, the Lead Agency is recommended to revise the calculations in the Final EIR by taking a project-specific approach to the vehicle trip length and trip rates by applying more conservative trip lengths such as designating 40 miles for local trips and 80 miles for Port-related trips. Tailoring these parameters and assumptions to be based on project-specific data will ensure a more accurate assessment of emissions, accounting for the unique circumstances and logistical realities of the Proposed Project.

Incorrect Pollutant Averaging Time in Health Risk Assessment (HRA)

[18] Final LST Methodology, July 2008. Page 1-1, 3-3, & 3-4. Accessed here: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf
[19] Draft EIR. Appendix B. Air Quality Impact Analysis. Page 53.
[20] *Ibid*. Appendix B. Air Quality Impact Analysis. Page 53.
[21] South Coast Air Quality Management District, Preliminary Draft Staff Report: Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce.
[22] *Ibid*. 4.12 Transportation. Page 4.12-23.

South Coast AQMD staff reviewed the construction HRA modeling files and noted that the ANNUAL[23] keyword was selected for the pollutant averaging time in the control pathway in the AERMOD model. However, according to the South Coast AQMD Risk Assessment Procedures v8.1 and South Coast AQMD Modeling Guidance for AERMOD,[24] a detailed HRA utilizing AERMOD should be ran using the pollutant averaging time option of PERIOD. Thus, staff recommends the Lead Agency: 1) re-run the construction HRA to utilize PERIOD averaging time to determine the health risk impacts to sensitive receptors and off-site workers; and 2) include the results in the Final EIR.

Inconsistent Trip Generation Rates in Draft EIR Traffic Analysis and CalEEMod

Table 4-1 of Appendix S of the Draft EIR shows the following project trip generation rates: [25]

TABLE 4-1: PROJECT TRIP GENERATION RATES

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicle Trip Generation Rates									
High-Cube Fulfillment Center Warehouse	TSF	--[3]	0.089	0.033	0.122	0.050	0.115	0.165	2.129
Passenger Cars (AM = 84.4%, PM = 87.3%, Daily = 82.2%)			0.079	0.024	0.103	0.040	0.104	0.144	1.750
2-4 Axle Trucks (AM = 6.6%, PM = 6.7%, Daily = 7.6%)			0.004	0.004	0.008	0.005	0.006	0.011	0.162
5+-Axle Trucks (AM = 9.0%, PM = 6.0%, Daily = 10.2%)			0.005	0.006	0.011	0.005	0.005	0.010	0.217
Strip Retail Plaza (<40,000 SF)	TSF	822	1.42	0.94	2.36	3.30	3.29	6.59	54.45
High Turnover (Sit-Down) Restaurant	TSF	932	5.26	4.31	9.57	5.52	3.53	9.05	107.20
Fast Food w/o Drive Thru	TSF	933	25.04	18.14	43.18	16.61	16.60	33.21	450.49
Fast Food w/ Drive Thru	TSF	934	22.75	21.86	44.61	17.18	15.85	33.03	467.48
Passenger Car Equivalent (PCE) Trip Generation Rates[4]									
High-Cube Fulfillment Center Warehouse	TSF	--[3]	0.089	0.033	0.122	0.050	0.115	0.165	2.129
Passenger Cars			0.079	0.024	0.103	0.040	0.104	0.144	1.750
2-4 Axle Trucks (PCE = 2.0)			0.008	0.008	0.016	0.010	0.012	0.022	0.324
5+-Axle Trucks (PCE = 3.0)			0.016	0.017	0.033	0.014	0.016	0.030	0.651

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

[2] TSF = thousand square feet

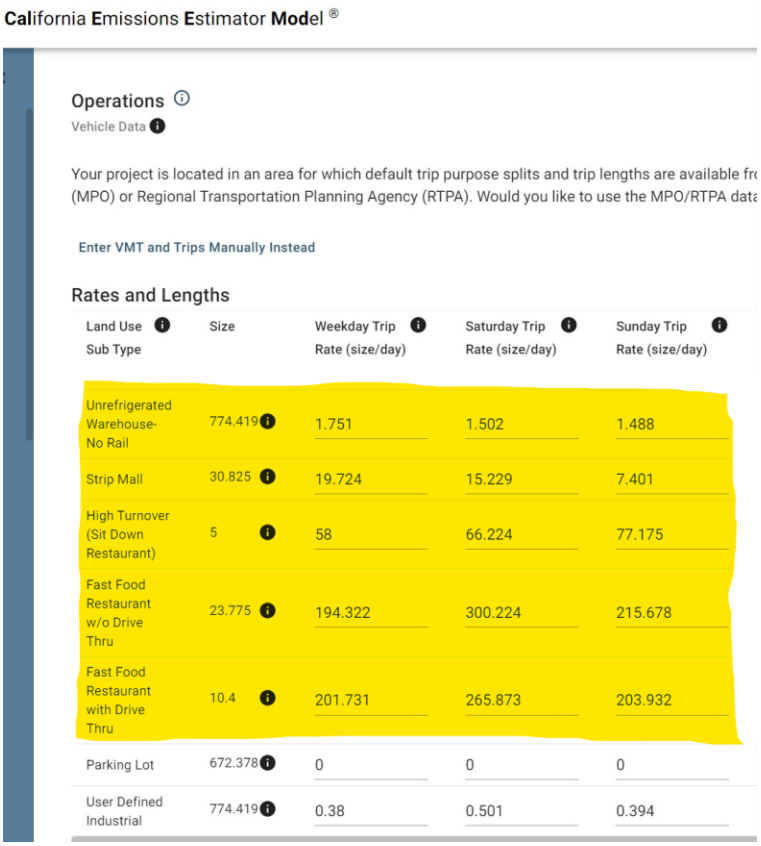
[3] Vehicle Mix Source: High Cube Warehouse Trip Generation Study, WSP, January 29, 2019.
Inbound and outbound split source: ITE Trip Generation Manual, Eleventh Edition (2021) for ITE Land Use Code 154.

