

**Law Office of
ROBERT M. BONE**

June 26, 2020

VIA EMAIL ONLY

publiccomment@roseville.ca.us

City of Roseville Planning Commission
311 Vernon Street
Roseville, California 95678

RE: Appeal of Project Approvals - WRSP PCL F-31
The Plaza at Blue Oaks; File # PL17-0368

Dear Sir or Madam:

Our firm writes on behalf of an unincorporated association of Roseville community residents (the "Association") to submit the attached environmental report from SWAPE ("Report") in support of our pending appeal of the Approval by the City of Roseville Planning Commission ("Planning Commission"), of The Plaza at Blue Oaks Project, located at 1950 Blue Oaks Boulevard, in the City of Roseville, Placer County, CA (APN 017-117-093-000). This is a proposed retail center consisting of an approximately 35,000 square-foot anchor grocery store, a 12-pump gas station with an approximately 3,500 square-foot convenience store and car wash, and seven additional buildings ranging in size from approximately 3,750 square feet to 9,750 square feet (the "Project"). The Project approvals included a Design Review Permit to review the site design and proposed buildings, a Tree Permit to remove several native oak trees on the westerly portion of the site, and a Tentative Subdivision Map to subdivide the parcel into eight (8) lots (the "Approvals").

The Report highlights several deficiencies that appear in the initial study mitigated negative declaration ("IS/MND") that underlies the Approvals. These evaluation deficiencies relate to data utilized in the IS/MND's Findings on Soil contamination, Project Land and Water use, Air Quality, Traffic, and other Impacts that will be caused by the Project. Some of the deficiencies noted in the Report include, but are not limited to, the following:

Prior Agricultural Uses Require Detailed Soil Evaluation

Agriculture was practiced on the Project site for many years. Thus, pesticides may be present in the soil. The Report recommends a Phase I environmental soil analysis that targets the potential for pesticides through an evaluation of agricultural practices, including the types of crops that were grown and when they were cultivated. The Report provides granular details on how the

IS/MND fails to provide sufficient environmental review in this regard.

The IS/MND Fails to Properly Analyze the Project's Intended Land Use

The IS/MND evaluated the Project under “general commercial land use” criteria. However, Project does not only involve general commercial land uses. It also includes a 12-pump gasoline station, which the IS/MND fails to address or evaluate. Indeed, it is unclear whether the gas station will include ancillary automotive services like auto repair, smog checking, etc. As a result of the improper evaluation of the gas station, and all intended uses in this footprint, the IS/MND cannot conclude that the proposed Project would result in a Less Than Significant Air Quality Impact without conducting a quantitative analysis to evaluate the *entire* Project's *total* air quality emissions.

Several Problems Exist with the Modeling Used in the IS/MND

The Report highlights several problems with the modeling that supported the IS/MND's Findings. For example, the IS/MND correctly used the CalEEMod models to evaluate Air Quality. However, the modeling data provided to the public was incomplete. CalEEMod modeling software provides three types of output files, including winter, summer, and annual. The IS/MND did not provide the summer and winter output files. Without the summer and winter CalEEMod output files, the Project's criteria Air Pollutant Emissions cannot be compared to Placer County Air Pollution Control District (“PCAPCD”) thresholds. For this reason, the IS/MND's Finding of a Less Than Significant Impact cannot be relied upon for Project Approval.

The failures in the IS/MND modeling resulted in an undercounting of Significant Air Pollutant Emissions. Further analysis is required. The Findings should be changed from No Impact to Less Than Significant Impacts - with certain Mitigation Measures implemented - which Mitigation Measures must be determined and imposed on the Project. Residents in the Project area will live under Emissions levels that were not properly captured in the IS/MND.

The Report demonstrates the Project's operational NO_x emissions exceed the PCAPCD threshold of 55 pounds per day. Thus, the Project would result in Significant Air Quality Impacts that were not previously identified, or addressed, in the IS/MND. As a result, an updated CEQA evaluation should be prepared to include an updated Air Pollution model and analysis to adequately estimate the Project's construction and operational emissions and incorporate proper Mitigation Measures to reduce these Emissions to Less Than Significant levels.

Diesel particulate matter health risk emissions were also inadequately evaluated in the IS/MND. The inadequacy of this evaluation is particularly worrying because diesel particulate matter is known to the State of California to cause asthma and can cause sensitive receptors to develop lung cancer. The Health Risk Assessment in the IS/MND fails to evaluate the cumulative lifetime cancer risk to nearby, existing receptors as a result of Project construction *and* operation *together*. The IS/MND should have quantified the Project's *entire* construction and operational

health risks, and should have compared the combined construction and operational health risks to the PCAPCD threshold of 10 in one million, as indicated by the IS/MND (p. 11).

This is more than an issue of Vehicle Miles Traveled (“VMT”). This goes directly to the health of nearby residents that will be caused by people from around the County and other areas driving to this Project site. The Environmental Impact caused by this increased diesel particulate matter from people driving into the neighborhood must be properly assessed.

