

ADAMS BROADWELL JOSEPH & CARDOZO

A PROFESSIONAL CORPORATION

ATTORNEYS AT LAW

520 CAPITOL MALL, SUITE 350
SACRAMENTO, CA 95814-4721

TEL: (916) 444-6201
FAX: (916) 444-6209

tenslow@adamsbroadwell.com

SO. SAN FRANCISCO OFFICE

601 GATEWAY BLVD., SUITE 1000
SO. SAN FRANCISCO, CA 94080

TEL: (650) 589-1660
FAX: (650) 589-5062

DANIEL L. CARDOZO
THOMAS A. ENSLOW
TANYA A. GULESSERIAN
MARC D. JOSEPH
ELIZABETH KLEBANER
RACHAEL E. KOSS
JAMIE L. MAULDIN
ROBYN C. PURCHIA
ELLEN L. TRESOTT

October 23, 2013

VIA E-MAIL AND OVERNIGHT MAIL

Ryan Kuchenig
Department of Community Development
City of Sunnyvale
456 West Olive Ave.
Sunnyvale, CA 94088
rkuchenig@sunnyvale.ca.gov

**Re: Comments on the Draft Environmental Impact Report for the
East Weddell Residential Projects, SCH No. 2013052010**

Dear Mr. Kuchenig:

We are writing on behalf of **Sunnyvale Residents for Responsible Development** regarding the September 2013 Draft Environmental Impact Report (“DEIR”) prepared for the East Weddell Residential Projects (“Project”). As explained more fully below, the DEIR does not comply with the requirements of the California Environmental Quality Act (“CEQA”). The City of Sunnyvale (“City”) may not approve the Project until the errors in the DEIR are corrected and a revised document is recirculated for public review and comment.

The Project is described as the replacement of existing office/industrial buildings with new multi-story residential buildings on two adjacent, but separately owned, sites: the Raintree site at 520-592 East Weddell Drive and the Sares Regis site at 610-630 East Weddell Drive. One four-story residential building is proposed for the Sares Regis site and would include 205 residential apartments, a four-story parking garage, and a landscaped common area. Eight apartment buildings, with a total of 465 units, are proposed for the Raintree site. The eight buildings would range in height from three to four stories. The whole of the project includes General Plan amendments for the two sites; rezoning for the two sites; Special Development

Ryan Kuchenig
October 23, 2013
Page 2

Permits for each site; Potential Vesting Tentative Maps for each site; modifications to the Tasman/Fair Oaks Area Pedestrian and Bicycle Circulation Plan; San Francisco Public Utilities Commission approval of improvements to the John W. Christian Greenbelt, and upsizing of the existing public sewer main on North Fair Oaks Avenue.

Because the action includes General Plan amendments, the Draft EIR also addresses a maximum buildout scenario, referred to as the “Full Buildout Scenario”, of 938 units for the two sites (259 units at the Sares Regis site and 679 units at the Raintree site). The Draft EIR addresses the Applicant Proposed Scenario at a project level of detail and the Full Buildout Scenario at a program level.

I. STATEMENT OF INTEREST

Sunnyvale Residents for Responsible Development (“Sunnyvale Residents”) is an unincorporated association of individuals and labor unions that may be adversely affected by the potential public and worker health and safety hazards and environmental and public service impacts of the Project. The association includes: City of Sunnyvale residents Jack X. Jones, Cheryl Pollock and Bob Rule; the International Brotherhood of Electrical Workers Local 332, Plumbers & Steamfitters Local 393, Sheet Metal Workers Local 104, and their members and their families; and other individuals that live and/or work in the City of Sunnyvale and Santa Clara County.

Individual members of Sunnyvale Residents and the affiliated unions live, work, recreate and raise their families in Santa Clara County, including the City of Sunnyvale. They would be directly affected by the Project’s environmental and health and safety impacts. Individual members may also work on the Project itself. Accordingly, they will be first in line to be exposed to any health and safety hazards that exist onsite. Sunnyvale Residents has an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making it less desirable for businesses to locate and people to live there.

Ryan Kuchenig
October 23, 2013
Page 3

II. SUMMARY OF THE DEIR’S INFORMATIONAL AND ANALYTICAL DEFICIENCIES

As these comments will demonstrate, the DEIR fails to comply with the requirements of CEQA and may not be used as the basis for approving the Project. It fails in significant aspects to perform its function as an informational document that is meant “to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment” and “to list ways in which the significant effects of such a project might be minimized.”¹

Substantial evidence indicates that the Project is likely to cause significant adverse impacts. The DEIR is legally defective due to its failure to adequately identify, evaluate and mitigate these potentially significant impacts. The errors and deficiencies of the DEIR include the following:

1. The DEIR fails to disclose that residual pesticides from past agricultural use are present in soils at concentrations that exceed safety thresholds for future site occupants;
2. The DEIR lacks substantial evidence to support its conclusion that impacts from volatile organic compounds (“VOCs”) in soil and soil gas on the Sares Regis site will be mitigated below a level of significance;
3. The DEIR fails to adequately disclose and assess potential impacts from benzene contamination on the Raintree site;
4. The DEIR violates Bay Area Quality Management District (“BAAQMD”) guidance by failing to quantify unmitigated construction emissions and to compare unmitigated emissions with BAAQMD threshold of significance;
5. The DEIR erroneously assumes that all off-road construction equipment will be model year 2006 or newer and comply with the Tier 2 standard for new off-road diesel engines, resulting in significantly underestimated impacts and inadequate mitigation measures;

B24-1

B24-2

¹ *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 391.

Ryan Kuchenig
October 23, 2013
Page 4

6. The DEIR improperly piecemeals its review of air quality impacts by evaluating various Project components separately rather than evaluating emissions from the Project as a whole;

B24-2

7. The DEIR's evaluation of the significance of average daily construction emissions is arbitrary and violates BAAQMD Guidelines;

8. The DEIR underestimates the scope of cancer risks from Project construction and fails to apply the most recent guidance developed by the Office of Environmental Health Hazard Assessment;

B24-3

9. The DEIR's assumption that proposed mitigation will reduce construction emission cancer risks below a level of significance is erroneous and not supported by substantial evidence;

10. The DEIR improperly compares mitigated operational emissions to the BAAQMD significance thresholds, resulting in an unsupported finding of no significant operational air quality impacts and a failure to require that the assumed operational air quality mitigation measures will be undertaken;

11. The DEIR improperly segments its review of operational emissions from development on the Sares Regis portion of the Project from its review of operational emissions from the Raintree portion of the Project, resulting in a failure to disclose potentially significant impacts;

B24-4

12. The DEIR's assumption that proposed mitigation will reduce health risks to future residents from nearby roadway emissions to below a level of significance is erroneous and not supported by substantial evidence;

13. The DEIR fails to identify the Project's inconsistency with the City's General Plan goals to "reduce the exposure of its citizens to air pollutants" and to utilize site planning "to protect citizens from unnecessary exposure to air pollutants";

B24-5

14. The DEIR's analysis of the vibration impacts on future project residents from truck traffic on the adjacently located Highway 101 is not supported by substantial evidence;

B24-6

Ryan Kuchenig
October 23, 2013
Page 5

15. The conclusion that proposed mitigation measures will reduce construction noise below a level of significance is not supported by substantial evidence;

B24-7

16. The determination that potential impacts from the construction of the upsized sewer main on North Fair Oaks Avenue would be less than significant is not supported by substantial evidence and is improperly piecemealed from the analysis of the rest of the Project’s impacts; and

B24-8

17. The DEIR fails to assess the Project’s inconsistency with the General Plan’s recycled water policy.

The DEIR must be withdrawn and revised to address these errors and deficiencies. Because of the substantial omissions in the information disclosed in the DEIR, revisions necessary to comply with CEQA will be, by definition, significant. In addition, substantial revision will be required to address impacts that were not disclosed in the DEIR. Because these revisions are significant, the revised DEIR will need to be recirculated for additional public comment.²

B24-9

We prepared our comments regarding the DEIR analyses with the assistance of air quality expert Dr. Petra Pless and hazards expert Mr. Matthew Hagemann. The comments from each expert are attached to this letter as Attachments A and B, respectively, along with each expert’s *curriculum vitae*.

III. CEQA REQUIRES THE DISCLOSURE OF ALL POTENTIALLY SIGNIFICANT PROJECT IMPACTS AND THE INCORPORATION OF ALL FEASIBLE MITIGATION MEASURES NECESSARY TO REDUCE SUCH IMPACTS TO BELOW A LEVEL OF SIGNIFICANCE

CEQA has two basic purposes. First, CEQA is designed to inform decisionmakers and the public about the potential, significant environmental effects of a project.³ Except in certain limited circumstances, CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an environmental impact report (“EIR”).⁴ An EIR’s purpose is to inform the public and

B24-10

² Pub. Resources Code § 21091.1; 14 Cal. Code Regs. (“CEQA Guidelines”) § 15088.5.

³ CEQA Guidelines § 15002, subd. (a)(1).

⁴ See, e.g., Pub. Resources Code § 21100.

Ryan Kuchenic
 October 23, 2013
 Page 6

its responsible officials of the environmental consequences of their decisions before they are made. Thus, an EIR “protects not only the environment but also informed self-government.”⁵

To fulfill this function, the discussion of impacts in an EIR must be detailed, complete, and “reflect a good faith effort at full disclosure.”⁶ CEQA requires an EIR to disclose all potential direct and indirect, significant environmental impacts of a project.⁷ In addition, an adequate EIR must contain the facts and analysis necessary to support its conclusions.⁸

The second purpose of CEQA is to require public agencies to avoid or reduce environmental damage when possible by requiring appropriate mitigation measures and through the consideration of environmentally superior alternatives.⁹ If an EIR identifies potentially significant impacts, it must then propose and evaluate mitigation measures to minimize these impacts.¹⁰ CEQA imposes an affirmative obligation on agencies to avoid or reduce environmental harm by adopting feasible project alternatives or mitigation measures.¹¹ Without an adequate analysis and description of feasible mitigation measures, it would be impossible for agencies relying upon the EIR to meet this obligation.

As discussed in detail below, the DEIR fails to meet either of these two key goals of CEQA. The DEIR fails to adequately and completely describe the Project and the Project setting and fails to disclose and evaluate all potentially significant environmental impacts of the Project. In addition, it proposes mitigation measures that are unenforceable, vague or so undefined that it is impossible to evaluate their effectiveness.

B24-10

⁵ *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

⁶ CEQA Guidelines § 15151; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 721-722.

⁷ Pub. Resources Code § 21100, subd. (b)(1); CEQA Guidelines § 15126.2, subd. (a).

⁸ See *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 568.

⁹ CEQA Guidelines § 15002, subds. (a)(2)-(3); see also, *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564; *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 391, 400.

¹⁰ Pub. Resources Code §§ 21002.1, subd. (a), 21100, subd. (b)(3).

¹¹ Pub. Resources Code §§ 21002-21002.1.

Ryan Kuchenig
 October 23, 2013
 Page 7

IV. THE DEIR FAILS TO DISCLOSE, EVALUATE AND ADEQUATELY MITIGATE POTENTIAL IMPACTS FROM CONTAMINATED SOILS

Hazards expert Mr. Hagemann has reviewed the DEIR and concluded that it fails to disclose, evaluate and adequately mitigate potential risks from contaminated soils.¹² Residual pesticide contamination was not adequately assessed and may pose risks to construction workers, nearby residents and future residents. Additionally, the Project may be subject to contamination through the migration of contaminated soil vapor, a condition not adequately evaluated in the DEIR. Additional investigation of contamination on the Project parcels is necessary and a revised DEIR must be prepared to adequately address these issues and to identify appropriate mitigation

A. The DEIR Fails to Disclose that Residual Pesticides from Past Agricultural Use Are Present in Soils at Concentrations that Exceed Safety Thresholds for Future Site Occupants

The DEIR fails to disclose that residual pesticides from past agricultural use may be present in soils on both the Sares Regis site and the Raintree site at concentrations that would pose a hazard to future site occupants when disturbed by Project construction and operations. A revised DEIR must be prepared to include a full evaluation of health risks posed by pesticides on construction workers, future residents and existing residents in the adjacent neighborhoods.

1. Pesticide Contamination on the Sares Regis Site

According to the DEIR, the Sares Regis site was used for orchards from the earliest available historical records until the 1960s. The DEIR goes on to say that, although records of specific pesticide use aren't available:

Prior to World War II, inorganic pesticides – often containing lead, arsenic, and other metals – were frequently used in agriculture. Following World War II, highly persistent organic pesticides, such as DDT, were commonly used until regulations began to restrict their use in the 1970s. Residues of

B24-11

¹² Hagemann, Comments on the East Weddell Residential Projects (Oct. 21, 2013) (“Hagemann Comments”).

Ryan Kuchenig
October 23, 2013
Page 8

inorganic and organic agricultural chemical can persist in soils for decades, potentially presenting a health risk to those who may come into contact with soils affected by those chemicals.¹³

The DEIR, however, fails to disclose that the dieldrin (which, like DDT, is an organochlorine pesticide) was detected on the Sares Regis site at levels more than ten times greater than the San Francisco Bay Regional Water Quality Control Board Environmental Screening Level (ESL). The 2012 Phase I Environmental Site Assessment (ESA) prepared for the Sares Regis site¹⁴ reported that dieldrin was detected at levels up to 30.4 ug/kg, but then mistakenly concluded that the sample result was “below the Regional Board residential ESL of 34 ug/kg.” The ESA’s statement that the Regional Board residential ESL is “34 ug/kg” was in error. The actual Regional Board residential ESL for dieldrin is 2.3 ug/kg.¹⁵ As a result, the DEIR incorrectly reported that “No organic compounds were detected in soils above ESLs for residential use.”¹⁶

The U.S. EPA has determined that dieldrin is a probable human carcinogen.¹⁷ Pesticide residuals in soils that may pose a health risk are a well-known issue for developers and local agencies in Santa Clara County.

Because the dieldrin detections were mistakenly dismissed as being below the residential land use ESL, the DEIR fails to disclose the actual baseline soil conditions of the Project parcel and fails to evaluate potential threats to human health posed by the pesticides in the soil. Health risks would potentially result from construction worker exposure to the residual pesticides during grading and excavation activities.¹⁸ The construction workers would potentially be exposed to the pesticides by touching contaminated soil and by breathing dust that has

¹³ DEIR at p. 4.5-1

¹⁴ WEST Environmental Services and Technology, 2012, Phase I Environmental Site Assessment, 610 and 630 East Weddell Avenue, Sunnyvale, California, p. 6.

