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January 20, 2017

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Draft Environmental Impact Report (Draft EIR) for the Proposed Emerald Ridge Residential Project (MA 15072 and MA 15148)

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.

The Lead Agency proposes to construct a 399 dwelling units on approximately 68.4 acres. The proposed project would also change the General Plan land use designation from Light Industrial to Medium Density Residential. The proposed residences will be sited near Route 60 Freeway and the Union Pacific Railroad. Future residences would be approximately 70 feet north of the freeway[1] and 10 feet northwest and southeast of the railroad. Because of the close proximity to the existing freeway and railroad, residents would be exposed to diesel particulate matter, which is a toxic air contaminant. The SCAQMD staff therefore recommends that the Lead Agency conduct a mobile source health risk assessment (HRA)[2] to disclose the potential health risks to the residents from vehicles and locomotives that emit diesel particulate matter, which the California Air Resources Board (CARB) has determined to be carcinogenic.

Additionally, in the Air Quality Analysis, the Lead Agency determined that regional construction emissions were significant. However, by incorporating mitigation measures MM-AQ-1 (100% Tier 4 engines), the Lead Agency was able to reduce impacts to less than significant. The SCAQMD staff has concerns about the assumptions used in the construction emissions calculation, which could underestimate the estimated construction impacts. Details are included in the attachment.

[1] Aerial map inspection.
[2] "Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis" Accessed at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis

The SCAQMD staff is available to work with the Lead Agency to address these concerns and any other air quality questions that may arise. Please contact Jack Cheng, Air Quality Specialist at (909) 396-2448, if you have any questions regarding these comments. We look forward to reviewing and providing comments for the Final EIR associated with this project.

Sincerely,

Jillian Wong

Jillian Wong, Ph.D.
Planning and Rules Manager
Planning, Rule Development & Area Sources

Attachment
JW:JC
RVC161216-01
Control Number

ATTACHMENT

Recommended Changes

1. In the construction portion of the Air Quality Analysis, the Lead Agency included Tier 4 engines in their analysis. In order avoid underestimating impacts in the Air Quality Analysis, the SCAQMD staff recommends revising MM-AQ-1 as follows or not take credit for Tier 4 engines in the Final CEQA document.

   MM-AQ-1 Prior to issuance of a grading permit, the project applicant shall ensure that all applicable SCAQMD Rules and Regulations are complied with during construction and the construction contractor use construction equipment that have Tier 4 final engines ~~if feasible~~, level 3 diesel particulate filters, with oxidation catalyst that have a 20% reduction in emissions.

Sensitive Receptors Near Freeways

2. The proposed residences will be sited near Route 60 Freeway. These residences would be approximately 70 feet north of the freeway[3], of which the Route 60 has an average daily traffic volume of 166,000 vehicles, which includes more than 19,920 diesel trucks. Additionally, the proposed project is adjoining a Union Pacific Railroad sited approximately 10 feet southeast of the residents. Because of the close proximity to the existing freeway and railroad, residents would be exposed to diesel particulate matter, which is a toxic air contaminant. The SCAQMD staff therefore recommends that the Lead Agency conduct a mobile source health risk assessment (HRA)[4] to disclose the potential health risks to the residents from vehicles and locomotives that emit diesel particulate matter

   Numerous health studies have demonstrated the potential adverse health effects of living near highly travelled roadways. As a result of these studies, the California Air Resources Board recommended in 2005 avoiding the siting of housing within 500 feet of a freeway in their Land Use Handbook.[5] Since the time of that study, additional research has continued to build the case that the near roadway environment also contains elevated levels of many pollutants that adversely affect human health, including some pollutants that are unregulated (e.g., ultrafine particles) and whose potential health effects are still emerging.[6]

   While the health science behind recommendations against placing new homes close to freeways is clear, SCAQMD staff recognizes the many factors lead agencies must consider when siting new housing. Further, many mitigation measures have been proposed for other projects to reduce exposure, including building filtration systems, sounds walls, vegetation barriers, etc. However, because of the potential health risks involved it is critical that any proposed mitigation must be carefully evaluated prior to determining if those health risks would be brought below recognized significance thresholds.

[3] Aerial map inspection.
[4] "Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis" Accessed at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis
[5] California Air Resources Board. April 2005. "Air Quality and Land Use Handbook: A Community Health Perspective." Accessed at: http://www.arb.ca.gov/ch/landuse.htm
[6] See Chapter 9 of the 2012 AQMP for further information Accessed at: http://www.aqmd.gov/aqmp/2012aqmp/Final-February2013/Ch9.pdf

Limits to Enhanced Filtration Units

3. The Lead Agency should consider the limitations of the proposed mitigation for this project (enhanced filtration) on housing residents. For example, in a study that SCAQMD conducted to investigate filters[7] similar to those proposed for this project, costs were expected to range from $120 to $240 per year to replace each filter. In addition, because the filters would not have any effectiveness unless the HVAC system is running, there may be increased energy costs to the resident. The proposed mitigation assumes that the filters operate 100 percent of the time while residents are indoors and does not account for the times when the residents have their windows or doors open or are in common space areas of the project. These filters also have no ability to filter out any toxic gasses from vehicle exhaust. The presumed effectiveness and feasibility of this mitigation should therefore be evaluated in more detail prior to assuming that it will sufficiently alleviate near roadway exposures.

[7] This study evaluated filters rated MERV 13
Accessed at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/aqmdpilotstudyfinalreport.pdf .