Further to the creative modeling employed in the IS/MND, the default CO₂ intensity factor was inexplicably reduced from 793.8 pounds per megawatt hour (“lbs/MWh”) to 531.85 lbs/MWh. The CalEEMod User’s Guide *requires any changes to model defaults be justified*.¹ This default CO₂ figure was changed from the 793.8 default employed by CalEEMod. However, *no justification was given for the change*. This represents an improper forced reduction in emissions.

The IS/MND also doesn’t provide the VMT-reducing measures that actually *show* they will reduce emissions. The IS/MND says it will reduce emissions, but no measures are provided. Rather, the reduction was accomplished by the modelers playing with the numbers, not by showing they are designing the Project to reduce VMT.

The same anomalies in the data appears in the Trees analysis. The default line appears near zero because no trees are currently on the site. The Developer states they are planning to add 373 trees in their model. This causes their overall number of emitted CO₂ to drop. However, no details are provided on the type, or age, of Trees that will be used. Palm trees do not absorb as much CO₂ as elm trees. Old trees absorb less than young trees. Without further details on the planned landscaping, it is difficult to tell from the IS/MND whether the Trees will reduce Emissions as much as the model says they will. These anomalies in the data appear to cover up the fact that the Project does not meet GHG standards.

Modeling difficulties appear in the Trip rate analysis as well. The County’s model profiles reduce the Trip rate to zero. This is highly problematic. This is a shopping center. The Trip rates simply cannot be set at zero because people will be traveling there. *This represents another unjustified change to the model default*. It appears that the modelers adjusted the Trip rate to zero in an attempt to assume everyone in this neighborhood will shop at this center and no one else will, or that the area residents won’t go anywhere else to shop. This assumption cannot be correct.

AB32 Provides an Insufficient Measure of GHG Emissions Caused by the Project

AB32 requires California to reduce its GHG emissions to 1990 levels by 2020. This amounts to an approximately 15 percent reduction in emissions below what would normally be expected under a “business as usual” scenario for a given project. Thus, a suburban shopping center constructed in 2020 must operate 15% below the expected 2020 levels. The reliance on meeting AB 32 requirements is insufficient for several reasons. Firstly, the Report shows the Project is not AB32 compliant. Secondly, more efficient and successful methodologies exist to measure Emissions efficiency in a project. Lastly, the IS/MND does not provide a baseline against which

¹ CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 2, 9

their model is compared. Without a baseline, there is no way for the public to evaluate whether their model shows the baseline is not met, met, or exceeded.

AB32 allows Developers to rely on incorporating environmentally friendly materials into a Project to reduce the Emissions output to 1990 levels. However, this fails in practice if the Project itself is not oriented toward supporting a “walkable community” because Emissions will not ultimately be reduced. The configuration of this Project eschews a walkable community concept. Even people that live in nearby neighborhoods would have to drive at least a mile to reach any of the retail spaces inside the Project’s footprint. Indeed, a pedestrian, or bicyclist, will necessarily be put in harm’s way just to access the site. This runs counter to the intent of AB32. Furthermore, AB32 does not contain many actionable items for Developers to meet (which is one reason why Developers like to hide behind this legislation).

The challenges with this Project’s configuration amount to more than tail pipe Emissions. This Project creates urban sprawl. It amounts to a typical Southern California Orange County-type of commercial development because Placer County residents will have to drive to get to the Project. This amounts to developing vacant land in a manner that forces people back into their cars. There is not a lot of existing commercial development in Roseville. By default, this Project will attract people from all over Placer County. The Finding that the Project’s existence isn’t Significant enough an Impact to increase Trip rates in the area is incorrect.

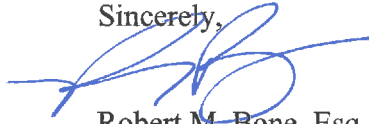
Inefficient and Improper Mitigation Measures Were Considered for the Project

The IS/MND fails to show any meaningful Mitigation Measures imposed on the Project. For example, ride sharing is often used as a Mitigation Measure. Developers will say they are implementing ride share programs, and then they fail to do so. Developers use this criterium to get their projects approved, but they fail to show how a ride share program would actually work. Furthermore, this is an operations business model that the shopping center’s management would implement, not the Developer. The Developer should not be able to use ride sharing as a Mitigation Measure for these reasons. Furthermore, ride sharing works in dense regional centers. How would a nearby resident use ride sharing to shop at the Project? This is non-sensical. The modelers used this false criterium to reduce the Project’s Emissions. Similar anomalies occur with the Water efficiency and Landscaping modeling. The Report provides granular details on these issues.