¹⁵ Hagemann Comments at p. 2, citing to San Francisco Bay Area Regional Water Quality Control Board 2013 Tier 1 ESLs (May 2013), Summary Table C; http://www.swrcb.ca.gov/rwqcb2/water_issues/programs/ESL/Lookup_Tables_Summary_May_2013.pdf.

¹⁶ DEIR at p. 4.5-2.

¹⁷ Hagemann Comments at p. 2, citing <http://www.atsdr.cdc.gov/phs/phs.asp?id=315&tid=56>.

¹⁸ Hagemann Comments at p. 2.

Ryan Kuchenig
October 23, 2013
Page 9

pesticides bound to the soil particles. Additionally, adjacent residents would be potentially exposed to pesticide-containing dust during earthmoving activities and if soil is exported, by trucks, from the Project site.

The DEIR also fails to disclose that, according to the 2012 Phase I ESA, “pesticides might have been stored, mixed and/or disposed” in association with a building identified in historical air photos.¹⁹ The San Jose Mercury News identified Santa Clara County to have a “hidden pesticide risk” from former agricultural operations, including old orchards.²⁰ Sampling conducted for a 2007 news story in the Mercury News identified undetected “hot spots” and samples taken from soils in a Los Altos park at a former walnut orchard had levels of DDT compounds above the state definition of hazardous waste. The Mercury News article concluded that Santa Clara County has more toxic cleanup sites involving old orchard pesticides than any county in California, as well as a significant number of other sites contaminated by other types of farming or pesticide handling. Accordingly, the failure to disclose the historic use, storage and disposal of pesticides on the Project site misleads the public as to the potential that this site, like so many other sites in Santa Clara County, may have a pesticide contamination problem.

B24-11

The DEIR does provide, as mitigation, that occupancy permits for the Sares Regis site are to be issued contingent upon the site receiving closure with Department of Toxic Substances Control (“DTSC”) under the Voluntary Cleanup Program. However, the cleanup of the Sares Regis site under this program is directed at volatile organic compounds in soil gas and does not address pesticide contamination. The DEIR states “currently, remedial action is expected to be limited to excavation and off-site disposal of a small volume of soil.”²¹ The DEIR goes on to describe this area as a volume of 10 cubic yards of soil that will be removed for offsite disposal.²²

The DEIR does not describe any plans for further testing of residual pesticides in soil and makes no mention of the need to address the exceedance of the residential ESL for dieldrin in soil. Failure to consider further sampling, especially in a former pesticide mixing and loading area, is inconsistent with provisions for pesticide sampling as made under other CEQA actions in Santa Clara County.

¹⁹ Hagemann Comments at p. 2, citing <http://www.atsdr.cdc.gov/phs/phs.asp?id=315&tid=56>

²⁰ Hagemann Comments at p. 2, citing http://www.mercurynews.com/science/ci_7217803

²¹ DEIR at p. 2-14.

²² DEIR at p.5-2.

Ryan Kuchenig
 October 23, 2013
 Page 10

In Santa Clara County, pesticide contamination assessments are routinely conducted as part of the CEQA process.²³ For example, an August 2013 Initial Study for a project in Santa Clara concluded that excavation and trenching required for project construction “could result in impacts to construction workers from exposure to soil contamination related to agricultural operations.”²⁴ Mitigation for that project required shallow soil samples to be taken throughout the project site in order to “determine if contaminated soil from previous agricultural land uses is located on-site with concentrations above established construction/trench worker thresholds.”²⁵

Consistent with provisions made under CEQA for other Santa Clara Valley projects, sampling for pesticides should be conducted site-wide. The sampling should adhere to guidance promulgated by the DTSC, entitled “Interim Guidance for Sampling Agricultural Properties.”²⁶ Under this guidance, sampling for pesticides at the 4 acre-site requires drilling eight borings for the collection of four composite soil samples.²⁷

The results of the sampling should be assessed for health risks by appropriate regulatory agencies, including the City and DTSC.

The results of the sampling, along with the regulatory determination, should be included in a revised DEIR. Any mitigation that would be necessary to protect construction worker health and health of the public should be identified in a revised DEIR. Additional mitigation, for handling and disposing pesticide-contaminated soil should also be identified in the revised DEIR.

2. Pesticide Contamination on the Raintree Site

The DEIR also fails to disclose that the pesticide DDE has been detected on the Raintree site at levels that exceed the residential ESL. The U.S. EPA has determined that DDE is a probable human carcinogen.²⁸

²³ Hagemann Comments at pp. 2-3.

²⁴ Hagemann Comments at p. 3.

²⁵ *Id.*

²⁶ Hagemann Comments at p. 3., citing <http://www.dtsc.ca.gov/Schools/upload/Ag-Guidance-Rev-3-August-7-2008-2.pdf>.

²⁷ *Id.*

²⁸ Hagemann Comments at p. 3., citing <http://www.atsdr.cdc.gov/toxprofiles/tp35-c1.pdf>, at p. 7

B24-11

B24-12

Ryan Kuchenig
October 23, 2013
Page 11

The DEIR incorrectly claims that soils on the site contained “pesticides at low concentrations, below ESLs for residential land uses.”²⁹ The November 2012 Treadwell & Rollo Environmental Site Investigation Report for the Raintree site, however, provides the following conflicting information:

The organochlorine pesticide DDE was detected at concentrations ranging from 0.087 mg/kg to 1.8 mg/kg in 3 of the 6 shallow soil samples analyzed. The residential and commercial/industrial shallow soil ESLs for DDE are 1.7 mg/kg and 4 mg/kg, respectively.³⁰

In other words, the DDE detection of 1.8 mg/kg **exceeds** the residential ESL of 1.7 mg/kg.

Despite this data, the Treadwell and Rollo report and, in turn, the DEIR erroneously conclude that 1.8 mg/kg does not exceed the residential ESL of 1.7 mg/kg. As a result of this error, the public and decisionmakers are not informed of potentially significant contamination impacts and no mitigation is imposed to address this contamination.

Like at the Sares Regis site, further investigation is necessary to determine the extent of pesticide contamination on the site. Consistent with DTSC guidance, sampling for pesticides at the 12 acre-site would require drilling 22 borings for the collection of six composite soil samples.³¹ The results of the sampling should be assessed for health risks by regulatory agencies and should be included in a revised DEIR along with mitigation necessary to protect the health of workers, neighbors and future residents.

B. The DEIR’s Mitigation of VOC Contamination on the Sares Regis Site Is Inadequate to Support a Finding that Impacts Will Be Reduced Below a Level of Significance

The DEIR lacks substantial evidence to support its conclusion that impacts from VOCs in soil and soil gas on the Sares Regis site will be mitigated below a

²⁹ DEIR at p. 4.5-3.

³⁰ Treadwell & Rollo, November 2012, Limited Environmental Site Investigation Report for Fair Oaks Business Park, 520 to 592 East Weddell Drive, Sunnyvale, California, p. 6

³¹ Hagemann Comments at p. 4, citing <http://www.dtsc.ca.gov/Schools/upload/Ag-Guidance-Rev-3-August-7-2008-2.pdf>, Table 1

B24-12

B24-13

Ryan Kuchenic
 October 23, 2013
 Page 12

level of significance.³² A soil gas sample taken in 2013 found VOC concentrations above the ESLs in one location on the Sares Regis site.³³ On the basis of the 2013 sampling, the environmental consultant recommended the removal of 10 cubic yards of soil along with post-excavation sampling to determine if the contamination was removed.

The Sares Regis site has been enrolled in the DTSC Voluntary Cleanup Program;³⁴ however, no documentation was provided in the DEIR that would show that DTSC approves the plan to remove the 10 cubic yards of soil as a cleanup measure. A revised DEIR should be prepared to include a DTSC letter approving of the cleanup plans as protective of the proposed residential land use. Without such a letter, the City lacks substantial evidence to support its assumption that the proposed mitigation will reduce potential impacts below a level of significance.³⁵

B24-13

C. The DEIR Fails to Disclose and Evaluate Potentially Significant Benzene Contamination on the Raintree Site

The DEIR fails to adequately disclose and assess potential impacts from benzene contamination on the Raintree site. Benzene is a known human carcinogen.³⁶ The DEIR states that soils on the Raintree site contain “petroleum hydrocarbons ... at low concentrations, below ESLs for residential land uses.”³⁷ Sampling data for the Raintree site, however, has shown benzene at concentrations of up to 30 ug/m³,³⁸ which are close enough to the residential California Human Health Screening Level of 36.2 ug/m³³⁹ and the residential ESL of 42 ug/m³ that additional sampling is warranted.⁴⁰

B24-14

³² Hagemann Comments at p. 4.

³³ DEIR at p. 4.5-2.

³⁴ DEIR at p. 4.5-2.

³⁵ Hagemann Comments at pp. 4-5.

³⁶ Hagemann Comments at p. 5., citing <http://www.atsdr.cdc.gov/toxfaqs/TF.asp?id=38&tid=14>

³⁷ DEIR at p. 4.5-3.

³⁸ Treadwell & Rollo, Limited Environmental Site Investigation Report for Fair Oaks Business Park, 520 to 592 East Weddell Drive, Sunnyvale, California, Table 5.

³⁹ Hagemann Comments at p. 5., citing <http://www.calepa.ca.gov/brownfields/documents/2005/chhslsguide.pdf>, Table 2

⁴⁰ Hagemann Comments at p. 5., citing <http://www.calepa.ca.gov/brownfields/documents/2005/chhslsguide.pdf>, Summary Table E

Ryan Kuchenic
 October 23, 2013
 Page 13

The DEIR, however, makes no provisions for further sampling of the benzene in the soil vapor and includes no information that the DTSC would allow for development of the site for a residential project given the findings of benzene that approach regulatory screening levels. A revised DEIR should be prepared to document notification of DTSC of the findings and to document that DTSC would agree that no further action is necessary at the site to protect human health prior to completion of the Project.

B24-14

V. THE DEIR FAILS TO ADEQUATELY DISCLOSE SIGNIFICANT AIR QUALITY IMPACTS AND FAILS TO SUPPORT ITS AIR QUALITY IMPACT FINDINGS WITH SUBSTANTIAL EVIDENCE

The DEIR claims that its analysis of construction impacts rely on the methodologies and thresholds of significance developed by the BAAQMD as set forth in its *CEQA Air Quality Guidelines*.⁴¹ As discussed below, contrary to its claim, the DEIR's evaluation does not follow the BAAQMD's *CEQA Air Quality Guidelines*. Furthermore, the analysis suffers from a number of incorrect assumptions and errors in methodology that render its conclusions regarding the significance of construction impacts and the sufficiency of mitigation erroneous and without foundation. Air Quality expert Dr. Pless has reviewed the DEIR's air quality analysis and the supporting documents in the record. Dr. Pless has identified the following errors and omissions in the DEIR which render the DEIR's evaluation of the Project's air quality impacts legally inadequate:⁴²

B24-15

- (1) The DEIR violates BAAQMD guidance by failing to quantify unmitigated construction emissions and to compare unmitigated emissions with BAAQMD threshold of significance;

⁴¹ DEIR at p. 4.2-15. The DEIR erroneously cites to "May 2011 CEQA Air Quality Guidelines"; the BAAQMD's revised draft *CEQA Air Quality Guidelines* were proposed on May 3, 2010 and the final *CEQA Air Quality Guidelines* were adopted on May 31, 2012; see <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Updated-CEQA-Guidelines.aspx>. Dr. Pless's comments rely on the final *CEQA Air Quality Guidelines* adopted on May 31, 2012.

⁴² Pless, Review of Draft Environmental Impact Report for East Weddell Residential Projects, City of Sunnyvale (Oct. 22, 2013) ("Dr. Pless Comments").

Ryan Kuchenig
October 23, 2013
Page 14

- | | |
|---|---------------|
| (2) The DEIR erroneously assumes that all off-road construction equipment will be model year 2006 or newer and comply with the Tier 2 standard for new off-road diesel engines, resulting in significantly underestimated impacts and inadequate mitigation measures; | B24-16 |
| (3) The DEIR improperly piecemeals its review of air quality impacts by evaluating various Project components separately rather than evaluating emissions from the Project as a whole; | B24-17 |
| (4) The DEIR’s evaluation of the significance of average daily construction emissions is arbitrary and violates BAAQMD Guidelines; | B24-18 |
| (5) The DEIR’s evaluation of air quality impacts associated with the Fair Oaks sewer pipe replacement activities is conclusory and not supported by substantial evidence; | B24-19 |
| (6) The DEIR underestimates the scope of cancer risks from Project construction and fails to apply the most recent guidance developed by the Office of Environmental Health Hazard Assessment (“OEHHA”); | B24-20 |
| (7) The DEIR’s assumption that proposed mitigation will reduce construction emission cancer risks below a level of significance is erroneous and not supported by substantial evidence; | B24-20 |
| (8) The DEIR improperly compares mitigated operational emissions to the BAAQMD significance thresholds, resulting in an unsupported finding of no significant operational air quality impacts and a failure to require that the assumed operational air quality mitigation measures will be undertaken; | B24-20 |
| (10) The DEIR improperly segments its review of operational emissions from development on the Sares Regis portion of the Project from its review of operational emissions from the Raintree portion of the Project, resulting in a failure to disclose potentially significant impacts; | B24-21 |

Ryan Kuchenig
October 23, 2013
Page 15

(11) The DEIR’s assumption that proposed mitigation will reduce health risks to future residents from nearby roadway emissions below a level of significance is erroneous and not supported by substantial evidence; and

B24-22

(12) The DEIR fails to identify the Project’s inconsistency with the City’s General Plan goals to “reduce the exposure of its citizens to air pollutants” and to utilize site planning “to protect citizens from unnecessary exposure to air pollutants.

B24-23

A. The DEIR Violates BAAQMD Guidance by Failing to Quantify and Evaluate the Significance of Unmitigated Construction Emissions

The BAAQMD’s *CEQA Air Quality Guidelines*, which the DEIR claims to have followed⁴³, recommends determining the significance of emissions during Project construction based on the following six steps:

- Step 1: Emissions Quantification;
- Step 2: Comparison of Unmitigated Emissions with Thresholds of Significance;
- Step 3: Mitigation and Emission Reductions;
- Step 4: Comparison of Mitigated (Basic Mitigation) Emissions with Thresholds of Significance;
- Step 5: Implement Additional Construction Mitigation Measures; and
- Step 6: Comparison of Mitigated Emissions with Thresholds of Significance.⁴⁴

B24-24

Here, the DEIR skips the first five steps and only compares mitigated emissions with the BAAQMD’s thresholds of significance. This approach fails to identify significant impacts of unmitigated impacts on air quality and consequently fails to require the mitigation measures that are built into the assumptions for the mitigated emissions calculations.⁴⁵

⁴³ DEIR at p. 4.2-15.

