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Second Recirculated Draft Environmental Impact Report (RDEIR) for the Proposed West Valley Logistics Center Specific Plan (SCH No.: 2012071058)

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final EIR[1].

SCAQMD Staff's Summary of Project Description

The Lead Agency proposes to develop a guiding document to develop seven industrial warehouse buildings of up to 3,473,690 square feet with unknown occupants on an approximately 291.31-acre site that is currently vacant (Proposed Project). The Second RDEIR estimated a new total of 6,382 trip-ends per day (actual vehicles – automobiles and trucks), including 2,432 truck trip-ends per day with an average trip length of 38 miles for heavy trucks and 17.4 miles for all other vehicles[2]. Based on a review of Figure 3-1 and Table 4.2.2-1 in the Second RDEIR and aerial photographs, SCAQMD staff found that the Proposed Project is surrounded by sensitive receptors (residential uses and schools) to the north, east, and south. Construction is expected to take no more than 24 months for each increment of development, and construction may be phased with no specific development order[3].

SCAQMD Staff's Summary of Air Quality and Health Risk Assessment Analyses

In the Air Quality Section, the Lead Agency quantified the Proposed Project's construction and operational emissions and compared those emissions to SCAQMD's recommended regional and localized air quality CEQA daily significance thresholds. To represent a worse-case analysis scenario, construction emissions were modeled assuming the entire site was built at a single time[4]. After incorporating Mitigation Measures AQ-1 through AQ-9, construction emissions would be less than significant, except NOx with maximum daily emissions of 248.91 pounds per day exceeding the SCAQMD CEQA significance threshold for NOx of 100 pounds per day[5]. For operation, the Lead Agency assumed five percent of trucks serving the Proposed Project, and up to five percent of warehouse area would be climate controlled[6]. The Lead Agency found that the Proposed Project's operational emissions, after incorporating Mitigation Measures AQ-10 through AQ-14, would remain significant and unavoidable for VOC and NOx. In addition, the Lead Agency conducted a health risk assessment (HRA) based on the 2003 Office of Environmental Health Hazard Assessment (OEHHA) Guidelines and found that the maximum incremental cancer risk for residential exposure to diesel particulate matter (DPM) emissions

[1] On February 12, 2015, SCAQMD staff provided comments on the 1st RDEIR (available at: http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2015/february/deirwestvalley.pdf), which is incorporated here by reference.
[2] Second RDEIR. Page 4.2.2-17.
[3] Second RDEIR. Footnote 2; Page 3-18. Page 3-34. Table 4.2.2-5; Page 4.2.2-15.
[4] Second RDEIR. Page 3-18.
[5] Second RDEIR. Table 4.2.2-10. Page 4.2.2-31.
[6] Second RDEIR. Page 4.2.2-35.

would be 3.6 in a million; 0.53 in one million for workers; and 0.05 in one million for school child[7]. All of them would be below SCAQMD's CEQA significance threshold of 10 in one million for cancer risk.

General Comments

SCAQMD staff has reviewed the Air Quality and HRA analyses in the Second RDEIR and has comments on the air quality methodology and HRA modeling parameters. Please see the attachment for more information. Because of SCAQMD staff's concern about the health impacts from siting warehouses in proximity to sensitive land uses, the attachment includes additional recommended mitigation measures. Finally, the attachment includes SCAQMD staff's recommendation to include discussions on SCAQMD Rule 403(e), Rule 1166, and Rule 1466.

Pursuant to California Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(b), SCAQMD staff requests that the Lead Agency provide SCAQMD staff with written responses to all comments contained herein prior to the certification of the Final EIR. In addition, issues raised in the comments should be addressed in detail giving reasons why specific comments and suggestions are not accepted. There should be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice (CEQA Guidelines Section 15088(c)). Conclusory statements do not facilitate the purpose and goal of CEQA on public disclosure and are not meaningful or useful to decision makers and the public who are interested in the Proposed Project.

SCAQMD staff is available to work with the lead agency to address these issues and any other questions that may arise. Please contact me at lsun@aqmd.gov if you have any questions regarding the enclosed comments.

Sincerely,

Lijin Sun

Lijin Sun, J.D.
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

Attachment
LS/SW
SBC180206-02
Control Number

[7] Second RDEIR. Pages 4.2.2-44 and 45.