Ultimately, the IS/MND gives the public a broad overall look at the Project. However, when venturing into the details of the IS/MND, the Project’s Environmental Impacts increase over those stated in the IS/MND. A proper Environmental evaluation must be conducted on the Project. Because the IS/MND wholly dismissed the vast majority of the potential Environmental Impacts caused by the Project, Mitigation Measures were inadequately considered or completely ignored. As a result, the IS/MND fails to adequately disclose, evaluate, and mitigate the Project’s Environmental impacts, resulting in a legally deficient CEQA document. The Planning Commission must conduct an appropriate environmental review that addresses these inadequacies and must circulate the document for public review to consider these critical issues. Thank you for your attention to these comments.

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Sincerely,

A handwritten signature in blue ink, appearing to be 'R. Bone', written over the word 'Sincerely,'.

Robert M. Bone, Esq.



Technical Consultation, Data Analysis and
Litigation Support for the Environment

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G., C.Hg.
(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

June 18, 2020

Robert M. Bone, Esq.
Law Office of Robert M. Bone
645 Fourth Street, Suite 205
Santa Rosa, CA 95404

Subject: Comments on The Plaza at Blue Oaks Project

Dear Mr. Bone,

We have reviewed the April 2020 Initial Study/Mitigated Negative Declaration ("IS/MND") for the Plaza at Blue Oaks Project ("Project") located in the City of Roseville ("City"). The Project proposes to construct a 35,000-SF grocery store, a 12-pump gas station with a 3,500-SF convenience store and car wash, seven additional buildings ranging in size from 3,750-SF to 9,750-SF, as well as parking and landscaping on the 13.35-acre Project site.

Our review concludes that the IS/MND fails to adequately evaluate the Project's hazards, air quality, health risk, and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An updated CEQA analysis should be prepared to adequately assess and mitigate the potential hazards, air quality, health risk, and greenhouse gas impacts that the project may have on the surrounding environment.

Hazards and Hazardous Materials

Inadequate Analysis of Impacts

No Phase I Environmental Site Assessment (ESA) was prepared for the Project site. The preparation of a Phase I ESA is a common practice in CEQA matters to identify hazardous waste issues that may pose a risk to the public, workers, or the environment, and which may require further investigation, including environmental sampling and cleanup.

The need for a Phase I ESA for the Project site is necessary because a portion was used for agriculture, according to our review of Google Earth Images. A 2002 aerial photo (below) shows the southeast area of the project site to have been used for row crops.



Because agriculture was practiced on the Project site for many years, pesticides may be present in soil. The recommended Phase I ESA should therefore target the potential for pesticides through an evaluation of agricultural practices, including the types of crops that were grown and when they were cultivated.

Standards for performing a Phase I ESA have been established by the US EPA and the American Society for Testing and Materials Standards (ASTM).¹ Phase I ESAs are conducted to identify conditions indicative of releases of hazardous substances and include:

- a review of all known sites in the vicinity of the subject property that are on regulatory agency databases undergoing assessment or cleanup activities;
- an inspection;
- interviews with people knowledgeable about the property; and

¹ <http://www.astm.org/Standards/E1527.htm>

- recommendations for further actions to address potential hazards.

Phase I ESAs conclude with the identification of any “recognized environmental conditions” (RECs) and recommendations to address such conditions. A REC is the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. If RECs are identified, then a Phase II ESA generally follows, which includes the collection of soil, soil vapor and groundwater samples, as necessary, to identify the extent of contamination and the need for cleanup to reduce exposure potential to the public.

Consistent with professional due diligence procedures commonly used in CEQA proceedings, a Phase I ESA, completed by a licensed environmental professional is necessary for inclusion in an EIR to identify recognized environmental conditions, if any, at the proposed Project site. If past agricultural practices are identified as a REC, a Phase II should be conducted to sample for residual concentrations of pesticides in soil. Any contamination that is identified above regulatory screening levels, including California Office of Environmental Health Hazard Assessment’s Soil Screening Numbers², should be further evaluated and cleaned up, if necessary, in coordination with the Regional Water Quality Control Board and the California Department of Toxics Substances Control.

Air Quality

Failure to Evaluate Air Quality Impacts

Regarding the Project’s air quality impact, the IS/MND states:

“[A]ccording to PCAPCD’s published screening table, general commercial projects smaller than 249,099 square feet will not result in NOx emissions that exceed 55 lbs/day, and therefore modeling is not required” (p. 11).

Furthermore, the IS/MND claims:

“The project proposes the construction of a shopping center consisting of six buildings totaling approximately 82,100 square feet, which is well below PCAPCD’s modeled example. Thus, the project is not expected to result in construction or operational emissions that would exceed the district’s thresholds for significance” (pp. 11).

As you can see in the excerpts above, the IS/MND claims that the Project is below the PCAPCD’s published screening threshold for general commercial projects. However, this is incorrect, as the IS/MND misinterprets the PCAPCD guidelines, as discussed below. As a result, the IS/MND’s less than significant air quality impact determination is unsubstantiated, and the Project should not be approved until an updated CEQA evaluation is prepared to adequately analyze and mitigate the Project’s anticipated air quality impacts.