⁴⁴ Dr. Pless Comments; BAAQMD, *CEQA Air Quality Guidelines*, pp. 8-1 and 8-2.

⁴⁵ Dr. Pless Comments.

Ryan Kuchenig
 October 23, 2013
 Page 16

In this case, the DEIR assumed that all off-road construction equipment engines would be model year 2006 or newer and comply with the Tier 2 standard for *new* nonroad (or off-road) diesel engines established by the U.S. Environmental Protection Agency (“EPA”).⁴⁶ In other words, the DEIR’s emission estimates assume that all construction equipment engines are only eight years old or younger. (As discussed in Section IV.B, *infra*, this assumption is erroneous.)

The DEIR then compares these *mitigated* (Tier 2-compliant) emissions to the BAAQMD’s significance thresholds to find no significant impacts. Had the DEIR compared *unmitigated* emissions from a typical construction fleet to the BAAQMD’s significance thresholds, it would have found significant impacts requiring mitigation.⁴⁷ Because it skips that step, the DEIR finds that construction emissions would not be significant. As discussed below, not only does this analysis fail to comply with BAAQMD guidance, this erroneous methodology also results in a failure to require that the assumed mitigation measures will be undertaken. As a result, the findings based on this analysis understate or fail to disclose impacts and are not supported by substantial evidence.

B24-24

In order to provide meaningful and supported air quality analysis, the City should prepare a revised DEIR that follows the six steps laid out in BAAQMD’s *CEQA Air Quality Guidelines* to determine significance of construction emissions and require adequate mitigation to ensure that emissions will remain below significance thresholds.

B. The Assumption that Tier 2 or Newer Engines Would Be Used for Off Road Construction Equipment Is Not Supported by Any Evidence or Required by Any Proposed Enforceable Measures

The DEIR’s assumption that EPA Tier 2 or stricter engines would be used for off-road construction equipment is not supported by any evidence and is contrary

B24-25

⁴⁶ DEIR at p. 4.2-18 (“Emission rates for construction equipment representative of U.S. EPA Tier 2 engine emission standards were assumed (a model year 2006 construction equipment fleet.)” and Appendix D, Table “Off-Road Construction Equipment & On-Site Vehicle Exhaust Emissions, Sares Regis Site – 2014-2015 – Construction Emissions with Tier 2 Equipment” and Table “Off-Road Construction Equipment & On-Site Vehicle Exhaust Emissions, Raintree Site – 2014-2016 – Construction Emissions with Tier 2 Equipment.”)

⁴⁷ Dr. Pless Comments.

Ryan Kuchenig
 October 23, 2013
 Page 17

to studies regarding the average age and lifespan of construction equipment.⁴⁸ By failing to determine the significance of emissions based on the likely range of construction equipment, the DEIR fails to disclose actual emissions, fails to determine and disclose actual significance of these emissions and fails to impose appropriate mitigation, including restrictions on the age and type of construction engines.

The DEIR does *not* incorporate its assumption of Tier 2 compliance into a corresponding mitigation measure and thus does not actually require Tier 2 compliance or the use of only model year 2006 or newer engines for all off-road construction equipment.⁴⁹ Nonbinding mitigation measures may not be relied upon to support an EIR's finding that impacts will be mitigated below a level of significance.⁵⁰

The only mitigation of construction equipment that is proposed as binding mitigation is Mitigation Measure AIR-5a. It is only because the DEIR finds excess cancer risks from diesel particulate matter exhaust emissions (mostly attributable to off-road construction equipment) that it requires any mitigation for construction equipment at all in Mitigation Measure AIR-5a. This measure, however, does not require compliance with EPA's Tier 2 standards for all construction engines. (See discussion regarding the inadequacies of Mitigation Measure AIR-5a, *infra*, in Section V.F.2.)

The assumption that only model year 2006 or newer engines would be used for off-road construction equipment that would be used to construct the Project is not realistic unless specifically required in mitigation measures.⁵¹ Studies of the average useful life of construction fleet equipment demonstrate that is very likely that some engines in the construction equipment fleet would be considerably older.⁵² The following table shows a summary of the useful life of construction

B24-25

⁴⁸ Dr. Pless Comments.

⁴⁹ Dr. Pless Comments.

⁵⁰ *Napa Citizens for Honest Government v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 385.

⁵¹ Dr. Pless Comments.

⁵² Dr. Pless Comments.

Ryan Kuchenig
 October 23, 2013
 Page 18

equipment in years and their corresponding percentage emissions of the entire construction fleet as estimated by the Union of Concerned Scientists.⁵³

	Percent of Total PM from Construction Equipment	Percent of Total NOx from Construction Equipment	Useful Life (in years)
Excavators	17%	18%	17
Tractors/Loaders/Backhoes	16%	12%	18
Crawler Tractors (Tracked Bulldozers)	13%	13%	29
Rubber-Tired Loaders	12%	12%	21
Skid-Steer Loaders	7%	4%	13
Off-Highway Trucks	5%	9%	17
Rough-Terrain Forklifts	5%	3%	16
Graders	5%	5%	23
Off-Highway Tractors	4%	5%	31
Rollers	3%	3%	20
Trenchers	3%	2%	28
Scrapers	3%	4%	26
Cranes	3%	4%	19
Rubber-Tired Dozers	2%	2%	32
Pavers	2%	1%	26
Bore/Drill Rigs	1%	1%	10
Other Construction Equipment	0.4%	1%	16
Paving Equipment	0.3%	0.2%	24
Surfacing Equipment	0.04%	0.1%	22

B24-25

As the above table shows, the useful life of construction equipment, which is defined as *the age at which half of the equipment of a given model year has been retired*, varies from 10 to 32 years.⁵⁴ In other words, the other half of equipment of a given model year continues to be operated considerably longer than 10 to 32 years. For example, the average useful life for skid steer loaders is 13 years and for excavators 17 years.⁵⁵ Thus, the assumption that the exempted equipment in the Project's construction fleet would only be eight years old and comply with EPA Tier 2 standards is erroneous and is not supported by substantial evidence.

⁵³ Dr. Pless Comments, citing Union of Concerned Scientists, Digging up Trouble, The Health Risk of Construction Pollution in California, November 2006, p. 4; available http://www.ucsusa.org/assets/documents/clean_vehicles/digging-up-trouble.pdf.

⁵⁴ Dr. Pless Comments.

⁵⁵ Dr. Pless Comments.

Ryan Kuchenig
October 23, 2013
Page 19

As a result of this unsupported assumption, the DEIR's emission estimates are substantially understated and lack sufficient foundation or reliability to form the basis for the DEIR's findings. Older construction equipment has considerably higher emissions and is frequently not subject to federal or state regulations because it is too old.⁵⁶ Accordingly, use of this equipment can substantially increase emissions on a construction site.⁵⁷ The same study by the Union of Concerned Scientists summarizes:

Construction and other off-road equipment, however, did not face new particulate matter (PM) emission standards until 1996, with some engines unregulated as late as 2003. In 2004, the U.S. Environmental Protection Agency (EPA) finally forced construction equipment to meet similar standards to highway trucks and buses, requiring 90 percent reductions in nitrogen oxides (NOx) and PM for most engine sizes. These standards will phase in over a seven-year period starting in 2008, reaching full implementation in 2014 (EPA 2004). Although these standards will significantly reduce pollutants from new engines, the full benefits will not be realized until sometime after 2030, when the long-lasting equipment currently in use today is finally retired. There are technology options available to clean up these existing machines, but neither the EPA nor the state of California currently requires them. As a result, if no additional requirements are put in place, the construction sector will continue emitting high levels of toxic and smog-forming pollution for the next two to three decades.⁵⁸

Therefore, it is highly unlikely that all exempted engines of the construction fleet for Project construction would meet EPA's Tier 2 emission factors.⁵⁹ Because older equipment has disproportionately higher emissions, exhaust emissions from this equipment are likely substantially underestimated in the DEIR.⁶⁰

B24-25

⁵⁶ Dr. Pless Comments.

⁵⁷ Dr. Pless Comments.

⁵⁸ Dr. Pless Comments, citing Union of Concerned Scientists, Digging up Trouble, The Health Risk of Construction Pollution in California, November 2006, at p. 3.

⁵⁹ Dr. Pless Comments.

⁶⁰ Dr. Pless Comments.

Ryan Kuchenig
 October 23, 2013
 Page 20

The DEIR must be revised to either require that all Project construction equipment comply with Tier 2 or better (as is now erroneously assumed) or to provide revised emission estimates and associated health risks based on worst-case, reasonably likely construction fleet emissions rather than on unrealistic, optimistic assumptions.

B24-25

C. The DEIR Impermissibly Piecemeals the Impacts on Air Quality from Project Construction instead of Evaluating Impacts from the Whole of the Project

The DEIR's air quality analysis violates CEQA because it segments evaluation of air quality emissions from demolition and construction on the Raintree site from evaluation of demolition and construction on the Sares Regis site. By looking at the emissions from construction activities on each site separately, the EIR understates and fails to disclose the impacts on air quality from the Project as a whole.⁶¹ CEQA prohibits such "piecemealing" since, by dividing a project up into two or more pieces each with a comparatively lesser environmental impact, it makes each phase appear less significant.⁶² Instead, CEQA requires evaluation of the impacts from the "whole of the project."⁶³

B24-26

Under CEQA, the term "project" is given a broad interpretation in order to maximize protection of the environment.⁶⁴ The project includes the "whole of the action" that may result in either a direct or indirect physical change in the environment.⁶⁵ In performing its analysis, the lead agency may not split a project into two or more segments. This approach ensures "that environmental considerations do not become submerged by chopping a large project into many little ones, each with a potential impact on the environment, which cumulatively may have disastrous consequences."⁶⁶

⁶¹ Dr. Pless Comments.

⁶² *Citizens Assn. for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151, 165-166.

⁶³ CEQA Guidelines § 15378, subd. (a); *Burbank- Glendale-Pasadena Airport Authority v. Hensler* (1991) 233 Cal.App.3d 577, 592.

⁶⁴ *McQueen v. Board of Directors* (1988) 202 Cal.App.3d 1136, 1143.

⁶⁵ CEQA Guidelines § 15378, subd. (a).

⁶⁶ *Bozung v. Local Agency Formation Commission* (1975) 13 Cal.3d 263, 283

Ryan Kuchenig
 October 23, 2013
 Page 21

For example, in the case *Arviv Enterprises v. South Valley Area Planning Commission*, the Court rejected an attempt of a housing developer to divide a 21 home development into several smaller pieces -- first 5 homes, then 2 homes, then 14 homes, each with successive mitigated negative declarations. The Court held that the applicant had improperly described the project and that a single EIR was required to analyze and mitigate the effects of the entire 21-home development even though separate and distinct applications for entitlements were submitted for each component. The Court stated: “The significance of an accurate project description is manifest, where, as here, cumulative environmental impacts may be disguised or minimized by filing numerous, serial applications.”⁶⁷

In the case at hand, the City describes the Project under review as the amendment of current General Plan and zoning designations of existing office/industrial parcels to allow the construction of new multi-story residential buildings on two immediately adjacent properties, the Raintree site and the Sares Regis site.⁶⁸ The DEIR states that the “project” is defined as “the two development projects *combined*.”⁶⁹

More specifically, the DEIR describes the “overall project” as including the following “components”:⁷⁰

- General Plan amendments for two sites⁷¹
- Rezoning for two sites
- Special Development Permits
- Potential Vesting Tentative Maps

⁶⁷ *Arviv Enterprises v. South Valley Area Planning Commission* (2002) 101 Cal.App.4th 1333, 1346.

⁶⁸ City of Sunnyvale, Notice of Completion of an Environmental Impact Report for the East Weddell Residential Projects at p. 1 (emphasis provided).

⁶⁹ DEIR at pp. 1-1, 2-1; see also City of Sunnyvale, Notice of Completion of an Environmental Impact Report for the East Weddell Residential Projects at p. 1.

⁷⁰ DEIR at pp. 1-1, 2-1; see also City of Sunnyvale, Notice of Completion of an Environmental Impact Report for the East Weddell Residential Projects at p. 1.

⁷¹ While the DEIR states that separate development applications will be processed for the Raintree site and the Sares Regis site, it states that the General Plan Amendment and rezoning could be processed either together or separately. DEIR at pp. 1-1, 2-1; see also City of Sunnyvale, Notice of Completion of an Environmental Impact Report for the East Weddell Residential Projects at p. 1.

Ryan Kuchenig
 October 23, 2013
 Page 22

- Modifications to the Tasman/Fair Oaks Area Pedestrian and Bicycle Circulation Plan
- San Francisco Public Utilities Commission (SFPUC) approval of improvements to the John W. Christian Greenbelt

In addition, the DEIR states that “as part of the proposed projects,” the project applicants for the two sites shall jointly replace the existing 8-inch public sewer main in North Fair Oaks Avenue with a 10-inch main.⁷²

Since CEQA requires reviewing the impacts of the whole of a project rather than evaluating each of the separate components or phases of a project independently, the DEIR should have evaluated the potential significance of emissions from all of the listed Project components, as a whole. The DEIR fails to take this approach and instead evaluates emissions from development on the Raintree site in isolation from emissions from development of the Sares Regis site.

B24-26

This approach results in a failure to disclose and mitigate potentially significant impacts. When the Project’s components are analyzed as a whole, as required by CEQA, their construction emissions result in significant impacts on air quality where the DEIR found none.

The DEIR adopts the BAAQMD thresholds of significance for construction emissions of reactive organic gases (“ROG”) and nitrogen oxides (“NOx”) (which are both ozone precursors), as well as for particulate matter exhaust with an average aerodynamic diameter⁷³ of 10 and 2.5 micrometers or less (“PM10” and “PM2.5”, respectively).⁷⁴ The table below compares total mitigated construction emissions in pounds per day (“lb/day) as presented by the DEIR for the *Applicant Proposed Scenarios*⁷⁵ (i.e., assuming Tier 2-compliant engines only) to the BAAQMD’s daily thresholds of significance for these pollutants.

B24-27

⁷² DEIR at p. 4.11-11.