ATTACHMENT

Overall Comment on Air Quality and Health Risk Assessment Analyses

1. The Lead Agency proposes to construct and operate approximately 3.5 million square feet of warehouse buildings. Occupants are unknown at the time the Second RDEIR is circulated for public review. Because future occupants of the Proposed Project are unknown, the Proposed Project could be utilized as a cold storage warehouse.

   Here, there was an inconsistency regarding whether the Proposed Project would include refrigerated units. Transport refrigeration units (TRUs) are commonly in-use at cold storage warehouses. Based on a review of the CalEEMod input file, SCAQMD staff found that the "*unrefrigerated* warehouse-no rail" land use was selected. However, since up to five percent of the Proposed Project's warehouse area would be climate controlled[8], TRUs may be used during operation. To conservatively analyze the worst-case impact scenario and to be consistent with the intended uses of the Proposed Project, SCAQMD staff recommends that the Lead Agency revise the air quality and the HRA modeling to calculate operational emissions from NOx and diesel toxic particulate matter from TRUs and disclose them in the Final EIR.

Air Quality Analysis – Overlapping Construction and Operational Impacts

2. Since the Proposed Project may be developed in phases with no specific development order, the Proposed Project's construction activities in one Planning Area may overlap with operation of new warehouse buildings that are built in other Planning Areas, thereby resulting in overlapping construction and operational activities at one time. In the case of overlapping construction and operation activities, SCAQMD staff recommends adding the construction and operational peak daily emissions in pounds per day and comparing the combined emissions to SCAQMD's air quality CEQA significance thresholds for *operation*[9] to determine the level of significance.

Health Risk Assessment (HRA)

3. The SCAQMD meteorological (MET) dataset (2008-2012) from the Fontana Station was used in the HRA. This dataset has been replaced with a new MET dataset (2011-2013, 2015, and 2016). Using the old MET dataset may have led to an under-estimation of the health risks from the Proposed Project. Therefore, SCAQMD staff recommends that the Lead Agency revise the HRA in the Final EIR by using the most recent MET dataset (2011-2013, 2015, and 2016) from Fontana Station that is available on SCAQMD's website[10].

4. Trucks idling emissions were estimated based on 15 minutes of idling time to serve as a conservative estimation of impacts from idling emissions. However, the modeled emission rate for truck idling emissions was calculated based on a division by the total number of seconds in an entire day (24 hours or 1440 minutes or 86,400 seconds) instead of the total number of seconds over a 15-minute duration. Dividing 15 minutes by the total number of seconds in an entire day may have resulted in lower than the actual emission rate in the model input and led to an under-estimation of

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[8] Second RDEIR. Page 4.2.2-35.

[9] South Coast Air Quality Management District. *Air Quality Significance Thresholds*. Accessed at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf.

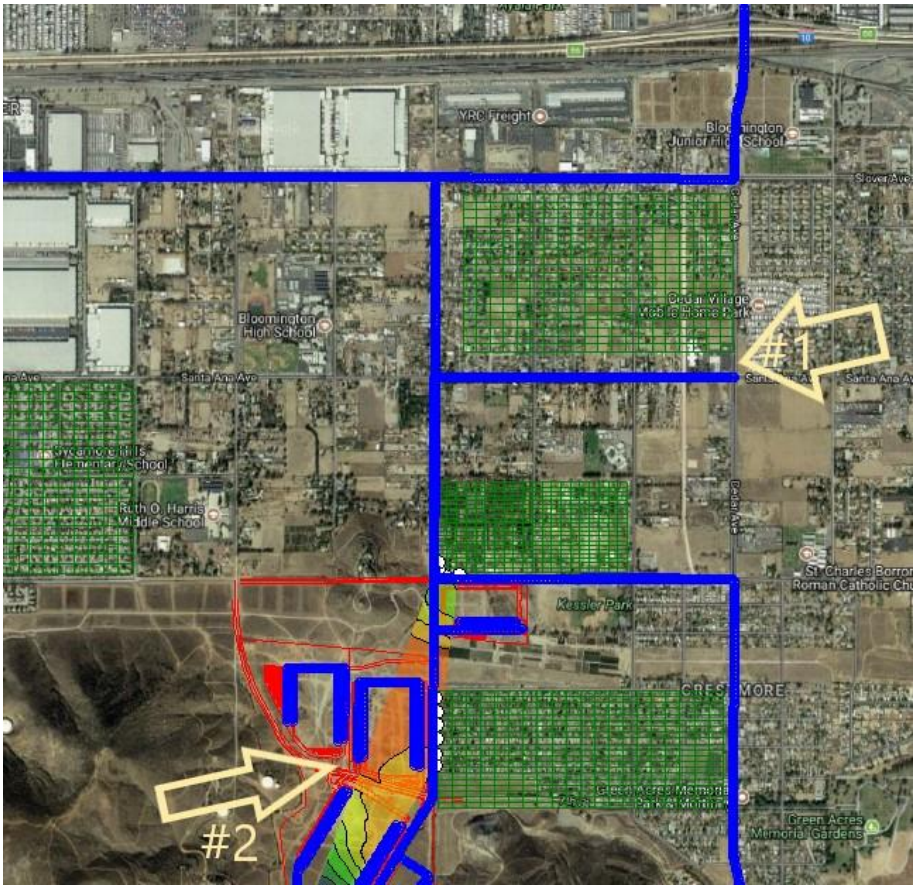
[10] South Coast Air Quality Management District. The AERMOD-ready Meteorological Data for Riverside Airport Station is available at: http://www.aqmd.gov/docs/default-source/air-quality/meterorological-data/aermod-ready-meteorological-data/table-1-meteorological-sites/2017/FontanaADJU.zip.