² <http://oehha.ca.gov/risk/chhsltable.html>

The PCAPCD guidelines provide the approximate sizes of projects, by land use subtype, that may result in operational NO_x emissions equal to the PCAPCD threshold of 55 pounds per day (“lbs/day”). The guidelines indicate that 249,099-SF is the approximate size of a general commercial Project “which would result in NO_x operational emissions equal to the threshold of 55 lbs/day” (emphasis added) (p. 21). However, the PCAPCD guidelines note that these approximate sizes serve as “preliminary screening methodology” and do not consider “ROG operational emissions” or other criteria air pollutants (p. 21). Furthermore, the guidelines state:

“[D]epending on the location of the project as well as the project’s proposed land use categories, design features, and buildout year, different conclusions may be reached.”

Thus, these approximate land use sizes cannot be relied upon to determine Project significance, as the operational ROG (VOC) emissions, as well as other criteria air pollutant emissions, proposed land use categories, design features, and other Project-specific details should also be considered. Here, however, the Project does not only involve general commercial land uses, but also a 12-pump gasoline station, which the IS/MND fails to address or evaluate. As a result, the IS/MND cannot conclude that the proposed Project would result in a less than significant air quality impact without conducting a quantitative analysis to evaluate the entire Project’s total air quality emissions.

Failure to Include Summer and Winter Models

Review of the IS/MND demonstrates that the Project documents fail to disclose the winter and summer CalEEMod output files. As such, we are unable to verify the IS/MND’s air quality analysis and the related impact conclusions should not be relied upon to determine Project significance.

CalEEMod provides three types of output files – winter, summer, and annual. While the annual output files measure emissions in tons per year (“tons/yr”), both the winter and summer output files provide emissions estimates in pounds per day (“lbs/day”). The Placer County Air Pollution Control District (“PCAPCD”) provides significance thresholds to evaluate Project-related criteria air pollutant emissions in units of lbs/day. As such, the IS/MND should have provided all of the CalEEMod output files, including the winter and summer CalEEMod output files, in order to compare emissions to the PCAPCD thresholds. Without the summer and winter CalEEMod output files, the Project’s criteria air pollutant emissions cannot be compared to PCAPCD thresholds, and the IS/MND’s less than significant impact conclusion should not be relied upon.

SWAPE Analysis Indicates Significant Air Pollutant Emissions

In an effort to accurately determine the proposed Project’s construction and operational emissions, we prepared an updated SWAPE CalEEMod model for the Project, correcting the unsubstantiated input parameters based on information provided in the IS/MND, as discussed below.

Our updated analysis demonstrates that the Project’s operational NO_x emissions exceed the 55 pounds per day (lbs/day) threshold set by the PCAPCD (see table below).³⁴

Maximum Daily Operational Emissions (lbs/day)	
Model	VOC/ROG
SWAPE	125.56
PCAPCD Regional Threshold (lbs/day)	55
Threshold Exceeded?	Yes

As you can see in the table above, when modeled, the Project’s operational NO_x emissions exceed the PCAPCD threshold of 55 lbs/day. Thus, our model demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed in the IS/MND. As a result, an updated CEQA evaluation should be prepared to include an updated air pollution model and analysis to adequately estimate the Project’s construction and operational emissions and incorporate mitigation to reduce these emissions to a less than significant level.

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The IS/MND concludes that the Project’s health risk impact would be less than significant, based on a health risk assessment (“HRA”) assessing the excess cancer risk resulting from the gasoline dispensed by the Project, without conducting an HRA for the Project’s construction or entire operations (p. 11). However, this is incorrect for several reasons.

First, the IS/MND states that an HRA was prepared to assess the health risk impact associated with the “annual amount of gasoline dispensed from the facility” (p. 11). Thus, while the Project did conduct an operational HRA, the HRA fails to evaluate the health risk impacts resulting from the Project’s entire operation, not just from the gasoline dispensed. This is incorrect, as the HRA fails to include all of the Project’s operational emissions, including emissions resulting from operational activities such as product use, architectural coatings, space heating, water heating, refrigeration, office uses, ventilation, lighting, water-use, and waste. As such, this partial operational HRA cannot be used to determine impacts from the entire Project’s operations, and the IS/MND’s less than significant health risk impact should not be relied upon.

Second, by failing to conduct a quantified construction HRA, the Project is inconsistent with the most recent guidance published by the Office of Environmental Health Hazard Assessment (“OEHHHA”), the organization responsible for providing guidance on conducting HRAs in California. In February of 2015, OEHHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*, which was formally adopted in March of 2015.⁵ This guidance document describes the

³ “California Environmental Quality Act Air Quality Guidelines.” BAAQMD, adopted 2010, updated May 2017, available at: https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 2-2, Table 2-1.

⁴ “Chapter 2: Thresholds of Significance.” PCAPCD, available at: <https://www.placer.ca.gov/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF>, p. 21.