⁷³ The aerodynamic diameter describes the diameter of a sphere with a unit density that has aerodynamic behavior identical to that of the particle in question; i.e., an expression of aerodynamic behavior of an irregularly shaped particle in terms of the diameter of an idealized particle. Particles having the same aerodynamic diameter may have different dimensions and shapes. Dr. Pless Comments.

⁷⁴ DEIR at p. 4.2-16.

⁷⁵ DEIR at Tables 4.2-5 (Sares Regis) and 4.2-6 (Raintree).

Ryan Kuchenig
 October 23, 2013
 Page 23

Mitigated Construction Emissions (lb/day)

	ROG	NO _x	PM10	PM2.5
<i>Applicant Proposed Scenarios</i>				
Sares Regis	6.9	13.0	0.9	0.4
Raintree	35.6	32.2	2.3	1.9
Total Applicant Proposed Scenarios	52.5	45.2	3.2	2.3
BAAQMD Threshold	54	54	82	54
Significant?	no	no	no	no

B24-27

The table shows that total mitigated ROG emissions from construction of the *Sares Regis* and *Raintree Applicant Proposed Scenarios*, 52.5 lb/day, are just 1.5 lb/day shy of the BAAQMD’s threshold of 54 lb/day. As discussed in Sections V.B, V.D and V.E of this letter, the DEIR underestimates mitigated emissions that would occur during construction. When these errors are corrected, Dr. Pless concludes that mitigated ROG emissions from the total *Applicant Proposed Scenarios* will greatly exceed the BAAQMD’s construction significance threshold for ROG emissions.⁷⁶ The failure to disclose this significant impact violates CEQA.

D. The DEIR Fails to Correctly Estimate Daily Emissions during Construction

The DEIR’s evaluation of the significance of daily construction emissions is also legally inadequate. The DEIR applies BAAQMD thresholds that are based upon the use of BAAQMD approved emission models, but then fails to use the approved emission models to determine daily emissions.⁷⁷ As a result, the DEIR fails to disclose potentially significant air quality impacts and its findings are not supported by substantial evidence.

B24-28

The DEIR erroneously claims that its analysis of construction impacts relies on the methodologies and thresholds of significance developed by the BAAQMD’s *CEQA Air Quality Guidelines*.⁷⁸ As Step 1 of a significance determination, the

⁷⁶ Dr. Pless Comments.

⁷⁷ Dr. Pless Comments.

⁷⁸ DEIR, p. 4.2-15. The DEIR erroneously cites to “May 2011 CEQA Air Quality Guidelines”; the BAAQMD’s revised draft *CEQA Air Quality Guidelines* were proposed on May 3, 2010 and the final

Ryan Kuchenig
 October 23, 2013
 Page 24

BAAQMD's CEQA Air Quality Guidelines recommend the following for quantification of construction emissions:

BAAQMD recommends using URBEMIS to quantify construction emissions for proposed land use development projects and the Roadway Construction Emissions Model (RoadMod) for proposed linear projects such as, new roadway, roadway widening, or pipeline installation. ...⁷⁹

The recommended model, URBEMIS, has been superseded by the exclusive use of the California Emissions Estimator Model ("CalEEMod") and the BAAQMD now recommends:

On July 31, 2013, the California Air Pollution Control Officers Association (CAPCOA) released CalEEMod 2013.2. This land use model can be downloaded from www.caleemod.com. From this point forward, the BAAQMD will no longer support the use of Urbemis. Please perform all future analyses using CalEEMod.⁸⁰

Here, the DEIR only uses CalEEMod to estimate ROG emissions from architectural coatings during construction (*i.e.*, painting).⁸¹ For all other construction activities, the DEIR *does not* use CalEEMod to estimate emissions.⁸²

Instead, the DEIR computes annual and average daily exhaust emissions from off-road construction equipment (excavators, dozers, loaders, scrapers, backhoes, etc.) with spreadsheets based on the Project construction schedule and using emission factors from the OFFROAD Model developed by the California Air

CEQA Air Quality Guidelines were adopted on May 31, 2012; see <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Updated-CEQA-Guidelines.aspx>. My comments rely on the BAAQMD's final CEQA Air Quality Guidelines adopted on May 31, 2012.

⁷⁹ BAAQMD, CEQA Air Quality Guidelines, p. 8-1.

⁸⁰ BAAQMD, website "CEQA Guidelines", last updated August 6, 2013; <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES.aspx>.

⁸¹ Dr. Pless Comments; DEIR, p. 4.2-18; CalEEMod version 2011.1.1 has been superseded by version 2013.2.2; see <http://www.caleemod.com/>. However, a review of the revisions by Dr. Pless found that architectural coatings were not affected other than permitting the user to modify the square footage; see <http://www.aqmd.gov/caleemod/doc/Revisions-2013-2-2.pdf>.

⁸² Dr. Pless Comments.

Ryan Kuchenic
 October 23, 2013
 Page 25

Resources Board (“CARB”).⁸³ For estimating exhaust emissions for on-road vehicles (water, haul, cement, and vendor trucks and construction worker vehicles), the DEIR relies on emission factors from CARB’s EMFAC2011 mobile source emissions model.⁸⁴ While both OFFROAD and EMFAC2011 are incorporated into CalEEMod for estimating construction emissions, CalEEMod calculates average daily emissions using a significantly different methodology than used by the DEIR.⁸⁵

The DEIR explains that “average daily” emissions “were computed from total emissions and dividing [by] the number of construction days.”⁸⁶ The DEIR computed the number of construction days for the *Sares Regis* construction at 462 days (assuming 22 days per month and 21 months of construction) and for the *Raintree* construction at 528 days (assuming 22 days per month and 24 months of construction).⁸⁷ This approach is not consistent with the CalEEMod model, BAAQMD guidance, or industry standards.⁸⁸ The DEIR provides no explanation why it did not use the CalEEMod model for these emission sources, as recommended by the BAAQMD, and instead undertook its own approach.

B24-28

The intent of the BAAQMD’s *CEQA Air Quality Guidelines* is to compare daily construction emissions *as determined with the current agency-recommended models* to the respective daily thresholds of significance.⁸⁹ CalEEMod (as well as its predecessor URBEMIS) provides daily emissions *separately for each construction phase* (e.g., demolition, grading, building construction, etc.):

Since construction phases may or may not overlap in time, the maximum daily construction emissions will not necessarily be the sum of all possible daily emissions. CalEEMod therefore calculates the maximum daily emissions *for each construction phase*. The program will then add together the maximum daily emissions for each

⁸³ 83

⁸⁴ DEIR, pp. 4.2-17 and 4.2-18.

⁸⁵ Dr. Pless Comments; California Air Pollution Control Officers Association, CalEEMod, California Emissions Estimator Model, User’s Guide, Version 2013.2, July 2013 (hereafter “CalEEMod User’s Guide”); available at <http://www.aqmd.gov/caleemod/doc/UsersGuide.pdf>. (At p. 2 for off-road construction equipment: “Horsepower and load factors are loaded with the default average values of the mode tier according to population based on OFFROAD2011...”)

⁸⁶ DEIR, pp. 4.2-18 and 4.2-19.

⁸⁷ DEIR, pp. 4.2-18 and 4.2-19.

⁸⁸ Dr. Pless Comments.

⁸⁹ Dr. Pless Comments.

Ryan Kuchenig
 October 23, 2013
 Page 26

construction phase that overlaps in time. Finally the program will report the highest of these combined overlapping phases as a daily maximum. For fugitive dust calculations during grading, the maximum amount of acres graded in a day is determined by the number of grading equipment which is assumed to operate for 8 hours.⁹⁰

Consistent with this approach, the BAAQMD's *CEQA Air Quality Guidelines* provide the following instructions for determining total daily emissions during overlapping construction activities:

Following quantification of project-generated construction-related emissions, the total average daily emissions of each criteria pollutant and precursor should be compared with the lead agency's determined project thresholds. If construction-related emissions have been quantified using multiple models or model runs, *sum the criteria air pollutants and precursor levels from each where said activities would overlap. In cases where the exact timing of construction activities is not known, sum any phases that could overlap to be conservative.*⁹¹

Here, instead of summing emissions during potentially overlapping activities, the DEIR "averages" all emissions over the entire construction period.⁹² This approach substantially underestimates impacts on a short-term basis.⁹³ The consequences of this "averaging" approach become particularly apparent when considering ROG emissions from architectural coating, which occur only during four weeks. ROG emissions are precursors to ground-level ozone formation through a complex series of chemical reactions between ROG and NO_x in the presence of sunlight. Any contribution to ozone formation from these ROG precursors would thus occur on a daily basis.⁹⁴ As a result, averaging ROG emissions from

B24-28

⁹⁰ California Air Pollution Control Officers Association, California Emissions Estimator Model, User's Guide, Appendix A, Calculation Details for CalEEMod, revised July 2013, CalEEMod v.2013.2, *emphasis* added; available at <http://www.aqmd.gov/caleemod/doc/AppendixA.pdf>.

⁹¹ BAAQMD, *CEQA Air Quality Guidelines*, p. 8-1.

⁹² Dr. Pless Comments.

⁹³ Dr. Pless Comments.

⁹⁴ Dr. Pless Comments.

Ryan Kuchenig
October 23, 2013
Page 27

architectural coatings over the entire construction period of two years (104 weeks) severely underestimates the Project's contribution to daily ozone formation.⁹⁵

BAAQMD has established quantitative daily and annual significance thresholds to maintain or achieve attainment with the national and state ambient air quality standards. These standards have been established for both long-term and short-term concentrations of pollutants in the ambient air. Specifically, national ambient air quality standards exist for 1-hour and 8-hour ozone, 24-hour and annual PM10, and 24-hour and annual PM2.5 concentrations; state ambient air quality standards exist for 8-hour ozone, 24-hour PM10, and 24-hour and annual PM2.5 concentrations.⁹⁶

The daily average significance thresholds established by the BAAQMD for construction (and operational) emissions address compliance with the short-term ambient air quality standards.⁹⁷ BAAQMD did not establish a significance threshold for annual emissions during construction because construction activities are typically short-term or temporary in duration. In contrast, for operational emissions, the BAAQMD establishes both average daily and maximum annual significance thresholds to ensure ongoing compliance with both short-term and long-term ambient air quality standards.⁹⁸

Thus, the DEIR's "averaging" approach does not assess the potential impacts from construction activities on compliance with daily and hourly national and state ambient air quality standards.⁹⁹ Without such an evaluation, the DEIR cannot demonstrate that Project construction emissions would not "[r]esult in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including emissions which exceed quantitative threshold for ozone precursors)" or "[v]iolate any air quality standard or contribute substantially to an existing or projected air quality violation." The DEIR should be revised to evaluate daily construction emissions using the CalEEMod in compliance with BAAQMD guidance.

⁹⁵ Dr. Pless Comments.

⁹⁶ Dr. Pless Comments.

⁹⁷ Dr. Pless Comments.

⁹⁸ Dr. Pless Comments.

⁹⁹ Dr. Pless Comments.

Ryan Kuchenig
 October 23, 2013
 Page 28

E. The DEIR's Evaluation of Construction Air Quality Impacts Fails to Take Into Account Emissions Associated with the Fair Oaks Avenue Sewer Pipe Replacement Activities

The DEIR's air quality analysis is further deficient because it fails to take into account the additional construction emissions that will occur as a result of the Project's North Fair Oaks Avenue sewer replacement activities. In the *Utilities and Service Systems* section, the DEIR states that an existing 8-inch sewer main in North Fair Oaks Avenue immediately northeast of the Raintree site will have to be upsized to a 10-inch sewer main to have adequate capacity to handle flows from the proposed Project.¹⁰⁰ The DEIR states that the upsizing of the North Fair Oaks Avenue sewer main is "part of the proposed projects."¹⁰¹ The DEIR, however, fails to include emissions from the North Fair Oaks Avenue sewer replacement activities in its construction emission calculations.

The DEIR states that "[a]nnual and average daily emissions for construction were calculated, including both on-site and off-site activities."¹⁰² However, the description of these off-site activities indicates that only "haul trips, vendor trips and construction worker trips" were included in the emission estimates¹⁰³ but not the upsizing of the sewer main. A review of the construction emission calculations in the DEIR's Appendix D by Dr. Pless confirmed that the North Fair Oaks sewer upgrade project component was not considered in the emission calculations. The DEIR emission estimates for the Project as a whole must be revised to account for emissions associated with upsizing the sewer.

Instead of evaluating the construction emissions from the North Fair Oaks Avenue sewer replacement activities with the rest of the Project construction emissions, the DEIR instead spends one sentence looking at the potential air quality impacts of the North Fair Oaks Avenue sewer replacement activities in isolation from the rest of the Project.¹⁰⁴ The failure to include this Project

B24-29

¹⁰⁰ DEIR at p. 4.11-10.

¹⁰¹ DEIR at p. 4.11-11. Even if this activity were characterized solely as a mitigation measure rather than part of the Project, CEQA requires evaluation of the environmental impacts of proposed mitigation measures where the mitigation may exacerbate or create new significant Project impacts. See *Stevens v. City of Glendale* (1981) 125 Cal.App.3d 986.

¹⁰² DEIR at p. 4.2-17.

¹⁰³ DEIR at p. 4.2-18.

¹⁰⁴ DEIR at p. 4.11-10.

Ryan Kuchenic
 October 23, 2013
 Page 29

component in the overall analysis of Project impacts improperly segments review of air quality impacts from the North Fair Oaks Avenue sewer replacement activities from the rest of the Project.¹⁰⁵

Moreover, as discussed *infra* in Section VIII, the DEIR lacks any analysis or evidence to support its analysis of the air quality impacts from the North Fair Oaks Avenue sewer replacement activities. Its entire analysis and discussion of air quality impacts from this activity consists of the following conclusory sentence: “Construction noise and air emissions would be short term and would not result in significant air quality or noise impacts.”¹⁰⁶ This one sentence analysis is unsupported by any citations, data, evidence or meaningful analysis. Accordingly, it cannot be relied upon to support a finding that air quality impacts from this activity would be less than significant.¹⁰⁷

B24-29

F. The DEIR’s Analysis of Construction Health Risks Is Flawed and Fails to Identify Significant Cancer Risks after Implementation of Recommended Mitigation Measures

The Project would be constructed near existing residences including apartment buildings located near the north and west edges of the Raintree site and single-family residences to the north and east of the Sares Regis site.¹⁰⁸ Residents of these buildings would be exposed to exhaust emissions of diesel particulate matter (“DPM”),¹⁰⁹ a known toxic air contaminant (“TAC”) and classified human carcinogen.¹¹⁰

B24-30

¹⁰⁵ CEQA Guidelines § 15063, subd. (a)(1).