concentrations and risks. Therefore, SCAQMD staff recommends that the Lead Agency revise the emission rate for truck idling emissions in the model input.

5. On-site idling was modeled as line volume source with higher plume height and width. This approach is not appropriate because it may have likely increased dispersion and led to an under-estimation of ground level concentrations. Therefore, the point source option with the actual plume height and stack parameter settings should be used in the AERMOD, or the Lead Agency provides justification for the use of line volume source in the Final EIR.

6. The truck routes were not consistent. Based on a review of Figure 3-4, *Proposed Truck Route*, in the Second RDEIR, SCAQMD staff found that trucks would travel on Cedar Avenue between Slover Avenue and Jurupa Avenue. However, in the AERMOD modeling input files for the HRA analysis, truck route stopped at Cedar Avenue, and trucks would not travel on Cedar Avenue (See #1 in Figure A below). In addition, while a new private street would be constructed to provide ingress and egress for the proposed warehouses, it was not included as part of the truck route in the AERMOD modeling input files (See #2 in Figure A below). Therefore, it is recommended that the Lead Agency clarify the truck routes in the Final EIR and, if necessary, update the HRA analysis based on one set of truck routes that is consistent throughout the document, or provide justification to explain why different truck routes should be used in the HRA analysis.

Figure A: Screenshot from the AERMOD Modeling for the Proposed Project



NOTE: truck routes are shown in blue lines in the AERMOD modeling for the Proposed Project.

7. Trucks traveling on the roadways were modeled as single line volume sources in the AERMOD for the HRA analysis. However, based on a review of the most current aerial map, several roadways, as part of the proposed truck routes for the Proposed Project, including Cedar Avenue, Slover Avenue, and Sierra Avenue, have two to three lanes. Modeling these roadways as single line volume sources could have under-estimated the ground level concentrations, unless they reflect the actual road width that the trucks can and will travel. Therefore, to conduct a worst-case emissions scenario analysis from trucks traveling on these roadways, it is recommended that the Lead Agency revise the AERMOD modeling by using a correct lane type to reflect the actual road width.

8. As a sustainable feature (SP-AQ-3) for the Proposed Project's construction and operation, contractors and building operators are requested, by contract specification, that on-road heavy-duty diesel trucks with a gross vehicle weight rating greater than 14,000 pounds will have a 2010 model year engine or newer or will be equipped with a particulate matter trap, as available[11]. Based on Appendix 4, *Vehicle Categories*, in the User Guide for the U.S. EPA-approved EMFAC2014[12], the gross vehicle weight rating for Light-Heavy-Duty Trucks (LHD1) is from 8,501 to 10,000 pounds that is below the gross vehicle weight rating of 14,000 pounds. As such, LHD1 are not subject to SP-AQ-3. However, in the HRA modeling, the 2010 model year trucks or newer requirement was applied to all truck categories, including LHD1. To be consistent with SP-AQ-3's requirement, which, as it is currently written in the Second RDEIR, excludes LHD1, the Lead Agency should incorporate SP-AQ-3 requirement to re-calculate truck emissions for only Medium-Heavy Duty Trucks (MHD) and Heavy-Heavy Duty Trucks (HHD), not including LHD1. Alternatively, the Lead Agency should incorporate the following changes to SP-AQ-3 to be consistent with the modeling assumptions. Specifically, the Lead Agency should remove the gross vehicle weight rating requirement from SP-AQ-3 and ensure that a 2010 model year engine or newer will be used throughout the lifetime of the Proposed Project, not based on availability.