⁵ “Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments.” OEHHHA, February 2015, available at: http://oehha.ca.gov/air/hot_spots/hotspots2015.html

types of projects that warrant the preparation of an HRA. Construction of the Project will produce emissions of DPM, a human carcinogen, through the exhaust stacks of construction equipment over a construction period of approximately 416 days, or 1.14 years (Attachment 5, pp. 120). The OEHHA document recommends that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors.⁶ Even though we were not provided with the expected lifetime of the Project, we know that the Project will last longer than 2-months, as specified by OEHHA. Therefore, we recommend that health risks from Project construction should have been evaluated by the IS/MND, as a two-year construction schedule exceeds the 2-month requirement set forth by OEHHA. These recommendations reflect the most recent health risk policy, and as such, we recommend that an updated assessment of health risks to nearby sensitive receptors from Project construction should be included in an updated CEQA analysis for the Project.

Third, review of the IS/MND demonstrates that, while the Project did conduct an operational HRA, the HRA fails to evaluate the cumulative lifetime cancer risk to nearby, existing receptors as a result of Project construction and operation together. According to OEHHA guidance, “the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk at the receptor location.”⁷ However, review of the IS/MND demonstrates that, while the IS/MND calculated the health risk to nearby, existing infant, child, and adult receptors, the HRA fails to evaluate the cumulative lifetime cancer risk to nearby, existing receptors as a result of Project construction *and* operation together. Therefore, the IS/MND should have quantified the Project’s *entire* construction and operational health risks, as well as compared the combined construction and operational health risks to the PCAPCD threshold of 10 in one million, as indicated by the IS/MND (p. 11).

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The IS/MND concludes that the Project would result in annual operational GHG emissions of 726.45 metric tons of carbon dioxide equivalents per year (“MT CO₂e/year”) and annual construction GHG emissions of 338.07 MT CO₂e/year (p. 26). As a result, the IS/MND concludes that the Project’s GHG emissions would be below the PCAPCD’s GHG threshold. Furthermore, the IS/MND states:

“[T]he project-generated GHG emissions would not conflict with, and are consistent with, the State goals listed in AB32 and other policies and regulations adopted by the California Air Resources Board. This impact is considered less than significant” (p. 26).

However, this is incorrect for four reasons.

- 1) AB 32 is inapplicable to the proposed Project;
- 2) The IS/MND fails to demonstrate Project consistency with CARB policies and regulations;
- 3) The IS/MND’s GHG analysis relies upon an incorrect and unsubstantiated air model; and

⁶ “Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments.” OEHHA, February 2015, available at: http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-18

⁷ “Guidance Manual for preparation of Health Risk Assessments.” OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf> p. 8-4

- 4) Updated analysis indicates a potentially significant GHG impact.

(1) Incorrect Reliance on AB 32

As previously stated, the IS/MND relies upon the Project's consistency with AB 32 in order to claim that Project GHG impacts would be less than significant. However, this is incorrect, as AB 32 only sets emission reduction targets through 2020. Given that it is almost June of 2020, and the Project has not yet been approved, AB 32 is outdated and inapplicable to the proposed Project. As a result, the IS/MND's less than significant impact conclusion regarding the Project's consistency with AB 32 is incorrect and unsubstantiated and should not be relied upon.

(2) Failure to Evaluate Consistency with CARB Policies and Regulations

As previously stated, the IS/MND relies upon the Project's consistency with California Air Resources Board ("CARB") policies and regulations in order to claim that the Project would have a less than significant GHG impact. However, this claim is unsupported for two reasons.

First, the IS/MND fails to specify with which CARB policies and regulations the Project would be consistent. However, as CARB has numerous policies and regulations regarding GHGs, we are unable to verify the IS/MND's claim of consistency. Specifically, CARB policies and regulations regarding GHGs include: 2017 Scoping Plan, 2030 GHG Reduction Targets, SB 350 Greenhouse Gas Integrated Resource Plans, California Greenhouse Gas Emission Inventory Program, Cap-and-Trade Program, Zero-Emission Vehicle ("ZEV") Program, Anti-Idling Enforcements, VMT Regulations, Clean Power Plan, SB 375 Sustainable Communities Strategies, and more.⁸ As such, we cannot verify that the proposed Project is, in fact, consistent with these supposed CARB policies and regulations, and the Project may result in an unidentified significant GHG impact.

Second, the IS/MND fails to provide an evaluation of the Project's consistency with the abovementioned CARB policies and regulations. As a result, the IS/MND's less than significant impact conclusion regarding the Project's consistency with CARB policies and regulations is unsubstantiated and should not be relied upon.

(3) Unsubstantiated Input Parameters Used to Estimate Project Emissions

The IS/MND's greenhouse gas ("GHG") analysis relies on emissions calculated with CalEEMod.2016.3.2.⁹ CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.¹⁰ Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output

⁸ "Climate Change Programs." CARB, available at: <https://ww3.arb.ca.gov/cc/cc.htm>.