¹⁰⁶ DEIR at p. 4.11-10.

¹⁰⁷ See *People v. County of Kern* (1974) 39 Cal.App.3d 830, 841-842; Pub. Resources Code § 21081.5; CEQA Guidelines § 15091, subd. (b).

¹⁰⁸ DEIR at p. 4.2-41.

¹⁰⁹ *Id.*

¹¹⁰ Dr. Pless Comments, citing World Health Organization, International Agency for Research on Cancer, IARC: Diesel Engine Exhaust Carcinogenic, June 12, 2012; available at http://www.iarc.fr/en/media-centre/pr/2012/pdfs/pr213_E.pdf.

1. **The Air Quality Analysis Underestimates Potential Cancer Risks from Construction Emissions Because It Relies on Erroneous and Arbitrary Methodology**

The DEIR underestimates the scope of cancer risks from Project construction emissions due to its failure to correctly apply the methodology developed by the OEHHA.¹¹¹ The DEIR bases its findings on a health risk assessment of the potential cancer risks for residents of buildings adjacent to the construction sites. This health risk assessment relies on dispersion modeling of DPM (as PM_{2.5}) exhaust emissions from construction equipment to predict resulting offsite DPM concentrations and predicts excess (increased) lifetime cancer risks.¹¹²

For the *Sares Regis Applicant Proposed Scenario*, the DEIR finds that the maximum excess residential child cancer risk of 11.4 in one million would exceed the BAAQMD's significance threshold of 10 in one million and would therefore be significant. For adult cancer risk, the DEIR finds a maximum excess residential adult cancer risk of 0.6 in one million, which does not exceed the BAAQMD's significance threshold and therefore was not found significant by the DEIR.¹¹³ For the *Raintree Applicant Proposed Scenario*, the DEIR finds that the maximum excess residential child cancer risk of 19.7 in one million would exceed the BAAQMD's significance threshold of 10 in one million and would therefore be significant. For adult cancer risk the DEIR finds a maximum excess residential adult cancer risk of 1.0 in one million, which does not exceed the BAAQMD's significance threshold and therefore was not found significant.¹¹⁴

As discussed earlier, the estimated exhaust emissions are underestimated due to the unsupported and erroneous assumption that all construction equipment will be Tier 2 compliant or stricter. Accordingly, the DEIR's calculations of cancer risks are also understated and need to be reevaluated.¹¹⁵

B24-30

¹¹¹ Dr. Pless Comments.

¹¹² DEIR at p. 4.2-40.

¹¹³ DEIR at p. 4.2-43 through 4.2-44.

¹¹⁴ *Id.*

¹¹⁵ Dr. Pless Comments.

In addition, the calculations of construction emission cancer risks are erroneous because the methodology employed by the health risk assessment to compute excess cancer risks is flawed due to its reliance on average daily emissions that were averaged over the length of the Project.¹¹⁶ Despite the fact that the average daily emissions were improperly averaged over the entire two year construction period, the DEIR calculates cancer risks assuming that residents would be exposed to these average modeled concentrations for only *one* year, 2014.¹¹⁷ This approach is incorrect on several accounts.

First, because the DEIR averaged emissions over the entire construction period, modeled emissions in 2014 are lower than they would be if evaluated separately for each construction year.¹¹⁸

Second, as the DEIR states, “[c]onstruction at the Sares Regis site is anticipated to occur over an approximate 22-month period year period [sic] (January 2014 to October 2015) and construction at the Raintree project site is anticipated to occur over a 2-year period (September 2014 to September 2016).”¹¹⁹ Thus, DPM construction emissions from the sites occur over at least two years. By evaluating DPM construction emission risk over just one year, the DEIR violates BAAQMD and OEHHA guidance for health risk assessments of construction emissions.¹²⁰

BAAQMD recommends that health risk assessments follow the most recent OEHHA guidance:

The Exposure Assessment components are based on the procedures developed by the California Office of Environmental Health Hazard Assessment (OEHHA). These calculation methodologies may change over time as OEHHA further refines its exposure guidelines. **It is important that the user apply the most current risk assessment**

B24-30

¹¹⁶ Dr. Pless Comments.

¹¹⁷ See DEIR, Appendix D., Tables “Maximum DPM Cancer Risk Calculations from Construction Off-Site Residential Receptor Locations” for Sares Regis Site, Raintree Site and Raintree & Sares Regis Sites.’

¹¹⁸ Dr. Pless Comments.

¹¹⁹ DEIR at p. 4.2-41

¹²⁰ Dr. Pless Comments.

Ryan Kuchenig
 October 23, 2013
 Page 32

methodology and toxicity factors from OEHHA's health risk assessment guidelines.¹²¹

With respect to short-term projects, the most recent OEHHA guidance recommends the following regarding the determining the exposure duration used in health risk assessments:

We recommend that exposure from projects less than 6 months be assumed to last 6 months (e.g., a 2-month project would be evaluated as if it lasted 6 months). ... *We recommend that exposure from projects lasting more than 6 months be evaluated for the duration of the project.* In all cases the exposure should be assumed to start in the third trimester to allow for the use of the Age Sensitivity Factors (OEHHA, 2009). Thus, if the District is evaluating a proposed 5-year mitigation project at a hazardous waste site, the exposure duration for the residents would be from the third trimester through the first five years of life. ...¹²²

Thus, the excess cancer risks for residential receptors are underestimated by a factor of 1.83 for the Sares Regis site¹²³ and 2.0 for the Raintree site.¹²⁴ This is in addition to the risk underestimated due to the DEIR's unsupported assumption that all demolition, grading and construction equipment engines will be Tier 2-compliant or stricter. The cancer risks from Project construction are further underestimated because the DEIR fails to account for emissions related to upsizing the sewer mains.

B24-30

¹²¹ Dr. Pless Comments, citing BAAQMD, Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0, May 2012, p. 4, **emphasis** retained; available at <http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Risk%20Modeling%20Approach%20May%202012.ashx?la=en>.

¹²² Dr. Pless Comments, citing OEHHA, Air Toxics Hot Spots Program Risk Assessment Guidelines, Technical Support Document for Exposure Assessment and Stochastic Analysis, Chapter 11: Residential and Worker Exposure Duration, Individual vs. Population Cancer Risk, and Evaluation of Short Term Projects, Final August, 2012, *emphasis* added; available at http://www.oehha.ca.gov/air/hot_spots/pdf/2012tsd/Chapter11_2012.pdf.

¹²³ Dr. Pless Comments; (22 months) / (12 months) = 1.83.

¹²⁴ Dr. Pless Comments; (24 months) / (12 months) = 2.00.

Ryan Kuchenig
 October 23, 2013
 Page 33

Because of these calculation errors, the DEIR significantly underestimates and fails to accurately disclose the scope of potential cancer risks from Project construction.¹²⁵ The findings in the DEIR are thus not supported by substantial evidence and must be revised in order to provide the public and the decisionmakers the information they need to meaningfully assess the potential impacts to neighboring residents from Project construction.

2. The Assumption that Proposed Mitigation Will Reduce Construction Emission Cancer Risks below a Level of Significance Is Not Supported by Substantial Evidence

The DEIR concludes that implementation of Mitigation Measure AIR-5a would reduce the maximum residential child excess cancer risk “from each of the projects as well as the combination of both projects to below 9.9 in one million.”¹²⁶ This conclusion is not supported by substantial evidence and is erroneous.

The DEIR’s determination that the maximum residential child excess cancer risk “from each of the projects as well as the combination of both projects” would be reduced to below 9.9 in one million rests on an erroneous and conclusory assumption that implementation of Mitigation Measure AIR-5a would reduce construction DPM emissions and resulting excess cancer risks by 50 percent.¹²⁷ The DEIR provides no quantitative demonstration to support this assumption.

CEQA requires conclusions in an EIR to be supported by substantial evidence.¹²⁸ Furthermore, an EIR must provide the reader with the analytic bridge between its ultimate findings and the facts in the record.¹²⁹ Conclusory statements unsupported by data or explanatory information are insufficient to support a finding of insignificance.¹³⁰

¹²⁵ Dr. Pless Comments.

¹²⁶ DEIR at p. 4.2-45.

¹²⁷ Dr. Pless Comments; (Sares Regis: 11.4 in one million) \times (0.50 for MM AQ-5a) = 5.70 in one million; (Raintree: 19.7 in one million) \times (0.50 for MM AQ-5a) = 9.50 in one million; and (Sares Regis + Raintree: 19.7 in one million) \times (0.50 for MM AQ-5a) = 9.85 in one million. For maximum excess residential child cancer risks for each site and for the combination, see DEIR, Appendix D “Maximum DPM Cancer Risk Calculation from Construction, Off-Site Residential Receptor Locations.”

¹²⁸ Pub. Resources Code \S 21081.5; CEQA Guidelines \S 15091, subd. (b).

¹²⁹ *Topanga Association for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506; see CEQA Guidelines \S 15091.

¹³⁰ *People v. County of Kern* (1974) 39 Cal.App.3d 830, 841-842.

Ryan Kuchenig
October 23, 2013
Page 34

The DEIR relies on Mitigation Measure Air-5a to reduce cancer risks to below a level of significance, but provides no calculations or other information to demonstrate that this mitigation measure would actually have this effect. Moreover, a review of Mitigation Measure AIR-5a by Dr. Pless shows that this assumption is erroneous.¹³¹

Mitigation Measure AIR-5a requires:

A plan shall be developed demonstrating that the off-road equipment (*more than 50 horsepower and on-site for more than two consecutive workdays*) to be used in project construction would achieve an additional 50-percent reduction in exhaust particulate matter emissions, compared to similar equipment that meets U.S. EPA Tier 2 standards. Based on the construction plans presented for this project, *a feasible method to achieve this objective* would be the following:

- All diesel-powered air compressors, welders, forklifts (including rough terrain forklifts), paint spray rigs, and all types of cranes, forklifts or aerial lifts (man lifts, boom lifts, etc.) used during all construction phases shall meet or exceed U.S. EPA Tier 4 standards for particulate matter emissions or substituted with alternatively fueled equipment (e.g., LPG fuel).
- All other off-road construction equipment used on the site shall, on a fleet-wide average, meet U.S. EPA Tier 2 emission standards.
- Portable diesel generators operating for more than two days shall be prohibited.
- Grid power electricity shall be used to provide power at construction sites, or non-diesel generators (or diesel generators using bio-diesel fuel) may be used when grid power electricity is not feasible.¹³²

B24-30

¹³¹ Dr. Pless Comments.

¹³² DEIR at pp. 4.2-44 and 4.2-45, *emphasis* added.

Ryan Kuchenig
 October 23, 2013
 Page 35

Under this mitigation, the requirement to reduce construction equipment emissions by 50 percent compared to the EPA Tier 2 standard is only applicable to off-road construction equipment more than “50 horsepower and on-site for more than two consecutive workdays.” The detailed emission calculations in the DEIR’s Appendix D identify numerous pieces of construction equipment that would be exempted from compliance because they would have less than 50 horsepower. For the Sares Regis construction, two 46-hp welders would be exempted.¹³³ For the Raintree construction, the exempted equipment includes: two 45-hp skid steer loaders during demolition and grading/excavation; one 30-hp excavator during trenching/site preparation; one 46-hp welder during the exterior building phase; and five 30-hp compressors, one 30-hp texture spray rig, and one 30-hp paint spray rig during the interior building/architectural coating phase.¹³⁴

For the Raintree construction, emissions from this exempted equipment account for 15 percent of total emissions from the off-road construction equipment fleet.¹³⁵ Thus, the 50 percent emission reduction requirement for the non-exempted remainder of the off-road construction equipment would result in just a 35 percent reduction in total emissions from the off-road construction equipment fleet, not 50 percent.¹³⁶ In addition, on-site on-road vehicles, *i.e.*, diesel-powered trucks such as the water, haul, and cement trucks, are not affected by Mitigation Measure AIR-5a because it only applies to off-road equipment.¹³⁷

The actual reductions in emissions that would result from Mitigation Measure AIR-5a have been calculated by Dr. Pless, based on the DEIR’s own emission estimates. Dr. Pless finds that total mitigated emissions from construction of the Raintree construction would result in an excess residential child

B24-30

¹³³ Dr. Pless Comments.

¹³⁴ Dr. Pless Comments; *see* DEIR, Appendix D, Table “Off-Road Construction Equipment & On-Site Vehicle Exhaust Emissions, Sares Regis Site – 2014-2015 – Construction Emissions with Tier 2 Equipment” and Table “Off-Road Construction Equipment & On-Site Vehicle Exhaust Emissions, Raintree – 2014-2016 – Construction Emissions with Tier 2 Equipment.”

¹³⁵ Dr. Pless Comments; *Raintree* construction exempted off-road construction equipment PM2.5 emissions: (5.5 + 2.7 + 0.8 + 3.0 + 67.0 + 13.4 + 13.4) pounds = 105.8 pounds; total off-road construction equipment emissions: 711.4 pounds; percentage emissions of exempted equipment/total off-road construction equipment: 105.8/711.4 = 0.149.

¹³⁶ Dr. Pless Comments; Including mitigation: [(exempted off-road: 105.8) + (non-exempted off-road: 711.4 × 0.50) + (trucks: 9.5)] / (total 720.9) = 0.653.

¹³⁷ Dr. Pless Comments.

Ryan Kuchenic
October 23, 2013
Page 36

cancer risk of 13 in one million.¹³⁸ This substantially exceeds the BAAQMD's significance threshold of 10 in one million. Accordingly, the DEIR's conclusion that Mitigation Measure AIR-5a will reduce cancer risks from construction on the Raintree site to below a level of significance is erroneous and not supported by substantial evidence. In addition, Dr. Pless finds that when the Project is looked at as a whole, the combined excess child cancer risk from the Raintree construction and the Sares Regis construction would also exceed the BAAQMD's significance threshold.¹³⁹

The failure to disclose, evaluate and identify additional feasible mitigation for these impacts is a violation of CEQA.