[4] PCE factors: 2 and 3-axle = 2.0; 4+-axle = 3.0.

Based on a review of the CalEEMod technical files provided to South Coast AQMD staff via e-mail (Haseeb Qureshi, personal communication, October 4, 2023), it appears that the trip generation rates shown in table 4-1 above and the trip generation rates in the CalEEMod input modeling files for the operational phase (see Figure 1 below), do not match.

[23] South Coast AQMD Risk Assessment Procedures v8.1. Access at: http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf
[24] South Coast AQMD Modeling Guidance for AERMOD. Access at: South Coast AQMD Modeling Guidance for AERMOD
[25] *Ibid.* Appendix S. Traffic Analysis. Page 51.

Figure 1



For instance, the Strip Retail Plaza Land Use in Table 4-1 shows a daily trip generation rate of 54.45, while the CalEEMod input modeling files (see Figure 1 above) show a daily trip generation rate of 19.724 (17.32 if Weekday, Saturday, and Sunday Trip Rates are averaged[26]). South Coast AQMD staff therefore recommends the Lead Agency to: 1) review and revise the Proposed Project's Operational Trip Generation Rates; 2) re-calculate the emissions; and 3) include the results in the Final EIR.

Recommended Revision to Mitigation Measure (MM) for Operation

The air quality analysis in the Draft EIR concludes that the Proposed Project's regional operational emissions for volatile organic compounds (VOC), nitrogen oxides (NOx), and carbon monoxide (CO) would be significant even after mitigation.[27] The Draft EIR also states that the majority of the Proposed Project's VOC, NOx, and CO operational emissions come from mobile sources.[28] Once in operation, the Proposed Project is anticipated to result in approximately 294 one-way truck trips per day.[29] CEQA also requires that all feasible MMs that go beyond what is required by law be utilized to minimize or eliminate any significant adverse air quality impacts. Thus, to further reduce the Proposed Project's air quality impacts for operation, staff

[26] [(19.724)*5 + 15.229 + 7.401]/7 = 17.321 Average weekly trip rate based on CalEEMod technical file trip rate numbers
[27] Draft EIR. 4.2 Air Quality. Page 4.2-22 through 4.2-26.
[28] *Ibid*. 4.2 Air Quality. Page 4.2-22 through 4.2-23.
[29] *Ibid*. 4.2Air Quality. Page 4.2-34.

recommends that the Lead Agency consider revising its air quality (AQ) MM, MM AQ-6,[30] in the Final EIR to further reduce the Proposed Project's significant and unavoidable air quality impacts during operation.

MM AQ-6 states that "the facility operator for the warehouse portion of the [Proposed] Project shall require tenants that do not already operate ***2010*** and newer trucks to apply in good faith for funding to replace/retrofit their trucks, such as Carl Moyer, VIP, Prop 1B, SmartWay Finance…" South Coast AQMD staff recommends that the Lead Agency revise MM AQ-6 so that tenants that use trucks older than ***2014*** model year are encouraged by the developer/successor-in-interest to apply in good-faith for funding for diesel truck replacements.

South Coast AQMD Air Permits and Role as a Responsible Agency

If implementation of the Proposed Project would require the use of new stationary and portable sources, including but not limited to emergency generators, fire water pumps, boilers, etc., air permits from South Coast AQMD will be required and the role of South Coast AQMD would change from a Commenting Agency to a Responsible Agency under CEQA. In addition, if South Coast AQMD is identified as a Responsible Agency, per CEQA Guidelines Section 15086, the Lead Agency is required to consult with South Coast AQMD. Furthermore, CEQA Guidelines Section 15096 sets forth specific procedures for a Responsible Agency, including making a decision on the adequacy of the CEQA document for use as part of evaluating the applications for air permits. For these reasons, the Final EIR should include a discussion about any new stationary and portable equipment requiring South Coast AQMD air permits and identify South Coast AQMD as a Responsible Agency for the Proposed Project.

The Final EIR should also include calculations and analyses for construction and operation emissions for new stationary and portable sources, as this information will also be relied upon as the basis for the permit conditions and emission limits for the air permit(s). Please contact South Coast AQMD's Engineering and Permitting staff at (909) 396-3385 for questions regarding what types of equipment would require air permits. For more general information on permits, please visit South Coast AQMD's webpage at: http://www.aqmd.gov/home/permits.

Conclusion

As set forth in California Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(a-b), the Lead Agency shall evaluate comments from public agencies on the environmental issues and prepare a written response at least 10 days prior to certifying the Final EIR. As such, please provide South Coast AQMD written responses to all comments contained herein at least 10 days prior to the certification of the Final EIR. In addition, as provided by CEQA Guidelines Section 15088(c), if the Lead Agency's position is at variance with recommendations provided in this comment letter, detailed reasons supported by substantial evidence in the record to explain why specific comments and suggestions are not accepted must be provided.

Thank you for the opportunity to provide comments. South Coast AQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this

[30] Draft EIR. 4.2 Air Quality. Page 4.2-24.

comment letter. Please contact Evelyn Aguilar, Air Quality Specialist, at eaguilar@aqmd.gov should you have any questions.

Sincerely,

Sam Wang

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Planning, Rule Development & Implementation

SW:EA
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