⁹ CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4.

¹⁰ CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 1, 9.

files disclose to the reader what parameters were utilized in calculating the Project's air pollutant emissions and make known which default values were changed as well as provide justification for the values selected.¹¹

Review of the Project's CalEEMod model demonstrates that the IS/MND underestimates emissions associated with Project activities. As previously stated, the IS/MND's GHG analysis relies on air pollutant emissions calculated using CalEEMod. When reviewing the Project's CalEEMod output files, provided as Attachment 5 to the IS/MND, we found that several model inputs were not consistent with information disclosed in the IS/MND. As a result, the Project's construction and operational emissions are underestimated. An updated CEQA analysis should be prepared to include an updated GHG analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Unsubstantiated Change to CO₂ Intensity Factor

Review of the Project's CalEEMod output files demonstrates that the default CO₂ intensity factor was artificially reduced from the default value by approximately 33% in the model (see excerpt below) (Attachment 5, pp. 116).

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CO2IntensityFactor	793.8	531.85

As you can see in the excerpt above, the default CO₂ intensity factor was reduced from 793.8 pounds per megawatt hour ("lbs/MWh") to 531.85 lbs/MWh. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.¹² According to the "User Entered Comments & Non-Default Data" table, the justification provided for this change is:

"Start of construction and operational year are estimates. CO2 intensity factor adjusted to reflect R.E.'s anticipated progress towards statewide RPS goals" (Attachment 5, pp. 115).

However, this justification is incorrect. As these are state RPS *goals*, we cannot verify these changes in the models. Just because the *state* has these *goals* does not mean they will be achieved locally at the Project site. As a result, we cannot verify the CO₂ intensity factor utilized in the model. This unsubstantiated reduction presents an issue, as CalEEMod uses the CO₂ intensity factor to calculate the Project's GHG emissions associated with electricity use.¹³ Thus, by including an unsubstantiated reduction to the default CO₂ intensity factor, the model may underestimate the Project's GHG emissions and should not be relied upon to determine Project significance.

¹¹ CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, fn 1, p. 11, 12 – 13. A key feature of the CalEEMod program is the "remarks" feature, where the user explains why a default setting was replaced by a "user defined" value. These remarks are included in the report.

¹² CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 2, 9

¹³ "CalEEMod User's Guide." CAPCOA, November 2017, available at: CalEEMod.com, p. 17.

Unsubstantiated Number of New Trees for Sequestration

Review of the Project's CalEEMod output files demonstrates that the Project's emissions were modeled assuming that the Project would plant 373 trees that would sequester carbon on the Project site (see excerpt below) (Attachment 5, pp. 116).

Table Name	Column Name	Default Value	New Value
tblSequestration	NumberOfNewTrees	0.00	373.00

As you can see in the excerpt above, the model assumed that 373 new trees would be planted on the Project site. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.¹⁴ According to the "User Entered Comments & Non-Default Data" table, the justification provided for this change is: "Based on landscape plan" (Attachment 5, pp. 115). However, the IS/MND and associated documents fail to provide a "landscape plan" or state the actual number of trees that would be planted as part of the proposed Project (p. 3-9). As a result, we cannot verify the 373 new trees included in the model. This presents an issue, as CalEEMod uses this value to calculate the GHG emissions reduction resulting from the carbon sequestration of the new trees (see excerpt below).¹⁵

$$\text{Total Sequestered CO}_2 = (\text{Growing Period} \times \sum_{i=1}^n [\text{Sequestration } i \times \text{Trees } i])$$

Where:

Growing Period = Growing period for all trees, expressed in years (20).

n = Number of broad species classes.

Sequestration i = Default annual CO₂ accumulation per tree for broad species class i .

Trees i = Number of net new trees of broad species class i .

As you can see in the excerpt above, there is a direct relationship between the number of net new trees and total sequestered CO₂. This means that when the number of new trees is increased, the amount of sequestered CO₂ increases, and the total emitted CO₂ decreases, thus reducing the Project's net GHG emissions. As such, if 373 net new trees are inputted into the model, assuming a miscellaneous broad species class, then approximately 264.084-metric tons ("MT") of total sequestered carbon are reduced from the model outputs.¹⁶ As a result, by including 373 unsubstantiated net new trees, the model underestimates the Project's GHG emissions and should not be relied upon to determine Project significance.

¹⁴ CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 2, 9.

¹⁵ "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 60; see also "CalEEMod User Guide." CAPCOA, November 2017, available at: <http://www.caleemod.com/>, p. 53.

¹⁶ Calculated: 20 year growing period * $\sum = [(0.0354 \text{ Sequestration } i) \times (373 \text{ Trees } i)] = 264.084 \text{ MT Total Sequestered CO}_2$; see "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 60, 61.

Unsubstantiated Changes to Trip Rates

Review of the Project's CalEEMod output files demonstrates that the Project's anticipated Weekday, Saturday, and Sunday trip rates were each reduced from their default values to 0 (see excerpt below) (Attachment 5, pp. 116).