3. The Evaluation of Post-Mitigation Cancer Risks from Construction Emissions Fails to Take into Account Errors in Pre-Mitigation Emission Estimates

The Project's post-mitigation cancer risks would be even more significant in scope than the 13 in one million calculated above when the errors in pre-mitigation emission estimates discussed previously in this comment letter are taken into account.¹⁴⁰ These errors include the additional emissions from the likely use of older, non-Tier 2, construction equipment and the additional emissions from the North Fair Oaks Avenue sewer replacement activities. As discussed above, it is highly unlikely that all construction equipment engines will meet or exceed the EPA's Tier 2 emission factors. Because older equipment has disproportionately higher emissions, exhaust emissions from this equipment are likely substantially underestimated. As a result, the post-mitigation cancer risks from Project construction will be even greater than calculated by Dr. Pless using the DEIR's understated emission estimates.

The DEIR must be revised to correct these errors and to disclose the actual potential cancer risks from Project construction.

¹³⁸ Dr. Pless Comments; $19.9 \times 0.653 = 13.0$.

¹³⁹ Dr. Pless Comments.

¹⁴⁰ Dr. Pless Comments.

Ryan Kuchenig
 October 23, 2013
 Page 37

G. The DEIR Fails to Require Implementation of Assumed Operational Air Quality Mitigation Measures

The DEIR is also deficient because it fails to follow BAAQMD guidelines for evaluating operational emissions, resulting in an unsupported finding of no significant operational air quality impacts and a failure to require that assumed operational air quality mitigation measures will be undertaken. The BAAQMD's *CEQA Air Quality Guidelines*, which the DEIR claims to have followed¹⁴¹, recommends determining the significance of emissions during project operation based on the following four steps:

Step 1: Emissions Quantification;

Step 2: Comparison of Unmitigated Emissions with Thresholds of Significance;

Step 3: Mitigation and Emission Reductions; and

Step 4: Comparison of Mitigated Emissions with Thresholds of Significance.¹⁴²

As previously discussed for construction emission impacts, the DEIR skips all steps prior to comparing mitigated emissions with the BAAQMD's thresholds of significance for project operation.¹⁴³ Because the DEIR finds that (mitigated) operational emissions from any of the buildout scenarios for either the Sares Regis or the Raintree sites would be less-than-significant, it does not require any mitigation.¹⁴⁴ The DEIR fails to require the assumptions it relied upon to model these mitigated emissions. These assumptions include that the Project would have no wood fireplaces, would exceed Title 24 requirements, would install high-efficiency lighting, and would install energy-efficient appliances.¹⁴⁵

B24-31

¹⁴¹ DEIR at p. 4.2-15.

¹⁴² Dr. Pless Comments, citing BAAQMD, *CEQA Air Quality Guidelines*, pp. 4-5 through 4-7.

¹⁴³ Dr. Pless Comments.

¹⁴⁴ DEIR at p. 4.2-24.

¹⁴⁵ See DEIR, Appendix D, printouts of CalEEMod runs.

Ryan Kuchenig
 October 23, 2013
 Page 38

Lead agencies may not rely upon nonbinding or unenforceable mitigation measures to support a finding that impacts will be mitigated below a level of significance.¹⁴⁶ Accordingly, the DEIR's finding that the Project's mitigated operational emissions would be less than significant is not supported by substantial evidence. The City must require implementation of these mitigation measures before it may rely upon these measures to support its findings.

B24-31

H. The DEIR Improperly Piecemeals Evaluation of Operational Emissions, Resulting in a Failure to Disclose Potentially Significant Impacts

As discussed *supra* in Section V.C, CEQA requires reviewing the impacts of the "whole of a project" rather than evaluating each of the separate components or phases of a project independently. Accordingly, the DEIR should have evaluated the potential significance of operational emissions from the Raintree site and the Sares Regis site, "combined."¹⁴⁷ As with its evaluation of construction emissions, the DEIR evaluates operational emissions on the Raintree site in isolation from emissions from development of the Sares Regis site.¹⁴⁸ This approach results in a failure to disclose and mitigate potentially significant impacts. When the Project's operational emissions are analyzed as a whole, as required by CEQA, they result in significant, undisclosed impacts on air quality.¹⁴⁹

B24-32

Using the estimates presented in the DEIR,¹⁵⁰ the table below compares the Project's combined operational emissions of ROG, NO_x, PM₁₀ and PM_{2.5} to the BAAQMD's respective daily thresholds of significance for operational emissions.

¹⁴⁶ See *Napa Citizens for Honest Government v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 385.

¹⁴⁷ City of Sunnyvale, Notice of Completion of an Environmental Impact Report for the East Weddell Residential Projects at p. 1 (stating that the "project" is defined as "the two development projects combined").

¹⁴⁸ Dr. Pless Comments.

¹⁴⁹ Dr. Pless Comments.

¹⁵⁰ DEIR, Tables 4.2-7 (Sares Regis) and 4.2-8 (Raintree).

Ryan Kuchenig
 October 23, 2013
 Page 39

Operational Emissions (lb/day)

	ROG	NO_x	PM10	PM2.5
<i>Applicant Proposed Scenarios</i>				
Sares Regis	17.0	10.0	9.0	1.0
Raintree	37.0	21.0	20.0	2.0
Total Applicant Proposed Scenarios				
BAAQMD Threshold	54.0	31.0	29.0	3.0
Significant?	YES	no	no	no
<i>Full Buildout Scenarios</i>				
Sares Regis	20.0	11.0	11.0	1.0
Raintree	52.0	27.0	28.0	2.0
Total Full Buildout Scenarios				
BAAQMD Threshold	72.0	38.0	39.0	3.0
Significant?	YES	no	no	no

B24-32

The table shows that total ROG operational emissions from the *Sares Regis* and *Raintree* Developments, 54.0 lb/day, are the same as the BAAQMD's threshold of significance for operational emissions of this pollutant and are therefore significant.¹⁵¹ Further, total operational ROG emissions from the combined *Sares Regis* and *Raintree* Developments are estimated at 72.0 lb/day, which greatly exceeds BAAQMD's threshold of significance. The DEIR must be revised and recirculated to disclose these significant operational air quality impacts and identify feasible mitigation.

I. The Assumption that Proposed Mitigation Will Reduce Health Risks to Future Residents from Nearby Roadway Emissions to Below a Level of Significance Is Not Supported by Substantial Evidence

The DEIR is also deficient because it lacks substantial evidence to support its assumption that proposed mitigation will reduce health risks to future residents

B24-33

¹⁵¹ Dr. Pless Comments; The BAAQMD's CEQA Air Quality Guidelines state: "If, after proper analysis, the project or plan's air quality impacts are found to be *below the significance thresholds* determined by the lead agency, then the air quality impacts may be considered less than significant." Dr. Pless Comments, citing BAAQMD, CEQA Air Quality Guidelines, p. 1-4, *emphasis* added.

Ryan Kuchenig
October 23, 2013
Page 40

from nearby roadway emissions to below a level of significance. As shown by the comments of Dr. Pless, the proposed mitigation would not, in fact, be sufficient to reduce health risks to future residents to below a level of significance. The Project proposes locating new residences adjacent to two busy roadways, Highway 101 and North Fair Oaks Avenue, and within 1000 feet of five diesel-fired emergency backup generators.¹⁵² The DEIR finds that emissions from Highway 101 traffic would cause significant excess cancer risk for future residents throughout the entire Sares Regis site and across portions of the Raintree site under both *Applicant Proposed* and *Full Buildout* scenarios.¹⁵³ Significant annual PM_{2.5} concentrations would occur across portions of the Sares Regis and the Raintree sites under both *Applicant Proposed* and *Full Buildout* scenarios.¹⁵⁴ In addition, the DEIR finds that annual PM_{2.5} concentration from cumulative sources would be significant for the Raintree *Full Buildout Scenario*.¹⁵⁵

To reduce the long-term exposure of future residents to TACs, the DEIR requires implementation of Mitigation Measure AIR-4, which consists of the following five recommendations:

1. Provides site layout recommendations to locate windows and air intakes as far as possible from Highway 101 traffic lanes and to plant additional trees along the highway edge.
2. Requires installation of air filtration system rated at a minimum efficiency rating value ("MERV") of 13 or higher where sensitive receptors are predicted to be exposed to PM_{2.5} concentrations above 0.3 µg/m³ and maintained as long as significant excess cancer risks or annual PM_{2.5} concentrations are predicted.
3. Requires that lease agreement include cleaning, maintenance and monitoring requirements; provide information on ventilation system to owners and tenants; and include provisions that fees associated with owning or leasing a unit include funds for cleaning, maintenance, monitoring, and replacement of the air filtration system.

¹⁵² DEIR at pp. 4.2-24 and 4.2-36.

¹⁵³ DEIR at p. 4.2-37.

¹⁵⁴ *Id.*

¹⁵⁵ *Id.*

Ryan Kuchenig
 October 23, 2013
 Page 41

4. Suggests that applicants “consider” phasing developments located within 330 feet of Highway 101 to “avoid significant excess cancer risks and required installation of filtered ventilation systems.”
5. Requires that prior to building occupancy, an authorized air pollutant consultant verify the installation of all necessary measures to reduce toxic air contaminant exposure.

The DEIR finds that that with implementation of these five recommendations, the community risk for sensitive receptors at the two Project sites would be reduced to a less-than-significant level.¹⁵⁶ The DEIR’s conclusion is not supported by an adequate quantitative demonstration. Further, the proposed mitigation is not adequate to reduce impacts to less than significance.

1. The DEIR’s Reliance on Air Filtration Systems to Reduce Impacts below a Level of Significance Is Not Supported by Substantial Evidence

The DEIR’s reliance on the installation of air filtration systems and verification by “authorized air pollutant consultants” to reduce operational TAC impacts below a level of significance is not supported by substantial evidence.¹⁵⁷

Mitigation Measure AIR-4(5) requires that “prior to building occupancy, an authorized air pollutant consultant verify the installation of all necessary measures to reduce toxic air contaminant exposure.” This requirement is ill defined and meaningless. The Draft EIR does not define an “authorized” air pollutant consultant and fails to specify what qualifications this air pollutant consultant must possess.

Mitigation Measure AIR-4(5) instructs the “authorized air pollutant consultant” to verify that all residential units would have an air filtration system installed rated at MERV 13 for those units identified by the Draft EIR with cancer risks between 10 and 25 per million and at MERV 16 for those units identified by the Draft EIR with cancer risks above 25 per million. Dr. Pless identifies numerous technical and practical problems with this measure that must be addressed.¹⁵⁸

¹⁵⁶ DEIR at p. 4.2-20.

¹⁵⁷ Dr. Pless Comments.

¹⁵⁸ Dr. Pless Comments.

Ryan Kuchenig
 October 23, 2013
 Page 42

First, the measure allows the “authorized air pollutant consultant” to refer to the figures provided by the Draft EIR showing cancer risks for individual buildings (Figure 4.2-2 for Sares Regis site and Figure 4.2-4 for Raintree site).¹⁵⁹ However, these figures show only modeled cancer risks resulting from Highway 101 traffic emissions. Traffic emissions from North Fair Oaks Avenue, another high volume roadway, and nearby stationary sources are not included in the modeling.¹⁶⁰

Second, the mitigation improperly assumes that a MERV 13-rated filter may be installed for one residential unit and a MERV 16-rated filter for another residential unit. Air filtration systems, however, serve the entire building. Accordingly, they must be properly sized to accommodate the resistance to airflow from the installed filters.¹⁶¹ A building ventilation system may accommodate one or the other MERV rating, but not both at the same time.¹⁶²

Further, a MERV designation for the filters alone is insufficient to determine mitigated emissions. The MERV specification represents a designation for only the filter, it does not address the efficiency of the total air filtration system in the building when considered in tandem with the filter holding device.¹⁶³

The use of a MERV-rated filter in a holding frame or housing that has gaps or leaks will substantially reduce the effectiveness of any filter evaluation system. Air flow will follow the path of least resistance.¹⁶⁴ Since a filter offers airflow resistance, gaps or leaks within the holding mechanism will allow air bypass. Therefore, system performance must be evaluated to assure that all the air moving through the system is treated by the filter. To ensure that the building’s entire air

B24-33

¹⁵⁹ Dr. Pless Comments.

¹⁶⁰ Dr. Pless Comments.

¹⁶¹ California Air Resources Board, Status of Research on Potential Mitigation Concepts to Reduce Exposure to Nearby Traffic Pollution, August 23, 2012; available at <http://www.arb.ca.gov/research/health/traff-eff/research%20status%20-reducing%20exposure%20to%20traffic%20pollution.pdf>. (“High efficiency filters associated with central heating, ventilating and air conditioning (HVAC) systems must be carefully selected to assure the mechanical system can handle the increased airflow resistance.”)

¹⁶² Dr. Pless Comments.

¹⁶³ Dr. Pless Comments.

¹⁶⁴ Dr. Pless Comments.

Ryan Kuchenic
 October 23, 2013
 Page 43

filtration system would function at the specified efficiency, other aspects of the ventilation system design such as ventilation rates, infiltration rates, and maintenance of positive pressure must be explicitly specified.¹⁶⁵

Third, the feasibility of using MERV 16-rated filters is speculative. MERV 16 systems are considerably more costly than MERV 13-rated filters and systems and are typically only installed only in hospitals and general surgery.¹⁶⁶ Even superior residential developments typically have a maximum of MERV 13-rated filtration systems installed.¹⁶⁷ The Draft EIR should be revised to discuss the feasibility of a MERV 16-rated filtration system for a residential development.

Fourth, the Draft EIR's assumption that cancer risks would be reduced below the significance threshold of 10 in one million by the respective filtration systems rests on the assumption that the filtration system would be fully operational and effective for 21 hours per day (residents would open their window for one hour per day and spend two hours outdoors) and that the systems would operate at an assumed effectiveness rating of 70 percent for MERV 13 and 90 percent for MERV 16.¹⁶⁸ This assumption is not supported or enforceable. Without posted warning signs or other measures to address wide variants in resident behavior or preferences, many residents may open their windows for longer time periods than one hour per day.

Fifth, because a large number of particles emitted by motor vehicles are smaller than 50 nanometers¹⁶⁹ (<0.05 micrometers), the effectiveness of filtration systems at reducing cancer risks cannot be assumed to be identical to its specified filtration efficiency.¹⁷⁰ A MERV 13 filter is not effective in removing 0.3 to 1.0 micrometer particles.¹⁷¹ In contrast, a MERV 16 filter is designed to remove 95 percent of this particle range. Neither rating ensures any removal of ultrafine particles, *i.e.*, those smaller than 100 nanometers (<0.1 micrometers) which are associated with more aggressive health implications than larger particles.¹⁷²

¹⁶⁵ Dr. Pless Comments.