   SP-AQ-3: Request Contractors and Building Operators to Use Particulate Matter Traps on All On-road Heavy-Duty Diesel Trucks. The project will request contractors and building operators (by contract specifications) that on-road heavy-duty diesel trucks ~~with a gross vehicle weight rating greater than 14,000 pounds~~ have a 2010 model year engine or newer or are equipped with a particulate matter trap~~, as available~~.

9. In Appendix 2.4, *DPM Emissions From Project*, and the AERMOD modeling input files for the Proposed Project's HRA analysis, the weighted average emissions for trucks were derived from multiplying the percentage and emission factor for each of the three truck categories (LHD1, MHD, and HHD). The total combined percentage for trucks from all three categories should be 100 percent. However, the total combined percentage from LHD1, MHD, and HHD in the AERMOD modeling input files was approximately 80 percent. This would result in under-estimated truck emissions and associated health risks. Therefore, it is recommended that the Lead Agency update the percentages for the three truck categories to ensure that they add up to 100 percent and revise the associated truck emissions and the health risk values accordingly.

10. The building downwash effect was not included in the AERMOD. The building downwash is the effect that wind flowing over or around buildings has on plumes released from nearby stacks. Buildings create a cavity of recirculating winds in the area near the buildings, and these building cavities cause increased vertical dispersion of plumes emitted from stacks on or near the buildings. In addition, building downwash often leads to elevated concentrations downwind of the affected stacks.

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[11] Second RDEIR. Page 3-17 and 3-24.

[12] California Air Resource Board. *EMFAC2014 User Guide.* Accessed at: https://www.arb.ca.gov/msei/emfac2014_users_guide.pdf.

Since the Proposed Project would include operation of seven warehouse buildings totaling 3,473,690 square feet, the building downwash effect should be used in the air dispersion model; or the Lead Agency should provide justification for not including the building downwash effect in the Final EIR.

11. In the HRA, the Lead Agency estimated the Proposed Project's health risks by using a single lifetime calculation rather than individual age bins (e.g., third trimester of pregnancy, age 0-2, age 2-16, and age 16-30). The 2015 Office of Environmental Health Hazard Assessment (OEHHA) Guidance acknowledges that children are more susceptible to the exposure to air toxics and has revised the way cancer risks are estimated to take this into account (e.g., increasing the risks for children from cancer causing substances, elevating the breathing rates for children, and adding multi-pathway calculations). Additionally, each age bins has different exposure parameters, including, for example, daily breathing rates, age sensitivity factors, and faction of time at home. Table A and Table B below illustrate the differences in exposure parameters for different age bins.

Table A: Residential Daily Breathing Rates for Point Estimate Dose Calculation (L/kg body weight)

	3rd trimester	0-2 Years	2-9 Years	2-16 Years	16-30 Years	16-70 Years
Average	225	658	535	452	210	185
80th Percentile	273	758	631	572	261	233
95th Percentile	361	1090	861	745	335	290

Source: 2015 OEHHA Guidance.

When calculating cancer risks, the age sensitivity factors (ASF) accounts for greater susceptibility in early life, starting from the 3rd trimester of pregnancy to 70 years. Another factor in the cancer risk calculations is the fraction of time at home (FAH), which takes into account the time actually residing at the sensitive receptor location(s). The FAH is also age-dependent. In general, the earlier in life the greater fraction of time at home (See Table B). Therefore, the age factor plays an important role in health risk calculation.

Table B: FAH for Evaluating Residential Cancer Risk

Age Range	FAH
3rd Trimester and 0-2 Years	0.85
2-16 Years	0.72
16-70 Years	0.73

Source: 2015 OEHHA Guidance.

Although truck emissions will get cleaner over time due to implementation of stringent regulations and improving technologies, it would not be appropriate to average emissions over the entire exposure duration since this would substantially underestimate health risks to children who would be exposed to higher DPM concentrations during the early years of project operation. Therefore, SCAQMD staff recommends that the Lead Agency calculate cancer risks separately for each age bin in the Final EIR. The DPM emissions for each year of operation should be applied to each of the corresponding age bins (i.e. emissions from Year 1 of Project operation should be used to estimate cancer risks to the third trimester to 0 year age bin; Year 1 and 2 of Project operation should be used to estimate the cancer risks to the 0 to 2 years age bins; and so on). When there are different

breathing rates for the same age bin, the most appropriate and conservative daily breathing rate should be used.