Table Name	Column Name	Default Value	New Value
tblVehicleTrips	ST_TR	204.47	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	177.59	0.00
tblVehicleTrips	SU_TR	166.88	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	186.44	0.00
tblVehicleTrips	WD_TR	542.60	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	102.24	0.00

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.¹⁷ According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Non-residential project not anticipated to increase vmt so no mobile analysis is required" (Attachment 5, pp. 115). However, this justification directly contradicts the IS/MND, which states:

"The completed project would consume energy related to building operation, exterior lighting, landscape irrigation and maintenance, and vehicle trips to and from the use" (emphasis added) (p. 21).

Thus, the IS/MND explicitly states that the Project would involve vehicle trips, and the reductions to the Project's anticipated operational vehicle trip rates are unsubstantiated. As a result, the model underestimates the Project's mobile-related operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Reductions to Area and Architectural Emissions Factors:

Review of the Project's CalEEMod output files demonstrates that the architectural and area coating emission factors were each reduced from their default values of 100 grams per liter ("g/L") to 50 g/L (see excerpt below) (Attachment 5, pp. 116).

¹⁷ CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 2, 9.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True

As you can see in the excerpt above, the model reduces the architectural and area coating emission factors from their default values of 100 g/L to 0 g/L. Furthermore, the Project's CalEEMod output files reveal that the model included the following unsubstantiated area-related mitigation measures: "Use Low VOC Paint - Non-Residential Interior," "Use Low VOC Paint - Non-Residential Exterior," and "Use Low VOC Cleaning Supplies" (see excerpt below) (Attachment 5, pp. 142).

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior
 Use Low VOC Paint - Non-Residential Exterior
 Use Low VOC Cleaning Supplies

As previously stated, CalEEMod requires that any non-default parameters inputted into CalEEMod must be justified with substantial evidence.¹⁸ According to the "User Entered Comments & Non-Default Data" table, the justification provided for the changes to the area and architectural emission factors are: "Low VOC" and "Low VOC paint," respectively (Attachment 5, pp. 115). However, the IS/MND and associated documents completely fail to mention or justify these changes, and as a result, we cannot verify the updated values. This presents an issue, as these emission factors are used by CalEEMod to determine the amount of VOC emissions resulting from the application of surface coatings.¹⁹ Thus, by incorrectly reducing each of the architectural and area coating emission factors to 50 g/L, the model may underestimate the Project's VOC emissions. As a result, we cannot verify these values and the model should not be relied upon to determine Project significance.

Unsubstantiated Application of Mobile- and Water-Related Operational Mitigation Measures

Review of the Project's CalEEMod output files demonstrates that the model incorrectly includes several mobile- and water-related operational mitigation measures. As a result, the Project's operational emissions may be underestimated, and the model should not be relied upon to determine Project significance.

¹⁸ CalEEMod Model 2013.2.2 User's Guide, available at: <http://www.aqmd.gov/docs/default-source/caleemod/usersguideSept2016.pdf?sfvrsn=6>, p. 2, p. 9

¹⁹ "CalEEMod User's Guide Appendix A: Calculation Details for CalEEMod." CAPCOA, September 2016, available at: <http://www.aqmd.gov/docs/default-source/caleemod/caleemod-appendixa.pdf>, p. 16, p. 28

First, the Project’s CalEEMod output files reveal that the model included the following unsubstantiated mobile-related mitigation measure: “Provide Ride Sharing Program” (see excerpt below) (Attachment 5, pp. 136).

4.1 Mitigation Measures Mobile

Provide Riade Sharing Program

Second, the Project’s CalEEMod output files reveal that the model included the following unsubstantiated water-related mitigation measure: “Use Water Efficient Landscaping” (see excerpt below) (Attachment 5, pp. 144).

7.1 Mitigation Measures Water

Use Water Efficient Landscaping

However, the inclusion of the above-mentioned mobile- and water-related operational mitigation measures is unsubstantiated. According to the CalEEMod User’s Guide,

“The mitigation measures included in CalEEMod are largely based on the CAPCOA Quantifying Greenhouse Gas Mitigation Measures (<http://www.capcoa.org/wp-content/uploads/downloads/2010/09/CAPCOA-Quantification-Report-9-14-Final.pdf>) document. The CAPCOA measure numbers are provided next to the mitigation measures in CalEEMod to assist the user in understanding each measure by referencing back to the CAPCOA document.”²⁰

However, review of CAPCOA’s *Quantifying Greenhouse Gas Mitigation Measures* document demonstrates that the IS/MND fails to substantiate several of the mitigation measures included in the model (see table below).

Measure	Consistency
CAPCOA’s Quantifying Greenhouse Gas Mitigation Measures ²¹	
Mobile Measures	

²⁰ “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: <http://www.caleemod.com/>, p. 53.