¹⁶⁶ Dr. Pless Comments.

¹⁶⁷ Dr. Pless Comments.

¹⁶⁸ MERV 13: (cancer risk: 25 in one million)(100%-70%)(21 hours)/(24 hours) = 9.69 in one million.

¹⁶⁹ Kittelson, D.B., Engines and Nanoparticles: A Review, Journal of Aerosol Science, 1998, 29, pp. 575-588.

¹⁷⁰ Dr. Pless Comments.

¹⁷¹ Dr. Pless Comments.

¹⁷² Dr. Pless Comments.

Ryan Kuchenic
October 23, 2013
Page 44

Sixth, although they can substantially reduce indoor concentrations of pollutants, CARB has long recognized that “mechanical filtration systems alone are insufficient to fully protect occupants from particles and other emissions from nearby roadways.”¹⁷³ CARB has identified numerous limitations on the effectiveness of air filtration systems, including:

- First, most people tend to open their windows or doors at least part of each day (Offermann, 2009; Phillips et al., 1990), and such natural ventilation involves no filtration of incoming air and can diminish any pollutant reductions attained through the use of the mechanical system. The effectiveness of high efficiency filtration in homes whose occupants open their doors and windows regularly has not been quantified.
- Second, as higher MERV filters are used, greater attention must be paid to the increased air flow resistance that occurs with some filter types; mechanical system motors must be sufficiently sized to accommodate the air flow needs.
- Third, studies have shown that homeowners are not provided with sufficient information regarding use and maintenance of their central HVAC systems, or do not read and follow instructions for maintaining their filters (EPA, 2009; Offermann, 2009). Filtration is only effective if filters are well-fitted and are replaced or maintained according to the manufacturer’s recommendations, and duct leakage is minimized (Thatcher et al., 2001; Wallace et al., 2004). Older (aged) filters have been associated with increased irritant health symptoms and decreased work performance in studies of filtration maintenance in workplaces (Clausen, 2004; Seppänen and Fisk, 2002; Wargocki et al., 2004).
- Finally, as discussed above, gaseous pollutants are not removed by most particle filters, and the technologies for VOC removal in residential applications are limited and still evolving.

B24-33

¹⁷³ Dr. Pless Comments.

Ryan Kuchenig
 October 23, 2013
 Page 45

2. The DEIR's Inclusion of a "Phasing" Exception to Filtration Requirements Is Not Supported by Substantial Evidence

The DEIR's mitigation for TACs is inadequate because it includes a misleading and inappropriate exception to the requirement to install filtered ventilation systems.¹⁷⁴ Mitigation Measure AIR-4(4) allows elimination of the requirement for air filtration systems if development within a site is phased. Specifically, the measure states:

Consider phasing developments located within 330 feet of Highway 101 to avoid significant excess cancer risks and required installation of filtered ventilation systems (described above). Note that new United States Environmental Protection Agency (U.S. EPA) engines standards combined with California Air Resources Board (CARB) rules and regulations will reduce on-road emissions of diesel particulate matter (DPM) and PM 2.5 substantially, especially after 2014.

The Draft EIR does not explain how it arrived at 330 feet, nor does it provide a quantitative justification that cancer risks would be reduced to below the significance threshold or a requirement to prepare a health risk assessment in case the Project components are phased. Dr. Pless testifies that just because emission standards will reduce on-road emissions it does not follow that emissions are necessarily reduced to a level that results in cancer risks below the significance threshold by the time the phased Project would be inhabited.¹⁷⁵

Because excess cancer risks from Highway 101 alone were estimated at 20.1 in one million for the Sares Regis site and 26.3 in one million for the Raintree site,¹⁷⁶ vehicle emissions would have to be reduced by more than 50 percent to reduce cancer risk below the significance threshold of ten in one million. Dr. Pless testifies that, despite EPA's and CARB's regulations for engine standards, a reduction of 50 percent of emissions over those assumed in the Draft EIR will not occur in the near future.¹⁷⁷

¹⁷⁴ Dr. Pless Comments.

¹⁷⁵ Dr. Pless Comments.

¹⁷⁶ Draft EIR, Tables 4.2-10 (Sares Regis) and 4.2-11 (Raintree).

¹⁷⁷ Dr. Pless Comments.

Ryan Kuchenig
 October 23, 2013
 Page 46

The Draft EIR states that “CARB anticipates a 68-percent reduction in PM2.5 (including DPM) emission from trucks in 2014 with this regulation.”¹⁷⁸ CARB’s estimate for a 68 percent reduction in emissions by 2014 is based on a comparison of estimated emission reductions by its on-road rule for trucks and buses *compared to a year 2000 baseline*;¹⁷⁹ it is not compared to the 2014 baseline as assumed by the Draft EIR’s emission estimates.¹⁸⁰

Further, while the rule referenced by the DEIR was adopted by CARB in 2007, CARB did not receive authorization from EPA to implement the rule until September 13, 2013.¹⁸¹ Enforcement of the restrictions on adding Tier 0 and Tier 1 vehicles to existing vehicle fleets will not begin until January 1, 2014. Enforcement of the first fleet average requirements for large fleets (> 5,000 total fleet horsepower) will begin on July 1, 2014. Tier 2 requirements for large and medium fleets will not begin until January 1, 2018, for, and for small fleets until January 1, 2023.¹⁸² Therefore, it will take many years for the rule to fully take effect and emission reductions compared to the 2014 baseline assumed by the Draft EIR will be considerably less than 50 percent by the time any “phased” Project component would be inhabited.¹⁸³ Accordingly, this exception to the mitigation measure should be deleted from the document.

B24-34

¹⁷⁸ Draft EIR, p. 4.2-27.

¹⁷⁹ See, for example, CARB, Updated Informative Digest, Adoption of New Regulation to Reduce Emissions of Diesel Particulate Matter, and Other Pollutants from In-Use Heavy-Duty Diesel-Fueled Vehicles as Part of the Public Hearing to Consider Proposed Regulation to Reduce Emissions from In-Use On-Road Diesel Vehicles, and Amendments To The Regulations for In-Use Off-Road Vehicles, Drayage Trucks, Municipality and Utility Vehicles, Mobile Cargo Handling Equipment, Portable Engines and Equipment, Heavy-Duty Engines and Vehicle Exhaust Emissions Standards and Test Procedures and Commercial Motor Vehicle Idling, 2008; available at <http://www.arb.ca.gov/regact/2008/truckbus08/pt2uid.pdf>.

¹⁸⁰ Dr. Pless Comments.

¹⁸¹ See CARB, In-Use Off-Road Diesel Vehicle Regulation; <http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm>.

¹⁸² CARB, Regulatory Advisory, Enforcement of the In-Use Off-Road Vehicle Regulation, September 2013; <http://www.arb.ca.gov/msprog/mailouts/msc1325/msc1325.pdf>.

¹⁸³ Dr. Pless Comments.

Ryan Kuchenig
October 23, 2013
Page 47

3. The DEIR Fails To Evaluate Contamination of Ventilation Systems and Filters during Project Construction

The DEIR fails to ensure that building occupants are protected from pollutants that may enter the ventilation system and contaminate the filters during construction. Dr. Pless recommends that, in order to ensure effective filtration of TACs, the City should require a construction indoor air quality (“IAQ”) management plan.¹⁸⁴ The following control measures have been suggested to meet the U.S. Green Building Council Leadership in Energy and Environmental Design (“LEED”) Green Building Rating System:

- A common practice used to protect the HVAC system during construction is to shut down the return side of the HVAC system during heavy construction activities, and to replace the ventilation system filters at frequent intervals throughout the construction process. Returns should be shrink-wrapped with plastic or even dampered off during especially disruptive construction activities.
- Temporary barriers should be constructed in an effort to isolate areas under construction from clean or occupied areas. If weather permits, construction areas should also be ventilated directly to the outdoors if particularly dusty operations or installation of VOC-emitting materials are being performed.
- Ensure that materials stored onsite do not get contaminated by dirt or other particulate matter that is always present on construction sites. An overall jobsite maintenance program should be developed that includes the storage and protection of building materials in a dry, clean location. Ductwork should be delivered to the jobsite shrink-wrapped on both ends until immediately prior to installation, and the returns should be kept wrapped until final installation of the finish grates. Implementing a no smoking policy for the workers during construction, using HEPA vacuums for cleanup, and making everyone on the jobsite aware of the housekeeping plan through onsite training programs.

B24-35

¹⁸⁴ Dr. Pless Comments.

Ryan Kuchenig
 October 23, 2013
 Page 48

- Conduct a minimum two-week building flush-out with new MERV 13 filtration media at 100% outside air. After the two-week flush-out is complete, new MERV 13 filters must be replaced in all locations except those that have been processing only outside air during the flush-out.¹⁸⁵

B24-35

J. The DEIR Fails to Evaluate the Project’s Inconsistency with the General Plan Goal to “Reduce the Exposure of Its Citizens to Air Pollutants” and the General Plan Policy to Use Site Planning “to Protect Citizens from Unnecessary Exposure to Air Pollutants”

The DEIR is also legally inadequate because it fails to identify the Project’s inconsistency with the City’s General Plan Goals to “reduce the exposure of its citizens to air pollutants” and to utilize site planning “to protect citizens from unnecessary exposure to air pollutants”. CEQA requires an assessment of any inconsistencies between the Project and applicable general plans and regional plans.¹⁸⁶ A significant impact on land use and planning would occur if the Project would “[c]onflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.”¹⁸⁷

B24-36

The City’s General Plan includes the following goal and policy relevant to the air quality impacts of proposed Project:

GOAL EM-11 – Improved Air Quality: Improve Sunnyvale’s air quality and reduce the exposure of its citizens to air pollutants.

POLICY EM-11.3: Require all new development to utilize site planning to protect citizens from unnecessary exposure to air pollutants.

¹⁸⁵ Abbreviated from: Southwest Contractor, Indoor Air Quality Management Plan to Meet LEED Requirements; available at http://southwest.construction.com/features/archive/0510_feature7.asp.

¹⁸⁶ CEQA Guidelines § 15125, subds. (a), (d).

¹⁸⁷ CEQA Guidelines Appendix G, section IX(b).

Ryan Kuchenig
 October 23, 2013
 Page 49

While the DEIR identifies the City's General Plan goal and policy for protecting its citizens from air pollution,¹⁸⁸ it fails to evaluate whether the Project would be consistent with the General Plan's goal and policy for air quality. As discussed in the above comments, the Project is inconsistent with the General Plan's goal and policy for air quality and protection of its citizens because the DEIR fails to mitigate impacts with respect to air quality and community health risks to levels below significance.

Changing the General Plan and the zoning on parcels directly adjacent to Highway 101 from industrial/commercial to high density development does the exact opposite of reducing the exposure of the City's citizens to air pollutants. Moreover, constructing residential units within 90 feet of Highway 101 and within 1000 feet of five diesel-fired emergency backup generators¹⁸⁹ does not utilize site planning "to protect citizens from unnecessary exposure to air pollutants."

The Project location is simply too poorly suited to be used entirely for residential development.¹⁹⁰ As discussed by Dr. Pless, community cancer risks for future residents cannot be reduced to less-than-significant levels even with advanced filtration systems.

In light of these significant and unmitigable impacts, the City should deny approval of any residential project at this particular location. But at a minimum, in order to comply with CEQA, the DEIR must be revised to disclose the Project's inconsistency with the General Plan's polices to protect the City's citizens from these risks.

Furthermore, the proposal by the applicants to include low-income residential units raises environmental justice issues that were not addressed by the DEIR. Because CEQA requires that environmental impacts must be considered in context, the California Attorney General strongly recommends that cities and counties pay special attention to whether a project might cause additional impacts to communities that already are affected by, or particularly vulnerable to, environmental impacts like air and water pollution.¹⁹¹ In addition, the Governor's

¹⁸⁸ DEIR at p. 4.2-14.

¹⁸⁹ DEIR at pp. 4.2-24 and 4.2-36.

¹⁹⁰ Dr. Pless Comments.

¹⁹¹ California Office of the Attorney General, CEQA and General Planning: Environmental Justice, <http://oag.ca.gov/environment/ceqa/planning>.

Ryan Kuchenig
 October 23, 2013
 Page 50

Office of Planning and Research in its General Plan Guidelines recommends that local governments' planning efforts squarely address environmental justice.¹⁹² If residential development is approved on the Project location, the DEIR should be revised to evaluate the potential environmental justice implications of the Project. In particular, the location of the proposed affordable units should be required to be disclosed and evaluated to ensure they are not disproportionately located in the highest risk areas of the proposed development.

B24-36

VI. THE ANALYSIS OF VIBRATION IMPACTS IS NOT SUPPORTED BY SUBSTANTIAL EVIDENCE

The DEIR's analysis of the vibration impacts on future project residents from truck traffic on the adjacently located Highway 101 is legally inadequate because it is not supported by substantial evidence. CEQA requires an EIR to be supported by substantial evidence.¹⁹³ Furthermore, an EIR must provide the reader with the analytic bridge between its ultimate findings and the facts in the record.¹⁹⁴ Conclusory statements "unsupported by empirical or experimental data, scientific authorities, or explanatory information of any kind" are insufficient to support a finding of insignificance.¹⁹⁵ The public and decision-makers, for whom the EIR is prepared, should also have before them the basis for any statements of fact or opinion asserted in the document so as to enable them to make an independent, reasoned judgment.¹⁹⁶

B24-37

Here, the DEIR states, without any supporting reports, studies or analysis, that the vibration resulting from heavy truck traffic on Highway 101 is projected to be about 0.04 in/sec PPV at the Project boundaries and about 0.02 in/sec PPV at the nearest proposed vibration sensitive location in the Sares Regis development and 0.01 in/sec PPV from the nearest proposed vibration sensitive location in the Raintree development.¹⁹⁷ The DEIR states that it established baseline vibration levels from heavy truck traffic on Highway 101 based upon the 2004 Caltrans

¹⁹² *Id.*; see also Office of Planning and Research, General Plan Guidelines (2003), available at http://opr.ca.gov/docs/General_Plan_Guidelines_2003.pdf.

¹⁹³ Pub. Resources Code § 21081.5; CEQA Guidelines § 15091, subd. (b).

¹⁹⁴ *Topanga Association for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506; see CEQA Guidelines § 15091.

¹⁹⁵ *People v. County of Kern* (1974) 39 Cal.App.3d 830, 841-842.

¹⁹⁶ *Santiago Water District v. County of Orange* (1981) 118 Cal.App.3d 818, 831.