Mitigation Measures

12. CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize or eliminate any significant adverse impacts. SCAQMD staff recommends incorporating the following mitigation measures in the Final EIR to further reduce health impacts to near sensitive receptors.

Vegetated Barriers and Limitations

a) Based on a review of Figure 3-3 in the Second RDEIR and aerial photographs, SCAQMD staff found that screen walls will be installed in some parts of the Proposed Project and that some vegetation already exist along the easterly property line between Building 1 and Lincoln Avenue. Due to SCAQMD staff's concern about siting the Proposed Project next to residential uses, it is recommended that the Lead Agency use vegetative barriers of sufficient density as a measure to reduce exposures to residents. For additional information on road side vegetation barriers, please visit: https://www.epa.gov/air-research/recommendations-constructing-roadside-vegetation-barriers-improve-near-road-air-quality.

However, vegetative barriers have limitations. According to the EPA's Recommendations for Constructing Roadside Vegetation Barriers to Improve Near-Road Air Quality Planning Guide[13], gaps in vegetative barriers can lead to increased pollutant concentrations downwind. Furthermore, vegetative barriers require several years to reach full maturity (width, height, and density); therefore, creating potential gaps and increased pollutant concentrations downwind. The EPA also recommends extending the barrier at least 50 meters laterally beyond the area of concern in order to maximize reductions in downwind concentrations. Therefore, in the event that vegetated barriers are proposed for the Proposed Project, the Lead Agency should consider and carefully evaluate the presumed effectiveness in more detail prior to assuming that they will sufficiently alleviate exposures to DPM emissions.

Require Setbacks of at least 500 feet as a Project Design Feature

b) Because of the close proximity of the Propose Project such as Building 1 to existing residential uses, SCAQMD staff recommends that the Lead Agency include in the project design feature setbacks of at least 500 feet, where appropriate.

Compliance with SCAQMD Rules 403(e), 1166, and 1466

13. The Lead Agency included a discussion on general compliance with SCAQMD Rule 403 in the Second RDEIR. Based on the project description, the Proposed Project is a large operation of approximately 291 acres (50-acre sites or more of disturbed surface area; or daily earth-moving operations of 3,850 cubic yards or more on three days in any year) in the South Coast Air Basin. The Lead Agency is required to comply with SCAQMD Rule 403(e) – Additional Requirements for Large Operations[14], which includes requirements to provide Large Operation Notification Form 403 N, appropriate signage, additional dust control measures, and employment of a dust control supervisor

[13] EPA Recommendations for Constructing Roadside Vegetation Barriers to Improve Near-Road Air Quality Planning Guide. Accessed at: https://cfpub.epa.gov/si/si_public_file_download.cfm?p_download_id=528612.

[14] South Coast Air Quality Management District. Rule 403. Last amended June 3, 2005. Accessed at: http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf.

that has successfully completed the Dust Control in the South Coast Air Basin training class[15]. Therefore, SCAQMD recommends that the Lead Agency include a discussion to demonstrate specific compliance with SCAQMD Rule 403(e) in the Final EIR.

14. Based on a review of Section 4.2.-8, *Hazards and Hazardous Materials*, SCAQMD staff found that the Proposed Project site was historically used for agriculture from 1953 to 2005[16]. Organochlorine pesticides was used. While the results of soil testing indicated no organochlorine pesticides present in surficial soils, should the Lead Agency encounter hydrocarbons during soil disturbance activities, the Proposed Project is subject to SCAQMD Rule 1166 – Volatile Organic Compound Emissions from Decontamination of Soil. Therefore, SCAQMD staff recommends that the Lead Agency include a discussion to demonstrate compliance with Rule 1166 in the Final EIR.

15. Due to earth-moving activities of soil on the Proposed Project site, and in the event that any toxic air contaminant(s) as defined in SCAQMD Rule 1466 – Control of Particulate Emissions from Soil with Toxic Air Contaminants[17] are encountered, the Final EIR should include a discussion on Rule 1466.

[15] South Coast Air Quality Management District Compliance and Enforcement Staff's contact information for Rule 403(e) Large Operations is (909) 396-2608 or by e-mail at dustcontrol@aqmd.gov.

[16] Second RDEIR. Page 4.2.8-5.

[17] South Coast Air Quality Management District. Rule 1466. Accessed at: http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1466.pdf.