²¹ “Quantifying Greenhouse Gas Mitigation Measures.” CAPCOA, August 2010, available at: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>.

<p>TRT-3 Provide Ride-Sharing Programs</p> <ul style="list-style-type: none"> • Designate a certain percentage of parking spaces for ride sharing vehicles • Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles • Providing a web site or messaging board for coordinating rides • Permanent transportation management association membership and funding requirement. <p><i>Range of Effectiveness:</i> 1-15% commute vehicle miles traveled (VMT) reduction and therefore 1-15% reduction in commute trip GHG emissions.</p>	<p>Here, no justification was provided in the “User Entered Comments & Non-Default Data” table. Furthermore, the IS/MND fails to mention how this measure will be implemented, monitored, and enforced on the Project site. Finally, the IS/MND fails to mention or discuss ride sharing vehicles, passenger loading or unloading and waiting areas, ride coordination, or transportation management association membership and funding requirements. Thus, the IS/MND fails to demonstrate consistency with the measure, and its inclusion in the model is unsubstantiated.</p>
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Water Measures	
<p>Measure WUW-4 Use Water-Efficient Landscape Irrigation Systems</p> <p>The following information needs to be provided by the Project Applicant:</p> <ul style="list-style-type: none"> • Total expected outdoor water demand, without installation of smart landscape irrigation controller (million gallons). • (Optional) Project-specific percent reduction in outdoor water demand, after installation of smart landscape irrigation controller. Percent reduction must be verifiable. Otherwise, use the default value of 6.1%. <p>Baseline Method: $\text{GHG emissions} = \text{Water}_{\text{baseline}} \times \text{Electricity} \times \text{Utility}$ </p> <p>Where: $\text{GHG emissions} = \text{MT CO}_2\text{e}$ </p> <p>$\text{Water}_{\text{baseline}} = \text{Total expected outdoor water demand, without installation of smart landscape irrigation controllers (million gallons)}$</p> <ul style="list-style-type: none"> • Provided by Applicant 	<p>Here, no justification was provided in the “User Entered Comments & Non-Default Data” table. Furthermore, the IS/MND fails to mention how this measure will be implemented, monitored, and enforced on the Project site. Finally, the IS/MND fails to mention or discuss the total expected outdoor water demand, with and without the installation of smart irrigation. Thus, the IS/MND fails to demonstrate consistency with the measure, and its inclusion in the model is unsubstantiated.</p>

<p>Electricity = Electricity required to supply, treat, and distribute water (kWh/million gallons)</p> <ul style="list-style-type: none"> Northern California Average: 3,500 kWh/million gallons Southern California Average: 11,111 kWh/million gallons Utility = Carbon intensity of Local Utility (CO₂e/kWh) 	
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As you can see in the table above, the IS/MND fails to justify several of the mobile- and water-related operational mitigation measures utilized in the Project's CalEEMod model. As a result, the inclusion of these measures in the model are unsubstantiated and the model should not be relied upon to determine Project significance.

(4) Updated Analysis Indicates a Potentially Significant GHG Impact

SWAPE's updated air model demonstrates that the proposed Project may result in a potentially significant GHG impact not previously identified or addressed by the IS/MND. The CalEEMod output files, modeled by SWAPE utilizing Project-specific information as disclosed in the IS/MND, quantify the Project's emissions, which include approximately 7,035 MT CO₂e/year of annual operational emissions (sum of area, energy, mobile, waste, and water-related emissions). When we compare the Project's annual operational GHG emissions to the PCAPCD de minimis threshold of 1,100 MT CO₂e/year, as indicated by the IS/MND, we find that the Project's GHG emissions exceed the threshold (p. 25) (see table below).

SWAPE Annual Greenhouse Gas Emissions	
Project Phase	Proposed Project (MT CO ₂ e/year)
Energy	817.12
Mobile	6067.54
Waste	122.30
Water	28.20
Total	7,035.16
Threshold	1,100
Exceed?	Yes

As demonstrated in the table below, the proposed Project would generate approximately 7,035 MT CO₂e/year, which exceeds the PCAPCD's 1,100 MT CO₂e/year bright-line threshold. As indicated by the IS/MND, when a Project's GHG emissions exceed the de minimis threshold, but not the bright-line threshold of 10,000 MT CO₂e/year, a service population efficiency analysis is warranted (p. 25). Here, however, the IS/MND fails to provide the anticipated service population for the Project, or "the sum of the number of residents and the number of jobs supported by the project" according to CAPCOA's CEQA

& Climate Change report.²² As such, we are unable to conduct an service population efficinecy analysis, as recommended by the PCAPCD and the IS/MND. As a result, the IS/MND's GHG impact may be significant, and the Project should not be approved until an updated CEQA evaluation is prepared to adequately evaluate the Project's GHG emissions.

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

Sincerely,



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



Paul E. Rosenfeld, Ph.D.

²² CAPCOA (Jan. 2008) CEQA & Climate Change, p. 71-72, <http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf>.