¹⁹⁷ DEIR at pp. 4.7-7, 4.7-18, 4.7-19.

Ryan Kuchenic
October 23, 2013
Page 51

Transportation-and Construction-Induced Vibration Guidance Manual.¹⁹⁸ The referenced manual, however, does not provide any baseline vibration levels at the Project location or anywhere else along Highway 101. In addition, no explanation or calculations are provided as to how the baseline vibration levels at the Project boundaries and at the nearest vibration sensitive locations were determined.

In addition, the DEIR’ evaluation of vibration impacts assumes that the nearest building on the Sares Regis parcel would be 90 feet away from the nearest travel lane on Highway 101 and the nearest building on the Raintree parcel would be 130 feet away. The Full Buildout Scenario, however, does not include any enforceable mitigation measures requiring setbacks of that distance. To the contrary, the Project is proposing to change the parcel’s zoning to R-4 or R-5, both of which only require a setback of 9 feet from a side yard or 20 feet for a back or front yard.¹⁹⁹

B24-37

The DEIR also fails to provide any foundation for its conclusion that vibrations would be “below the perception threshold of 0.01 in/sec PPV within the building when accounting for foundation coupling losses and amplification due to resonance of building surfaces.” This statement is conclusory and unsupported by empirical or experimental data, scientific authorities, or explanatory information of any kind.²⁰⁰

VII. THE CONCLUSION THAT PROPOSED MITIGATION MEASURES WILL REDUCE CONSTRUCTION NOISE IMPACT TO BELOW A LEVEL OF SIGNIFICANCE IS NOT SUPPORTED BY SUBSTANTIAL EVIDENCE

The DEIR finds that construction noise impacts from the Project would be significant, but concludes that compliance with Mitigation Measure NOISE-5 will reduce these impacts below a level of significance.²⁰¹ The DEIR, however, provides no analysis, data or explanation for how the proposed mitigation measures would reduce construction noise impact below a level of significance.

B24-38

¹⁹⁸ DEIR at pp. 4.7-7.

¹⁹⁹ City of Sunnyvale Municipal Code, § 19.34.030.

²⁰⁰ *People v. County of Kern* (1974) 39 Cal.App.3d 830, 841-842.

²⁰¹ DEIR at pp. 4.7-24, 4.7-25.

Ryan Kuchenig
 October 23, 2013
 Page 52

The DEIR states that noise levels exceeding 60 dBA Leq and the ambient noise environment by 5 dBA Leq or more at nearby residences for a period of more than one construction season would be considered significant.²⁰² The DEIR then goes on to find that construction on the Sares Regis parcel would result in average noise levels at nearby residences ranging from 68 to 80 dBA and that this would elevate noise levels by 10 to 20 dBA above ambient traffic noise levels at these nearby noise-sensitive uses.²⁰³ Similarly, the DEIR finds that construction on the Raintree parcel would result in average noise levels at nearby residences ranging from 76 to 86 dBA and that this would elevate noise levels by 20 dBA above ambient traffic noise levels at these nearby noise-sensitive uses.²⁰⁴

The DEIR then lists a number of mitigation measures to reduce construction noise impacts and assumes that these mitigation measures would be sufficient to reduce noise impacts below a level of significance.²⁰⁵ This assumption is not supported by substantial evidence. The DEIR fails to identify any evidence or analysis that shows that these measures would reduce construction noise levels below 60 dBA Leq or reduce the increase in ambient noise environment to less than 5 dBA Leq. As a result, the DEIR's conclusion that noise impacts will be mitigated below a level of significance is conclusory and not supported by substantial evidence.

In addition, many of the measures that are listed in Mitigation Measure NOISE-5 are vague, improperly deferred and unenforceable. An agency may not put off an analysis of what mitigation measures are required, or call for unspecified, vague, or unenforceable mitigation measures to be defined in the future.²⁰⁶

For example, Mitigation Measure NOISE-5 requires Project construction operations to "use available noise suppression devices." This requirement is vague, undefined and unenforceable. Furthermore, without any indication of what noise suppression devices are available and for what equipment, this requirement cannot

²⁰² DEIR at p. 4.7-22.

²⁰³ DEIR at p. 4.7-24.

²⁰⁴ *Id.*

²⁰⁵ DEIR at pp. 4.7-24, 4.7-25.

²⁰⁶ CEQA Guidelines § 15126.4, subd. (a)(1)(B); *City of Long Beach v. Los Angeles School Dist.* (2009) 179 Cal.App.4th 889, 915; *Communities for a Better Env't v. City of Richmond* (2010) 184 Cal.App.4th 70, 95; *San Joaquin Raptor Rescue Ctr. v. County of Merced* (2007) 149 Cal.App.4th 645, 669.

Ryan Kuchenig
 October 23, 2013
 Page 53

be relied upon to determine if construction noise impacts will be mitigated below a level of significance. Similarly, the requirement to use “quiet’ models of air compressors and other stationary noise sources where technology exists” is also vague, undefined and unenforceable. The term “quiet” model is not defined and the DEIR provides no indication if such technology does exist and if it does what its effectiveness will be in reducing overall construction noise.

Finally, the requirement to adopt a “construction noise logistic plan” that specifies noise and vibration minimization measures cannot be relied upon to make a finding that noise impacts will be reduced below a level of significance. This requirement improperly defers identification of specific noise and vibration minimization measures to a future time. Mitigation measures adopted *after* project approval cannot validate the issuance of an EIR, since this deferral denies the public the opportunity to comment on the project as modified to mitigate impacts.²⁰⁷ An agency may only defer the formulation of mitigation measures when it “recognizes the significance of the potential environmental effect, commits itself to mitigating its impact, and articulates *specific performance criteria* for the future mitigation.”²⁰⁸ Because no specific performance criteria have been identified, this deferral violates CEQA.

B24-38

VIII. THE FINDING THAT IMPACTS FROM UPSIZING THE NORTH FAIR OAKS AVENUE SEWER MAIN WOULD BE LESS THAN SIGNIFICANT IS NOT SUPPORTED BY SUBSTANTIAL EVIDENCE

The DEIR’s determination that potential impacts from the construction of the upsized sewer main on North Fair Oaks Avenue would be less than significant is legally deficient. This conclusion is not supported by any meaningful analysis or substantial evidence. Furthermore, the analysis of potential impacts from the North Fair Oaks Avenue sewer replacement activities is improperly piecemealed from the analysis of the rest of the Project’s impacts.

B24-39

²⁰⁷ *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1393]; *Quail Botanical Gardens Foundation v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1604, fn. 5.

²⁰⁸ *Gentry*, 36 Cal.App.4th at 1411 (emphasis provided), citing *Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011, 1028-1029.

Ryan Kuchenig
 October 23, 2013
 Page 54

The DEIR concludes that the increased wastewater generation from the proposed development on the Sares Regis site and the Raintree site requires upsizing the existing sewer main in North Fair Oaks Avenue.²⁰⁹ In order to ensure adequate sewer main capacity, Mitigation Measure UTIL-3 requires that “[a]s part of the proposed projects, the project applicants shall replace the existing 8-inch sewer main in North Fair Oaks Avenue with a 10-inch main.”²¹⁰

The DEIR, however, fails to consider the additional construction air quality, traffic, noise, or other impacts from the North Fair Oaks Avenue sewer replacement activities in its analysis of overall Project impacts. Instead of evaluating the North Fair Oaks Avenue sewer replacement activities with the rest of the Project activities, the DEIR instead spends one paragraph looking at the potential impacts of the North Fair Oaks Avenue sewer replacement activities in isolation from the rest of the Project.²¹¹ The failure to include this Project component in the overall analysis of Project impacts improperly segments review of the environmental impacts from the North Fair Oaks Avenue sewer replacement activities from the rest of the Project.²¹²

Moreover, the DEIR’s one paragraph, piecemealed analysis of the North Fair Oaks Avenue sewer replacement activities is conclusory and unsupported by any substantial evidence or meaningful analysis. Its entire analysis and discussion of air quality impacts from this activity consists of the following paragraph:

The impact of construction of the upsized sewer main would not be significant for the following reasons: 1) construction would take place within the right-of-way of North Fair Oaks Avenue; 2) construction noise and air emissions would be short term and would not result in significant air quality or noise impacts; 3) traffic impacts would be mitigated by a City-initiated traffic plan to route traffic as needed during construction; 4) potential erosion impacts related to excavation and spoils management would be covered under the project's SWPPP; and 5) no other impacts related to biological, hydrological or other

²⁰⁹ DEIR at p. 4.11-9.

²¹⁰ DEIR at p. 4.11-11 (emphasis provided).

²¹¹ DEIR at p. 4.11-10.

²¹² CEQA Guidelines § 15063, subd. (a)(1).

Ryan Kuchenig
 October 23, 2013
 Page 55

topics would result. Construction of the wastewater facilities would not have any specific significant environmental impacts requiring mitigation.²¹³

CEQA requires conclusions in an EIR to be supported by substantial evidence.²¹⁴ Conclusory statements “unsupported by empirical or experimental data, scientific authorities, or explanatory information of any kind” are insufficient to support a finding of insignificance.²¹⁵ Furthermore, an EIR must provide the reader with the analytic bridge between its ultimate findings and the facts in the record.²¹⁶

Here, each of the listed reasons for concluding that impacts from this activity would be less than significant are conclusory and unsupported:

- 1) *Construction would take place within the right-of-way of North Fair Oaks Avenue*

The DEIR fails to explain why this would ensure that there would be no significant impacts. To the contrary, the location of the sewer main will increase the intensity of construction activities because it will require not just digging up and replacing the main, but also digging up and replacing major roadway. In addition, the location of the construction will increase the likelihood of traffic and emergency access impacts.

- 2) *Construction noise and air emissions would be short term and would not result in significant air quality or noise impacts*

This statement is conclusory and without foundation. No disclosure is provided regarding the type of equipment needed or the length and type of construction activities and no quantification is provided of emissions or noise from these activities.

²¹³ DEIR at p. 4.11-10.

²¹⁴ Pub. Resources Code § 21081.5; CEQA Guidelines § 15091, subd. (b).

²¹⁵ *People v. County of Kern* (1974) 39 Cal.App.3d 830, 841-842.

²¹⁶ *Topanga Association for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506; see CEQA Guidelines § 15091.

Ryan Kuchenig
October 23, 2013
Page 56

- 3) *Traffic impacts would be mitigated by a City-initiated traffic plan to route traffic as needed during construction;*

This statement discusses mitigation that is vague and not included as part of the Project mitigation.

- 4) *Potential erosion impacts related to excavation and spoils management would be covered under the project's SWPPP; and*

This statement is speculative and without foundation. The DEIR fails to require that the Project's Storm Water Pollution Prevention Plan ("SWPPP") cover potential impacts from this offsite activity. Furthermore, the DEIR suggests that a separate SWPPP will be prepared for the Raintree and the Sares Regis construction activities. It is unclear which, if any, SWPPP would have the responsibility of including the offsite North Fair Oaks Avenue sewer replacement activities under its scope.

B24-39

- 5) *No other impacts related to biological, hydrological or other topics would result. Construction of the wastewater facilities would not have any specific significant environmental impacts requiring mitigation.*

This statement is conclusory and unsupported by and facts or analysis.

In sum, the DEIR's analysis of impacts from the North Fair Oaks Avenue sewer replacement activities is unsupported by any citations, data, evidence or meaningful analysis. Accordingly, this analysis cannot be relied upon to support a finding that impacts from this activity would be less than significant, either individually or in combination with the rest of the components of this Project. The DEIR must be revised to provide a meaningful evaluation of these impacts in compliance with the requirements of CEQA.

IX. THE DEIR FAILS TO ASSESS THE PROJECT'S INCONSISTENCY WITH THE GENERAL PLAN RECYCLED WATER POLICY

The DEIR is also inadequate because it fails to assess the Project's inconsistency with the Sunnyvale General Plan Policy EM-1.2, which requires development to maximize recycled water use for all approved purposes both within

B24-40

Ryan Kuchenig
October 23, 2013
Page 57

and in areas adjacent to the City, where feasible. The Project, as described in the DEIR, does not include the use of recycled water and the feasibility of using recycled water has not been assessed.

CEQA requires an assessment of any inconsistencies between the Project and applicable general plans and regional plans.²¹⁷ A significant impact on land use and planning would occur if the Project would “[c]onflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.”²¹⁸ “Environmental effects” include direct and indirect impacts to aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems.²¹⁹ Thus, under CEQA, a project results in a significant effect on the environment if the project is inconsistent with an applicable land use plan, policy or regulation adopted for the purpose of avoiding or mitigating one or more of these environmental effects.

B24-40

In the case at hand, the policy to maximize the use of recycled water is critical to ensuring sufficient water supply in the City. The DEIR’s conclusion that the City has sufficient water supply for the Project is dependent on the increasing use of recycled water.²²⁰ Accordingly, this policy has been adopted for the purpose of avoiding or mitigating an environmental effect. The failure to assess the Project’s consistency with General Plan Policy EM-1.2 is a violation of CEQA and must be corrected in a revised EIR.

X. THE CITY MUST PREPARE AND RECIRCULATE A REVISED DEIR AS A RESULT OF ITS INADEQUACIES

CEQA requires a lead agency to recirculate an EIR when significant, new information is added to the EIR following public review, but before certification.²²¹

B24-41

²¹⁷ CEQA Guidelines § 15125, subd. (a), (d).
²¹⁸ CEQA Guidelines Appendix G, section IX(b).
²¹⁹ *Id.*
²²⁰ See DEIR at p. 4.11-1.
²²¹ Pub. Resources Code § 21092.1.

Ryan Kuchenig
October 23, 2013
Page 58

The CEQA Guidelines clarify that new information is significant if “the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project” including, for example, “a disclosure showing that ... [a] new significant environmental impact would result from the project.”²²²

B24-41

As discussed above, the proposed Project will have numerous impacts that are different and more severe than those described in the EIR, including air quality impacts, contaminated soil impacts, and noise and vibration impacts. The EIR also lacks adequate mitigation for these potentially significant impacts. A revised and recirculated EIR is required.

XI. CONCLUSION

Sunnyvale Residents for Responsible Development and its individual members thank the City for providing the opportunity to comment on this matter. We urge the City to ensure that the Project’s impacts are fully disclosed, evaluated and mitigated before the Project is allowed to proceed.

Sincerely,



Thomas A. Enslow

TAE:lj

Attachments

²²² CEQA Guidelines § 15088.5.